

HAMPSHIRE COUNTY COUNCIL

Decision Report

Decision Maker:	Executive Member for Economy, Transport and Environment
Date:	4 November 2014
Title:	Yew Tree Drive Bus Gate – Report on the results of the opening trial and monitoring of mitigation measures in Burridge, Swanwick, Park Gate and Whiteley
Reference:	6034
Report From:	Director of Economy, Transport and Environment

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1. Executive Summary

- 1.1. The purpose of this paper is to report back on the results of the monitoring and public consultation carried out in association with the three month trial opening of Yew Tree Drive Bus Gate.
- 1.2. This paper seeks to summarise the monitoring data collected and the outcomes of the public consultation carried out in the Whiteley area.
- 1.3. A planning application was submitted to Fareham Borough Council “To enable a trial opening of the bus gate for one year from date of decision so the effects of the bus gate opening to all traffic (with the exception of Heavy Goods Vehicles) can be monitored by Hampshire County Council as Highway Authority (variation of Condition 2 P/05/1533/FP): Details pursuant – Condition 4 (Mitigation Measures)”. The planning application was approved on 23 August 2013. The necessary mitigation measures included the following:
 - Speed cushions on the length of Yew Tree Drive from its junction with Botley Road to its junction with Rookery Avenue. This is the most appropriate type of traffic calming for the road type and usage.
 - Toucan Crossing - a new signal controlled pedestrian and cycle crossing at an existing crossing place to the south of Gull Coppice, where the School Crossing Patrol currently operates. This will ensure a crossing facility is available all day and not just at school times.
 - Experimental Heavy Goods Vehicle ban - creation of a vehicle weight restriction, for all vehicles exceeding 7.5 tonnes on Yew Tree Drive between its junctions with Botley Road and Clydesdale Road (the Yew Tree Drive Bus Gate). The TRO will ban all HGVs movements through

the bus gate even for access. This restriction will be experimental and monitored as part of the trial

- Experimental Heavy Goods Vehicle ban - creation of a vehicle weight restriction, accept for access, for all vehicles exceeding 7.5 tonnes on Yew Tree Drive between its junctions with Rookery Avenue and Clydesdale Road. The TRO will allow for HGVs in excess of 7.5 tonnes to access Yew Tree Drive to serve residential areas etc, but will not allow Yew Tree Drive to be used as a through route. Access to Yew Tree Drive will only be allowed, however, via Rookery Avenue. This restriction will be experimental and monitored as part of the trial.
- Additional white lining on Swanwick Lane – the introduction of carriageway edge lines and the removal of centreline markings along Swanwick Lane. The new edge of carriageway lining and removal of the centre line will start west of Angler's Way, cease at the existing road markings designating the turning lane at Sopwith Way, and then continue again to the junction with Botley Road. This measure will create a change in the road environment aimed at reducing vehicle speeds. The impacts will be monitored as part of the formal trial.
- Pedestrian refuge island on the western end of Swanwick Lane at the eastern end of the lay-by near to the playground. This will provide a safer and more convenient pedestrian crossing for people wishing to access the recreational facilities and provide a traffic calming effect.
- Uncontrolled crossing on Botley Road to the north of Station Road - measures include new dropped kerbs, tactile paving, reflective bollards and a coloured road surfacing strip, designed to highlight the crossing point.
- Uncontrolled crossing on Botley Road near Beacon Bottom – measures include new dropped kerbs, tactile paving, reflective bollards and a coloured road surfacing strip, designed to highlight the crossing point.
- Pedestrian refuge island on Botley Road midway between Rookery Avenue and Calabrese. This will provide a safer and more convenient pedestrian crossing and provide a traffic calming effect.
- Relocation of bus stops on Yew Tree Drive near Gull Coppice – relocation of the bus stop to the east of Sweethills Crescent to improve visibility of on coming vehicles for pedestrians wishing to cross Yew Tree Drive; relocation of bus stop east of the Gull Coppice entrance to allow waiting buses to be clear of the informal crossing point.
- Speed cushions on the currently un-calmed arm of Sweethills Crescent. This will complement the existing speed cushions already in Place along Sweethills Crescent.
- 20mph speed limit on Yew Tree Drive in the vicinity of Gull Coppice to include the proposed Toucan crossing. This will complement the speed cushions proposed along Yew Tree Drive to ensure vehicle speeds are reduced, especially in the vicinity of the school.

- 1.4. The mitigation measures were implemented during the winter of 2013/14 and the trial opening commenced on 28 February 2014 for a period of three months.

1.5. During the trial opening, monitoring of the traffic took place to assist in determining how the local road network was affected by the bus gate being opened to all traffic. This monitoring took the form of

- Automatic traffic counts (ATC) at seven locations;
 - Yew Tree Drive Bus Gate;
 - Botley Road, north of the gate (south of Swanwick Lane);
 - Botley Road, south of the gate;
 - Swanwick Lane;
 - Yew Tree Drive near the school crossing patrol;
 - Leafy Lane, east of Whiteley Way (permanent ATC site);
 - Whiteley Way north of M27 jnc 9 (permanent ATC site);
- Manual Turning Counts;
 - Yew Tree Drive/Botley Road;
 - Swanwick Lane/Botley Road;
 - Swanwick lane/A27;
 - Botley Road/A334;
- HGV Monitoring;
- Accident monitoring and analysis;
- Air Quality; and
- Noise.

1.6. In addition to the monitoring being carried out a public consultation exercise was undertaken to determine public perception regarding the opening of the bus gate and the effectiveness of the mitigation measures.

1.7. Analysis of the monitoring data and the public consultation has been undertaken to assist in determining if it should be recommended that the bus gate remain open or be closed again.

2. Background

2.1. There is a bus link with a bus gate on Yew Tree Drive in Whiteley that stops general traffic from travelling between Botley Road and Whiteley via Yew Tree Drive. It is used by service bus route 28 from Fareham to Locks Heath and several works and school buses. Emergency vehicles can also use the bus gate.

- 2.2. Fareham Borough Council's saved policy T9: Access to Whiteley from the Local Plan Review (2000) remains current and states:
- (a) Road connections from Whiteley to Botley Road for general traffic will not be permitted until Whiteley Way is complete between Junction 9 on the M27 and the A3051 north of Curbridge.
 - (b) Bus only access from Botley Road to Yew Tree Drive and/or Rookery Avenue will be permitted provided that it can be demonstrated to be safe and satisfactory arrangements can be made to exclude other vehicular traffic.
- 2.3 Also there is a condition attached to the planning permission for the construction of the roundabout at the junction of Yew Tree Drive and Botley Road and the bus link on Yew Tree Drive. Condition 2 of Planning Permission P/05/1533/FP – Construction of Roundabout and Yew Tree Drive Link Road (Bus only Access) – 23 December 2005 states:
- “No development shall take place until details of the bus gate, including bus control measures, have been submitted to and approved by the Local Planning Authority in writing. The approved bus control measures shall be constructed before the bus link is first brought into use and shall be retained at all times. The link road shall be subsequently used by buses and emergency vehicles only unless otherwise agreed in writing by the Local Planning Authority following the submission of a planning application made for that purpose. Reason: In order to secure controlled use of the public highway in accordance with policies T5, T6 and T9 of the Fareham Borough Council Local Plan Review.”
- 2.4 Since the bus gate became operational in 2008, it has been open to all traffic on a number of occasions to deal with short term issues on the surrounding road network as required by Hampshire County Council as Highway Authority, in liaison with Fareham Borough Council and the emergency services. Reasons for a temporary opening have included traffic incidents, road works, and necessary diversion routes as well extreme weather such as during the recent winters where snow has caused disruption.
- 2.5 Over a three week period in July 2012 the bus gate was opened as a result of National Grid maintenance works in the area. This provided an opportunity to monitor traffic flows, with the bus gate open for a prolonged period of time, and represents the most up to date traffic monitoring during a scenario when the bus gate has been opened to all traffic.
- 2.6 Following the three week opening of the bus gate in 2012, a public consultation was undertaken in February 2013 where questionnaires were posted out to 5,228 properties in Whiteley asking people if they would support a trial opening of the bus gate and if so what traffic management measures they would consider necessary. The results identified that 83% of respondents supported a trial.
- 2.7 Taking account of the results of the consultation, Hampshire County Council agreed to progress with a formal trial opening of the bus gate. In light of the

planning condition outlined above, the Council was required to submit a planning application to Fareham Borough Council as Local Planning Authority, seeking a variation to Condition 2 associated with planning application P/05/1533/FP. This application was approved by the Borough Council on 23 August 2013.

- 2.8 Conditions pertaining to the implementation of mitigation measures and the monitoring of the trial opening were imposed on the County Council by the Borough. A number of mitigation measures outlined earlier in this report were implemented over the winter of 2013/14, with works being complete and the trial started on 28 February 2014 for a period of three months.
- 2.9 Due to the late running of the HA pier replacement project on the M27 and the inclement weather during the winter, the mitigation measures were implemented later than planned during the winter of 2013/14 and the trial opening commenced on 28 February 2014 for a period of three months. As a result of this it was necessary to apply to Fareham Borough Council for a 6 month extension to the permission for the trial opening of the bus gate to enable all the data gathered to be fully analysed, which was granted on 30 July 2014.
- 2.10 Following the completion of the trial period, a public consultation exercise was carried out in late June / early July 2014 to give people the opportunity to comment on whether they would support a permanent opening of the bus gate and what they thought the effect of the implemented mitigation measures had been.

3. Monitoring

Traffic counts

- 3.1. Traffic counts were carried out in May 2012, when the bus gate was closed, and March 2014 when the bus gate was open to all traffic. The monitoring that was carried out during the trial period mirrored, as closely as possible, the monitoring that was carried out during the periods when the bus gate was closed.

Daily Traffic Effects

A summary of the traffic effects over the day are indicated on Figure 1. The main changes to daily two way traffic flows between May 2012 and March 2014 were:

Yew Tree Drive Bus Gate: +6,452, +3,524 west bound, +2,928 east bound

Botley Road, north: +1,872 (+21%), +1245 north bound, +627 south bound

Botley Road, south: +2,393 (+26%), +1,585 north bound, +808 south bound

Swanwick Lane: +1,182 (+29%), +775 west bound, +407 east bound

Yew Tree Drive east: +1,684 (+22%), +874 west bound, +810 east bound

Leafy Lane: +474 (+13%), +143 west bound, +331 east bound

Whiteley Way: +852 (+4%), +704 north bound, +148 south bound

As expected there is an increase in vehicles using the bus gate now it is open, with the increase in traffic using Yew Tree Drive to the east of the bus gate being 22%. There is only a modest increase of 4% in overall traffic using Whiteley Way. However, the significant proportion of this (83%) is travelling north bound.

Of the additional 6,452 vehicles per day travelling through the bus gate onto Botley Road, 51% were exiting Yew Tree Drive and 49% were turning in. Of the 51% turning out 48% travelled north and 52% travelled south. Of the 48% travelling north, it is suggested that 9% travel onto Swanwick Lane leaving 39% travelling northwards to Burrridge. Southbound traffic on Botley Road increased by 26%, which is 5% more than the northbound increase.

3.2. AM Peak Effects

A summary of the traffic effects over the AM peak period (08:00 to 09:00) are indicated on Figure 2 and the main changes to the AM peak flows by direction were:

Yew Tree Drive Bus Gate: +831 2-way, +402 west bound, +429 east bound

Botley Road, north: +275 (+26%) 2-way, +176 n'bnd, +99 south bound

Botley Road, south: +243 (+23%) 2-way, +199 north bound, +44 south bound

Swanwick Lane: +213 (+45%) 2-way, +169 west bound, +44 east bound

Yew Tree Drive east: +280 (+36%) 2-way, +34 west bound, +246 east bound

Leafy Lane: -27 (-4%) 2-way, -52 west bound, +25 east bound

Whiteley Way: -489 (-15%) 2-way, -241 north bound, -248 south bound

Botley Road north takes more traffic than Botley Road south with 275 vehicles per hour (vph) compared to 243 vph. Some 213 additional vehicle movements are added on Swanwick Lane, suggesting only an extra 62 vph north towards Botley in the AM peak.

Yew Tree Drive east sees a 36% increase (+280 vph) but the majority of this is, as expected, east bound traffic (+246 vph).

Both Whiteley Way and Leafy Lane show a reduction in flows in the AM peak with Whiteley Way being down 15%.

Whilst two-way flows in the AM peak on Swanwick Lane have increased by 45%, this actually equates to an increase of 213 vehicles due to the low 'before' volumes. This effect is similar with Yew Tree Drive east, where volumes in the AM peak have increased by 36%, which equates to 280 vehicles.

3.3. PM Peak Effects

A summary of the traffic effect over the pm peak hour (17:00 to 18:00) is indicated on Figure 3 and the main changes to the PM peak flows by direction were:

Yew Tree Drive Bus Gate: +806 2-way, +537 west bound, +269 east bound

Botley Road, north: +224 (+22%) 2-way, +171 north bound, +53 south bound

Botley Road, south: +257 (+25%) 2-way, +108 north bound, +149 south bound

Swanwick Lane: +182 (+47%) 2-way, +99 west bound, +83 east bound

Yew Tree Drive east: +337 (+39%) 2-way, +265 west bound, +72 east bound

Leafy Lane: +58 (+11%) 2-way, +17 west bound, +41 east bound

Whiteley Way: -84 (-3%) 2-way, +15 north bound, -99 south bound

Swanwick Lane flows have increased by 47% in the PM peak hour which equates to 182 vehicles.

Yew Tree Drive east increases more in the PM peak hour than in the AM peak hour. In the PM peak hour it increases by 39% (+337 vph) with the main increase being an extra 265 vph westbound.

Whiteley Way traffic reduces by 3% in the PM peak hour, most of which is a reduction in south bound traffic.

3.4. Figures 1.2 and 3 summarise the changes in flow and the main effects, which include:

- traffic flows on all roads have increased;
- on Botley Road there is a more significant increase in traffic travelling north;
- on Swanwick Lane there is a bigger increase in traffic travelling west bound than east bound;

- traffic flows on Yew Tree Drive suggest that movements are tidal with the largest flow being east bound in the AM peak hour and west bound in the PM peak hour;
 - traffic flows on Whiteley Way have increased marginally, but the main difference has been to northbound flows which have increased by 6% compared to a 1% increase to southbound flows; and
 - Leafy Lane is experiencing greater increase in traffic flows southbound with flows increasing by 19% compared to an increase of 7% northbound.
- 3.5. It should be noted that between May 2012 when the traffic counts were taken with the bus gate closed and March 2014 when the counts with the bus gate open were taken, the new shopping village in Whiteley opened (May 2013). The opening of this new shopping centre will have had an impact on traffic coming into the area, but it is not possible to measure what increase in overall traffic levels is due to the shopping village and what increase is due to the bus gate opening. However it could be suggested that the AM and PM peak periods will be more representative of commuter movements than shopper movements, whilst the 12 hour counts include all relevant traffic movements.
- 3.6. Traffic counts were also carried out on Botley Road near Green Lane in Burrage. These were initially carried out in May 2013 before the shopping village opened and were repeated in March 2014 following construction of the mitigation measures. These counts show that traffic flows have gone down in both the AM and PM peaks and also over the 12 hour average although only by a relatively small amount. 2-way 12 hour 5 day average counts recorded a drop in traffic of 5.26% which equates to 488 vehicles.

Turning Counts

- 3.7. Turning counts were carried out at four junctions: Yew Tree Drive with Botley Road, Swanwick Lane with Botley Road, Swanwick Lane with the A27, and Botley Road with A334. Initial counts were carried out from 7am to 7pm on Thursday 16 May 2013, which was while the bus gate was open but before the opening of the new Whiteley Shopping Village. These showed the following:
- of the 2,623 vehicles that turned out of Yew Tree Drive, 1,373 turned left to travel south of Botley Road and 1250 turned right to travel north;
 - 1,249 vehicles travelling north on Botley Road turned into Yew Tree Drive while 4,065 carried straight on;
 - of the 5,315 vehicles travelling north after Yew Tree Drive, 1,880 vehicles turned left into Swanwick Lane and 3435 carried straight on;

- of the 2,162 vehicles turning out of Swanwick Lane onto Botley Road, 614 travelled north while 1,548 turned to go south;
- of the 5,365 vehicles travelling south of Swanwick Lane on Botley Road, 1,243 turned into Yew Tree Drive while 4,122 carried on travelling south;
- of the 2,892 vehicles turning out of Swanwick Lane onto the A27, 2,183 turned right to travel north and 709 turned left to travel south; and
- of the 2,403 vehicles turning into Swanwick Lane from the A27, 1,814 came from the north and 589 came from the south.

3.8. These counts were then repeated from 7am to 7pm on Thursday 20 March 2014 during the monitoring period for the bus gate opening. These showed:

- of the 3,410 vehicles that turned out of Yew Tree Drive, more vehicles travelled south (1,722) than turned to travel north (1,638);
- 1,708 vehicles travelling north on Botley Road turned into Yew Tree Drive while 4,065 carried straight on;
- of the 5,703 vehicles travelling north after Yew Tree Drive, 2,279 turned into Swanwick Lane and 3,424 carried straight on;
- of the 2,259 vehicles turning out of Swanwick Lane onto Botley Road, 634 travelled north while 1,625 turned to go south;
- of the 5,458 vehicles travelling south of Swanwick Lane on Botley Road, 1,508 turned into Yew Tree Drive while 3,950 carried on travelling south;
- of the 2,941 vehicles turning out of Swanwick Lane onto the A27, 2,302 turned right to travel north and 639 turned left to travel south; and
- of the 2,472 vehicles turning into Swanwick Lane from the A27, 1,818 came from the north and 654 came from the south.

3.9. Comparing the 12 hour before and after the opening of Whiteley Shopping Village, whilst traffic volumes have increased slightly the proportions of turning vehicles have remained fairly consistent although slightly more vehicles travelling from the south are turning into Swanwick Lane and similarly slightly more vehicles travelling from the north are turning into Yew Tree Drive suggesting an increase in the movement from Yew Tree Drive to Swanwick Lane and visa versa. Before and after turning count data is provided in Figures 4 and 5.

HGV monitoring

3.10. HGV movements were observed as part of the turning counts carried out on 20 March 2014 as detailed above. In the 12 hours from 7am to 7pm only 2 vehicles turned out of Yew Tree Drive and 3 turned in.

- 3.11. At the Yew Tree Drive junction with Rookery Avenue, 14 HGVs turned into Yew Tree Drive, 1 from Rookery Avenue West and 13 from Rookery Avenue East, while 15 turned out of Yew Tree Drive all to travel east towards Whiteley.
- 3.12. From Swanwick Lane 18 HGVs turned onto Botley Road, 6 to travel north and 12 to travel south.
- 3.13. From the A27 8 HGVs turned right to travel along Swanwick Lane and 16 turned left into Swanwick Lane, giving a total of 24 HGVs travelling along Swanwick Lane from the A27.
- 3.14. The monitoring data therefore suggests a good adherence to the weight limit restriction. This data is shown in Figure 5.

Accident Monitoring

- 3.15. In the three years 1 November 2010 to 31 October 2013 there were 30 personal injury accidents recorded by the police. Of these:
 - 15 occurred on Botley Road between its junction with the A334 to the north and its junction with Station Road in the south;
 - one occurred in Leafy Lane, five occurred on Whiteley Way near or at the roundabout with Rookery Avenue;
 - two took place near or at the Rookery Avenue/Solent Way roundabout;
 - one occurred at the junction of Yew Tree Drive with Rookery Avenue;
 - two occurred on Yew Tree Drive at its junction with Gull Coppice;
 - three took place on Swanwick Lane; two at the junction with A27 and one near the junction with New Road; and
 - one occurred on Yew Tree Drive at the junction with Sweethills Crescent.
- 3.16. Since the introduction of the scheme there have been no personal injury accidents recorded by the police for the period from 1 March 2014 to 31 May 2014. It is appreciated that this is only 3 months worth of data but accident records will continue to be monitored.

Air Quality

- 3.17. The increased traffic flows on certain road links as a result of the bus gate being open to all traffic may have an impact on local air quality. To quantify this, air quality monitoring with respect to traffic is measured through recording the levels of nitrogen dioxide. In liaison with Fareham Borough Council a methodology for sampling and locations for samples to be taken was agreed, and the monitoring was carried out by consultants CH2MHill.

- 3.18. An air quality survey was carried out from January to the end of May 2014, to measure the concentration of nitrogen dioxide at locations intended to be representative of public exposure, within the practicalities of making the measurements at publically accessible locations. The measurements made relate to the annual mean, and were made using passive diffusion tubes. The measurement locations are shown in Figure 6. With the exception of one location of Botley Road, which is being followed up by Fareham Borough Council and may be affected by emissions from the M27 motorway, all of the measurements are within the EU and national standards. On this basis it may be concluded that the opening of the bus gate has not led to a breach of the air quality standard for nitrogen dioxide.

Noise

- 3.19. Noise surveys were undertaken at what were considered to be four positions representative of where noise conditions were likely to change following the opening of the bus gate. The surveys were undertaken over various periods to capture the changes that occur during the day and during the week.
- 3.20. Whilst there are no limits set for outside noise levels, a daytime level of 55 LAeq, dB is quoted by the World Health Organisation as the level where serious annoyance may start to occur, whilst night time noise level guidance (NNG) is set at 40dB but with a 55dB level that is recommended as an interim target where the NNG cannot be achieved in the short term.
- 3.21. Of the four locations identified on Figure 6, three were directly representative of houses, and at these the measured level was just above the upper desirable levels for gardens of 50 dB as specified in BS8233 and in some cases were just above the upper desirable daytime level for gardens of 55dB.
- 3.22. The second Botley Road noise monitoring locations (position 4 – north of Yew Tree Drive) showed that daytime levels exceeded the 55dB limit.
- 3.23. At two of the locations, Botley Road (position 1 just south of the bus gate) and Lipizzaner Fields, measurements were also undertaken at night. These measured levels were above the World Health Organisation guidelines of 40dB but below the 55dB that is recommended as an interim target.
- 3.24. Although there are no control readings against which to compare the level of noise, it is safe to assume that given the increase in traffic levels along Yew Tree Drive, noise levels would have increased. However what it is not possible to say is how much these levels have increased by and it is not possible to make any judgement regarding possible increases or decreases in noise levels on Botley Road.

Speeds

- 3.25. Before and after vehicle speeds were taken at eight locations: A334, Botley Road north of the bus gate, Botley Road south of the bus gate, Swanwick

Lane, Yew Tree Drive at the bus gate, Yew Tree Drive north of Rookery Avenue, Whiteley Way and Leafy Lane as shown in Figure 7. All locations apart from Yew Tree Drive at the bus gate, Whiteley Way southbound and Botley Road south of the bus gate southbound showed a reduction in 12hr mean average vehicle speeds with Whiteley Way only showing a 0.1% increase from 35.3 to 35.4mph and Botley Road showing a 1.86% increase from 32.2 to 32.8mph.

- 3.26. The largest reductions in speeds were experienced in Yew Tree Drive and Swanwick Lane. Yew Tree Drive showed reductions in 12 hours mean average of 26.8% westbound and 17.01% eastbound, while Swanwick Lane showed reductions of 11.9% westbound and 11.89% eastbound.

4. Consultation

- 4.1 Public consultation was carried out in June/July 2014. Local businesses and residents were informed of the works that had been implemented as one of the conditions attached to the planning permission given by Fareham Borough Council for the opening of the bus gate and were asked to fill out a questionnaire to share their views on the effectiveness of the scheme and whether they support a permanent opening of the bus gate.
- 4.2 Questionnaires were sent out to 5,291 properties in Whiteley (4,713 to residents and 578 to businesses). A total of 2,128 responses were received by post and online. The first question was "Do you support the permanent opening of the bus gate?". 86% of respondents answered yes to this question, while 11% said no and 3% did not answer the question. When these responses were broken down further into specific areas there was a majority in support of opening the bus gate permanently from each of Burridge, Swanwick, Park Gate and Whiteley.
- 4.3 A question was also asked regarding whether the temporary opening has had a positive or negative effect on a number of traffic impacts. The results are shown in Table 1.

Response Traffic Impact	Better than before	Worse than before	Not sure	No reply
Control of vehicle speeds	68% (1456)	13% (283)	16% (343)	2% (46)
Volume of traffic	38% (811)	33% (712)	26% (555)	2% (50)
Journey times	76% (1609)	14% (292)	9% (182)	2% (45)
HGV impact	37% (787)	6% (133)	53% (1132)	4% (76)
On street parking	31% (665)	13% (276)	52% (1109)	4% (78)
General Pedestrian safety	65% (1382)	12% (250)	21% (448)	2% (48)
School crossing safety	68% (1446)	5% (100)	24% (518)	3% (64)
Congestion	55% (1161)	24% (514)	19% (406)	2% (47)

Table 1 Consultation responses

- 4.4 For all of the measures apart from the HGV impact the consensus was that the temporary opening had had a positive effect with the situation being better than before; for the impact of HGVs there was a feeling of uncertainty with the majority of 53% being unsure.
- 4.5 68% of respondents felt that the opening and associated works has had a positive effect on the control of vehicle speeds with 76% believing that journey times were better than before.
- 4.6 The impact of the opening on traffic volumes showed a fairly even split with 38% experiencing a positive effect, 33% finding a negative impact and 26% being unsure.
- 4.7 The full results of the consultation will be made available on the web site when they are available.
- 4.8 While the consultation results indicate that the majority of residents supported the bus gate opening, the comments that were made also identified that respondents remain concerned about the speed cushions that have been installed in Yew Tree Drive. 30 respondents feel that there are

too many, 79 believe they have made things worse, 59 feel they have created a new hazard and 84 would like to see them changed to full width humps.

4.9 The consultation also asked people if there were any further measures that should be looked into:

- 209 people felt that speed was an issue that needed to be addressed further. 55 people in Swanwick Lane felt that speed was an issue with 41 people on Botley Road feeling the same.
- 200 people felt that the issue of parking needed to be addressed in the consultation area. In Yew Tree Drive 154 people perceive there to be parking issues with lack of parking at the GP surgery being the main issues with the need for more control measures across the whole of the study area being the second highest concern.
- 70 respondents requested additional traffic management measures (excluding speed cushions) with 34 of those being from Swanwick Lane.
- 161 respondents commented on traffic flows with 29 raising concerns about rat running and 67 feeling that flows had increased.
- 53 people commented on quality of life issues with 20 suggesting that better or safer non-vehicular access was needed to local amenities whilst only 3 commented on a reduction in air quality, 8 felt it was noisier since the bus gate was opened and 6 felt that they were adversely affected by the changes.

4.10 Other areas of concern that were mentioned in the consultation were increased problems with congestion at Solent Hotel Roundabout, and difficulties with getting out of Beacon Bottom onto Botley Road

5 North Whiteley Development – Solent Local Enterprise Partnership (LEP) Local Growth Deal

- 5.1 Winchester City Council have included a strategic housing allocation within their Core Strategy for 3500 new dwellings on land north of Whiteley. The development has been planned for a number of years and a planning application is expected in November 2014. The development will include the completion of Bluebell Way and Whiteley Way, which will join Botley road at points north of Burridge and Curbridge respectively.
- 5.2 In July 2014 the developer of the North Whiteley site and Winchester City Council secured £14m funding from the Solent LEP towards the completion of Whiteley Way. The funding is subject to a full business case which is in preparation. This work has shown that the completion of Whiteley Way is not feasible within the timescales set by the Solent LEP, which require £3.7m to be spent in 2015/16. As a result the developer and the City

Council have requested the County Council's support for a revised proposal involving the completion of Bluebell Way, the improvement of the existing Whiteley Way between R3 (Tesco roundabout) and the Solent Hotel Roundabout, and the construction of Whiteley Way between R3 and the location of the proposed secondary school within the North Whiteley development.

- 5.3 Initial traffic assessments of the impact of opening Bluebell Way in advance of Whiteley Way being completed indicate benefits for Burrridge but potentially some increases for Swanwick Lane. Further testing will be carried out through the full business case process and mitigation measures secured in the North Whiteley Section 106 Agreement to implement further traffic management measures on Swanwick Lane.

6 Conclusion and Future direction

- 6.1 In light of the data obtained from the public consultation exercise, there appears to be strong support for keeping the bus gate open.
- 6.2 Whilst it is recognised from the outcomes of the public consultation that the speed cushions on Yew Tree Drive are not universally popular, the monitoring of vehicle speeds suggests that they have been successful in bringing about a significant reduction in speeds. One of the primary reasons for using speed cushions on Yew Tree Drive was the use of this road by buses and emergency vehicles. Given that the bus gate at the end of Yew Tree Drive was installed to allow buses and emergency vehicles to exit onto Botley Road but to restrict access by private vehicles, the use of speed humps, which are not practical for buses or emergency vehicles, would be counterintuitive. Discussions with the bus companies have indicated they would have reservations with these measures and the impact they have on their vehicles and their passengers. There is the concern that this may cause the bus companies to re route around this area.
- 6.3 Concerns were raised about the increase in traffic and speed along Swanwick Lane and although the monitoring data supports the perception of increased vehicle flows it does not support the view that vehicle speeds have increased. It is therefore recommended that work be carried out to identify measures on Swanwick Lane that could help to address concerns relating to rat running and crossing issues as well as the queuing issues at the junction of Swanwick Lane and the A27 due to the short length provided for two lanes of traffic at the signals.
- 6.4 Although noise and air quality will have been impacted to some degree by the opening of the bus gate, air quality is still within recommended guidelines. Yew Tree Drive is a public highway and whilst the bus gate restricted the use of the road to buses and emergency vehicles it has often been opened to allow Yew Tree Drive to be used as an access during emergencies or periods of heavy congestion. It has always been clear that

this access would be permanently opened at some time in conjunction with the completion of a Northern access to Whiteley.

- 6.5 Whilst traffic levels on Botley Road have increased, the increase appears to be greatest between Yew Tree Drive and Swanwick Lane junction, which supports the hypothesis that vehicles are using Yew Tree Drive and Swanwick Lane as a cut through from the A27 to Whiteley. Also volumes to the north of Swanwick Lane on Botley Road have not increased, with traffic counts through BurrIDGE showing a slight reduction in volumes in both directions.

7 Recommendations

- 7.2 That an application for a variation to Condition 2 of Planning Permission P/05/1533/FP, be made to Fareham Borough Council for the permanent opening of Yew Tree Drive bus gate.
- 7.3 That a study be carried out to identify additional measures for Swanwick Lane to reduce vehicle speeds, aid pedestrians, deter rat running and improve vehicle queues on Swanwick Lane at the signalised junction with the A27.
- 7.4 That a study be carried out to identify additional measures for Botley Road to reduce vehicle speeds and aid pedestrians.
- 7.5 That the speed cushions on Yew Tree Drive be assessed with a view to making any necessary amendments or additions as required.

Figure 1

A334 Botley - 50130002				
	Bef	Aft	Diff	% Diff
E'bd	8187	8220	33	0.40%
W'bd	7653	7979	326	4.26%
2 Way	15840	16199	359	2.27%

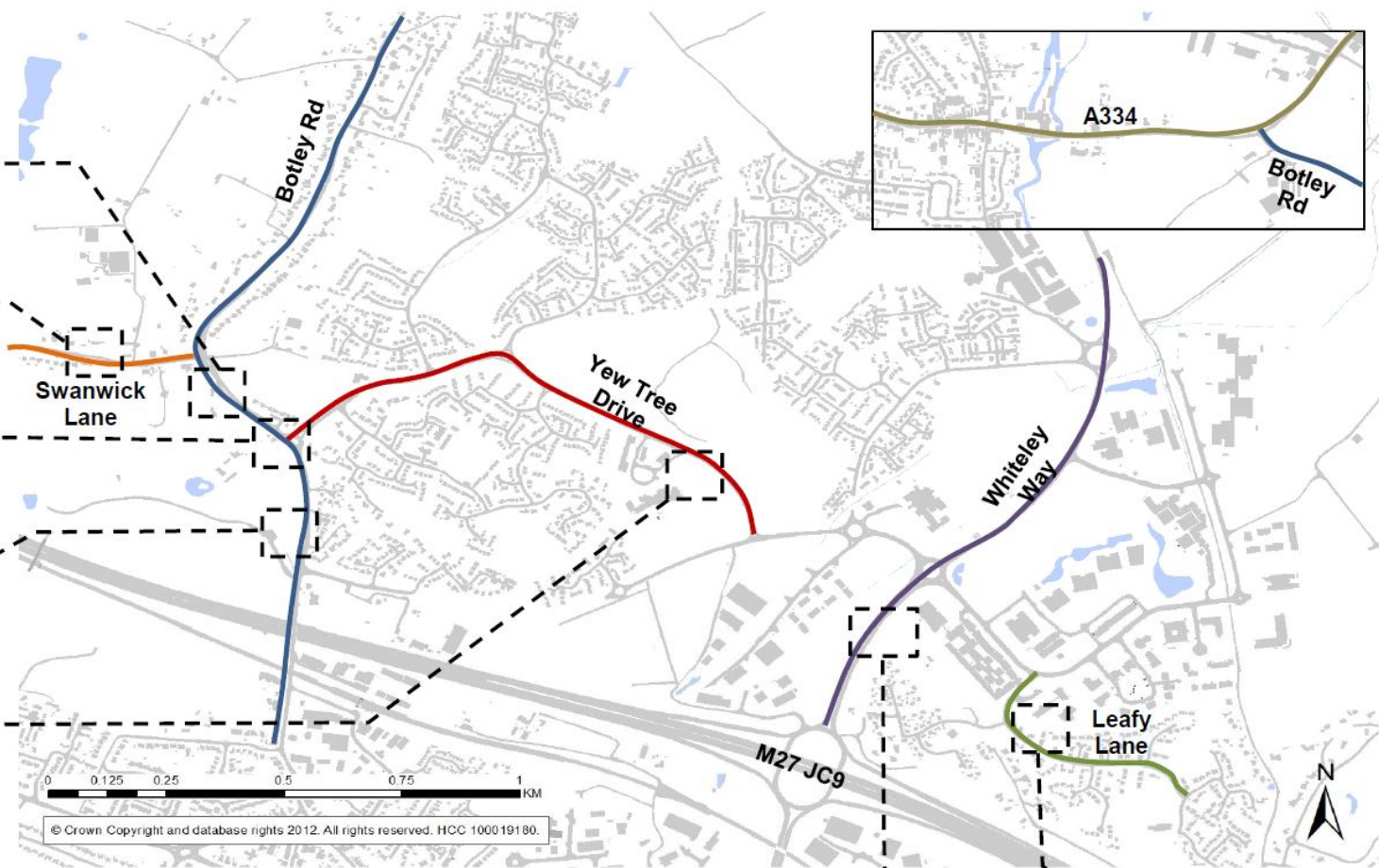
Botley Rd N'th of Bus Gate - 51092213				
	Bef	Aft	Diff	% Diff
N'bd	4442	5687	1245	28.03%
S'bd	4585	5212	627	13.68%
2 Way	9027	10899	1872	20.74%

Swanwick Lane - 51090241				
	Bef	Aft	Diff	% Diff
W'bd	2117	2892	775	36.61%
E'bd	1982	2389	407	20.53%
2 Way	4099	5281	1182	28.84%

Yew Tree Drive Bus Gate - 51092211				
	Bef	Aft	Diff	% Diff
W'bd	58	3582	3524	6075.86%
E'bd	106	3034	2928	2762.26%
2 way	164	6616	6452	3934.15%

Botley Rd S'th of Bus Gate - 51092212				
	Bef	Aft	Diff	% Diff
N'bd	4301	5886	1585	36.85%
S'bd	4782	5590	808	16.90%
2 Way	9083	11476	2393	26.35%

Yew Tree Drive - 52099214				
	Bef	Aft	Diff	% Diff
N'bd	3793	4667	874	23.04%
S'bd	4035	4845	810	20.07%
2 way	7828	9512	1684	21.51%



12 hr 7am -7pm

Before: May 2012 . Gate Status: Closed.
After: March 2014; Gate Status Open.

Whiteley Way - 4790145				
	Bef	Aft	Diff	% Diff
N'bd	11332	12036	704	6.21%
S'bd	11467	11615	148	1.29%
2 way	22799	23651	852	3.74%

Leafy Lane - 3330148				
	Bef	Aft	Diff	% Diff
N'bd	1964	2107	143	7.28%
S'bd	1703	2034	331	19.44%
2 way	3667	4141	474	12.93%

Figure 2

A334 Botley - 50130002				
	Bef	Aft	Diff	% Diff
E'bd	831	826	-5	-0.60%
W'bd	780	795	15	1.92%
2 Way	1611	1621	10	0.62%

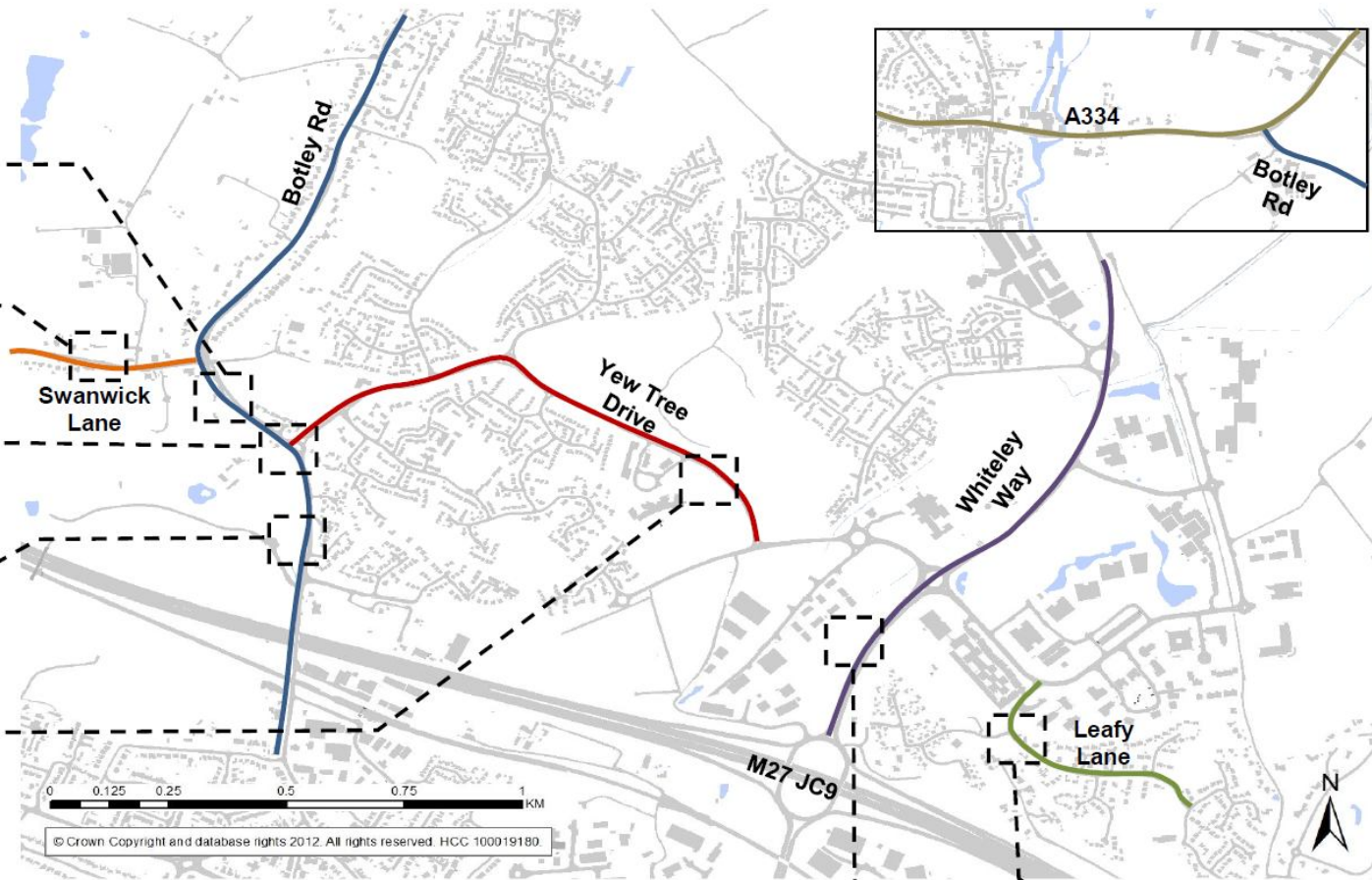
Botley Rd N'th of Bus Gate - 51092213				
	Bef	Aft	Diff	% Diff
N'bd	534	710	176	32.96%
S'bd	521	620	99	19.00%
2 Way	1055	1330	275	26.07%

Swanwick Lane - 51090241				
	Bef	Aft	Diff	% Diff
W'bd	261	430	169	64.75%
E'bd	213	257	44	20.66%
2 Way	474	687	213	44.94%

Yew Tree Drive Bus Gate - 51092211				
	Bef	Aft	Diff	% Diff
W'bd	9	411	402	4466.67%
E'bd	23	452	429	1865.22%
2 way	32	863	831	2596.88%

Botley Rd S'th of Bus Gate - 51092212				
	Bef	Aft	Diff	% Diff
N'bd	508	707	199	39.17%
S'bd	544	588	44	8.09%
2 Way	1052	1295	243	23.10%

Yew Tree Drive - 52099214				
	Bef	Aft	Diff	% Diff
N'bd	233	267	34	14.59%
S'bd	555	801	246	44.32%
2 way	788	1068	280	35.53%



AM Peak: 8-9am

Before: May 2012 . Gate Status: Closed.
After: March 2014: Gate Status Open.

Whiteley Way - 4790145				
	Bef	Aft	Diff	% Diff
N'bd	2296	2055	-241	-10.50%
S'bd	871	623	-248	-28.47%
2 way	3167	2678	-489	-15.44%

Leafy Lane - 3330148				
	Bef	Aft	Diff	% Diff
N'bd	502	450	-52	-10.36%
S'bd	140	165	25	17.86%
2 way	642	615	-27	-4.21%

Figure 3

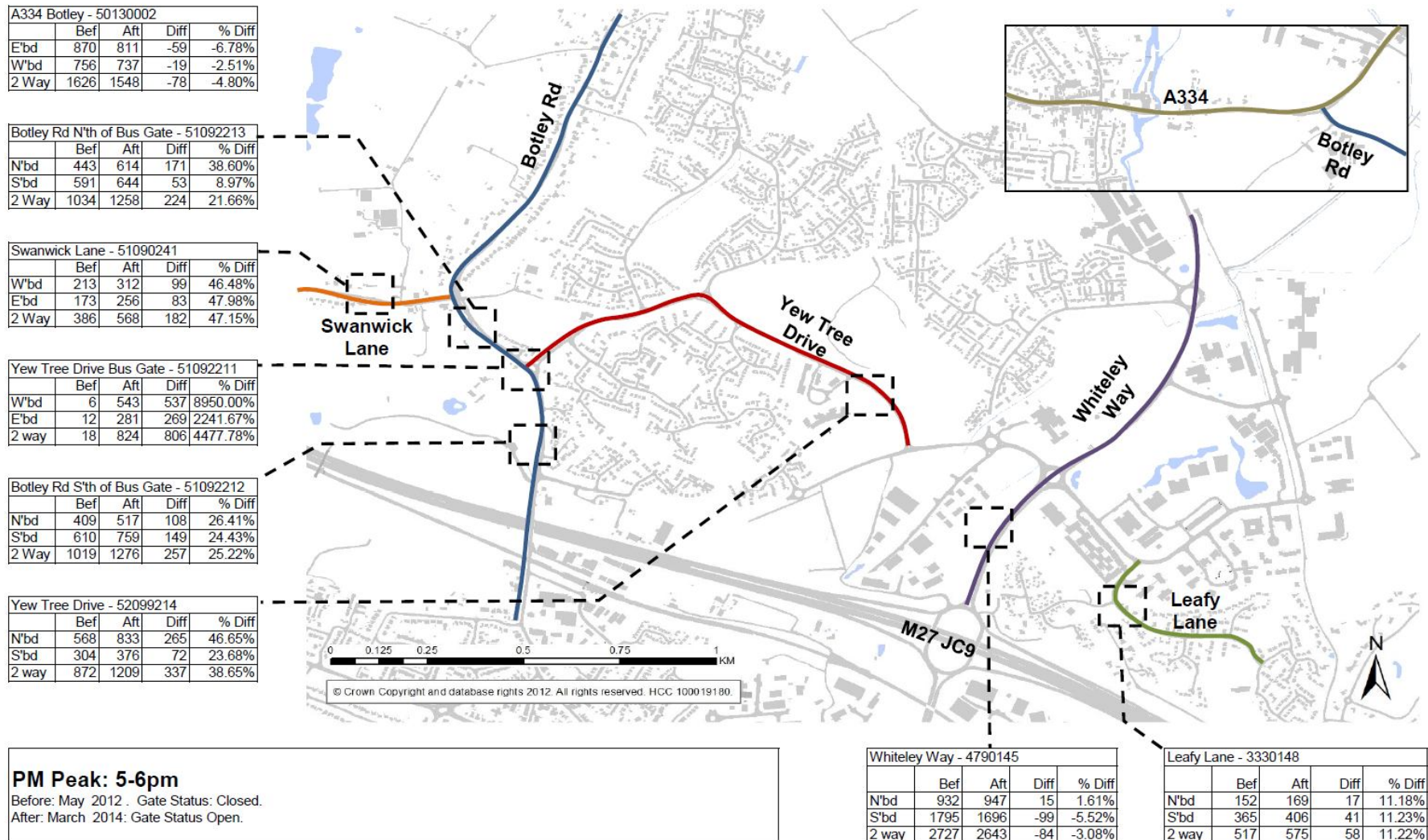
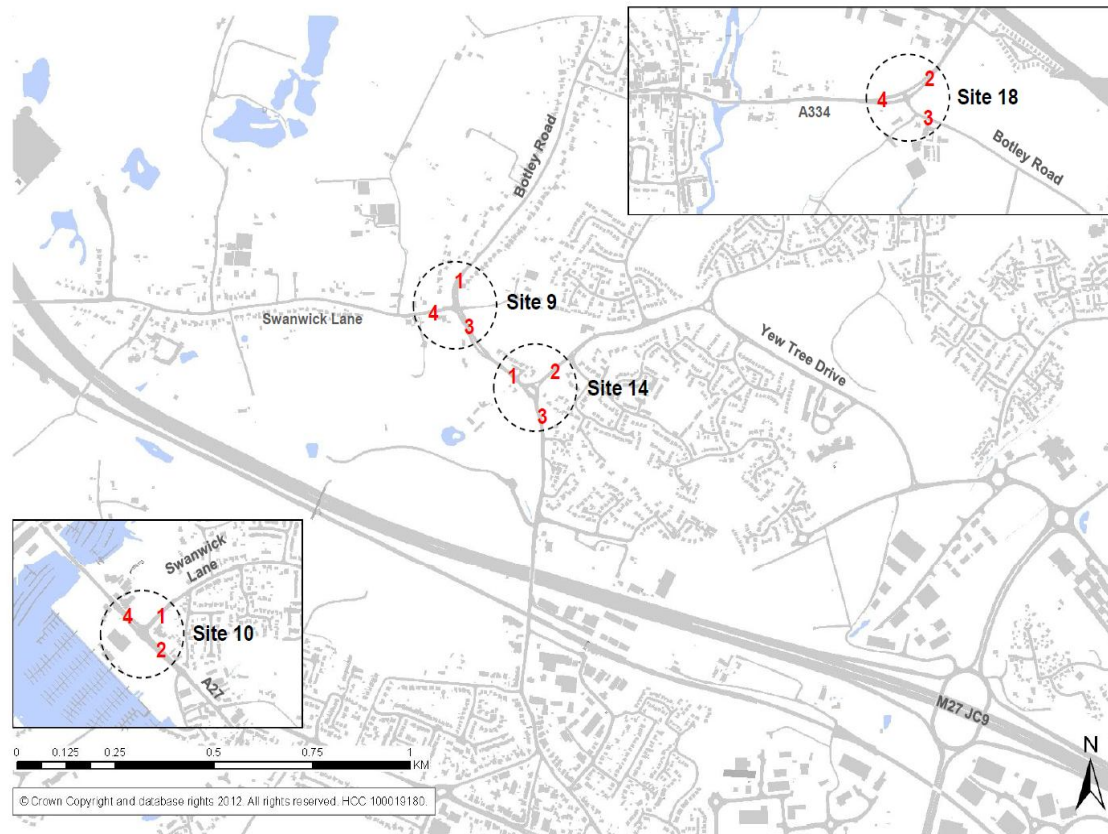


Figure 4

Appro'h	Dest'n	Total	HGV	HGV %
1	3	3817	90	2.36%
1	4	745	8	1.07%
3	1	3435	72	2.10%
3	4	1880	4	0.21%
4	1	614	6	0.98%
4	3	1548	9	0.58%
1,4	3	5365	99	1.85%
1,3	4	2625	12	0.46%
3,4	1	4049	78	1.93%
4	1,3	2162	15	0.69%

Appro'h	Dest'n	Total	HGV	HGV %
1	2	709	3	0.42%
1	4	2183	7	0.32%
2	1	589	11	1.87%
4	1	1814	9	0.50%
4,2	1	2403	20	0.83%
1	4,2	2892	10	0.35%



Appro'h	Dest'n	Total	HGV	HGV %
2	3	1771	44	2.48%
2	4	5407	136	2.52%
3	2	1709	50	2.93%
3	4	1976	31	1.57%
4	2	5569	156	2.80%
4	3	2215	35	1.58%
2,4	3	3986	79	1.98%
2,3	4	7383	167	2.26%
3,4	2	7278	206	2.83%
3	2,4	3685	81	2.20%

Appro'h	Dest'n	Total	HGV	HGV %
1	2	1243	5	0.40%
2	1	1250	6	0.48%
2	3	1373	1	0.07%
3	2	1249	1	0.08%
1	3	4122	94	2.28%
3	1	4065	70	1.72%
1,3	2	2492	6	0.24%
1,2	3	5495	95	1.73%
3,2	1	5315	76	1.43%
2	1,3	2623	7	0.27%

Turning Counts - 12 HR (7am - 7pm)

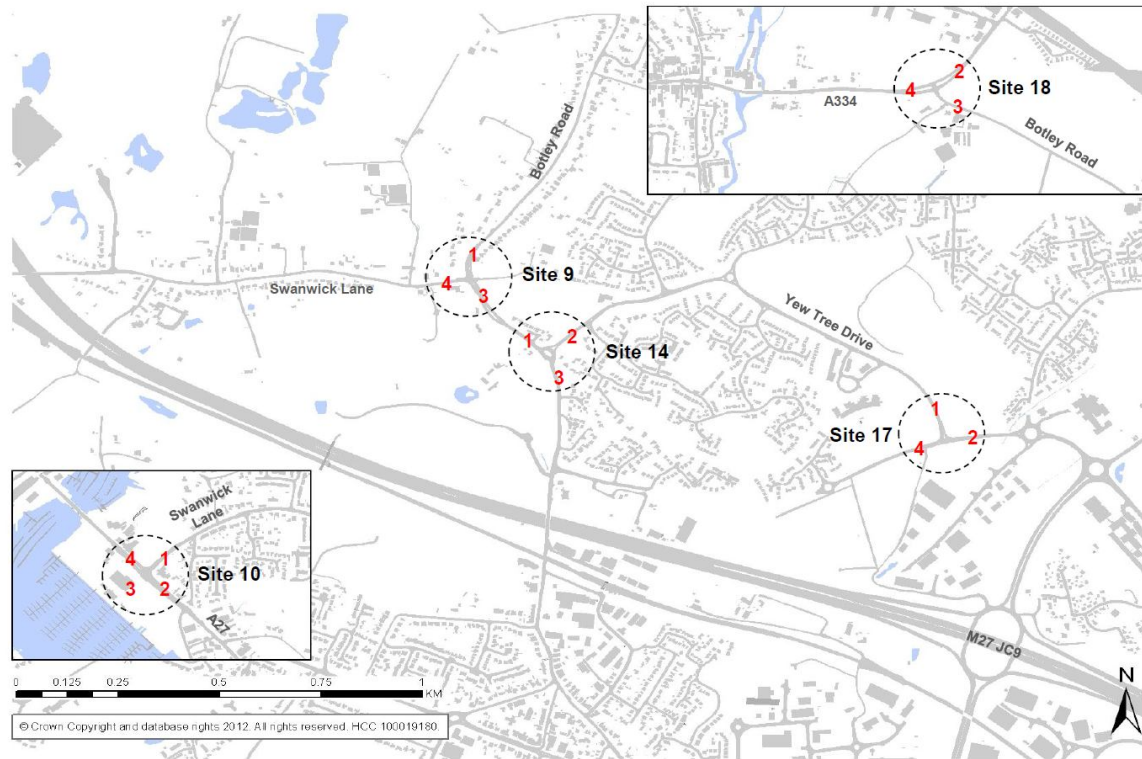
Note: Site 18 survey carried out in Nov 2012. Sites 9, 10, & 14 surveys carried out in May 2013.

Note: Site 10 - no through data available along A27

Figure 5

Site 9 12HR - Swanwick Lane / Botley Rd				
Appro'h	Dest'n	Total	HGV	HGV %
1	3	3833	57	1.49%
1	4	622	10	1.61%
3	1	3424	71	2.07%
3	4	2279	13	0.57%
4	1	634	6	0.95%
4	3	1625	12	0.74%
1,4	3	5458	69	1.26%
1,3	4	2901	23	0.79%
3,4	1	4058	77	1.90%
4	1,3	2259	18	0.80%

Site 10 12HR - Swanwick Lane / A27				
Appro'h	Dest'n	Total	HGV	HGV %
1	2	639	9	1.41%
1	4	2302	9	0.39%
2	1	654	8	1.22%
2	4	7609	78	1.03%
4	1	1818	16	0.88%
4	2	7815	84	1.07%
1,4	2	8454	93	1.10%
1,2	4	9911	87	0.88%
4,2	1	2472	24	0.97%
1	4,2	2941	18	0.61%
2	4,1	8263	86	1.04%
4	2,1	9633	100	1.04%



Site 18 12HR - Botley Road / A334				
Appro'h	Dest'n	Total	HGV	HGV %
2	3	1869	102	5.46%
2	4	5449	196	3.60%
3	2	1608	107	6.65%
3	4	2200	55	2.50%
4	2	5430	214	3.94%
4	3	2554	44	1.72%
2,4	3	4423	146	3.30%
2,3	4	7649	251	3.28%
3,4	2	7038	321	4.56%
3	2,4	3808	162	4.25%

Site 14 12HR Botley Road / Yew Tree Drive				
Appro'h	Dest'n	Total	HGV	HGV %
1	2	1508	2	0.13%
2	1	1638	1	0.06%
2	3	1772	1	0.06%
3	2	1708	1	0.06%
1	3	3950	67	1.70%
3	1	4065	83	2.04%
1,3	2	3216	3	0.09%
1,2	3	5722	68	1.19%
3,2	1	5703	84	1.47%
2	1,3	3410	2	0.06%

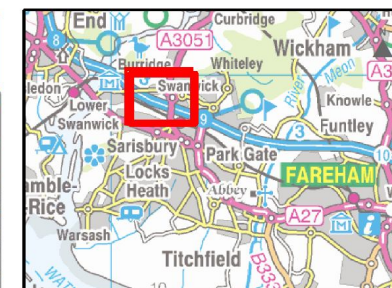
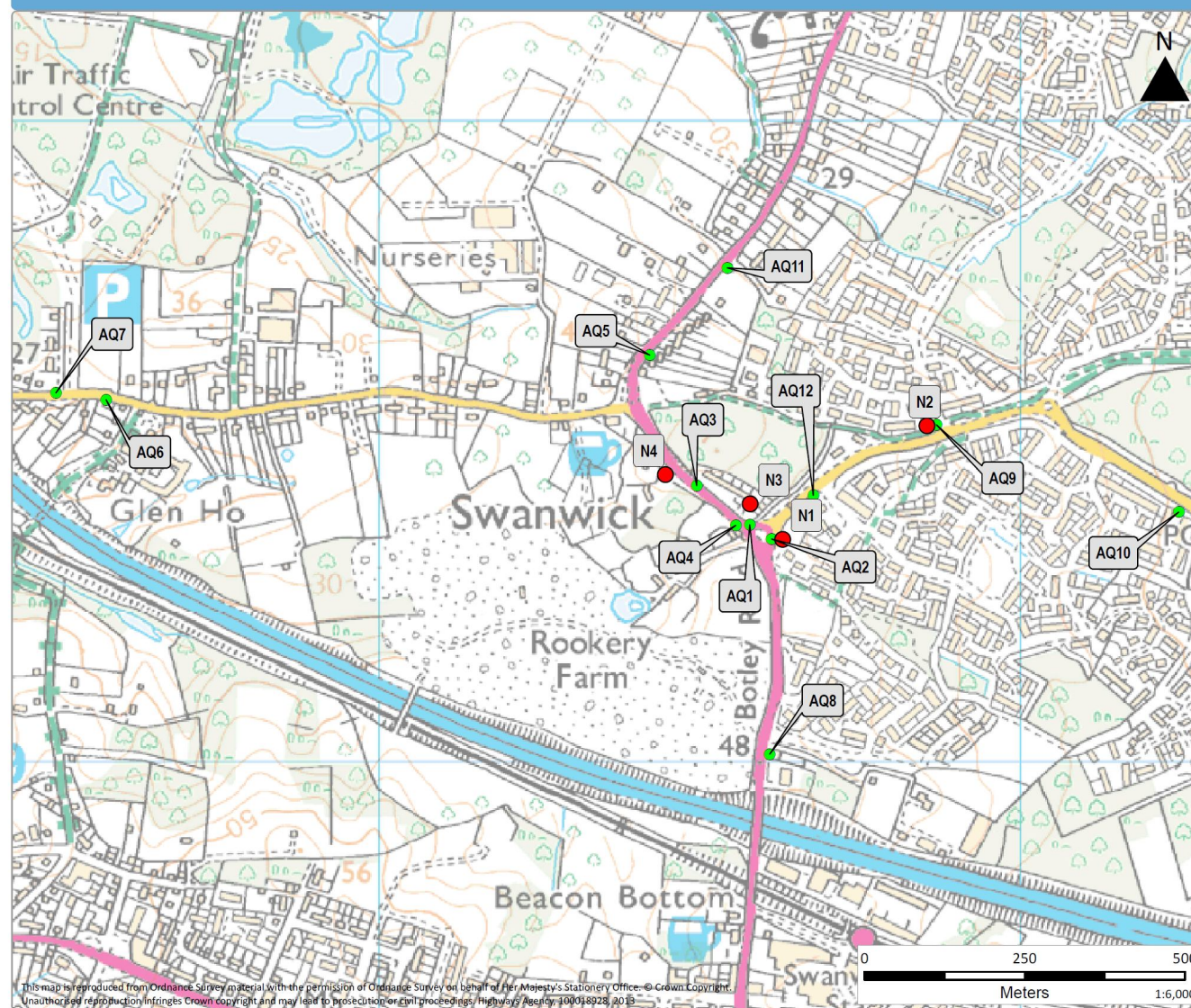
Site 17 12HR - Yew Tree Drive/Rookery Avenue				
Appro'h	Dest'n	Total	HGV	HGV %
1	2	4565	15	0.33%
1	4	87	0	0.00%
2	1	4675	13	0.28%
2	4	280	0	0.00%
4	1	120	1	0.83%
4	2	267	0	0.00%
1,4	2	4832	15	0.31%
1,2	4	367	0	0.00%
4,2	1	4795	14	0.29%
1	2,4	4652	15	0.32%

Turning Counts - 12 HR (7am - 7pm) March 2014

Note: Site 10 boat yard turn (3) was not included when 12HR turning counts were done. All vehicles associated with that turn were discounted

Figure 6

Air Quality and Noise Survey Locations



Legend

- Air Quality Measurement Locations
- Noise Measurement Locations



Created by: LF (14/03/2014)
Checked by: GA (14/03/2014)

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Document Path: \\Leeds-fs-01\Consulting\Projects\Environment\Air Quality\Jobs\2014\480346.AK.00.01 - Fareham\GIS\Fareham N02 DT Survey.mxd

Figure 7

A334 Botley - 50130002				
	Before	After	Diff	% Diff
E'bd	32.7	32.5	-0.2	-0.61%
W'bd	31.6	31.1	-0.5	-1.58%

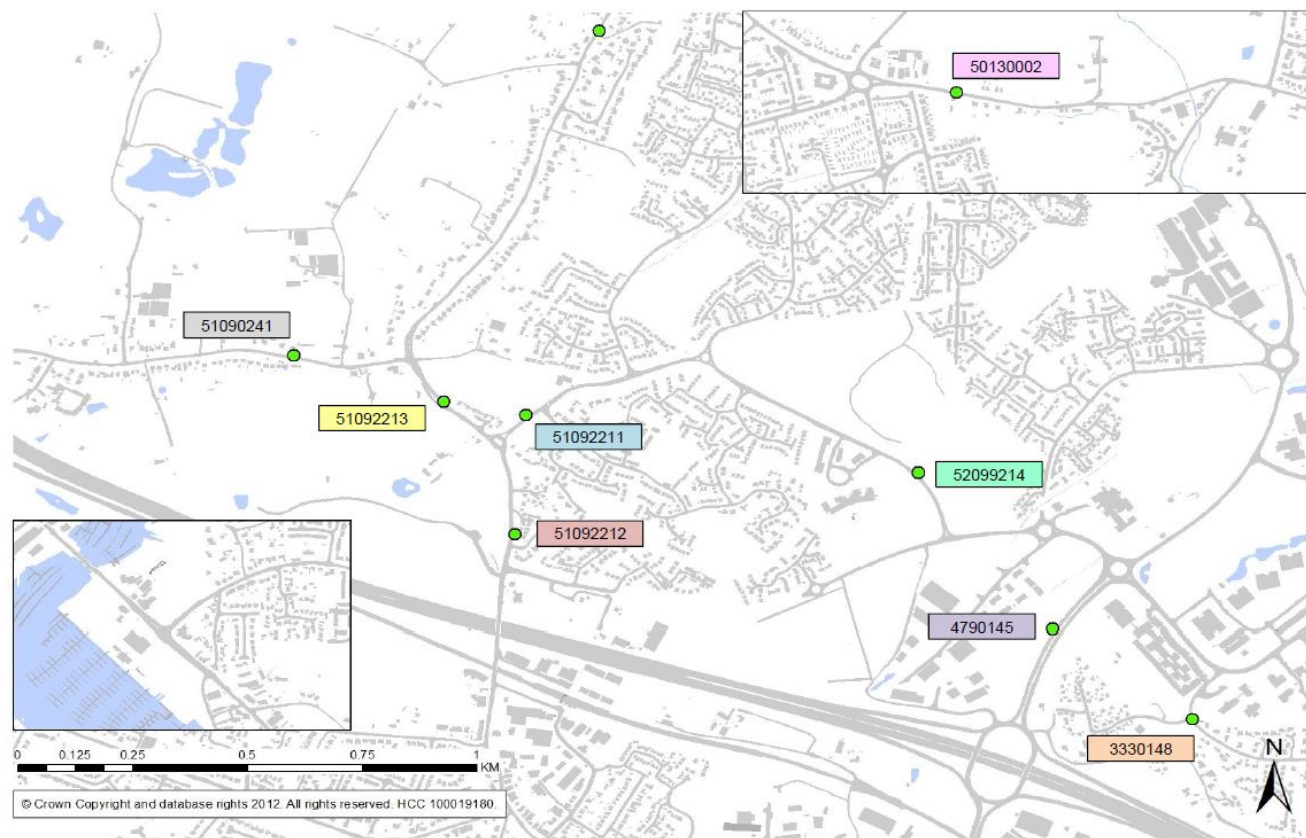
Botley Road North of Bus Gate - 51092213				
	Before	After	Diff	% Diff
N'bd	31.1	30.4	-0.7	-2.25%
S'bd	31.6	31.2	-0.4	-1.27%

Swanwick Lane - 51090241				
	Before	After	Diff	% Diff
W'bd	33.6	29.6	-4	-11.90%
E'bd	32.8	28.9	-3.9	-11.89%

Yew Tree Drive Bus Gate - 51092211				
	Before	After	Diff	% Diff
W'bd	15	21.7	6.7	44.67%
E'bd	17.1	23.3	6.2	36.26%

Botley Road South of Bus Gate - 51092212				
	Before	After	Diff	% Diff
N'bd	34.9	33.2	-1.7	-4.87%
S'bd	32.2	32.8	0.6	1.86%

Yew Tree Drive - 52099214				
	Before	After	Diff	% Diff
N'bd	29.1	21.3	-7.8	-26.80%
S'bd	29.4	24.4	-5	-17.01%



Vehicle Speeds

Before: Fri May 11th - Tues May 15th 2012 (Sat & Sun excluded). Gate Status: Closed. 3day 12hr Mean Average
 After: March 17th - 30th 2014: Gate Status Open. 2wk 5day 12hr Mean Average

Whiteley Way - 4790145				
	Before	After	Diff	% Diff
N'bd	42.8	41.5	-1.3	-3.04%
S'bd	35.3	35.4	0.1	0.28%

Leafy Lane - 3330148				
	Before	After	Diff	% Diff
N'bd	16.1	15.6	-0.5	-3.11%
S'bd	13.7	12	-1.7	-12.41%

CORPORATE OR LEGAL INFORMATION:**Links to the Corporate Strategy**

Hampshire safer and more secure for all:	yes
Corporate Improvement plan link number (if appropriate):	
Maximising well-being:	yes
Corporate Improvement plan link number (if appropriate):	
Enhancing our quality of place:	yes
Corporate Improvement plan link number (if appropriate):	

Other Significant Links

Links to previous Member decisions:		
<u>Title</u>	<u>Reference</u>	<u>Date</u>
Project Appraisal: Yew Tree Drive Bus Gate Opening Trial and Mitigation Measures in Burr ridge, Swanwick, Park Gate and Whiteley	5181	07/10/2013
Report of Representations – Speed cushions on Yew Tree Drive and Sweethills Crescent, Whiteley	5442	10/12/2013
Direct links to specific legislation or Government Directives		
<u>Title</u>	<u>Date</u>	

Section 100 D - Local Government Act 1972 - background documents

The following documents discuss facts or matters on which this report, or an important part of it, is based and have been relied upon to a material extent in the preparation of this report. (NB: the list excludes published works and any documents which disclose exempt or confidential information as defined in the Act.)

Document
None

Location

IMPACT ASSESSMENTS:

1. Equality Duty

1.1. The County Council has a duty under Section 149 of the Equality Act 2010 ('the Act') to have due regard in the exercise of its functions to the need to:

- Eliminate discrimination, harassment and victimisation and any other conduct prohibited under the Act;
- Advance equality of opportunity between persons who share a relevant protected characteristic (age, disability, gender reassignment, pregnancy and maternity, race, religion or belief, gender and sexual orientation) and those who do not share it;
- Foster good relations between persons who share a relevant protected characteristic and persons who do not share it.

Due regard in this context involves having due regard in particular to:

- a) The need to remove or minimise disadvantages suffered by persons sharing a relevant characteristic connected to that characteristic;
- b) Take steps to meet the needs of persons sharing a relevant protected characteristic different from the needs of persons who do not share it;
- c) Encourage persons sharing a relevant protected characteristic to participate in public life or in any other activity which participation by such persons is disproportionately low.

1.2. Equalities Impact Assessment:

The recommendations of the report are to make application to open the bus gate permanently and to carry out studies to identify improvements that can be made to Swanwick Lane and Botley Road to reduce vehicle speeds, minimise congestion on Swanwick Lane at the traffic signals with the A27, and to aid pedestrians.

The results of the public consultation indicated that 86% of respondents supported the permanent opening of the bus gate. For all of the measures that were implemented as part of the mitigation works apart from the HGV impact, the consensus was that the temporary opening had had a positive effect with the situation being better than before. For the impact of HGV's there was a feeling of uncertainty with the majority of 53% being unsure.

While the consultation results indicated that the majority of residents supported the bus gate opening, the comments that were made also identified that respondents remain concerned about the speed cushions. People are also still concerned about vehicle speeds, parking near the GP's surgery in Yew Tree Drive, rat running and the need for improvements to non-vehicular

access to amenities.

Mitigation measures have already been implemented to reduce vehicle speeds, improve crossing facilities on Yew Tree Drive, Botley Road and Swanwick Lane, and reduce the impact of HGV's on Yew Tree Drive. These measures will have a positive impact on pedestrians and those with mobility impairments, whilst the reduction in vehicle speeds will help all groups by making the roads safer to use.

2. Impact on Crime and Disorder:

- 2.1 It is considered that the proposed improvements recommended for this project will have no influence on the levels of Crime and Disorder.

3 Climate Change:

- 3.1 How does what is being proposed impact on our carbon footprint / energy consumption?

The opening up of the bus gate provides a more direct link for vehicles travelling between Whiteley and Botley and Swanwick areas. This reduces the number of vehicle miles travelled, thereby reducing the overall carbon footprint.

- 3.2 How does what is being proposed consider the need to adapt to climate change, and be resilient to its longer term impacts?

Whilst not directly encouraging people to use alternative modes of transport, the opening up of the bus gate does allow more direct access and reduces the distances people need to travel to get to essential services. The traffic calming measures and speed limit changes introduced have been successful in reducing vehicle speeds and additional and improved pedestrian crossings and crossing points have improved pedestrian facilities making walking a safer option.