SCRUTINY COMMITTEE

TASK GROUP REPORT NO. 8

TRAFFIC CALMING

OCTOBER 2000

SCRUTINY TASK GROUP

TRAFFIC CALMING

1. THE BRIEF

" To review the effectiveness of the Council's implementation of its traffic calming policies".

2. MEMBERSHIP

The Task Group comprised Councillors Mollett (Chairman), Samuel, Stanier, Treble and Westmorland. Councillor Cornwell also attended ex officio. The Task Group was supported by Martin McDonald, Business Planning Manager. The Group held its first meeting on 2nd February and subsequently met on nine occasions and made a morning visit to Ealing.

3. METHODOLOGY

3.1. Documentation.

Principal documents examined were:

Interim Transport Plan 2000-1 "Traffic Calming in Practice" Various Traffic Advisory leaflets from the DETR Highways Regulations 1990 and 1993 London Accident Unit Annual Report Relevant Transport Sub Committee and Environment Committee reports Documentation from expert witnesses Table of Section 106 agreements Traffic calming before and after survey.

Reference copies of the above are available in the Members' Room.

3.2. Witnesses.

The following were invited to attend Task Group meetings as witnesses: Dr. Barry Simpson, Transport Unit, Aston University Bob Watson, Society of Motor Manufacturers and Traders Chris Feltham, London Accident Unit (London Research Centre) Alan Cole, Head of Highways, Sutton Council

Bob Alker, Head of Highways and Transport, LBRuT Carol Rapley, Principal Engineer, LBRuT Chris Smith, Principal Engineer, LBRuT Cllr Katie Gent, Chairman, Environment Committee.

Appendix A contains a summary of the evidence given by external witnesses.

3.3. Visits and further research

The Task Group visited Rachel Felton of Ealing Council's Transport Department to examine a Home Zone pilot scheme being implemented in five roads in West Ealing. The visit included a guided walk around the roads which are to be included in the scheme.

Following the witness session of Bob Cole from Sutton Council, Cllr Stanier undertook further research on Sutton's zonal approach to determining traffic calming priorities.

The Task Group sought views on the brief from the Transport Forum members and from the Emergency Services and received written statements from three members of the Forum.

3.4. Citizens Panel

To obtain a wider public view of the implementation of traffic calming in the Borough a series of questions were included in the third Citizens Panel questionnaire. The questions and results are included as **Appendix B** to this report. Some 364 of the Panel completed the questionnaire (36%). **Appendix C** shows the response from the 62 panel members who have traffic calming measures in their street.

4. FINDINGS

4.1. Definition of Traffic Calming

Traffic calming is the term that has come to be used for the application of traffic engineering and other measures designed to reduce traffic speeds and to reduce accidents. This report is primarily concerned with physical measures which have become widespread in recent years - vertical obstructions such as humps, cushions and tables and horizontal re-design such as narrowing the highway, central refuges or chicanes.

4.2. Reasons for Traffic Calming

Traffic calming, whether speed limits, signage through visual "Slow" messages or physical measures are designed to influence driver behaviour. Other ways of influencing behaviour such as education, training, publicity and legal sanctions are outside the scope of this report but are clearly important ways of improving safety on the roads.

Dr Barry Simpson has written that "traffic calming offers a very significant reduction in accidents between vehicles and pedestrians and an even more significant reduction in the seriousness of the injury in those which do occur".

DETR statistics show that at 35mph a motorist is twice as likely to kill someone than at 30mph. When pedestrians are hit at 40mph 85% die; at 20mph 95% survive. There is clearly a very big difference in the seriousness of injury with a reduction in vehicle speed and such reductions can be achieved using calming measures.

4.3. History of Traffic Calming

Physical and design measures used to reduce speeds, with the aim of reducing accidents and improve the safety of streets for pedestrians started in Holland in the early 1960's. The first physical measures in London were road humps in Kensington and Chelsea in the mid 1980's. The Department of Transport (now the DETR) encouraged local authorities from then on to develop traffic calming schemes in the context of its own objectives to reduce road casualties. In 1987 the Government announced the target of reducing road traffic casualties by one third by the year 2000.

Increased central government funding became available and the result has been that all London boroughs have extensive areas of mainly residential streets that have been "traffic calmed". Suburban traffic calming has tended to be along long streets built in the early part of the last century on a grid – iron pattern. Such a street pattern allows vehicles to reach high speeds.

The Traffic Calming Act of 1992 allowed local authorities to implement a wide range of measures and new directives since have widened these powers including introducing 20 mph limit zones.

4.4. Types of Traffic Calming

The Task Group examined a considerable amount of verbal and written evidence on the different types of calming measures now in operation, both in Richmond and elsewhere. The advantages and disadvantages of the various schemes from the point of view of different road users – the motorist, pedestrians, cyclists and drivers and users of emergency vehicles are looked at in the report.

However there appeared to be a lack of hard empirical evidence on the relative success of different calming methods in reducing accidents. While there is a general acceptance that traffic calming in general has reduced the accident rates in urban areas, there is a need for research at the national level on the effectiveness of individual types of calming measure.

The principal types of vertical method are road humps, speed cushions and speed tables.

Road Humps, usually spanning the full road width were the first type introduced and still the most common form of calming measure. In Richmond there are some 430 but in common with other local authorities humps are in general no longer being installed. While they are highly efficient in reducing vehicle speed they are unpopular with cyclists, many motorists and with the emergency services (particularly the early 100mm versions). *Speed Cushions* are a form of road hump which only cover part of the road so that they can be straddled by buses and emergency vehicles. They are installed in pairs or 3-abreast depending on the road width. They are again efficient in slowing vehicles. *Speed Tables* are flat top humps spanning the whole width of the road and are generally flush with the kerbs and so are used as pedestrian crossing points. They are usually installed at junctions and are installed with humps or cushions in the same road.

The principal types of **horizontal** method are road narrowing, overrun areas, traffic islands, chicanes and gateways and "home zone" treatments.

Road narrowing/pinching and *central traffic islands* both act as slowing features by restricting the road width and preventing overtaking by establishing a clear two-way traffic flow. They also allow pedestrians to cross roads in relative safety. They are particularly effective methods in wide and busy roads. *Overrun areas* are used in a similar way to create the optical illusion that the useable carriage way is narrower than it actually is. *Chicanes* and *Gateways* through the creation of bends and one way priority traffic flow are other effective methods of slowing traffic in wide or long streets. There is however a danger, particularly when first installed, of such devices confusing motorists with a risk of accidents.

"Home Zones" are a new concept imported from Holland where groups of streets act together to put the pedestrian first through very low speed limits of some 10 to 20mph, extended pavements, road pinching and different coloured road surfaces. The DETR are funding pilot schemes but our visit to Ealing was too early in their preliminary planning stage to gauge the effectiveness of such schemes. Mortlake and "Little Chelsea" have been identified by Transport Sub-Committee as possible local Home Zones.

Other types of traffic calming include:

Coloured and textured / rumble road surfaces – used to alert drivers to the need to reduce speed, particularly used in approaches to junctions and roundabouts.

Warning signs, including road surface speed signs, virtual speed cushions and electronic signs

Speed limits - historically the oldest form of traffic calming. Local authorities have new powers to introduce 20 mph areas and these have become more common in recent years, particularly in connection with school safety zones. Enforcement is the key problem with speed limits with the lack of police manpower and they are effective only if a real deterrence. Speed cameras are effective when operational but are unsightly in residential streets.

Road closures – to prevent rat running and speeding along primarily residential streets.

4.5. Implementation and Policy Objectives in Richmond

Implementation

The first road humps in the Borough were installed in May 1989 in Hertford Avenue, East Sheen, a residential road which had become a fast rat run to avoid traffic queues along the South Circular.

Since 1989 a further 62 road schemes involving road humps have been installed, generally at a height of 75mm rather than the 100mm of those introduced before 1991. Since 1996 some 30 additional schemes have included a mixture of measures including speed cushions and tables, chicanes, road narrowings and 20mph zones.

Many of the first traffic calming schemes are now over ten years old and the road humps then installed will need greater maintenance or replacement in the near future. There is no current policy or funding provision for replacement or redesign of such schemes.

The Group examined the use of Section 106 planning agreements in the funding of local calming schemes. It was noted that the only major agreement directly funding such measures within Richmond had been obtained from the developers of the Feltham Marshalling Yards. It was clear from other evidence that other Authorities had obtained greater funding from such agreements.

Policy Objectives

The Council's current policies on road safety are contained in the 2000-1 Interim Transport Plan and ..."continue to focus attention on accidents involving vulnerable groups, pedestrians, pedal and motor cyclists". Government targets have also concentrated in recent years on reducing, in particular, the relatively high levels of child casualties compared to other countries and the Task Group noted the emphasis on future schemes on roads adjacent to schools.

Demand from residents for traffic calming in their own roads continues and this demand far exceeds the resources available. Clear objectives are therefore required to establish priority schemes and this is examined in section 4.6. As Dr Simpson states "What is important is to be very clear as to what are the objectives before embarking on traffic calming and what are the most publicly acceptable ways of achieving them …".

The one third casualty reduction target set by Government was met by Richmond in 1992, and again in 1998 and 1999. Richmond has a good and welcome record compared to other Boroughs and according to the London Accident Unit's most recent Annual Report, Richmond achieved the largest drop in casualty figures of any London borough.

Although traffic calming measures have clearly had an impact on these statistics, both in Richmond and elsewhere, it is difficult to quantify the benefits arising from introducing calming from other factors influencing speed of traffic and driver behaviour. Some analysis has been undertaken by the Highways and Transport Department (H&T) on reduced accident rates in calmed Borough roads compared to roads not yet calmed. This analysis suggests a reduction of 40% directly attributable to calming measures. Such an analysis however is necessarily imprecise due to other factors. There has been no recent attempt at measuring the migration of traffic to alternative routes and any accidents arising therefrom.

In view of the priority given to reducing child accidents the Group reviewed the Council's policy of providing traffic calming measures to reduce accidents in the areas surrounding schools. *School Safety Zones*, incorporating a variety of measures depending on the type of roads outside of individual schools are being introduced to all Borough schools by 2010. The Group heard evidence indicating that the majority of accidents to school children going to or leaving school occur away from the immediate vicinity of the school. It heard that motorists tended to slow down outside school due to signage and other safety measures. There appeared to be the need for further research on the location of school children's accidents to assist in Zone implementation.

The Task Group took some evidence from Transport Forum members and from their own experiences regarding the long lead time between traffic calming proposals arising, being approved for funding, going out to consultation and being finally implemented. It was difficult to quantify but there are concerns about significant delays in the system, which need to be addressed.

4.6 Use of criteria in deciding priority schemes.

Over the last 10 years, H&T have historically used three main criteria in deciding the priority roads for calming. These are past traffic accident levels, traffic speeds and traffic volume in individual roads. Recently a fourth criterion of proximity to schools, parks and other public amenities has been added Points based on informed judgement are applied to each of the criteria to establish a priority list submitted to Transport Sub-Committee for annual approval.

The Task Group accept the validity of these criteria but noted other criteria could be used such as, in the case of Sutton Council, accidents involving vulnerable groups such as the elderly and children and the use of Census data to identify areas where such vulnerable groups are resident.

H&T use the priority system to identify individual roads or parts of roads in need of calming . Major Area Traffic Studies were conducted until the early 1990's which looked at wider area issues in a number of locations in the Borough. Since then most traffic calming schemes have been introduced on an individual road by road analysis. This, in the view of the Task Group, can lead to problems arising from the displacement of traffic onto alternative roads.

A recent example of traffic displacement arose on the Woodlawn Park Estate where roads not initially calmed, at the request of residents, became congested with traffic avoiding the calmed roads. **Appendix D** produced by Councillor Treble illustrates, through a Case Study, some of the problems that arose.

The Task Group was impressed by the zonal approach of Sutton Council. The Borough is divided up into 41 different zones marked out by main feeder routes. Zones are then given priority ranking according to various criteria and those that proceed with traffic calming are looked at and are consulted on as a whole with schemes taking into account traffic diversion forecasts, school traffic, vulnerable groups and public amenities within the Zone. Dr Barry Simpson, in his evidence, saw advantages in area treatment rather than the calming of roads in isolation.

4.7. Consultation with residents and others

Public acceptance of traffic calming schemes is essential for effectiveness. In the Group's view the effects of calming measures must be considered over a wide area as measures in one location cause traffic to divert to other roads, and this should be reflected in the area adopted for consultations. The Group was attracted to the zonal method adopted by Sutton together with the consultation exercises they undertake with residents and road users on alternative calming measures, giving real choices.

H&T have in the past undertaken extensive consultation exercises before implementing schemes but generally only within the confines of the individual streets subject to the proposal. H&T have also conducted surveys, in a proportion of the roads calmed to date, on the level of support for retaining traffic calming measures. To date all have shown majorities in favour of retention.

The Citizens Panel questionnaire results (**Appendix C**) indicate a substantial minority of respondents, who live in traffic calmed streets, with an opinion saying that they were not adequately consulted before installation of traffic calming measures (Q14).

The Group was impressed by the views of Dr Barry Simpson on the issue of schemes designed to fit in with the surrounding environment. Engineers need to take into account not only those who use the road concerned but also those who live and work nearby. Particular attention must continue to be given to the needs of emergency services and bus operators who may have problems negotiating certain calming measures.

Elected Member involvement in the policy process arises from discussion and approval of the Interim Transport Plan at the Environment Committee. In addition, Members review the list of priority schemes annually at the Transport Sub-Committee and become involved in decisions on individual schemes where there are public objections following the advertising of proposals. They individually may also require proposals to come before the Transport Sub-Committee where they can argue for or against their implementation.

4.8. Possible problems associated with traffic calming

The Task Group decided at its first meeting to examine the drawbacks that might be associated with traffic calming. The Group took verbal and written evidence from various witnesses on a number of problems. Many of these problems were directly associated with vertical methods, particularly road humps.

For *residents of traffic calmed roads* there have been complaints of perceived structural damage arising from ground borne vibrations and noise problems. The slowing down of vehicles followed by acceleration after obstacles can produce additional vehicle emissions. These concerns were mentioned by a majority of respondents from the Citizens Panel (Q14). Traffic calming measures can be unsightly within the street environment. Little empirical evidence exists on these issues.

For *residents in areas neighbouring traffic calmed roads* there is the problem of traffic diversion.

For the *motorist* there have been instances of damage to the suspension of cars and there have been claims of spinal and other health hazards. *Cyclists* can be deterred from using streets with humps because of discomfort.

For *Emergency service vehicles* road humps slow down the response time for fire, police and ambulances to sometimes life threatening emergencies.

Alternative traffic calming measures can eliminate many of the above problems.

In addition Dr Barry Simpson pointed out the possible detrimental social effects of reducing the number of cars travelling through a street on crime levels and youth behaviour. This was an aspect of traffic calming that the Group were particularly interested in as they had not realised that through traffic can in certain circumstances be an asset to a residential area.

5. RECOMMENDATIONS

5.1. That the Highways and Transport Department undertake a review of the methods of deciding traffic calming priorities. In particular it is recommended that adoption of a strategic system be examined.

The Task Group is attracted to the comprehensive all – Borough zonal review adopted by Sutton Council which took into account traffic movements and the effects of introducing calming measures over wider areas.

5.2. In conjunction with the possible adoption of a strategic system, that consultation methods be re-examined to include a wider area of residents and others affected by traffic calming schemes.

The Task Group is conscious of some dissatisfaction on current consultation procedures and wishes to see residents in roads affected more involved in the informed choice of traffic calming measures proposed.

The Group, while recognising that local Councillors are generally consulted on schemes and indeed often initiate them, would like to see the early involvement of Ward Councillors, with the knowledge they have of their local areas, in all future proposed schemes.

5.3. In view of 5.1 and 5.2 having possible personnel and resource implications that the Chief Executive and Head of Transport and Highways agree to a suitable timetable for any changes.

The Task Group is aware that their recommendations will require additional officer input.

5.4. That Highways and Transport Department plan in advance for the replacement of existing schemes incorporating road humps at the end of their maintained life span. It is recommended that, subject to consultation, more appropriate and less obtrusive traffic calming measures be suggested.

The Task Group believes that the Department should start the process of providing alternatives for the early traffic calming schemes involving high road humps as these come to the end of their life span.

5.5. That the Department consults on a variety of alternative types of traffic calming to vertical measures when new schemes are proposed and that Community Safety Officers be included in the consultation process.

The Task Group was impressed by evidence from Dr Barry Simpson who stressed the need to think very broadly when considering the implementation of measures and proposed a more selective approach dependent on the type of road, the need to reduce speed and environmental impact. The Group believes that alternatives such as road design, street lighting, traffic islands, speed cameras and 20 mph limits be examined for every scheme as an alternative to vertical measures. These can have disadvantages to users such as emergency vehicles such as fire, police and ambulances where response times are critical and to bus passengers on comfort and safety grounds.

The Group would also like to see Community Safety Officers involved in the detailed consultation on individual schemes in view of their knowledge of any social and safety effects.

5.6. That consideration be given to the introduction of a local Best Value performance indicator on the time taken to implement traffic calming schemes.

The Task Group was concerned at the length of time that schemes took to be implemented from initial proposals.

5.7. That the Department commissions research into the migration of traffic which can be displaced by calmed roads.

The Task Group received much anecdotal evidence regarding the displacement of traffic in individual schemes. It is impossible to analyse the effects of this without more research. The Group would like to see a greater emphasis on this within the recommended strategic zonal system.

5.8. That the Department consults on a regular basis with the Planning Control Department on future developments which will affect the level of traffic and have potential safety implications. This will be done to indicate possible obtaining of Section 106 money to implement appropriate schemes.

The Task Group was concerned at the lack of money to date obtained from major developments within the Borough and believes there is scope for examining additional funding from this source.

5.9. That the Department conduct additional research together with the Education Department on the incidence and location of schoolchildren accidents to determine the most effective areas for appropriate traffic calming measures to reduce child casualties.

On the understanding that this vulnerable group is a top priority for accident reduction in future years consideration is given to speeding up the implementation of the School Safety Zones.

The Task Group became aware in its meetings of the relatively poor record in the U.K. on accidents involving children.

While the Task Group recognises and welcomes the fact that reducing child accidents is a firm priority in the Interim Transport Plan it would like to see greater research on where accidents occur as evidence suggests that children are more vulnerable away from the immediate area surrounding schools. The Task Group notes that all primary schools will have measures introduced by 2007 and secondary schools by 2010 but suggests that these dates be brought forward at the expense of other scheme proposals.

SCRUTINY TASK GROUP – TRAFFIC CALMING

EXTERNAL WITNESS NOTES

Bob Watson – Society of Motor Manufacturers and Traders

- The potential exists for delays to emergency vehicles although delays are unlikely to be substantial.
- The potential exists to cause or make worse back problems for drivers whose cars have to drive over humps or similar calming measures.
- There can be a problem of vehicles "kerbing" at chicanes.
- Generally there is room for improved design at bus stops and intersections
- Heavy goods vehicles can experience headlight adjustment problems when negotiating raised obstacles.
- There is generally an increase in vehicle noise and emission due to acceleration / deceleration following installation of measures.
- Rumble strips can serve to inform traffic that it is entering a different driving environment but can be noisy.

Chris Feltham - London Accident Unit (London Research Centre)

- Emphasised the importance of "local ownership" of calming initiatives.
- Traditionally it has been local traffic black spots that have been targeted.
- Generally there is now a move to taking a holistic view of traffic flow across whole areas.
- The choice of calming methods should be appropriate to the specific circumstances.
- Emergency services are not keen on humps.
- A statistical analysis has not been requested and therefore not undertaken on the effectiveness of traffic calming in London.
- The reduction of 12% in accidents over the last 10 years is due to a large number of factors.
- The future of calming probably lies in a "home zone" approach, designing in concert with local people.
- Speed in residential areas will be targeted in the future, through the media, in the same way as drink-driving has in the past.
- 20mph speed limits in narrow residential roads and near schools would reduce the number and severity of accidents there are large statistical accident reductions for small reductions in speed.
- A package of measures is necessary to help "educate" drivers in particularly dangerous areas.
- Cameras on roads have generally reduced accidents by a net 10%.
- Different coloured road coverings are a useful measure to alert drivers but they must be maintained once installed. There is a problem of different boroughs using different colours.
- Rumble strips can cause a noise nuisance for residents.
- 500 cameras are now installed in London. New cameras to be in operation within 2/3 years will work out average speeds between cameras.

Alan Cole – Sutton Council (Head of Highways)

- Council takes a zoned approach across the borough. Residents are consulted on zoning including the use of freepost questionnaires.
- A range of criteria is used for prioritisation of work and zone definition including the density of schools, accident statistics, level of rat-running, etc.
- Generally 20mph is only considered outside schools. It is not considered worth the extra cost to go further and other methods slow traffic more effectively. Road signs only slow traffic by 1mph.
- Consultation results included : 74 % of people considered traffic a serious problem. The results indicated a bad problem around the Western Park area and therefore it was selected for action. Most people thought humps would be the most effective way to slow / reduce traffic.
- Not a single road has asked for traffic calming to be removed after they have been established.
- Pollution can be a problem if traffic is slowed too much but there is little research into this area.
- Sutton places features (e.g. Humps) at 80m centres and attempts to slow traffic to just below 30mph.
- Road humps are cost effective but many think they are unsightly.
- Rumble strips are not popular with residents Bexley removed them all from the borough.

Dr Barry Simpson – Aston University

- Street crime can be a problem if all cars and therefore most people are excluded from the streets i.e. passive policing.
- Quiet roads can lead to a possible nuisance from children playing in the streets.
- Alternatives to obstacles may be more effective e.g. considering traffic flow as a way of slowing traffic multi–directional as opposed to one-way.
- Home Zones taken as a complete and comprehensive package may be inappropriate. It may be better to pick and choose elements to suit the circumstances.
- The knock-on effects of traffic calming on surrounding roads must be considered as part of an effective package of measures.
- The potential damage to vehicles appears to have been overstated in reality this sort of damage is quite rare.

(Q13) Respondents with (out) traffic calming measures in their street

	Has traffic caln	ning measures in my street
	No	%
Yes	62	17.0%
No	291	80.1%
Don't know	11	3.0%

(Q14) Respondents' views about traffic calming measures generally

	adec con befo install traffic mea	was quately sulted ore the lation of calming usures	Trat calm meas gene redu traffic s	ffic hing ures rally uce speed	Trafic o meas gene red pede accio	calming sures erally uce strian dents	l feel sa my road traf measu were in	afer in I since fic ure(s) stalled	Tra cain meas reduce and po lev	ffic ning sures e noise ollution rels
	No	%	No	%	No	%	No	%	No	%
No opinion	204	66.5%	34	9.5%	74	20.7%	193	61.7%	71	19.9%
Disagree	48	15.4%	46	13%	65	18.1%	39	12.4%	166	46.8%
Agree	56	18.1%	279	78%	220	61.2%	80	25.9%	117	33.3%

215) Respondents' views about the areas the Council should give priority in implementing traffic calming measure

	Areas w pedestrian	ith high accidents	walking i scho	routes to ools	Near s	chools	Resident where pe threathene spe	ial areas ople feel d by traffic eed
	No	%	No	%	No	%	No	%
Don't know	14	4.0%	11	3.1%	13	4.0%	13	3.8%
Low priority	15	4.1%	14	4.0%	9	2.7%	31	8.9%
Medium priority	30	8.5%	65	18.2%	51	15.6%	86	24.8%
High priority	297	83.4%	267	74.7%	254	77.8%	215	62.2%

(Q16) Respondents' priorities of the problems the Council should aim to address when implementing traffic calming measures

	Reduc accid	tion in lents	Saf pede	ety of strians	Enviro improv	nmental vements	Reduc rat-ru	ction of Inning	Reduc numt vehic stre	tion of per of les in eets
	No	%	No	%	No	%	No	%	No	%
No opinion	15	4.1%	10	2.8%	22	6.1%	20	5.6%	21	5.8%
Not important	7	1.9%	7	2.1%	78	22.2%	70	19.4%	97	27%
Important	336	94%	340	95.1%	251	71.6%	267	75.0%	237	67%

(Q17) Preferred traffic calming measures

	Preferre calming r	d traffic neasures
	No	%
Road humps	102	36.7%
Road cushions	60	21.3%
Narrow roads at certain points	48	17.3%
Pedestrian islands	39	13.8%
Speed cameras	30	10.9%

Q13 - Respondents with traffic calming measures in their street

	Has traffic calming m	easures in my street
	Number	Percentage
Yes	29	%0'001

Q14 - Respondents' agreement with traffic calming measures

	I was ac consulted installatic	dequately I before the on of traffic	Traffic measures	calming s generally	Trafic measures reduce p	calming s generally edestrian	I feel safer since measure	· in my road traffic ອ(s) were	Traffic measures r	calming educe noise
	calming	measures	reduce tra	affic speed	acci	dents	inst	alled	and pollu	tion levels
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
No opinion	ი	15%			6	14%	10	17%	3	5%
Strongly disagree	10	18%	2	3%			с С	4%	10	17%
Disagree	10	17%	7	12%	15	25%	13	20%	24	39%
Agree	18	30%	34	56%	29	47%	22	36%	15	25%
Strongly agree	12	20%	18	30%	б	14%	14	22%	o	14%
Total	59	100%	62	100%	62	100%	62	100%	62	100%

Q17 - Respondents' preferred traffic calming measures

	Preferre	ed traffic
	calming	measures
	Number	Percentage
Road humps	22	48%
Road cushions	5	12%
Narrow roads at certain points	6	19%
Pedestrian islands	5	12%
Speed cameras	5	10%
Total	46	100%

APPENDIX D

Traffic Calming Case Study

Woodlawn Park Estate

The estate is situated in Heathfield Ward at the edge of the borough. There are 821 dwellings occupied by 1704 adults. It is bounded by Hanworth Road, Powder Mill Lane, Hospital Bridge Road and Crane Park.

In July 1997 a planning application was submitted to the Borough of Hounslow for the development of the old Feltham Marshalling Yards/Bull Computer site to the NW of Hanworth Road. The only access to the site is Godfrey Road, which is in the LBRUT. This threatened 24 hours a day goods vehicle movement along Powder Mill Lane.

Many letters were received by the Council, Heathfield councillors and the Twickenham MP expressing dismay at the effect this development would have on the traffic on the local roads, especially Powder Mill Lane. There was a small public demonstration against the development.

The council officers constituted a committee of representative residents from each of the roads on the Woodlawn Park Estate and Powder Mill Lane. Following discussions with this committee, a questionnaire was sent to each household outlining measures that could be taken.

The residents on Powder Mill Lane voted for all of the traffic calming measures offered. The residents on the estate asked for only a heavy vehicle restriction and a slow sign on one of the avenues.

The Powder Mill Lane measures were started in 1998 and completed by February 1999.

During February/March 1999, the officers received complaints from residents of the estate concerned at the increased traffic flow, almost 100% increase, through the estate by vehicles avoiding the traffic calming measures in Powder Mill Lane. This traffic flow was partially due to roadworks on the A316 at its junction with Hospital Bridge Road. Traffic was leaving the A316 before the roadworks and using the estate roads, Powder Mill Lane and Percy Road to get back to the A316.

On 4th May 1999 Cllr. King requested an investigation into experimental measures for the estate and at the Area Consultation Meeting of 5th May 1999 residents voiced their concerns and fully supported the investigation.

On the 11th May 1999 the officers proposed to close Lyndhurst, Ellerman and Waverley avenues at their junction with Hanworth Road.

On 28th June 1999 the residents of Lyndhurst Avenue petitioned the Council for the introduction of traffic calming measures on the estate.

In July 1999 the residents of the estate were advised of the proposed closures. This resulted in letters and calls from residents opposed to the proposed measures. This resulted in a re-think by the officers and in August 1999 a leaflet was delivered to residents advising the suspension of the proposed closures.

The local councillors conducted a "straw poll" questionnaire to 964 households to get their views.

By 14th September 1999 166 replies had been received. The results of the poll showed that residents wanted some measures to be taken.

The officers produced a modified scheme to make it less restrictive. The local councillors had a meeting with the officers where it was agreed to put these proposals to the residents.

On 31st October the officers sent a letter to all the residents advising them of the modified experimental measures that would be taken.

There was an Area Consultation Meeting on 1st November 1999 where residents were both for and against the proposed experimental measures. There were also calls and letters against the proposals during November.

In January 2000, a special meeting was called by the officers at the request of the local councillors. The officers invited those residents who had the most extreme views, both for and against the measures.

March 2000 saw the experimental measures in place. A resident living outside of the estate wrote and said that she would no longer send her daughter to school through the estate "as it was too quiet"

This highlighted one of the social downsides to traffic calming.

17th May 2000. The experimental measures were discussed at the ACM. Over 100 residents attended. Some spoke against the measures. Suggested changes were taken on board by the Officers. It was decided that a meeting should be convened to discuss residents' views on the measures.

A meeting with the residents is planned for early September to be followed by a survey and consultation after the schools had reopened.

So far the exercise has taken over three years.

Having sent out questionnaires in 1997 and receiving virtually no support for calming measures on the Woodlawn Park Estate, the officers placed themselves in a position where any action taken would go against the result of the survey. Perhaps the implications of traffic calming on Powder Mill Lane were not fully explained to the residents. It has been suggested that too many options were offered. Were the officers aware of the new traffic light system at the junction with the A316 and Hospital Bridge Road which had a great impact on the traffic volumes on the estate? Should notice of the results only be taken when a majority of residents return questionnaires?

WFT 31/8/2000