Committee: Street Management Advisory Committee

Date: 3rd March 2009

Agenda item: 5

Wards: Village and Hillside

Subject: Wimbledon Area Traffic Model

Lead officer: Sarah Tanburn, Interim Director of Environment & Regeneration

Lead member: Councillor William Brierly Cabinet Member for Planning & Traffic Management

Contact Officer: Waheed Alam (020 8545 3200)

Key decision reference number: N/A

Recommendations:

That the Street Management Advisory Committee consider, and note the issues detailed in this report and the 'Officer Recommendations' below, and recommend that the Cabinet Member:

1) Notes the actions taken to date with respect to progression of proposals and the summarised modelling results given in Section 3 of this report and contained in full in the JMP modelling reports produced between May 2008 and January 2009 in respect of the work.

2) Gives approval to make the necessary Traffic Management Orders in order to implement an Experimental Scheme for an 18 month trial period with the proposals given as Option 7 and described in Section 3.17 of this report.

3) Agrees option 7 proposals be implemented as described in Section 3.17 of this report. If this recommendation is approved, the removal of the bus lane and other changes to Wimbledon Hill Road could follow at a later date from the other proposals in option 7.

4) Agrees option 7 be trialled on an 18 month experimental basis and if found necessary be fine tuned during the life of the experiment.

5) Agrees that depending on the level of any changes found necessary to the implemented experimental scheme, a decision be taken at the time, on whether or not additional 'Intermediate Traffic Surveys' would be beneficial to collect traffic data before the change/s.

6) Agrees a comprehensive 7 day 'Before Survey' be carried out before the implementation of the experimental scheme.

7) Agrees a 7 day 'After Survey' be carried out approximately 14 months from the implementation date to see the effectiveness of the scheme.

8) Agrees the results of the experiment be reported to a future 'Street Management Advisory Committee' in 2010, before the Cabinet Member for Planning & Traffic Management makes a decision on whether to retain or abandon the scheme.

9) Agrees a decision to remove the Wimbledon Bus Lane permanently be made after considering the objections to the Formal Consultation carried out for this purpose and the potential risks given in the report.

1. EXECUTIVE SUMMARY AND PURPOSE OF REPORT

This report details the work carried out on the 'Wimbledon Area Traffic Study' and makes recommendations to the committee. The key purpose is to complete a preliminary "Stage 1" study to report on the technical feasibility of various proposals which may assist in reduction of through-traffic from residential roads in the Belvederes back onto the Distributor Road network. The report also covers brief background information on previous road schemes implemented and considered relevant to this study area. The relevance of the earlier schemes to the current study is found in the technical reports produced at the time from which certain conclusions can be derived. The historical work carried out by the consultants is given in Section 2 'Background History' of this report.

2. BACKGROUND HISTORY

2.1 In 1998 JMP Consulting were appointed by the London Bus Priority Network (LBPN) South West Sector to undertake a feasibility study to examine the potential for a number of bus priority measures and safety improvements on the A219 Wimbledon Hill Road (Route 93) between Wimbledon Common and Wimbledon Town Centre.

2.2 Following a lengthy public consultation process and additional traffic surveys undertaken in 2001, a number of measures were introduced on the A219 to the west of Wimbledon Station.

The measures introduced were:

- Eastbound bus lane on Wimbledon Hill Road between Belvedere Drive and Mansel Road;
- Cycle and pedestrian priority measures on Wimbledon Hill Road at Woodside/Mansel Road;
- Reverse one way working for Mansel Road between Wimbledon Hill Road and the High School entrance;
- Right turn only for buses from Worple Road into Wimbledon Hill Road;
- Left turn only for buses from Wimbledon Hill Road into Worple Road.
- Signalling revisions to Wimbledon Hill Road junction with Alexandra Road and St Georges Road.

2.3 Key modifications were implemented at the Wimbledon Hill/St. Georges/Alexandra Road junction, Wimbledon Hill/Worple Road junction and the Wimbledon Hill/Woodside/Mansel Road Junction. A 24-hour eastbound bus lane was also installed on Wimbledon Hill road between Belvedere Drive and Woodside. The schemes were introduced between May 2003 and May 2004. Due to the negative response of the public consultation exercise and additional concerns raised by residents, it was agreed that the scheme should be implemented on an experimental basis with a full review to be carried out after six months operation.

2.4 A review to evaluate the measures introduced on the A219 Wimbledon Hill Road to determine the impact of the scheme based on analysis of data collected before and after scheme implementation was subsequently carried out by JMP in 2005. The scope of the review included traffic movements on the A219 and surrounding residential roads, queue lengths, bus & car journey times and accident data in order to provide a detailed assessment of the measures introduced.

2.5 Consideration of accident statistics for the preceding 5 years showed a clear decline in the number of accidents per year following scheme implementation. Consideration of traffic flows in the area (following scheme implementation) suggested that traffic reassignments had occurred largely as predicted.

2.6 The feasibility study and subsequent supplementary report (prior to introducing the above measures) contained predictions regarding the likely reassignment of traffic following scheme implementation. This section provides a brief overview of the predictions (pre implementation) and also the subsequent findings (Post implementation) of the JMP review carried out in 2005.

Scheme Measure	**Movement affected**	**Predicted Reassignment of traffic**	**Actual reassignment from post scheme implementation**
Changes to Woodside/Wimbledon Hill Road/Mansel Road junction.	Removal of Right turn into Woodside	Belvedere Drive, Belvedere Grove and Alexandra Road	The after surveys showed that the number of vehicles turning right into Belvedere Drive had increased significantly whereas with those turning right into Belvedere Grove was not as large. Comparison of the 2001 and 2004 flows also showed that there is no significant increase in the number of vehicles turning right into Alexandra Road therefore suggesting that traffic had not reassigned to the route.
Changes to Woodside/Wimbledon Hill Road/Mansel Road junction.	Removal of Right turn into Woodside	Changes to Woodside/Wimbledon Hill Road/Mansel Road junction.	Analysis of the 2003 and 2004 traffic flow comparisons shows that the number of vehicles turning right from Belvedere Drive increased, suggesting that the majority of the vehicles reassigned to this route. The number of vehicles turning right from Belvedere Grove increased slightly therefore suggesting that some vehicles may have also reassigned to this route

Changes to Woodside/Wimbledon Hill Road/Mansel Road junction	Removal of crossing movement from Mansel Road to Woodside	Alexandra Road and St Georges Road	Analysis of the 2001 and 2004 traffic flow comparisons showed that the number of vehicles making this movement has actually decreased in all but the school peak period therefore suggesting that the majority of vehicles have not reassigned to this route. Further analysis showed that the number of vehicles making the straight ahead movement from Ridgeway to Belvedere Grove had increased in the post implementation surveys suggesting that the majority of vehicles have reassigned to this route.
Changes to Worple Road/Wimbledon Hill Road junction	Removal of left turn into Worple Road (except buses)	St Georges Road	Analysis of the 2001 and 2004 traffic flow comparisons showed that the number of vehicles making this movement actually decreased in all time periods, therefore suggesting that the majority of vehicles had not reassigned to this route. Further analysis showed that the number of vehicles turning left into Mansel Road and Ridgeway did not account for those displaced vehicles and therefore it was not clear where the vehicles had reassigned to. This effect is not unusual and has been observed at other locations in London where road closures have occurred (i.e. Hammersmith Bridge). In these situations it would appear that the traffic finds an alternative route through the area or modal shift has occurred
Changes to Worple Road/Wimbledon Hill Road junction	Bus Only Right Turn from Worple Road	St Georges Road	It was anticipated that the banning of the right turn movement from Worple Road onto Wimbledon Hill Road (except buses) would lead to an increased amount of traffic turning right from St Georges Road. Analysis of the 2001 and 2004 traffic flow comparisons showed that the number of vehicles making this movement had increased in all peak periods but not sufficiently to accommodate the number of displaced vehicles. This suggested that a number of vehicles sought alternative routes away from the study area

2.7 From the 'Before' and 'After' traffic surveys and ATC data, the review concluded a number of common traffic reassignments following scheme implementation:

- The number of vehicles exiting Ridgeway has increased.
- The number of vehicles travelling eastbound on Wimbledon Hill Road has increased significantly.
- The number of vehicles entering and exiting Belvedere Drive has increased.
- The number of vehicles travelling north and southbound along Woodside has decreased.
- The number of vehicles travelling on St Mary's Road and Lake Road has not significantly altered.
- The number of vehicles exiting and entering Worple Road has decreased.
- The number of vehicles making the right turn movement from St Georges Road has increased.
- The number of vehicles making the left turn into St Georges Road has decreased.
- The number of vehicles travelling southbound from Alexandra Road to St Georges Road has increased.
- The number of vehicles travelling westbound on Ridgeway Place, Spencer Hill and Edge Hill has increased. The greatest increase was recorded in Ridgeway Place.

2.8 The 2005 review made a number of recommendations to calm traffic in the area. The recommendation made by the JMP Review, to investigate traffic calming for Ridgway Place is already at an advanced stage of development and a 20mph zone is due for implementation this financial year. Another key recommendation from the JMP review was to investigate the more complex issue of rat running traffic through the Belvederes area. This investigation has been a complex process involving both council officers and councillors who have directed their efforts in trying to achieve a solution that is fit for purpose without creating extra burden on the rest of the network. The more recent progress made on this issue since January 2008 is the subject of this report and is discussed in Section 3.

2.9 In 2006 JMP Consulting undertook the work to develop a Transport Model for Wimbledon with the objective of creating a robust tool that would allow a realistic assessment of existing traffic flows. The model to be developed was also to have the capability of assessing the impact of future traffic management proposals in the Wimbledon area.

2.10 JMP created the Base VISUM model for the AM (07:00-10:00) and PM (16:00-19:00) peaks which essentially is a comprehensive, flexible software system, used for transportation planning, travel demand modelling and network data management. The calibration and validation for the VISUM model was given in a report submitted to the LB Merton in April 2007. The results on the key traffic movements through the area were attached to the Street Management Advisory Committee report of 15th January 2008.

3. WORK CARRIED OUT BETWEEN APRIL 2008 & FEBRUARY 2009

3.1 General

The committee report presented to the Street Management Advisory Committee on the 17th of June 2008, gave an overview of the progress being made on the Wimbledon Area Traffic Study Proposals, which were aimed at reducing the level of rat running in the residential roads of Belvederes. Following a series of meetings with Ward Councillors, a number of proposals were drawn up which are described briefly in 3.6.

3.2 The committee report also highlighted some of the other proposals, which were being investigated and considered for the wider area. They were the possible introduction of a 20mph zone for the Ridgway Place and adjacent roads. A similar scheme for Lake Road and adjacent roads was also being investigated. As these areas are in close proximity of the Belvederes, it is necessary to mention in this report that following a successful informal consultation with residents of both areas, the decision to move forward on those schemes was taken at the SMAC meeting on the 4th of November 2008 and are now in the process of being implemented.

3.3 It is also recognised that Burghley Road has a significant volume of traffic in both the morning and evening peak hours. Though the council doesn't currently have speed information for Burghley Road, site observations have shown that vehicular speeds appear to be higher than the 30mph limit for the road. It is recommended that when speed and volume surveys for the Wimbledon Area are carried out, then these should be extended to include Burghley Road too. Dependent on the results obtained from the surveys for Burghley Road, the council may need to consider traffic calming similar to that due to be implemented for Ridgway Place Area 20mph zone or Lake Road Area 20mph zone.

3.4 Of the road network in the Belvedere Area, there exist 6 main choice of routes for drivers travelling north to south and vice versa. The critical crossing point for this north south divide is considered to be Wimbledon Hill Road and High Street. The routes identified are:

- Belvedere Grove/Alan Road,
- Belvedere Drive,
- Church Road
- Woodside/Lake Road. or Woodside/St Marys Road.
- Marryat Road
- Wimbledon Hill Road / Alexandra Road

3.5 Traffic data collected from earlier traffic surveys show that currently, Belvedere Grove and Church Road take most of the traffic travelling north to south and vice versa; the split almost being at a ratio of 1:1 between the two routes. Church Road, is one of the boroughs 'Local Distributor Roads' which is also a bus route and home to a number of businesses in its southern section, whereas Belvedere Grove and Alan Road are purely residential. With the aforementioned descriptions of the roads, it would be reasonable for one to say that the traffic conditions on Church Road reflect its designation of a Local Distributor, whereas those of Belvedere Grove and Alan Road in particular and Belvedere Drive to a lesser extent do not reflect their designation as Residential Roads.

3.6 The closure or changes to any of the routes identified in section 3.4 in particular, or the other nearby roads in general is likely to affect traffic flows on the wider network. This is confirmed by recent options testing work carried out by JMP by which various proposals have been tested. However, the testing of options has also proved that a situation of saturation would not be created for any road within the network if the proposals were taken forward for implementation. With this understanding, the choice to report results for this committee report in sections 3.10, 3.15 and 3.18 for the various options was based on certain criteria being met as laid out in para 3.10. Roads in the 'Study Area', where criteria set in section 3.10 is met, have been highlighted in this report. The results and the limitations of models to predict with accuracy should be carefully considered before any decision is made. The base model was created using traffic survey data collected in April 2006 and combined with earlier survey data collected from 2004.

3.7 Belvederes Options

Various options were developed and discussed with ward councillors in April 2008. The objectives developed were

1) reduce the rat running traffic from the Belvederes by a series of measures, which would make it a less attractive route.

2) introduce measures such that diverted traffic would choose the borough's Local Distributor and London Distributor Roads as opposed to residential roads for their journeys.

3) have in place contingency plans for Woodside and Lake Road Area in case traffic diverts to them

4) increase capacity of Wimbledon Hill Road in the eastbound direction so as to make the route a preferred choice for drivers travelling from the Ridgway Area to the east or the north east of the borough.

In order to achieve these objectives a set of proposals were drawn up with a view that the measures would be introduced in a phased approach so as to allow monitoring and comparison of the effects of each phase with predictions from the traffic model. The section below describes the proposals developed and tested.

3.8 Proposals for Phase 1 Works (Options 1 & 2)

- No entry from Wimbledon Hill Road into Belvedere Grove.
- No entry for traffic travelling in southwesterly direction along Belvedere Grove beyond its junction with Clement Road.
- Left turn only for traffic exiting Belvedere Grove at its junction with Belvedere Avenue.
- One way working along Belvedere Avenue (in north westerly direction between its junction with Belvedere Drive and Belvedere Grove.
- No entry from Belvedere Avenue into Highbury Road.
- No entry from Belvedere Avenue into Alan Road.
- Left turn only for traffic travelling along Belvedere Drive in northeasterly direction at its junction with Belvedere Avenue.

- Right turn only for traffic travelling in southwesterly direction along Belvedere Drive at its junction with Belvedere Avenue.
- Right turn only from Highbury Road at its junction with Belvedere Avenue.
- Removal of the existing No Entry into Courthope Road from Church Road. All movements to be allowed at this junction.
- Proposals to convert the Wimbledon Hill bus lane to an all-traffic lane together with the other measures described in para 4.3.

3.9 Proposals for Phase 2 Works (Options 3 & 4)

Proposals listed in para 3.7 in combination with the following:

- No entry for traffic travelling along Woodside in northeasterly direction beyond its junction with Lake Road.
- No right turn from Lake Road into Leopold Road.
- No right turn from Leopold Road into Vineyard Hill Road.
- No left turn from Leopold Avenue into Leopold Road.
- No left turn from Leopold Road into Kenilworth Avenue.
- No right turn from Kenilworth Avenue into Leopold Road.

3.10 Predicted Traffic Flows for the 2 Phases

The JMP Traffic Impact Reports present detailed information for almost all links within the study area. This information was given in the form of Link Diagrams in the appendices of the JMP report. For the purpose of this committee report such exhaustive data is not easily presentable, hence results are reported from selective links, where certain criteria has been met.

The criteria met is shown highlighted in yellow against the change in flow and can be summarised as

1) Existing base flows used for the 3-hour peak period is more than 100 vehicles and the % change in predicted flows over base flows are different by 30% or more.

2) Existing base flows used for the 3-hour period is less than 100 but the % change in predicted flow over the base flow is more than 100%.

In the data below:

a) The number highlighted in yellow shows which of the above criteria was met.
b) A '+%' indicates the percentage increase compared to the existing base flow.
c) A '-%' indicates the percentage decrease compared to the existing base flow.

Both phases below include the proposal to convert the existing eastbound bus lane to an all-traffic lane, together with other changes to Wimbledon Hill Road, which help to increase the eastbound capacity.

PHASE 1 PROPOSALS RESULTS (JMP Report Reference Option 2)

Change in traffic flow for AM flows 7:00am-10:00am

1)	Church Road N/B	(1)	+ 31%
2)	Belvedere Grove N/B	(1)	-100%
3)	Belvedere Drive N/B	(1)	-53%
4)	Woodside N/B	(1)	+401%
5)	Church Road S/B	(1)	+ 44%
6)	Belvedere Grove S/B	(1)	-37%
7)	Belvedere Drive S/B	(1)	-100%
8)	Woodside S/B	(1)	+46%
9)	Courthope Road E/B	(2)	+1614%
10)	Lake Road N/B	(2)	+317%
11)	Leopold Avenue S/B	(1)	+35%
12)	Ridgway Place E/B	(1)	-43%
13)	Marryat Road N/B	(1)	+30%
14)	High Street E/B	(1)	+35%

Change in traffic flow for PM flows 4:00pm-7:00pm

1)	Church Road N/B	(1)	+57%
2)	Belvedere Grove N/B	(1)	-100%
3)	Belvedere Drive N/B	(1)	-35%
4)	Woodside N/B	(1)	+177%
5)	Belvedere Grove S/B	(1)	-37%
6)	Courthope Road E/B	(2)	+1614%
7)	Courthope Road W/B	(2)	+1614%
8)	St Marys Road W/B	(1)	+93%
9)	Calonne Road E/B	(1)	+317%
10)	Parkside Avenue W/B	(2)	+168%

PHASE 2 PROPOSALS RESULTS (JMP Report Reference Option 4)

Change in traffic flow for AM flows 7:00am-10:00am

1)	Church Road N/B	(1)	+ 40%
2)	Belvedere Grove N/B	(1)	-100%
3)	Belvedere Drive N/B	(1)	-56%
4)	Woodside N/B	(1)	+236%
5)	Church Road S/B	(1)	+ 44%
6)	Belvedere Grove S/B	(1)	-36%
7)	Belvedere Drive S/B	(1)	-100 %
8)	Woodside S/B	(1)	+30%
9)	Courthope Road E/B	(2)	+1629%
11)	Lake Road S/B	(2)	+192%
12)	Leopold Avenue N/B	(1)	-33%
13)	Leopold Avenue S/B	(1)	+31%
14)	St Marys Road E/B	(1)	-39%
15)	Ridgway Place E/B	(1)	-43%
16)	Ridgway Place W/B	(1)	+33%
17)	Marryat Road N/B	(1)	+32%
18)	High Street E/B	(1)	+31%

Change in traffic flow for PM flows 4:00pm-7:00pm

1)	Church Road N/B	(1)	+56%
2)	Belvedere Grove N/B	(1)	-100%
3)	Belvedere Drive N/B	(1)	-34%
4)	Woodside N/B	(1)	+119%
5)	Belvedere Grove S/B	(1)	-37%
6)	Belvedere Drive S/B	(1)	-100%
7)	Courthope Road E/B	(2)	+741%
8)	Courthope Road W/B	(2)	-100%
9)	St Marys Road W/B	(1)	+96%
10)	Calonne Road E/B	(1)	-60%
11)	Parkside Avenue W/B	(2)	+168%

3.11 Interpretation of Above Results

On consideration of the modelling results for these proposals it was seen that Belvedere Grove (between its junction with Courthope Road and Wimbledon Hill Road) would continue to be impacted from excessive through traffic. The traffic model had picked up the changes proposed for junction of Courthope Road / Church Road and shown that drivers would take advantage of the left turn allowed into Courthope Road from Church Road. This has resulted in the results for Belvedere Grove southbound to only show a 37% decrease. This proposal would need modification to prevent a left turn from Church Road into Courthope Road with the result that Belvedere Grove southbound would then show a 100% reduction.

Under these proposals it is seen that Woodside, Lake Road and St Marys Road take some of the diverted traffic from Belvedere Grove and Belvedere Drive. Church Road also takes some of the diverted traffic. These proposals do not cause a saturation of the road network.

3.12 Following the SMAC meeting in September 2008, committee members requested officers to arrange a joint site meeting to see and discuss the Belvedere rat running. The meeting was arranged for the 5th of October 2008 at 8:00am. The site meeting was arranged for a typical working day and timed to coincide with the peak hour. Four committee members together with three council officers met at the junction of Belvedere Avenue and Alan Road. A walk and a drive around the area followed the site visit.

3.13 Proposals for Alternative Option 5a/5b

- Ban left turn from Parkside into Calonne Road. (Option 5a)
- Ban Right turn from Parkside into Calonne Road. (Option 5b)
- Ban right turn from Parkside into Parkside Avenue.
- Ban right turn from High Street into Marryat Road
- No Entry from Burghley Road into Marryat Road South.
- Road Closure at Belvedere Grove/ Belvedere Avenue. This is a total closure at this point i.e nothing to enter or leave Belvedere Grove at this point.

- The removal of the Wimbledon Hill Bus Lane and creation of a second all traffic vehicle lane on Wimbledon Hill Road between its junctions with Belvedere Grove or Belvedere Drive upto its junction with Alexandra Road.

3.14 Proposals for Alternative Option 6

- Church Road, between its junction with Wimbledon Hill Road and St Marys Road, to be one way southbound.

- Marryat Road, between its junction with High Street and Burghley Road to be one way northbound. The 'Church Road northbound bus route' to be diverted to Marryat Road, Burghley Road before joining Church Road again.

- Road Closure at Belvedere Grove/ Belvedere Avenue. This is a total closure at this point i.e nothing to enter or leave Belvedere Grove at this point.

- Road Closure at Belvedere Drive/ Wimbledon Hill Road. This is a total closure at this point i.e nothing to enter or leave Belvedere Drive at this point.

- The removal of the Wimbledon Hill Bus Lane and creation of a second all traffic vehicle lane on Wimbledon Hill Road between its junctions with Belvedere Grove or Belvedere Drive upto its junction with Alexandra Road.

3.15 Predicted Traffic Flows for Options 5a/5b and 6

The JMP Traffic Impact Reports present detailed information for almost all links within the study area. This information is given in the form of Link diagrams in the appendices of the JMP report. For the purpose of this committee report such exhaustive data is not easily presentable, hence results are reported from selective links, where certain criteria has been met.

The criteria met is shown highlighted in yellow against the change in flow and can be summarised as

1) Existing base flows used for the 3 hour peak period is more than 100 vehicles and the % change in predicted flows over base flows are different by 30% or more.

2) Existing base flows used for the 3 hour period is less than 100 but the % change in predicted flow over the base flow is more than 100%.

In the data below:

a) The number highlighted in yellow reports which of the above criteria was met.
b) A '+%' indicates the percentage increase compared to the existing base flow.
c) A '-%' indicates the percentage decrease compared to the existing base flow.

OPTION 5A/5B PROPOSALS RESULTS

Change in traffic flow for AM flows 7:00am-10:00am

1)	Church Road N/B	(1)	+ 34%	
2)	Belvedere Grove N/B	(1)	-97%	
3)	Belvedere Drive N/B	(1)	+164 %(option 5a)	+163% (option 5b)
4)	Woodside N/B	(1)	+62%	

5)	Church Road S/B	(1)	+ 34%(option 5a)	+36% (option 5b)
6)	Belvedere Grove S/B	(1)	-93%	
7)	Belvedere Drive S/B	(1)	+62 %	
8)	Calonne Road E/B	(1)	-89% (option 5a)	-7% (option 5b)
9)	Peek Crescent N/B	(2)	-100% (option 5a)	+79% (option 5b)
10)	Marryat Road N/B	(1)	-63% (option 5a)	-64% (option 5b)
11)	Marryat Road S/B	(1)	-33%	
12)	High Street E/B	(1)	+42% (option 5a)	+42% (option 5b)

Change in traffic flow for PM flows 4:00pm-7:00pm

1)	Church Road N/B	(1)	+ 29% (option 5a)	+30% (option 5b)
2)	Belvedere Grove N/B	(1)	-97%	
3)	Belvedere Drive N/B	(1)	+64 %(option 5a)	+62% (option 5b)
4)	Woodside N/B	(1)	+51 %(option 5a)	+53% (option 5b)
5)	Church Road S/B	(1)	+ 40%	
6)	Belvedere Grove S/B	(1)	-78%	
7)	Belvedere Drive S/B	(1)	+113 %(option 5a)	+109% (option 5b)
8)	Ridgway Place E/B	(1)	-30 %(option 5a)	-29% (option 5b)
9)	Calonne Road E/B	(1)	-74% (option 5a)	-82% (option 5b)
10)	Parkside Gardens N/B	(2)	-43 %(option 5a)	+343% (option 5b)
11)	Peek Crescent N/B	(2)	-100 %(option 5a)	+343% (option 5b)
12)	Marryat Road S/B	(1)	-85%	
13)	Lancaster Road S/B	(2)	+467 %(option 5a)	+522 % (option 5b)
14)	High Street E/B	(1)	+29% (option 5a)	+28% (option 5b)

OPTION 6 PROPOSALS RESULTS

Change in traffic flow for AM flows 7:00am-10:00am

1)	Church Road N/B	(1)	- 100 %
2)	Belvedere Grove N/B	(1)	-96 %
3)	Belvedere Drive N/B	(1)	-100 %
4)	Woodside N/B	(1)	+806 %
5)	Church Road S/B	(1)	+ 104%
6)	Belvedere Grove S/B	(1)	-89%
7)	Belvedere Drive S/B	(1)	-100 %
8)	Woodside S/B	(1)	+47 %
9)	Lake Road N/B	(2)	+689%)
10)	Lake Road S/B	(1)	-36%
11)	Leopold Avenue N/B	(1)	-75%
12)	Leopold Avenue S/B	(1)	+41%
13)	St Marys Road W/B	(1)	+92%
14)	Parkside Gardens N/B	(2)	+100%
15)	Peek Crescent N/B	(2)	+100%
16)	Marryat Road N/B	(1)	+152%
17)	Marryat Road S/B	(1)	-100%
18)	Lancaster Road N/B	(2)	-100%
19)	Arthur Road N/B	(1)	-45%
20)	High Street E/B	(1)	+56%

Change in traffic flow for PM flows 4:00pm-7:00pm

1)	Church Road N/B	(1)	+ 100%

2)	Belvedere Grove N/B	(1)	-95%
3)	Belvedere Drive N/B	(1)	-100 %
4)	Woodside N/B	(1)	+706 %
5)	Church Road S/B	(1)	+ 71%
6)	Belvedere Grove S/B	(1)	-77%
7)	Belvedere Drive S/B	(1)	-100 %
8)	Woodside S/B	(1)	+35 %
9)	Courthope Road W/B	(2)	+233 %
10)	Lake Road N/B	(2)	+396%
11)	Lake Road S/B	(1)	-59%
12)	Leopold Avenue N/B	(1)	-34%
13)	St Marys Road W/B	(1)	+381%
14)	Ridgway Place E/B	(1)	-32 %
15)	Calonne Road E/B	(1)	+68 %
16)	Parkside Avenue W/B	(2)	+186 %
17)	Peek Crescent N/B	(2)	-100 %
18)	Marryat Road N/B	(1)	+199%
19)	Marryat Road S/B	(1)	-100%
20)	Lancaster Road N/B	(2)	-100 %
21)	Lancaster Road S/B	(2)	+1367 %
22)	High Street E/B	(1)	+34%

3.16 Interpretation of Above Results

Under option 5a/5b, Belvedere Drive was tested to remain unchanged whereas Belvedere Grove was closed. Marryat Road (south side) is tested with a 'No Entry' from Burghley Road. Under these proposals the modelling results show that traffic shifts from Belvedere Grove mainly onto Belvedere Drive with a small increase in Church Road traffic. Marryat Road is shown to have a significant decrease in traffic.

From this it is shown that the closure or other changes to Belvedere Grove should be accompanied with similar changes to Belvedere Drive in order to prevent diverted traffic shifting from one to the other.

Under option 6, both Belvedere Drive and Belvedere Grove were tested with road closures together with the conversion of Church Road to be 'One Way southbound' and Marryat Road to be 'One way northbound'. With the removal of traffic from Belvedere Drive and Belvedere Grove the modelling shows that traffic on Lake Road northbound increases significantly. Though some traffic would opt to use the new one-way system along Marryat Road northbound, it is apparent that Lake Road would also be a preferred choice. It is also evident that with the removal of traffic along Church Road in the northbound direction, the existing southbound flows on Lake Road appear to shift to Church Road. With the conversion of Marryat Road into a northbound one-way street, the traffic naturally increases significantly.

From this it is shown that Lake Road and Church Road are intimately linked and a change to one has a direct impact on the other.

3.17 Proposals for Alternative Option 7

- i) Ban entry from High Street into Marryat Road.
- ii) Ban entry from Belvedere Avenue into Belvedere Grove.

- iii) Ban left turn from Wimbledon Hill Road into Belvedere Drive.
- iv) The removal of the Wimbledon Hill Bus Lane and creation of a second all traffic vehicle lane on Wimbledon Hill Road between its junctions with Belvedere Grove or Belvedere Drive upto its junction with Alexandra Road.

3.18 Predicted Traffic Flows for Option 7

The JMP Traffic Impact Reports present detailed information for almost all links within the study area. This information is given in the form of Link diagrams in the appendices of the JMP report. For the purpose of this committee report such exhaustive data is not easily presentable, hence results are reported from selective links, where certain criteria has been met.

The criteria met is shown highlighted in yellow against the change in flow and can be summarised as

1) Existing base flows used for the 3 hour peak period is more than 100 vehicles and the % change in predicted flows over base flows are different by 30% or more.

2) Existing base flows used for the 3 hour period is less than 100 but the % change in predicted flow over the base flow is more than 100%.

In the data below:

a) The number highlighted in yellow reports which of the above criteria was met.
b) A '+%' indicates the percentage increase compared to the existing base flow.
c) A '-%' indicates the percentage decrease compared to the existing base flow.

OPTION 7 PROPOSALS RESULTS

Change in traffic flow for AM flows 7:00am-10:00am

1)	Belvedere Drive N/B	(1)	-43 %
2)	Woodside N/B	(1)	+73 %
3)	Church Road S/B	(1)	+ 31%
4)	Belvedere Grove S/B	(1)	-93%
5)	Belvedere Drive S/B	(1)	+62 %
6)	Ridgway Place E/B	(1)	-30 %
7)	Calonne Road E/B	(1)	+35%)
8)	Parkside Gardens N/B	(2)	-100%
9)	Peek Crescent N/B	(2)	-100%
10)	Marryat Road N/B	(1)	-100%
11)	Lancaster Road S/B	(2)	+300%

Change in traffic flow for PM flows 4:00pm-7:00pm

1)	Belvedere Grove N/B	(1)	+35%
2)	Belvedere Drive N/B	(1)	-58 %
3)	Belvedere Grove S/B	(1)	-78%
4)	Belvedere Drive S/B	(1)	+113%
5)	Courthope Road W/B	(2)	-100%
6)	St Marys Road W/B	(1)	-42%
7)	Ridgway Place E/B	(1)	-33 %
8)	Calonne Road E/B	(1)	+70%

9)	Parkside Gardens N/B	(2)	-100%
10)	Peek Crescent N/B	(2)	-100 %
11)	Marryat Road N/B	(1)	-100%
12)	Marryat Road S/B	(1)	+33%

3.19 Interpretation of Above Results

Under option 7 in the morning peak it is seen that Belvedere Grove and Belvedere Drive sees a reduction in northbound traffic despite the fact that the proposals do not shut off Belvedere Grove or Belvedere Drive. In the evening peak period, Belvedere Grove sees a rise in traffic northbound whereas Belvedere Drive continues with a northbound reduction. Woodside is not affected in the evening peak in neither the southbound or northbound direction. Marryat Road benefits from the no entry proposal in both peak periods, however the evening peak is likely to bring a small increase in the southbound direction.

Church Road shows a small increase in southbound direction for the morning peak. Generally this option shows the best results for the area with the model predicting a small and shared variation to the network whilst also providing some relief to the Belvedere residential roads.

3.20 JMP Recommendations

On 12th February 2009, JMP provided their professional opinion on the option, which they believed had achieved the objectives of reducing the rat running through the Belvedere Roads with the best distribution of reassigned traffic to the remaining network. Their analysis shows option 7 proposals to be best poised to achieve this. This forms the basis of their recommendation which also suggests that the council implements the scheme on an experimental basis for testing and monitoring. The recommendation letter is attached as Appendix 1 of this report. This recommendation is included within the recommendations being made as part of this report to the 'Street Management Advisory Committee' and in particular to the 'Cabinet Member for Planning & Traffic Management'.

NOTE: A blank cell within the table below indicates, that a less than 30% change in traffic volume is predicted by the model.

DATA FOR AM PERIOD 7:00-10:00

Table showing change in Flows for various links within the model network for different options. Links without data against them indicate 'predicted minor changes from the existing base flows. Links fulfilling one of the following criteria are reported in the table below:

1) Existing base flows used for the 3-hour peak period is more than 100 vehicles and the % change in predicted flows over base flows are different by 30% or more.
2) Existing base flows used for the 3-hour period is less than 100 but the % change in predicted flow over the base flow is more than 100%.

Road Name (Link Section)	Base Flows	Phase 1 Proposals (JMP Report Ref. Opt. 2). *% Change in Flows Compared to Base*	Phase 2 Proposals (JMP Report Ref. Opt. 4). *% Change in Flows Compared to Base*	Proposal 5A (JMP Report Ref. Opt. 5A) *% Change in Flows Compared to Base*	Proposal 5B (JMP Report Ref. Opt. 5B) *% Change in Flows Compared to Base*	Proposal 6 (JMP Report Ref. Opt. 6) *% Change in Flows Compared to Base*	Proposal 7 (JMP Report Ref. Opt. 7) *% Change in Flows Compared to Base*
Church Rd N/B (between High St and Courthope Rd)	960	31%	40%	34%	34%	-100%	
Belvedere Grove N/B (between High St and Courthope Rd)	908	-100%	-100%	-97%	-97%	-96%	
Belvedere Drive N/B (between Wimbledon Hill Rd and Belvedere Ave)	380	-53%	-56%	164%	163%	-100%	-43%
Woodside N/B (between Wimbledon Hill Rd and St Marys Rd)	140	401%	236%	62%	62%	806%	73%
Alexandra Rd N/B (between Wimbledon Hill Rd and Parkwood Rd)	1686						
Church Rd S/B (between High St and Courthope Rd)	719	44%	44%	34%	36%	104%	31%
Belvedere Grove S/B (between High St and Courthope Rd)	568	-37%	-36%	-93%	-93%	-89%	-93%
Belvedere Drive S/B (between Wimbledon Hill Rd and Belvedere Ave)	323	-100%	-100%	62%	62%	-100%	62%
Woodside S/B (between Wimbledon Hill Rd and St Mary's Rd)	328	46%	30%			47%	
Alexandra Rd S/B (between Wimbledon Hill Rd and Parkwood Rd)	1279						
Courthope Rd E/B	21	1614%	1629%				
Courthope Rd W/B	131						
Lake Rd N/B (between Ricards Rd and Leopold Rd)	89	317%				689%	
Lake Rd S/B (between Ricards Rd and Leopold Rd)	398		192%			-36%	
Leopold Ave N/B	259		-33%			-75%	
Leopold Ave S/B	226	35%	31%			41%	
Leopold Road E/B (between Woodside and Alexandra Rd)	855						
Leopold Road W/B (between Woodside and Alexandra Rd)	1126						
St. Mary's Rd E/B (between Woodside and Belvedere Drive)	393		-39%				
St. Mary's Rd W/B (between Woodside and Belvedere Drive)	312					92%	
Ridgway N/B (between High St and Lingfield Rd)	1865						
Ridgway S/B (between High St and Lingfield Rd)	1389						
Ridgway Place E/B	305	-43%	-43%				-30%
Ridgway Place W/B	254		33%				
Parkside N/B (between Cannizaro Rd and Calonne Rd)	2275						
Parkside S/B (between Cannizaro Rd and Calonne Rd)	1997						
Calonne Rd E/B (between Parkside Ave and Parkside Gardens)	228			-89%	-7%		35%
Calonne Rd W/B (between Parkside Ave and Parkside Gardens)	243						
Parkside Gdn N/B	14						-100%
Parkside Gdn S/B	71						
Parkside Ave E/B (between Cannizaro Rd and Parkside Gardens)	34						
Parkside Ave W/B (between Cannizaro Rd and Parkside Gardens)	60						
Peek Cres S/B	44						
Peek Cres N/B	14			-100%	79%	100%	-100%
Marryat Rd N/B (between Peek Crescent and Burghley Rd)	383	30%	32%	-63%	-64%	152%	-100%
Marryat Rd S/B (between Peek Crescent and Burghley Rd)	133			-33%	-33%	-100%	
Lancaster Rd N/B	25						
Lancaster Rd S/B	2						300%
Burghley Rd N/B (between Calonne Rd and Marryat Rd)	861						
Burghley Rd S/B (between Calonne Rd and Marryat Rd)	557						
Somerset Rd N/B (between Newstead Way and Marryat Rd)	35						
Somerset Rd S/B (between Newstead Way and Marryat Rd)	24						
Arthur Rd N/B (between Home Park Rd and Leopold Rd)	1342					-45%	
Arthur Rd S/B (between Home Park Rd and Leopold Rd)	1223						
High St E/B (between Belvedere Grove and Belvedere Drive)	1669	35%	31%	42%	42%	56%	
High St W/B (between Belvedere Grove and Belvedere Drive)	1581						

NOTE: A blank cell within the table below indicates, that a less than 30% change in traffic volume is predicted by the model.

DATA FOR PM PERIOD 4:00-7:00

Table showing change in Flows for various links within the model network for different options. Links without data against them indicate 'predicted minor changes from the existing base flows. Links fulfilling one of the following criteria are reported in the table below:

1) Existing base flows used for the 3-hour peak period is more than 100 vehicles and the % change in predicted flows over base flows are different by 30% or more.

2) Existing base flows used for the 3-hour period is less than 100 but the % change in predicted flow over the base flow is more than 100%.

Road Name (Link Section)	Base Flows	Phase 1 Proposals (JMP Report Ref. Opt. 2). *% Change in Flows Compared to Base*	Phase 2 Proposals (JMP Report Ref. Opt. 4). *% Change in Flows Compared to Base*	Proposal 5A (JMP Report Ref. Opt. 5A) *% Change in Flows Compared to Base*	Proposal 5B (JMP Report Ref. Opt. 5B) *% Change in Flows Compared to Base*	Proposal 6 (JMP Report Ref. Opt. 6) *% Change in Flows Compared to Base*	Proposal 7 (JMP Report Ref. Opt. 7) *% Change in Flows Compared to Base*
Church Rd N/B (between High St and Courthope Rd)	675	57%	56%	29%	30%	100%	
Belvedere Grove N/B (between High St and Courthope Rd)	631	-100%	-100%	-97%	-97%	-95%	35%
Belvedere Drive N/B (between Wimbledon Hill Rd and Belvedere Ave)	495	-35%	-34%	64%	62%	-100%	-58%
Woodside N/B (between Wimbledon Hill Rd and St Marys Rd)	99	177%	119%	51%	53%	706%	
Alexandra Rd N/B (between Wimbledon Hill Rd and Parkwood Rd)	1649						
Church Rd S/B (between High St and Courthope Rd)	907			40%	40%	71%	
Belvedere Grove S/B (between High St and Courthope Rd)	969	-37%	-37%	-78%	-78%	-77%	-78%
Belvedere Drive S/B (between Wimbledon Hill Rd and Belvedere Ave)	294		-100%	113%	109%	-100%	113%
Woodside S/B (between Wimbledon Hill Rd and St Mary's Rd)	359					35%	
Alexandra Rd S/B (between Wimbledon Hill Rd and Parkwood Rd)	1299						
Courthope Rd E/B	116	1614%	741%				
Courthope Rd W/B	3	1614%	-100%			233%	-100%
Lake Rd N/B (between Ricards Rd and Leopold Rd)	48					396%	
Lake Rd S/B (between Ricards Rd and Leopold Rd)	272					-59%	
Leopold Ave N/B	218					-34%	
Leopold Ave S/B	189	35%					
Leopold Road E/B (between Woodside and Alexandra Rd)	912						
Leopold Road W/B (between Woodside and Alexandra Rd)	1141						
St. Mary's Rd E/B (between Woodside and Belvedere Drive)	476						
St. Mary's Rd W/B (between Woodside and Belvedere Drive)	134	93%	96%			381%	-42%
Ridgway N/B (between High St and Lingfield Rd)	1444						
Ridgway S/B (between High St and Lingfield Rd)	1911						
Ridgway Place E/B	305			-30%	-29%	-32%	-33%
Ridgway Place W/B	303						
Parkside N/B (between Cannizaro Rd and Calonne Rd)	1909						
Parkside S/B (between Cannizaro Rd and Calonne Rd)	2268						
Calonne Rd E/B (between Parkside Ave and Parkside Gardens)	121	317%	-60%	-74%	-82%	68%	70%
Calonne Rd W/B (between Parkside Ave and Parkside Gardens)	241						
Parkside Gdn N/B	7			-43%	343%		-100%
Parkside Gdn S/B	103						
Parkside Ave E/B (between Cannizaro Rd and Parkside Gardens)	22						
Parkside Ave W/B (between Cannizaro Rd and Parkside Gardens)	38	168%	168%			186%	
Peek Cres S/B	87		-74%				
Peek Cres N/B	7			-100%	343%	-100%	-100%
Marryat Rd N/B (between Peek Crescent and Burghley Rd)	205					199%	-100%
Marryat Rd S/B (between Peek Crescent and Burghley Rd)	265			-85%	-85%	-100%	33%
Lancaster Rd N/B	4					-100%	
Lancaster Rd S/B	9			467%	522%	1367%	
Burghley Rd N/B (between Calonne Rd and Marryat Rd)	710						
Burghley Rd S/B (between Calonne Rd and Marryat Rd)	824						
Somerset Rd N/B (between Newstead Way and Marryat Rd)	19						
Somerset Rd S/B (between Newstead Way and Marryat Rd)	133						
Arthur Rd N/B (between Home Park Rd and Leopold Rd)	1057						
Arthur Rd S/B (between Home Park Rd and Leopold Rd)	1402						
High St E/B (between Belvedere Grove and Belvedere Drive)	1788	35%		29%	28%	34%	
High St W/B (between Belvedere Grove and Belvedere Drive)	1518						

4. WIMBLEDON HILL BUS LANE

4.1 General

It was recognised early on in the work being carried out under the 'Wimbledon Area Traffic Study', that easing traffic flow on Wimbledon Hill in the eastbound direction would be conducive in reducing the amount of rat running from the Belvederes by encouraging motorists to use the more suited route along Wimbledon Hill Road and Alexandra Road for destinations to the east and north east of the Borough. A feasibility investigation into ways of increasing eastbound capacity was carried out in June 2008.

4.2 Site Observations

A number of site visits were made to understand the problems and causes of delay for eastbound traffic along Wimbledon Hill Road. The following observations were made:

1. During peak times especially, traffic queued upstream of the junction between Woodside and Wimbledon Hill Road whereas downstream of the junction capacity existed for additional vehicles. It could be said that due to the presence of traffic backing so far upstream, drivers exiting Ridgway chose to rat run through the Belvederes. This is the section of Wimbledon Hill Road along which exists an eastbound bus lane.
2. The junction of Woodside / Wimbledon Hill Road / Mansell Road currently acts as a bottleneck for eastbound traffic. The eastbound bus lane also terminates just short of the junction itself where merging of buses with the other traffic causes some delay.
3. The section of Wimbledon Hill Road between its junction with Worple Road and Alexandra Road currently has 2 substandard lane widths marked in the eastbound direction. The marked out lanes do not allow the simultaneous parallel movement of traffic in the lanes, hence the 2 lanes effectively act as one because drivers tend to queue head to tail. This causes delay to the traffic upstream (before the Worple Road junction) forcing them to wait till the carriageway downstream has cleared. This section is not being used to its full potential.
4. For the same section of road, there exist 2 generous lanes in the opposite (westbound) direction, which then reduce to a bottleneck once past the junction with Worple Road. This section of carriageway in the westbound direction is unnecessarily wide and hence can be said to be not being used to the full potential. The inner lane actually serves no other purpose other than stacking space for vehicles or as an unofficial bus lane for buses, which are allowed to turn left into Worple Road.
5. Buses turning right into Wimbledon Hill Road from Worple Road can often not complete their full turn and hence block the westbound traffic. This causes unnecessary delay to westbound vehicles, which despite having a green signal cannot move till the bus unblocks the carriageway.

4.3 Proposed Measures for Wimbledon Hill Road

In order to alleviate eastbound congestion on Wimbledon Hill Road measures are proposed which will help increase vehicular capacity along Wimbledon Hill. It is important to recognise the difference between increasing road capacity and reducing queue length. The two are subtly different from each other though often confused with the argument 'that increasing capacity is of a limited use as more vehicles will travel down that route and hence queues will again build up again'. Though true to an extent, by increasing capacity typically more vehicles can pass through a particular point faster and so queues also die down quicker because the increased capacity allows more vehicles to pass per unit time when compared to a smaller capacity.

The following measures are proposed to increase capacity of the various junctions and links on Wimbledon Hill Road between its junction with Belvedere Drive and Alexandra Road.

1. A short section of bus lane to be introduced on Alexandra Road, on approach to the junction with Wimbledon Hill Road. Buses would be allowed to turn right from Alexandra Road into Wimbledon Hill Road. Buses to complete this turn during the inter-green period i.e. no signalised new phase to be introduced to cater for this movement. This will alleviate some congestion problems on St Georges Road and Worple Road.
2. The underused lane on Wimbledon Hill Road (in the westbound direction between junction Alexandra Road/Wimbledon Hill Road and Worple Road/Wimbledon Hill Road will be reassigned to traffic travelling eastbound. This should mean a minimal change to journey times in the westbound traffic whilst increasing eastbound capacity within that section and further upstream.
3. The reassigned road space mentioned in point number 1 above, will be used to create a dedicated left turn lane from Wimbledon Hill Road into Alexandra Road. The new generous lane widths will be sufficient to allow the simultaneous movement of eastbound traffic in both lanes.
4. A new box junction to be marked at the junction of Wimbledon Hill Road / Worple Road which will help buses turn right from Worple Road into Wimbledon Hill Road, without causing an obstruction to westbound traffic at that point.
5. Adjusting of traffic islands and traffic lights at the Woodside/Mansell Road/ Wimbledon Hill Road junction in a manner which will retain all existing movements but remove the existing eastbound bottleneck.
6. Use of the existing eastbound bus lane on Wimbledon Hill Road to allow all vehicles to use it. This will increase vehicular road capacity between its junction with Belvedere Drive and Woodside. Lane markings will need to be revised at the Woodside junction according to new junction configuration. Existing pedestrian and cycle crossing facilities will not be affected.

4.4 Formal Consultation on Above Measures

Though originally, the removal of the bus lane was coupled as part of the Belvedere Scheme, it was agreed with ward councillors that this element of the proposals should be advanced as a separate scheme as it had potential for improving traffic flows along Wimbledon Hill. i.e. even if other proposals for Belvederes were not implemented. Having agreed the potential benefits that would occur as a result of the above measures in Wimbledon Hill Road, councillors agreed to allow a Statutory Consultation to proceed on the removal of the eastbound bus lane so as to create a second 'all-purpose' traffic lane.

4.5 The formal consultation was carried out in August and September of 2008. In total seven representations were received in response to the consultation of which six registered their objection to the proposed removal of the bus lane. The objections have been attached in Appendix 8 of this report for the Committee and Cabinet Member for Planning & Traffic Management to consider carefully making a decision as whether or not to proceed with its removal.

4.6 A key feature of all the main Belvedere proposals discussed in section 3 was the positive impact for general traffic of doubling the capacity of Wimbledon Hill Road in the eastward direction. It was recognised that by easing traffic flow on the Hill in this direction would be conducive to keep drivers away from rat running and encourage them to use this more appropriate route whilst travelling to the east and north east of the Borough. The increase in road capacity in this direction is to be achieved by the conversion of the existing bus lane to an 'all-traffic' lane and modifying the Woodside / Wimbledon Hill Road junction to remove the current bottleneck. This proposal is likely to have a positive effect on helping achieve, partially the objectives for the Belvederes even if implemented separate to the other proposals for the Belvedere area. The proposals are described in more detail in section 4.3 above.

5. CONCLUSIONS

The following conclusions are drawn from the work carried out on this study.

- A significant volume of traffic uses Belvedere Grove and Belvedere Drive as through-routes. These having been classified as Local Access Roads were carrying more than their fair share of through-traffic which would be suited to the Distributor Roads.
- Changes to any of these routes to prevent through-traffic from entering will affect the other roads to a degree dependent on the severity of the measures implemented.
- Though evaporation of traffic cannot be predicted through the model used, it is likely to occur under some of the proposals.
- It has been seen that options 2, 4, 5 and 6 were effective in dealing with the rat running traffic through the Belvedere Roads, however the shifting of traffic predicted by the model would be greater than that desired for smooth operation of the network. The objective is to achieve a fairer distribution of the traffic throughout the network.
- In comparison, option 7 proposals reduce the traffic flow through the Belvedere roads with a small increase in traffic flows in the other roads. Through-traffic would be reduced but not completely removed from the Belvedere Roads if option 7 proposals were implemented.
- Vehicular flow patterns do not necessarily follow a particular trend but is shown to vary not only from day to day but also between the morning peak and evening peaks i.e. Traffic distribution throughout the network will vary from day to day and from a morning peak to evening peak.
- Although the traffic model does predict proportionality of the distribution of traffic in the network based on fixed local conditions, the traffic flows in reality could differ significantly as it is dependent on more than just fixed local conditions. Variables such as weather conditions, road conditions, destinations, time of travel etc. can all result in different traffic distribution from that predicted by the model.

- All the proposals tested, show that none of the links within the network would become saturated. This implies that all of the options would keep the network flowing, however some are likely to achieve a more balanced traffic distribution compared to others.
- Removal of the Wimbledon Hill Bus Lane will have a positive impact in achieving the desired objective of reducing the through-traffic using the Belvedere Roads. Partial achievement of objectives would be obtained even if this element of the proposals was implemented in solo. However issues outside the scope of this study need also to be considered carefully with regard to its removal such as political implications and future relationship with TfL (the fund providers for its initial installation).
- There are a number of Traffic safety schemes, which are planned for the Wimbledon area. As local changes to road layouts such as 'The Ridgway Place Area 20mph Zone' and 'The Lake Road Area 20mph Zone' schemes once implemented will affect the current distribution of traffic in the area, 'Before traffic surveys' for the Belvederes should be carried out after the schemes have gone in and settled i.e. typically at least 2 months after their implementation.
- This scheme experiment should not start before the proposed 20mph Zones for Ridgway Place Area and Lake Road area 20 mph zones become operational, in March 2009..

6. FINANCIAL IMPLICATIONS

6.1 The work to date has been identified through the funds provided in Merton's 2008/09 Capital Programme of £75,000 for Wimbledon Area Traffic Study.

6.2 The draft Capital Programme for 2009-2012 has funding allocated for Wimbledon Area Traffic Study of £108,000 in 2009/10 and £72,000 in 2010/11.

6.3 Removal of the bus lane is likely to cost a maximum of £85,000 for the removal of the red surfacing and the construction of traffic islands in new positions and ducting work. This estimate does not include the cost associated with the moving of the signal heads that would be in the range of an additional £40,000. A full detailed breakdown will be requested of DTO (Directorate of Traffic Operations), before work is commenced on this part of the scheme.

6.4 Further Capital funding will be required to carry out traffic surveys, making of Traffic Orders and implementing the proposals (other than the changes to Wimbledon Hill Road) using experimental powers. This part of the proposals as detailed in Option 7 together with 'Before and 'After' surveys is estimated to cost £50,000.

6.5 Although funding rules technically allow TfL to reclaim the original investment if the bus lane is approved for removal, it is felt extremely unlikely given that TfLs objection relate to the previous Mayor's Transport Priorities and not necessarily those of the new Mayor. Our proposals to increase capacity at the junctions increasing one lane operation to two lanes and review the timings of existing signals in 'smoothing' traffic flows are very much in accordance with some of the stated aims of the present London Mayor.

7. LEGAL IMPLICATIONS

7.1 Any proposals would need to be dealt with under The Road Traffic Regulation Act 1984. The use of Road Traffic Signs must be in accordance with TSRGD 2002.

7.2 The Council has discretion as to whether or not to hold a public inquiry before deciding whether or not to make a traffic management order or to modify the published draft order. A public inquiry should be held where it would provide further information, which would assist the Council in reaching a decision.

7.3 To revoke the traffic management orders attached to the bus lane required a formal consultation, which has taken place. If any of the objections raised later manifest as an issue, this could have legal implications.

7.4 Sections 6 and 45 Road Traffic Regulation Act 1984 (the Act) enables the highway authority to make orders for controlling or regulating vehicular and other traffic. Under section 122 of the same Act there is a duty on the highway authority "so far as practicable, to secure the expeditious, convenient and safe movement of vehicular and other traffic". Section 9 of the Act also enable the highway authority to carry out an experimental scheme of traffic control (an experimental traffic order). An experimental traffic order remains in force for a maximum of 18 months.

7.5 The recommendations in this report are in accordance with the above statutory provisions..

8. ALTERNATIVE OPTIONS

8.1 A number of options are explored within the body of the report. In addition, doing nothing would not achieve the objectives of reducing rat running traffic through the Belvederes.

9. HUMAN RIGHTS & EQUALITIES IMPLICATIONS

9.1 The implementation of the proposals will affect all sections of the community.

9.2 The proposed Belvedere Scheme aims to improve conditions for the residents of the area together with those using Wimbledon Hill Road. This is to be achieved by discouraging through-traffic from the residential roads onto the Distributor Roads.

9.3 It is expected that the removal of the Wimbledon Hill Bus Lane will improve traffic flow along Wimbledon Hill Road, however cyclists will no longer have the current protection of the bus lane for use, and options to address this issue are being investigated.

10. CRIME AND DISORDER IMPLICATIONS

10.1 Not applicable

11. RISK MANAGEMENT AND HEALTH AND SAFETY IMPLICATIONS

11.1 Currently pedal cyclists have a comparatively safe environment within the bus lane, the removal of which could expose them to conflict. A safety audit will be carried out regarding changes to the Highway and consideration will be given to the introduction of a cycle lane.

Appendices – the following documents are to be published with this report and form part of the report

Appendix 1	JMP Recommendation Letter.
Appendix 2	Plans identifying phase 1 and 2 proposals on which modelling work has been based.
Appendix 3	Plans identifying options 5a/5b on which modelling work has been based.
Appendix 4	Plans identifying proposals for option 6 on which modelling work has been based.
Appendix 5	Plans identifying proposals for option 7 on which modelling work has been based.
Appendix 6	Plans identifying proposals for Wimbledon Hill Road (formed part of all options above)
Appendix 7	3 Hour 'Link Flow Diagrams' for all options modelled
Appendix 8	3 Hour 'Link Flow Difference Diagrams' for all options modelled
Appendix 9	Letters of Objection / Support for the removal of Wimbledon Hill Bus Lane

Background Papers – the following documents have been relied on in drawing up this report but do not form part of the report

Cabinet Street Management Advisory Committee report dated 15th January 2008.

Cabinet Street Management Advisory Committee report dated 17th June 2008

JMP Report 'Wimbledon Monitor Study' Jan 2005 (Scheme Review)

JMP Report 'Wimbledon Town Centre Traffic Management report (Impact Assessment Report) dated 13th May 2008.

JMP Report 'Wimbledon Town Centre Traffic Management report (Additional Options Test) dated 7th November 2008.

JMP Report 'Wimbledon Town Centre Traffic Management report (Further Additional Options Test) dated 21st January 2009.

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Merton Council's Web site: http://www.merton.gov.uk

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http://www.merton.gov.uk/legal.htm

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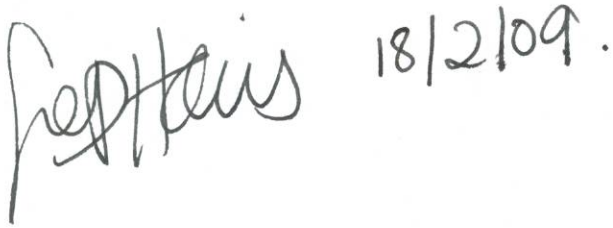

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