

Outcomes of the Cycling City and Towns programme: monitoring project report

Individual town results: Shrewsbury

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1 Introduction

1.1 Description of the Cycling City and Towns programme in Shrewsbury

The Cycling City and Towns programme delivered in Shrewsbury – ‘Cycle Shrewsbury’ - aimed to increase the number of trips in the town made by bicycle, and included targets to increase levels of cycling to work and school, trips by cycle to access the town centre and recreational cycling¹.

Infrastructure developments included the improvement of more than 5km of cycle routes, focusing on improving crossings and filling gaps in the existing network. Infrastructure schemes of particular benefit to workplaces include developments around Telford Way (including reduced speed limits, improved crossings and the provision of cycling facilities on either side of the road). Access to industrial estates in the Harlescott area has been improved, with the widening and surfacing of a traffic-free cycle path. Shrewsbury has also been in receipt of Connect2 funding for schemes to improve connectivity between the town centre and the north of the town.

Cycle Shrewsbury has engaged with schools to improve access routes and crossings, provide training and install cycle parking. Cycle Shrewsbury targeted a number of workplaces in the town, delivering training, providing grants for cycle parking, bespoke maps and journey planning information. In order to encourage leisure cycling, Cycle Shrewsbury delivered led rides and published a number of leaflets including those promoting family friendly rides, circular leisure rides and rides incorporating travel by train. A number of events, estimated to have engaged with over 5,200 people, were delivered during the programme period including cycling festivals, guided rides, infrastructure opening events, cycle to work days and school events.

1.2 Expenditure

While this report is primarily concerned with the monitoring evidence around outcomes of the Cycling City and Towns programme, it is useful to place these in context through summarising the programme inputs in terms of capital and revenue expenditure. Details of expenditure in Shrewsbury during the Cycling City and Towns programme are summarised in Table 1-1.

¹ Shrewsbury Cycling Town (2011) **End of Programme Report (2008-2011)**, Shrewsbury Cycling Town. Available at <https://www.gov.uk/government/publications/cycling-england-cycling-city-and-towns-end-of-programme-reports> [Accessed 31 May 2012]

Table 1-1 Funds invested in cycling in Shrewsbury

	2008 – 2011 revenue	2008 – 2011 capital	Total
Cycling England/DfT/DH investment	£578,303	£1,517,697	£2,096,000
Matched funding	£227,366	£1,319,752	£1,547,118
Total	£805,669	£2,837,449	£3,643,118

1.3 Summary of available monitoring data

The following data sources are available:

- Data from 21 automatic cycle counters
- 12 hour manual counts performed annually since 2006 at 11 locations ('C counts') and at 12 locations annually since 2006 increasing in frequency to quarterly since September 2009 ('M counts')
- Pupil Level Annual School Census (PLASC) travel data and monitoring data from Bike It
- counts of parked bicycles
- STATS19 casualty data
- Active People Survey (APS) data.

1.4 Summary of headline findings

Consistent evidence of growth in levels of cycling from a moderate initial baseline

The most complete data sets, time series data from automatic cycle counters located predominantly on traffic-free cycle routes, indicate a growth in cycling over time. The evidence from manual count data also suggests an overall increase in cyclists accessing the town centre. Notwithstanding the limitations of the data source, levels of cycling to primary and secondary schools appear to have increased over time, although the direction of change for primary schools is not consistent year-to-year across the time series. Schools engaged with Bike It have seen a significant increase in the numbers of children cycling to school everyday.

- Automatic cycle counter data indicate an increase in volumes of cycles counted of +15% against a 2007 baseline. Based on data from the 21 automatic cycle counters, this growth corresponds to an increase from an estimated 2,475 trips per day counted in 2007 to 2,835 in 2011
- An increase was observed at 16 of the automatic cycle counter sites, a decrease at three sites and no change at one site. Insufficient data are available to comment on the change over time at the remaining site
- Comparing manual counts performed at consistent locations annually since 2005 indicates a mixed picture of change, although an overall increase in cyclists into the town centre has been observed
- Across all schools, the percentage of children cycling to school as measured by PLASC was 8.7% in 2010/11 compared to 7.4% in 2006/07

- Bike It data indicate an increase in children cycling to school on the day of the survey from 5.8% in pre surveys to 15.5% in post survey, and an increase in children cycling to school everyday from 6.1% in the pre survey to 11.9% in the post survey
- Comparison of counts of parked bicycles data collected in consistent months across Shrewsbury in 2010 and 2011 suggests an increase in the volumes of bicycles parked of +28%
- Compared to pre-programme data, the total number of cycling casualties has decreased significantly during the Cycling City and Town programme, although the absence of data for 2010 makes it difficult to draw conclusions regarding changes in cycling casualties during the programme period compared to before the programme
- Active People Survey data indicate significant decreases in Shrewsbury in the proportion of respondents cycling once or more per month and the proportion cycling 12 or more times per month between 2007/8 and 2010/11

2 Analysis of automatic cycle counter data

Data from a total of 21 automatic cycle counters have been analysed. In the following sections information regarding the location, volumes of cyclists recorded and change in volumes of cyclists recorded over time are presented for each location. A number of counters are located close to the town centre, but there is also good coverage by counters of cycling facilities to the north, south and west of the centre of Shrewsbury. The majority of counters were installed in 2009. Data are available from 2005 onwards for one site, from 2006 onwards for three locations and only for 2011 for one site. In order to be consistent across towns, data from 2007 onwards are included in the analysis.

Two distinct sets of analysis have been undertaken using cycle counter data in Shrewsbury. In the first, all available data were analysed using a regression model to allow an estimate of change in cycle trips recorded over the programme period against a baseline. In the second, data from individual sites were analysed in order to determine the average volumes of cyclists recorded, distribution of cycle trips over the course of the day and (where sufficient data are available) the annual percentage change in the count of cyclists.

2.1 Town-wide analysis

Table 2-1 presents the percentage change in cycle counts in relative to a 2007 baseline including data to the end of September 2011.

Table 2-1 Change in cycle count in Shrewsbury at the end of the Cycling City and Towns period relative to a 2007 baseline (baseline = 100%)

	2007	2008	2009	2010	2011
Change against 2007 baseline	100%	101%	97%*	100%	115%*

* indicates a significant difference ($p < 0.05$) compared to the 2007 baseline

The counter data indicate a decline in the volume of cyclists recorded in 2009 compared to previous years, potentially a result of prolonged poor weather during

the winter months in this year. A substantial uplift in counts is observed between 2010 and 2011.

In order to explore the impact of periods of poor weather late 2009 and early and late 2009 on these estimates of change in cycle counts, an additional element was added into the regression model. Table 2-2 presents the findings of this analysis.

Table 2-2 Change in cycle count in Shrewsbury at the end of the Cycling City and Towns period relative to a 2007 baseline including an adjustment for snow (baseline = 100%)

	2007	2008	2009	2010	2011
Change against 2007 baseline	100%	101%	100%	105%*	115%*

* indicates a significant difference ($p < 0.05$) compared to the 2007 baseline

When adjusting for poor weather in 2009 and 2010, there is a lesser decrease in cycling levels between 2008 and 2009 and an increased level of cycling in 2010. This suggests that the growth in cycling over the programme period can be observed from 2009 onwards as opposed to just in 2011 as the initial analysis showed.

2.2 Analysis of data from individual counter sites

Data from individual cycle counters were analysed in order to determine the rate of change in volumes of counts recorded at each location over time. The results of this analysis are summarised in Table 2-3 and alongside more detailed information for each counter in Table 2-4. There are sufficient data available to robustly estimate the annual percentage change in the number of cyclists counted over time for four counters. For the remaining counters, based on the more limited data available, change over time is positive for 14 count sites and negative for two. One of the counters had less than a year of data and therefore no estimate of change over time could be made.

Table 2-3 Summary of findings of detailed analysis of data from individual count sites

Number of counters for which data are available	21
Number of counters for which sufficient data are available to quantify change over time²	4
Number of counters with quantifiable increase	2
Number of counters with no change	1
Number of counters with quantifiable decrease	1

In the following table counters are ordered by their location relative to the centre of Shrewsbury, starting with those located closest to the town centre. Map references refer to the accompanying map (section 8).

² None of the changes at individual counters are statistically significant.

Table 2-4 Description of automatic cycle counters in Shrewsbury

Map reference	Location	Time period	Annual change ^b	Average daily count in 2010	Comments
1.	Smithfield Road	2011	- ^c	Overall: 79 Weekdays: 86 Weekend days: 43	Located in the town centre on a traffic-free shared use path adjacent to the A458 Smithfield Road and the River Severn. Public and administrative buildings are located nearby. Weekday counts show 'commuting' peaks.
2.	Castle Walk	2007-2011 ^a	Weekday: 0% Sat/Sun: +1%	Overall: 341 Weekdays: 385 Weekend days: 218	Located on Castle Walk, a traffic-free shared use path across urban green space, close to Shrewsbury Castle and railway station. Half a mile east of the town centre. Weekday counts show 'commuting' peaks.
3.	Betton Street Bridge	2009-2011	Positive	Overall: 141 Weekdays: 154 Weekend days: 109	Located on a traffic-free shared use bridge over the railway line in the Belle Vue area, approximately half a mile south-east of the centre of Shrewsbury. Weekday counts show 'commuting' peaks.
4.	Roman Road south of Longden Road	2009-2011	Negative	Overall: 101 Weekdays: 111 Weekend days: 80	Located either side of the same junction, on a traffic-free segregated cycle path adjacent to the B4380 Roman Road approximately one mile south-west of the centre of Shrewsbury. There are two large secondary schools sites and a playing field located close to the counters. Weekday counts show 'commuting' and 'school commuting' peaks.
5.	Roman Road north of Longden Road	2009-2011	Positive	Overall: 132 Weekdays: 173 Weekend days: 80	
6.	Pritchard Way	2009-2011	Positive	Overall: 130 Weekdays: 147 Weekend days: 102	Located on a traffic-free segregated cycle path adjacent to the A5112 Pritchard Way, surrounded by urban green space and approximately half a mile south-east of the centre of Shrewsbury. The counter is on an orbital route and also provides access to a college. Weekday counts show 'commuting' peaks.

7.	Route 81 Shelton Road ^a	2007-2011	Weekday: +2% Sat/Sun: 0%	Overall: 207 Weekdays: 238 Weekend days: 144	Located on National Route 81 of the National Cycle Network, a traffic-free segregated cycle route adjacent to Shelton Road in the Copthorne area, approximately one mile west of the centre of Shrewsbury. Weekday counts show 'school commuting' peaks.
8.	Hazledine Way	2009-2011	Positive	Overall: 167 Weekdays: 187 Weekend days: 128	Located on a traffic-free segregated cycle path adjacent to the A5112 Hazledine Way. It is surrounded by a golf course and is approximately one mile south-east of the centre of Shrewsbury. Weekday counts show 'school commuting' peaks.
9.	Sutton Road to Hazledine Way ^a	2007-2011	Weekday: +4% Sat/Sun: +4%	Overall: 137 Weekdays: 149 Weekend days: 96	Located on a traffic-free segregated railway path in the Sutton area, one mile south-east of the centre of Shrewsbury. A business park is located nearby. Weekday counts show 'school commuting' peaks.
10.	Greenfields Recreation Ground	2009-2011	Positive	Overall: 66 Weekdays: 68 Weekend days: 60	Located on a traffic-free shared use path across urban green space and installed following the construction of paths through the Greenfields Recreation Ground, approximately one mile north of the centre of Shrewsbury. School sites are located nearby.
11.	Herongate	2009-2011	Positive	Overall: 78 Weekdays: 89 Weekend days: 61	Located on a traffic-free shared use path through a residential area in Greenfields, approximately one mile north of the centre of Shrewsbury. It is located on a key route to Greenfields school. Weekday counts show 'commuting' peaks.
12.	Oteley Road north	2009-2011	Positive	Overall: 50 Weekdays: 55 Weekend days: 37	Located on a traffic-free segregated cycle path adjacent to the B4380 Oteley Road in the Meole Brace area, approximately one mile south of the centre of Shrewsbury. A football stadium and a retail park are located nearby.
13.	Oteley Road south	2009-2011	Positive	Overall: 33 Weekdays: 34 Weekend days: 32	

14.	Bank Farm Road	2009-2011	Negative	Overall: 73 Weekdays: 84 Weekend days: 51	Located on a traffic-free segregated cycle path adjacent to Bank Farm Road, approximately one mile south-west of the centre of Shrewsbury. School sites and a playing field are located nearby. Weekday counts show 'school commuting' peaks.
15.	Shelton Road north of Shorncliffe Drive	2009-2011	Positive	Overall: 128 Weekdays: 142 Weekend days: 98	Located on National Route 81 of the National Cycle Network, a traffic-free segregated cycle route adjacent to Shelton Road, approximately one and a half miles west of the centre of Shrewsbury. Weekday counts show 'school commuting' peaks.
16.	Telford Way west	2009-2011	Positive	Overall: 179 Weekdays: 220 Weekend days: 132	Located on a traffic-free segregated cycle path adjacent to the A5112 Telford Way in Ditherington, approximately one and a half miles north-east of the centre of Shrewsbury. Weekday counts show 'commuting' peaks.
17.	Telford Way east	2009-2011	Positive	Overall: 191 Weekdays: 230 Weekend days: 132	
18.	Hereford Road	2009-2011	Positive	Overall: 112 Weekdays: 127 Weekend days: 92	Located on a traffic-free shared use path adjacent to the A5112 Hereford Road, approximately one and a half miles south of the centre of Shrewsbury. Weekday counts show 'commuting' peaks.
19.	Cartmel Drive	2009-2011	Positive	Overall: 76 Weekdays: 98 Weekend days: 49	Located on a traffic-free shared use route among residential and industrial areas in Harlescott, approximately two miles north-east of the centre of Shrewsbury. Weekday counts show 'commuting' peaks.
20.	Whitchurch Road ^a	2007-2011	Weekday: +4% Sat/Sun: +1%	Overall: 211 Weekdays: 237 Weekend days: 103	Located on a traffic-free segregated path adjacent to the A5112 Whitchurch Road in Harlescott, two miles north-east of the centre of Shrewsbury. Weekday counts show 'commuting' peaks.

21.	Gains Park	2009-2011	Positive	Overall: 41 Weekdays: 43 Weekend days: 36	Located on a traffic-free segregated cycle path through a residential area approximately two miles west of the centre of Shrewsbury.
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^a data are also available for earlier periods, but to ensure consistency these have not been included in the analysis

^b for counters with less than 36 months of data only a tentative indication as to the direction of the change can be reported, either positive, negative or no change

^c insufficient data are available for this site to enable any estimate of change over time to be made

2.3 Relationship between programme activity and automatic count data

2.3.1 Telford Way development

The north of Shrewsbury saw a number of key infrastructure improvements during the Cycling City and Towns programme, most notably:

- Whitchurch Road and Cartmel Drive cycle tracks
- Telford Way cycle tracks, toucan crossing and signage
- Herongate/Greenfields signage and Greenfields greenways (Connect2)

Considering data from the six automatic cycle counters to the north of Shrewsbury, the volume of cyclists counted in 2011 increased by +43% against a 2009 baseline³ (compared to +18% against the same baseline for all counters across the town).

The substantial increase in volumes of cyclists recorded in the north of Shrewsbury is driven largely by the following counters which have been impacted by the Telford Way developments:

- Telford Way west (map reference 16)
- Telford Way east (map reference 17)
- Bank Farm Road (map reference 14)

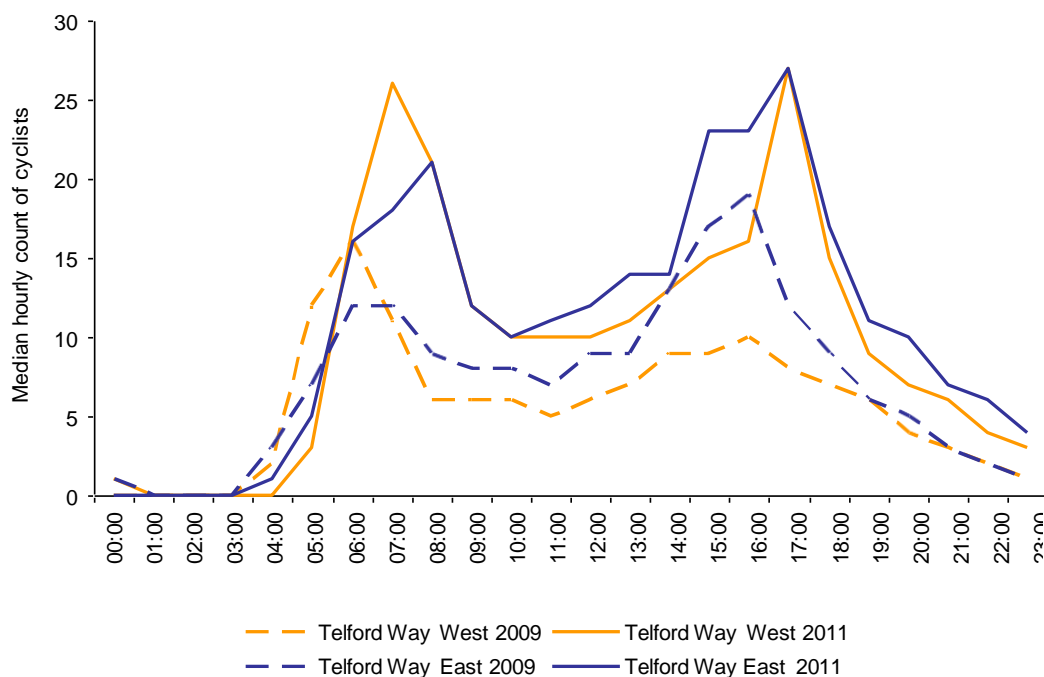
Two of the counters are located on the route and the third is expected to record cyclists going on to use this particular route section. Based on these three automatic cycle counters, volumes of cyclists have increased by +46% against a 2009 baseline⁴. Prior to route improvements during the programme Telford Way, an A road crossing the River Severn, had in place advisory cycle lanes and a 60mph speed limit. A footway was present on one side of the road only. Improvements include road narrowing to allow cycle tracks and footways on both side of the road, the installation of a toucan crossing and the reduction of the speed limit to 40mph.

Comparing median hourly counts of cyclists recorded on weekdays in 2009 with 2011 shows an overall increase in the volumes of cyclists recorded at the three count sites affected by this intervention. The increase is particularly noticeable at the times of day associated with commuting journeys, although an increase in counts at school commuting times can also be observed at the Telford Way East site (Chart 2-1).

³ significant increase (p<0.05)

⁴ significant increase (p<0.05)

Chart 2-1 Median hourly count of cyclists recorded on weekdays in 2009 and 2011 by counters on Telford Way



2.3.2 Roman Road and Longden Road Improvements

Two counters monitor cyclist movement on Roman Road, one to the north (map reference 5) and one to the south (map reference 4) of Longden Road. This is a key route for pupils travelling to school from the west, and the counter located to the north of Longden Road is expected to record school trips. There have been several improvements made to cycling facilities in the area, including the implementation of cycle lanes and improved crossings. These improvements may have encouraged transfer to this route from alternative options, potentially impacting volumes of cyclists recorded at Bank Farm Road (map reference 14).

Chart 2-2 presents the volumes of cyclists recorded on weekdays by the counters located on Longden Road and Bank Farm Road since March 2009. Although there are insufficient data to draw robust conclusions concerning changes in volumes of cyclists recorded over time, based on the data available, numbers of cyclists counted increase over time for the counter located to the north of Longden Road, but decline for the counter located to the south of Longden Road and the counter on Bank Farm Road.

Chart 2-2 Median daily count of cyclists recorded on weekdays on Longden Road (north and south of Roman Road) and Bank Farm Road

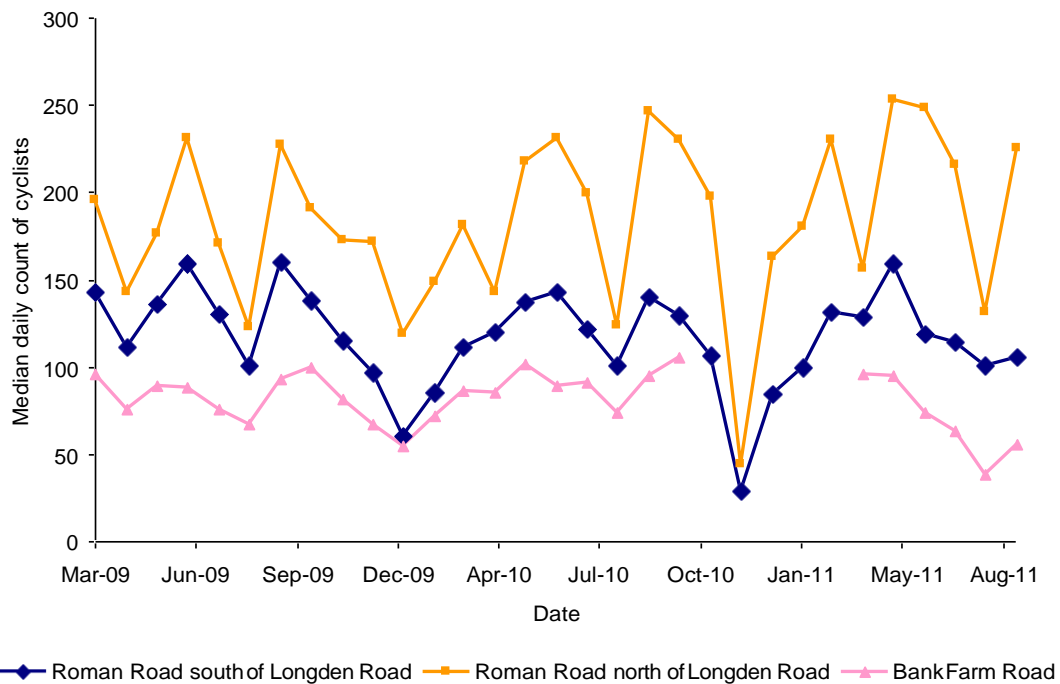
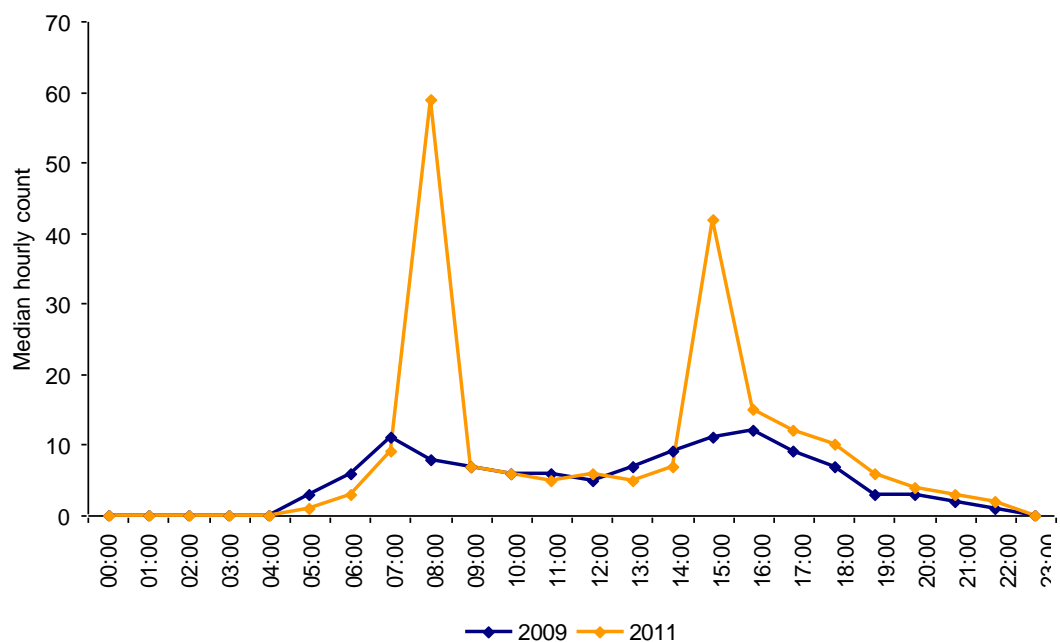


Chart 2-3 presents the median hourly flow of cyclists recorded at Longden Road north of Roman Road on weekdays in 2009 and 2011.

Chart 2-3 Median hourly count of cyclists recorded between Longden Road north of Roman Road on weekdays in 2009 and 2011



On comparing weekday hourly flows, the 8am and 3pm peaks are more prominent in 2011 than in 2009. This appears to be in part due to a shift in the timing of cycle trips, with generally more trips occurring before 7am in 2009 than in 2011, when the morning peak is concentrated between 8am and 9am. A similar although less pronounced effect is apparent in the afternoon commuting peak.

3 Analysis of manual count data

In Shrewsbury two distinct sets of manual cycle counts are undertaken, the 'M' counts which monitor movement towards the centre of Shrewsbury and the 'C' counts which monitor important junctions further out of the town centre.

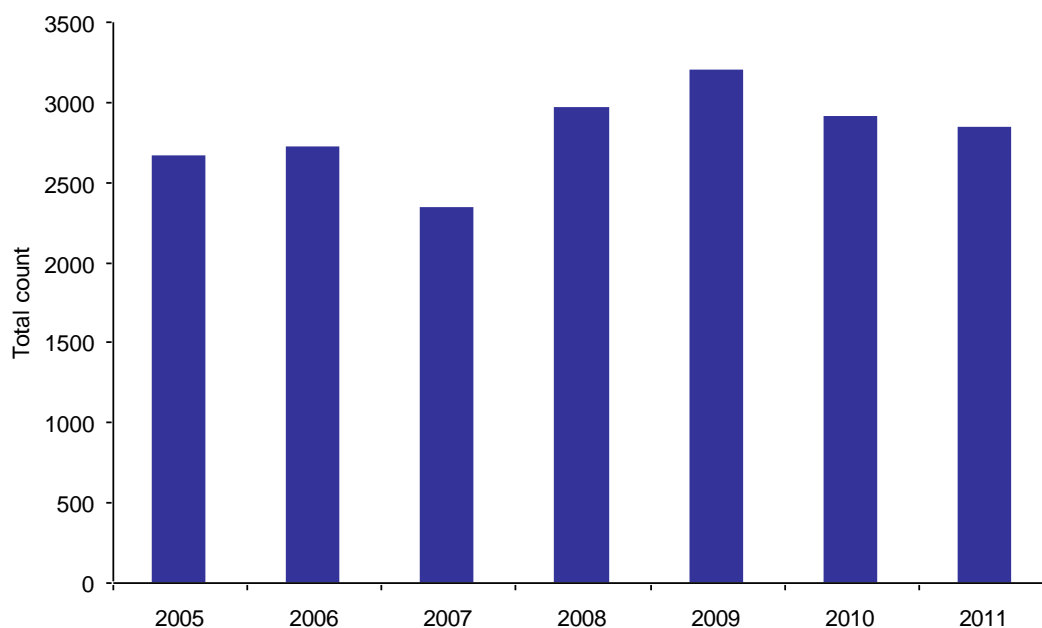
3.1 'M' counts

Manual counts are undertaken of individuals using all modes of transport at 12 locations forming a cordon around Shrewsbury town centre. Annual counts, performed in September each year, began in 1996. These became quarterly counts from September 2009. No count was undertaken on Water Lane in 2006 and the September 2011 data from the Greyfriars site is not comparable with previous counts. Counts have been performed in the following locations, indicated on the accompanying map (section 8):

- Porthill Bridge (map reference M1)
- Kingsland (map reference M2)
- Greyfriars (map reference M3)
- English Bridge (map reference M4)
- Water Lane (map reference M5)
- The Dana (map reference M6)
- Station (map reference M7)
- Chester Street (map reference M8)
- Frankwell foot bridge (map reference M9)
- Welsh Bridge (map reference M10)
- Wyle Cop / St Julien Friars (map reference M11)
- Wyle Cop / Dogpole / High Street (map reference M12)

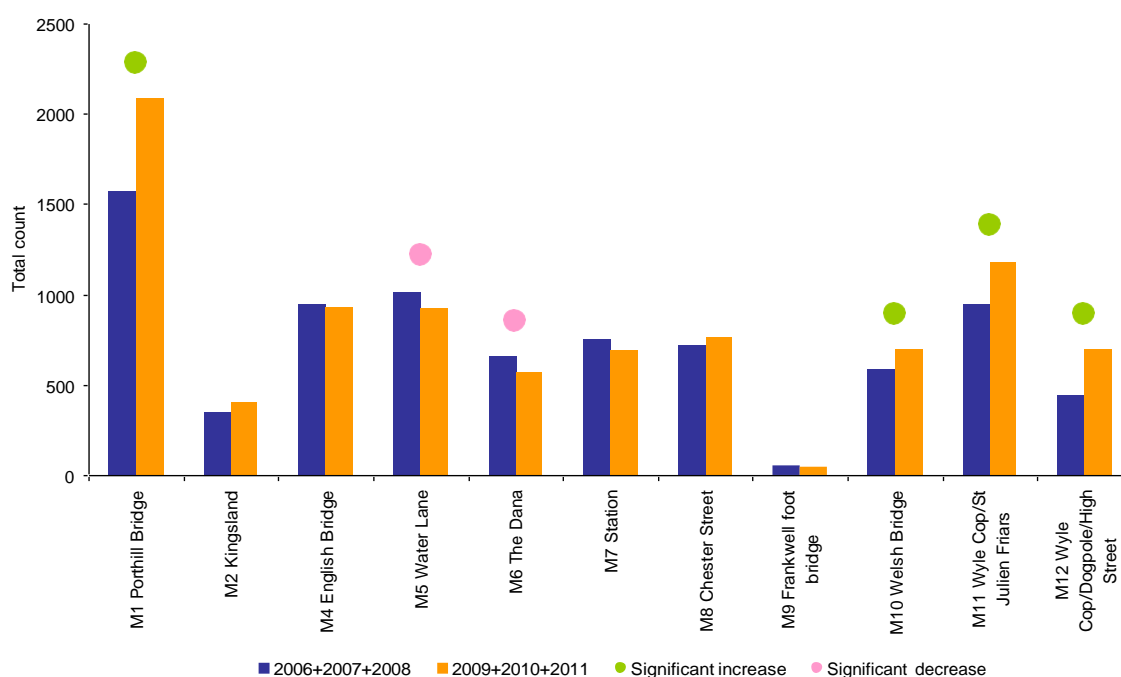
Chart 3-1 presents the total counts in each year across the 11 count sites for which we have data since 2005 (therefore excluding Greyfriars). Although there is an increase of 22% during the programme period (between 2007 and 2011), the data does not show a consistent trend and the 2007 count is lower than the two previous counts. The annual totals are only based on one count at each site per year and are therefore likely to be influenced by weather conditions at the time of the count.

Chart 3-1 Total counts for 11 manual 'M' count sites in Shrewsbury



In order to include as much of the data as possible, Chart 3-2 compares data from September 2006, 2007 and 2008 with data from September 2009, 2010 and 2011. Greyfriars will be considered separately as no comparable data are available for September 2011.

Chart 3-2 Comparison of manual 'M' count data collected in Shrewsbury in 2006, 2007 and 2008 with data collected in 2009, 2010 and 2011⁵

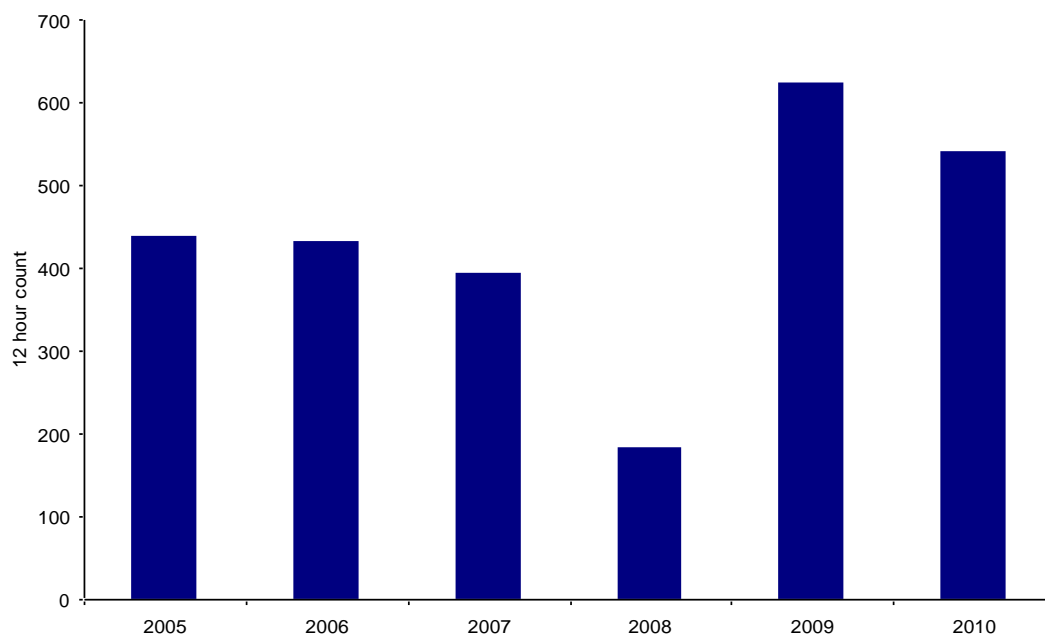


⁵ Marked as significant when $p < 0.05$

A significant increase of +12% is observed over the same period when data from the 11 sites are combined. A significant change was observed at six of the sites. Of these, four sites showed an increase and two a decrease. Note that the Frankwell foot bridge has steps on either side and therefore the very low counts at this site are as expected.

Counts at the Greyfriars site recorded between 2005 and 2010 are detailed in Chart 3-3 below. The graph indicates a decline in counts to 2008, an increase in 2009 and a further decline in 2010.

Chart 3-3 Total counts for the Greyfriars site in Shrewsbury



As no data is available for 2011, the September counts for 2005, 2006 and 2007 have been compared with the September counts for 2008, 2009 and 2010. Although this demonstrates an increase, it is not significant. This is likely to have been affected by the particularly low count in 2008 as a comparison of data collected in 2006 and 2007 with data collected in 2009 and 2010 indicates a significant increase.

3.2 'C' counts

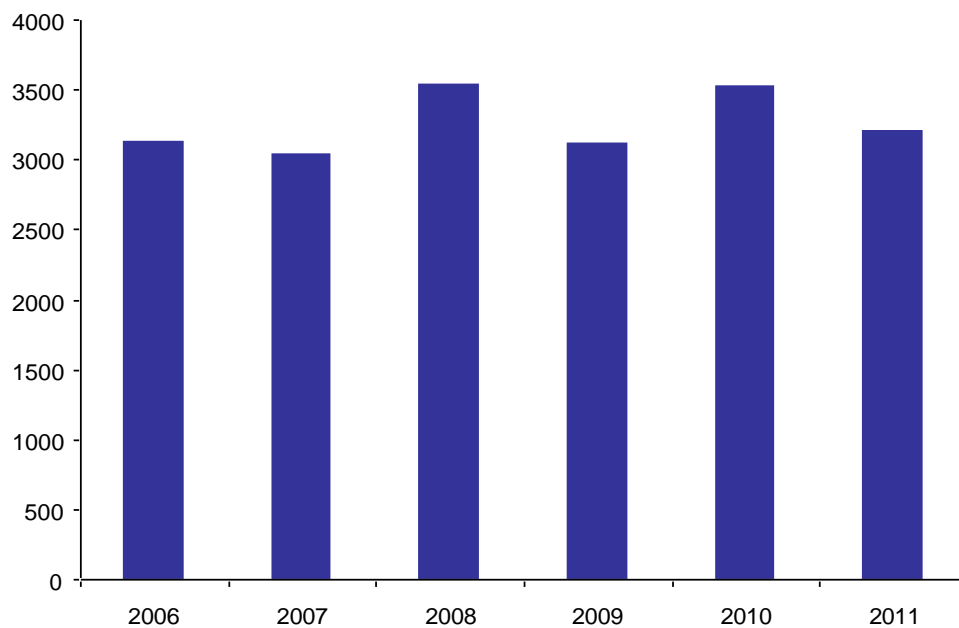
The 'C' counts were designed specifically for monitoring levels of cycling on roads in Shrewsbury and focus on important junctions. These counts were originally used as the basis for reporting against the Local Transport Plan target. Annual counts, performed in September each year, began in 1996, although 12 hour counts were only performed from 2006. No count was performed at the Telford Way site in 2008, but otherwise the data series is complete. The locations of the count site are shown on the accompanying map (section 8):

- Mount Pleasant Road (map reference C1)
- Telford Way (map reference C2)
- Longden Roundabout (map reference C3)
- Abbey Foregate Junction (map reference C4)
- Reabrook Roundabout (map reference C5)
- Hereford Road (map reference C6)
- London Road/Wenlock Road (map reference C7)

- Spring Gardens (map reference C8)
- Berwick Road Junction (map reference C9)
- Monkmoor Road (map reference C10)
- Lancaster Road/Harlescott Lane (map reference C11)

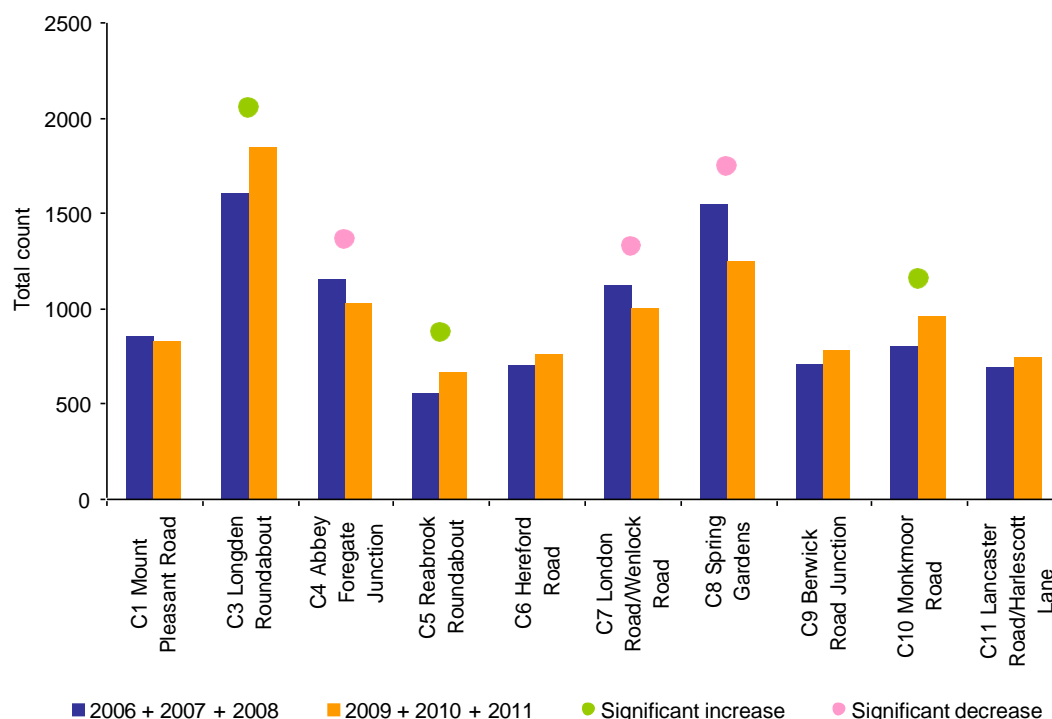
Chart 3-4 presents the total counts in each year across the 10 count sites for which we have data for all years (Telford Way is excluded). There is a 5% increase in counts over the programme period (2007 to 2011) although the data does not show a consistent trend. Each site is only monitored for one 12 hour period each year and therefore the weather on that particular day is likely to have a substantial impact on the counts.

Chart 3-4 Total counts for 10 manual ‘C’ count sites in Shrewsbury



In order to include as much of the data as possible, Chart 3-5 compares data from 2006, 2007 and 2008 with data from 2009, 2010 and 2011. Telford Way has been excluded from the analysis as no data was available for 2008.

Chart 3-5 Comparison of manual 'C' count data collected in Shrewsbury in 2006, 2007 and 2008 with data collected in 2009, 2010 and 2011⁶



A 1% increase was observed when data from the 10 sites was compared over the same period. A significant change was observed at six of the ten sites - three increases and three decreases.

The increase in counts at Reabrook roundabout is supported by the increase in counts experienced at the nearby automatic cycle counter on Pritchard Way (map reference 6). Infrastructure improvements have been made in the area around Lancaster Road/Harlescott Lane and therefore an increase was anticipated, although the analysis did not identify a significant increase.

The Abbey Foregate Junction and London Road/Wenlock Road sites are located along the same corridor and so the consistency between these sites was expected, although the reason for the decrease is not known.

Telford Way was excluded from the analysis above as a count was not undertaken in 2008. If we compare the data collected at this site in 2006 and 2007 with data collected in 2010 and 2011, a significant increase is observed⁷ (an increase in counts from 902 to 1,089 when combining the two 12 hour counts). This increase is potentially the result of significant infrastructure work undertaken on Telford Way over the project period.

The manual count data suggest that while an increase has been observed in cyclists entering the centre of Shrewsbury, this is greater than the increase observed at locations at distance from the town centre. Whilst the 'M' counts form a cordon around the town centre, the 'C' counts were located at strategic junctions without

⁶ Marked as significant when $p < 0.05$

⁷ $p < 0.05$

necessarily the intention of providing complete coverage of routes towards the town centre. It is therefore possible that gaps in coverage of the 'C' counts, particularly from the north-west and west where 'M' counts have shown an increase, have become more prominent due to infrastructure improvements.

4 Analysis of school related data

During the Cycling City and Towns programme, Cycle Shrewsbury has engaged with 15 schools to encourage cycling amongst parents, students and staff. Bike It has been delivered in 15 schools. A total of 340 cycle parking spaces have been provided at schools during the programme. Bike It activities have been delivered in 15 schools, and Bikeability has been taken up by 70% of eligible pupils. During the Cycling City and Towns programme, Cycle Shrewsbury has worked to improve cycling infrastructure in and around schools through improving accesses, building new routes and new crossings.

4.1 PLASC

The percentage of pupils surveyed in Shrewsbury stating cycling to be their usual mode of travel to school are summarised in Table 4-1. The proportion of pupils usually cycling to primary schools was very similar in 2010/11 as in 2006/07, at 4.4% in 2006/07 and 4.5% in 2010/11. The levels of cycling to school amongst this group do, however, appear to have dropped then increased rather than remaining constant in the intervening years. Levels of cycling in secondary schools increased from 9.7% in the 2006/07 academic year to 13.6% in 2010/11.

Table 4-1 Percentage of pupils surveyed reporting cycling to be their usual mode of travel to school

	Academic year				
	2006/07	2007/08	2008/09	2009/10	2010/11
Primary	4.4%	2.9%	3.7%	3.8%	4.5%
Secondary	9.7%	10.4%	11.1%	11.5%	13.6%*
All schools^a	7.4%	7.0%	7.8%	7.4%	8.7%*

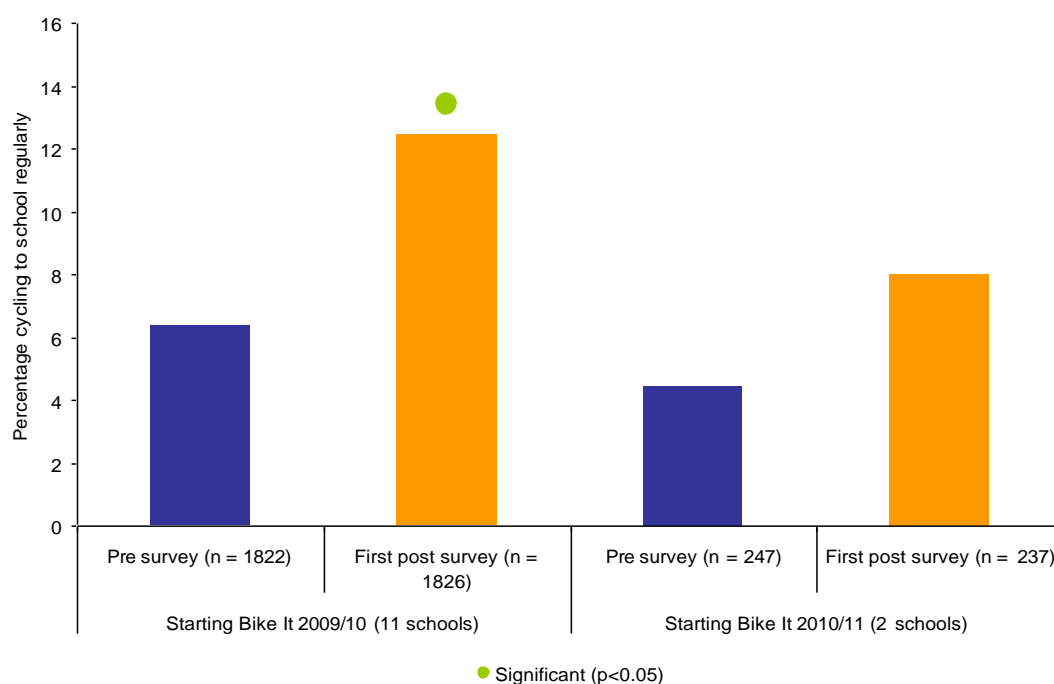
^a These figures are based on data from 20 primary schools and six secondary schools

* indicates significantly more cycling in the 2010/2011 academic year compared to the 2006/07 academic year ($p < 0.05$)

4.2 BikeIt

Bike It has been delivered in 15 schools in Shrewsbury during the Cycling City and Towns programme. Data are available in the standard format (i.e. pre survey followed by a post intervention survey at the end of the first academic year of engagement) for 13 schools. Aggregated percentages of children cycling everyday for schools starting Bike It in each academic year during the programme are presented in Chart 4-1. The change in the proportion of children reporting to cycle to school everyday between the pre and post survey is significant for schools starting Bike It in the 2009/10 academic year.

Chart 4-1 Proportion of children cycling to school everyday in the pre engagement Bike It survey and the first post-engagement survey



Aggregating together data from all pre intervention and first post intervention surveys performed during the project, the percentage of children reporting to cycle to school everyday increased from 6.1% to 11.9%⁸, whilst the proportion cycling to school regularly (everyday or once or twice a week) increased from 23.3% to 33.9%⁹. The proportion ‘never’ cycling to school decreased from 59.7% to 43.0%¹⁰. The proportion of children cycling to school on the day of the survey increased from 5.8% to 15.5%¹¹.

Table 4-2 presents levels of cycling to school as recorded by PLASC in schools where Bike It was delivered between 2006 and 2011. In the table below non-Bike It schools are those not engaged in Bike It at any point between 2006 and 2011.

⁸ Significant increase (p<0.05)

⁹ Significant increase (p<0.05)

¹⁰ Significant decrease (p<0.05)

¹¹ Significant increase (p<0.05)

Table 4-2 Comparison of PLASC data from non-Bike It schools and Bike It schools grouped by year of first engagement in Shrewsbury

	2007	2008	2009	2010	2011
Non-Bike It schools ^a	8.1%	8.4%	9.2%	8.9%	10.4%
Bike It in 2009 ^{b,d}	5.6%	3.7%	4.4%	4.3%	5.4%
Bike It in 2010 ^{c,d,e}	-	-	-	5.5%	5.1%

^a Data for eight primary schools and six secondary schools that were not engaged in Bike It

^b Data for nine primary schools and secondary schools initially engaged in Bike It in 2009

^c Data for one primary school initially engaged in Bike It in 2010

^d PLASC data are collected in January. Bike It engages with schools from the beginning of the academic year. For schools starting Bike It in, for example, 2008, the relevant PLASC year is 2009

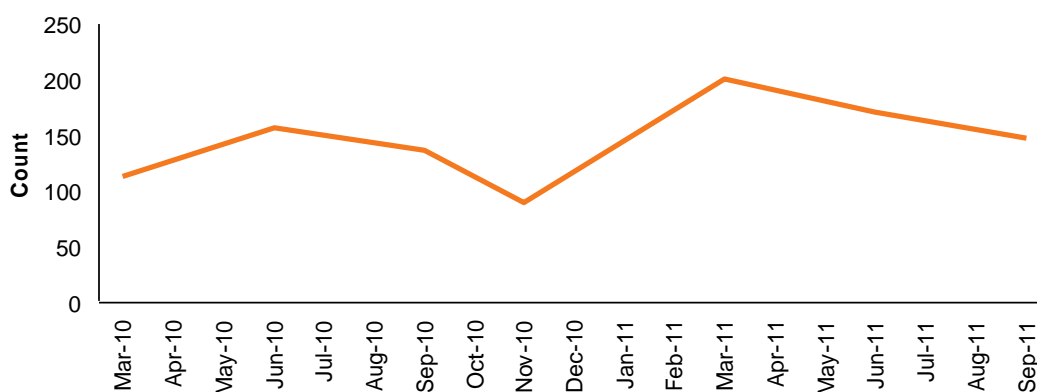
^e Data was not available prior to 2010 for the school engaged in Bike It in 2010

5 Analysis of counts of parked bicycles data

Counts of parked bicycles were undertaken in Shrewsbury in February 2010 and then quarterly from March 2010 to November 2011. Counts were undertaken in four beats, encompassing a total of 32 individual locations in the town-centre.

In order to estimate change in volumes of bikes parked over time, a subset of sites with consistent data in each count period were compared. Comparing the count recorded at these sites in March, June and September 2010 to March, June and September 2011 indicates an increase of +28%. Most of this growth is observed between the March counts and part of this growth may be due to different weather conditions on the count days. Chart 5-1 shows the counts included in this analysis.

Chart 5-1 Numbers of parked bicycles recorded during 10 hour counts in March, June and September 2010, and March, June and September 2011



6 Analysis of casualty data

Cycle user casualty data were derived for Shrewsbury from STATS19 collision data. The average number of killed, seriously injured and slightly injured in each year prior to the Cycling City and Towns programme (2003-2008) are compared to those occurring during the programme in Table 6-1. Although the difference between the time periods compared is significant regarding those who reported being 'slightly injured', casualty data were not available for 2010 thus making it difficult to draw firm conclusions regarding numbers of cycling casualties before and during the programme.

Table 6-1 Annual average number of cyclists killed or injured in Shrewsbury before (2003-2008) and during (2009-2010) the Cycling City and Towns programme

	Annual average number of casualties			
	Killed	Seriously injured	Slightly injured	Total
Pre-programme	0.2	3.8	28.0	32.0
During programme	0.0	0.0	9.0*	9.0*

* indicates a significant change between cycling casualties recorded before and during the Cycling City and Town programme

7 Analysis of physical activity data

Data are available from Sport England's Active People Survey (APS) for two years prior to the Cycling City and Towns programme and all three years of the project. The APS data provide information on the proportion of people cycling for at least 30 minutes once or more per month and the proportion cycling for at least 30 minutes, 12 or more times per month. It should be noted that the data refer only to cycling in bouts of 30 minutes or more and therefore this measure may under represent overall cycling in the towns as shorter journeys are not included.

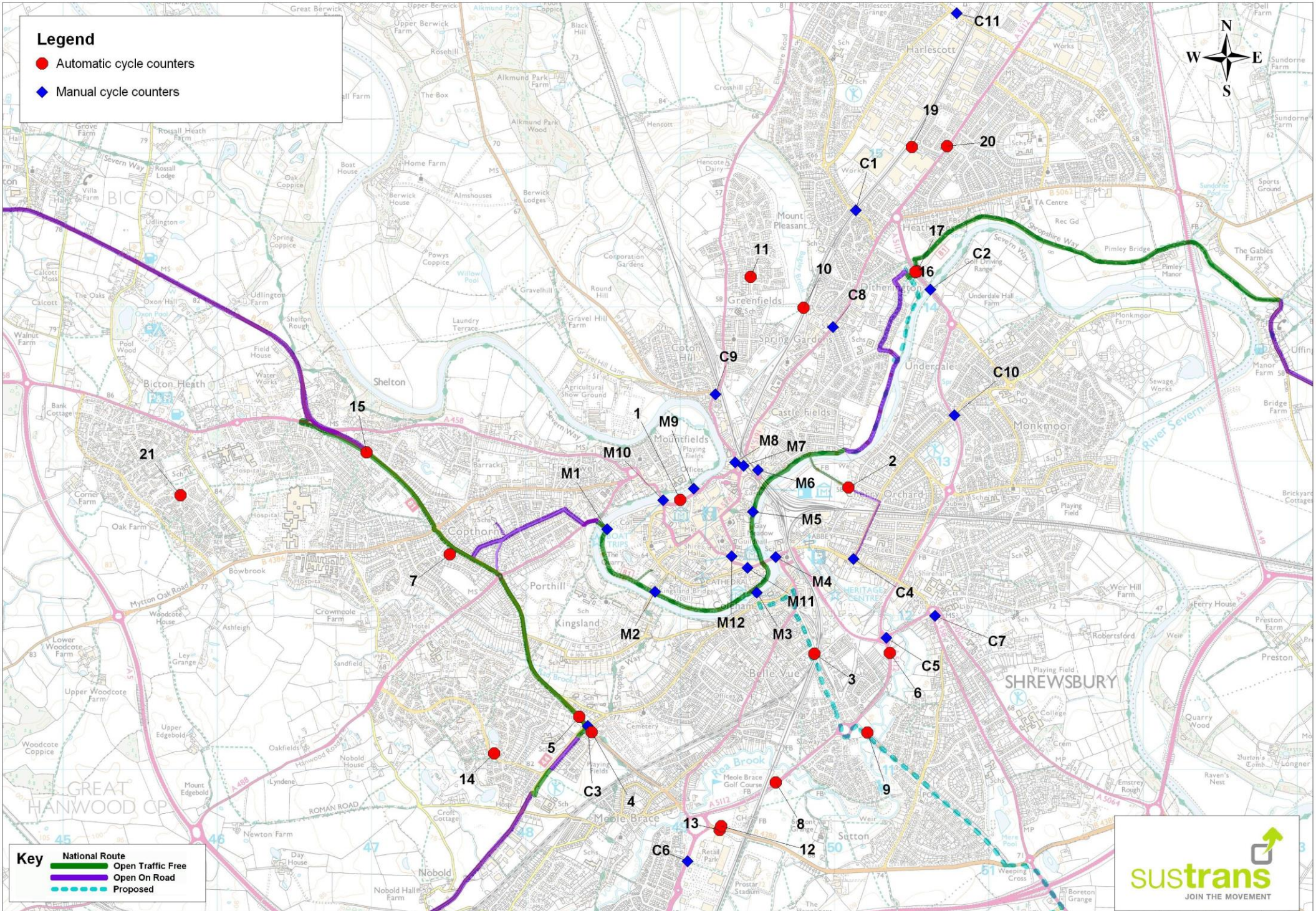
The proportion cycling once or more per month fell by 7.8%-points (from 17.6% to 9.8%) in Shrewsbury between 2007/8 and 2010/11. The proportion cycling 12 or more times per month fell by 1.2%-points (from 1.4% to 0.2%) over the same period. These are both significant decreases ($p < 0.05$).

8 Maps

The following pages contain maps indicating the location of manual count and automatic cycle counter locations, and the estimated change in volumes of cycles recorded at these sites.

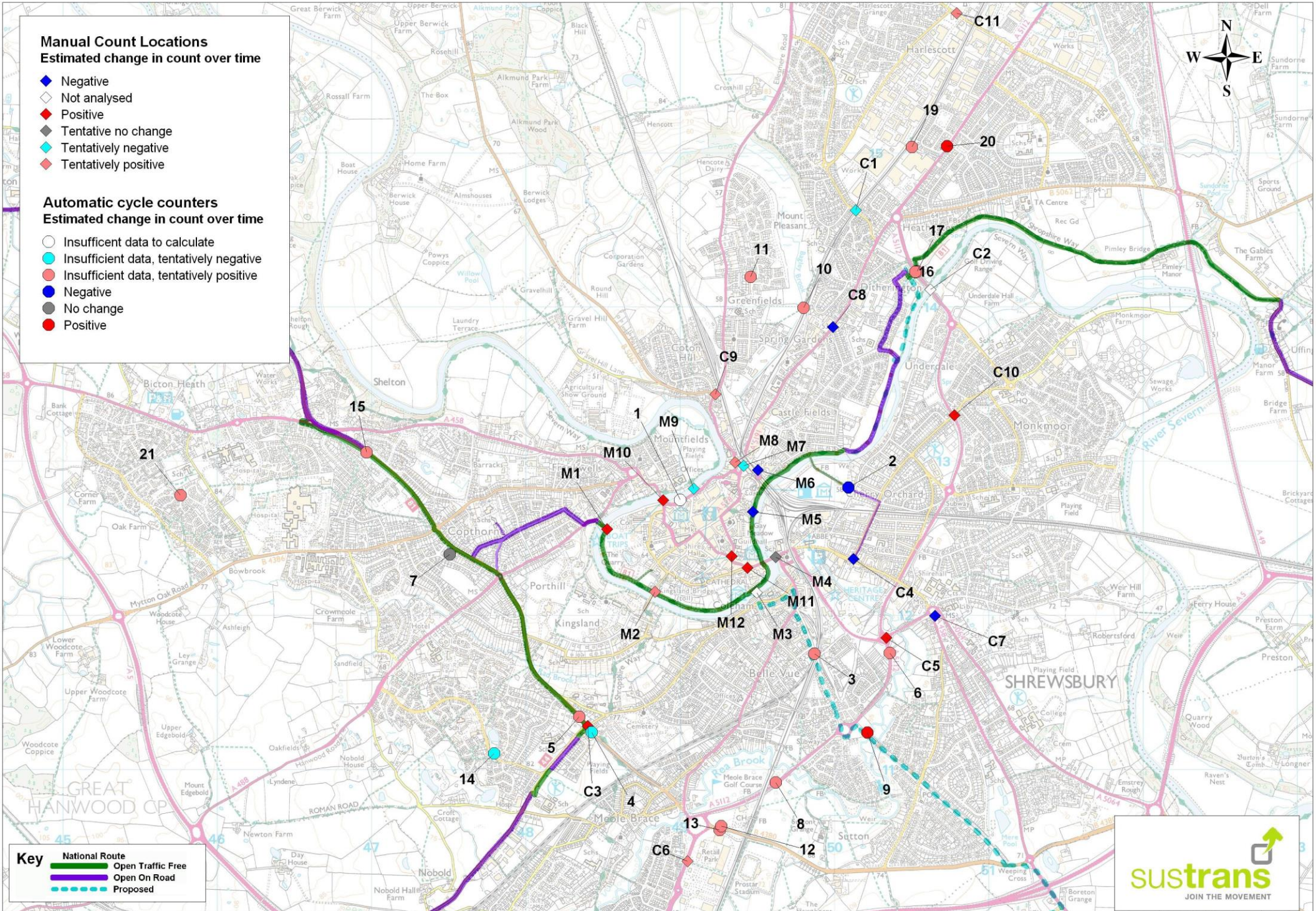
Legend

- Automatic cycle counters
- ◆ Manual cycle counters

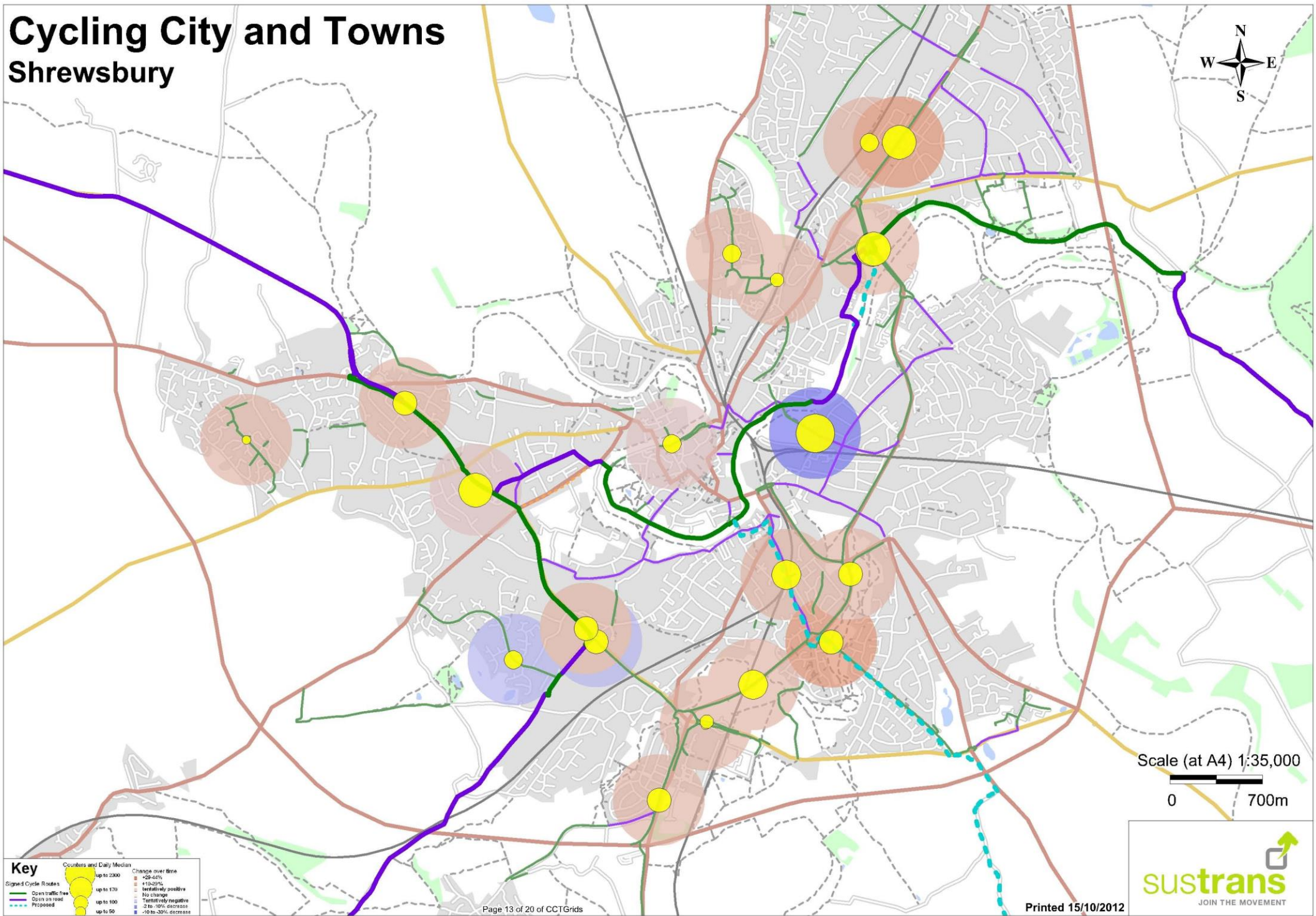


- ### Key
- National Route
 - Open Traffic Free
 - Open On Road
 - Proposed





Cycling City and Towns Shrewsbury



Key	
	Open on road
	Signed Cycle Routes
	Proposed
	Counters and Daily Median
	up to 2000
	up to 170
	up to 100
	up to 50
	Change over time
	+29-44%
	+16-25%
	relatively positive
	No change
	relatively negative
	-2 to -10% decrease
	-10 to -30% decrease

Scale (at A4) 1:35,000
0 700m

