

Appendix 3: Permanent ATC data analysis- Burnham Lane Northbound Scheme

Permanent Automatic Traffic Counters (ATCs) have been placed on the following roads in the Burnham area to record average daily traffic flows and mean traffic speeds:

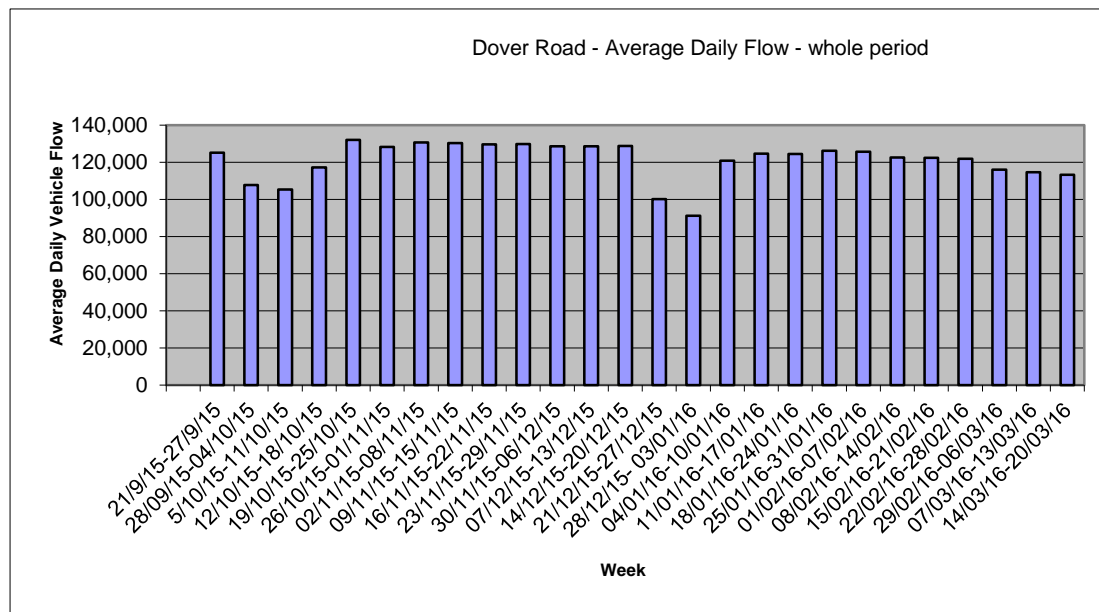
- Dover Road
- Bath Road (Huntercombe Roundabout)
- Bath Road (west of Stowe Road)
- Burnham Lane (south of railway bridge, one way section)
- Buckingham Avenue
- Station Road (south of railway bridge)

As the experiment is now focussed around the re-opening of Station Road in a northbound direction, the graphs will show the changes in traffic patterns over the whole experimental period (September – present), which includes the following definitions referred to in this document:

- 'Before' – the period prior to 16 October 2015, when Phase 1 of the scheme (full closure) was put into place;
- 'Phase 1' – the period between 16 October 2015 and 24 February 2016, when the full closure of Station Road was in place; and
- 'Phase 2' – the period from 25 February 2016, when the northbound operation of Station Road was in place, and remains in place.

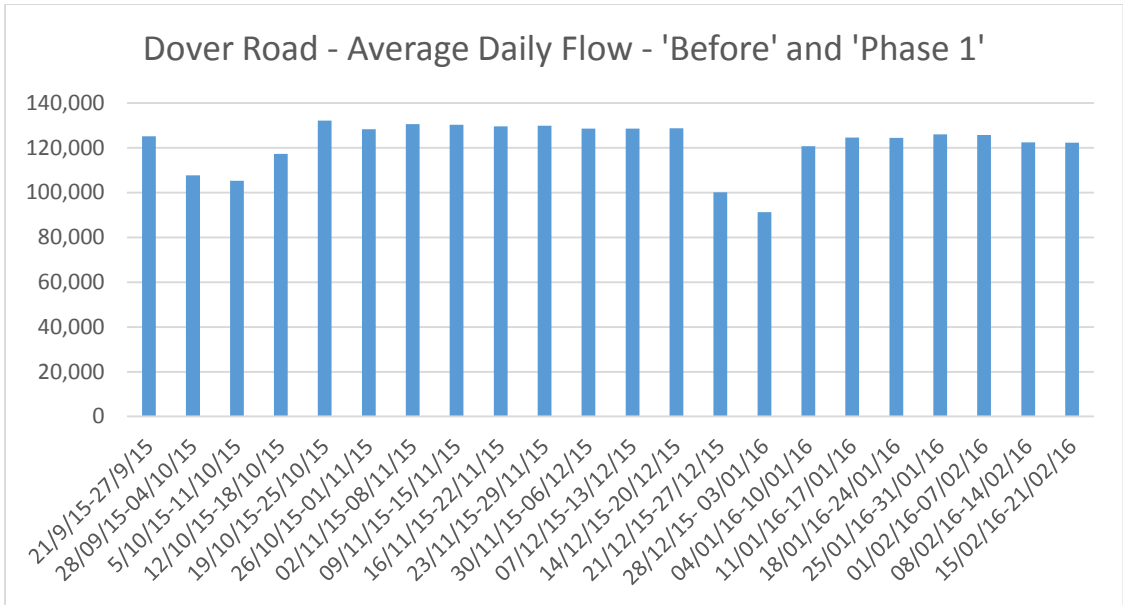
Dover Road

Daily Traffic Flows

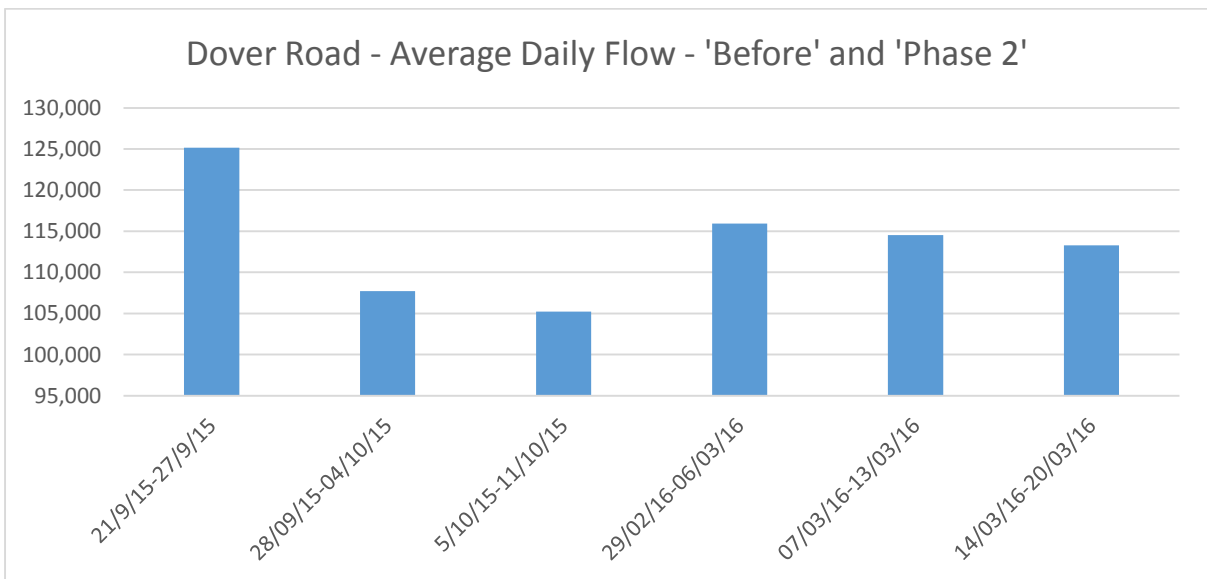


The above graph shows the daily flow from the time before any scheme was implemented, through to the time when Station Road was closed entirely to the current time with Station Road operating in a northbound direction. There is a general pattern of rising traffic levels during the full closure of Station Road, a fall in traffic volume around the Christmas period, and then a slight fall at the time that Station Road is opened in a northbound direction.

The two following graphs show the comparison between the following timeframes: before any schemes, the full closure, and the northbound scheme in more detail.

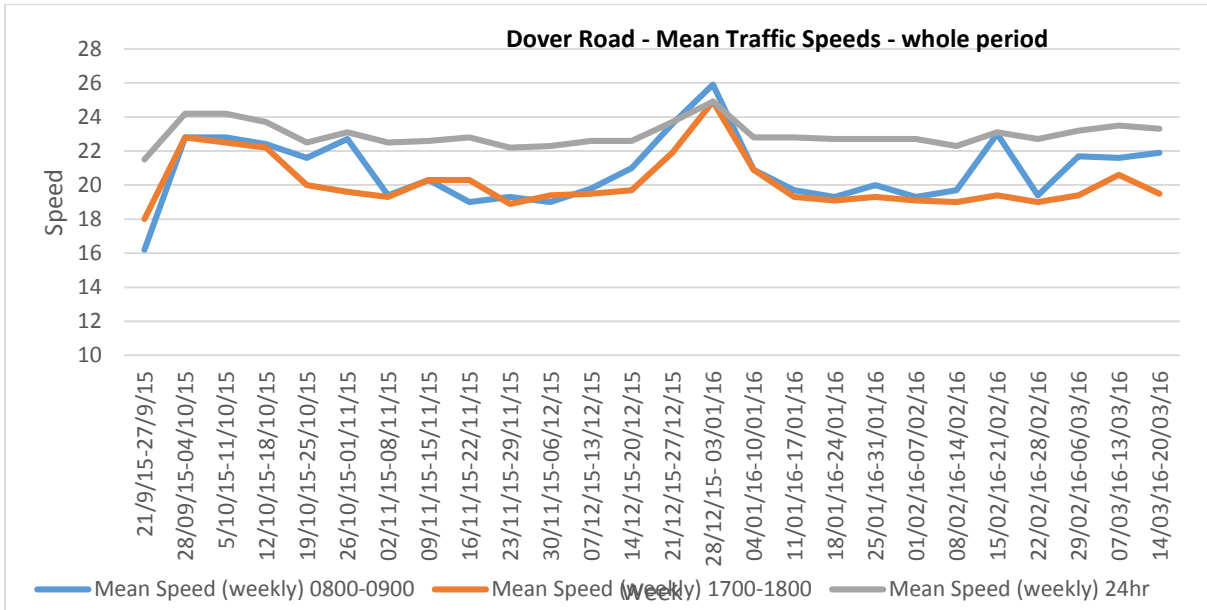


Before the scheme was implemented there was an average daily flow of 112,700, after Station Road was closed this rose 10% to an average of 123,568. As can be seen there is a dip around the Christmas period, where, as can be expected there was reduced traffic.

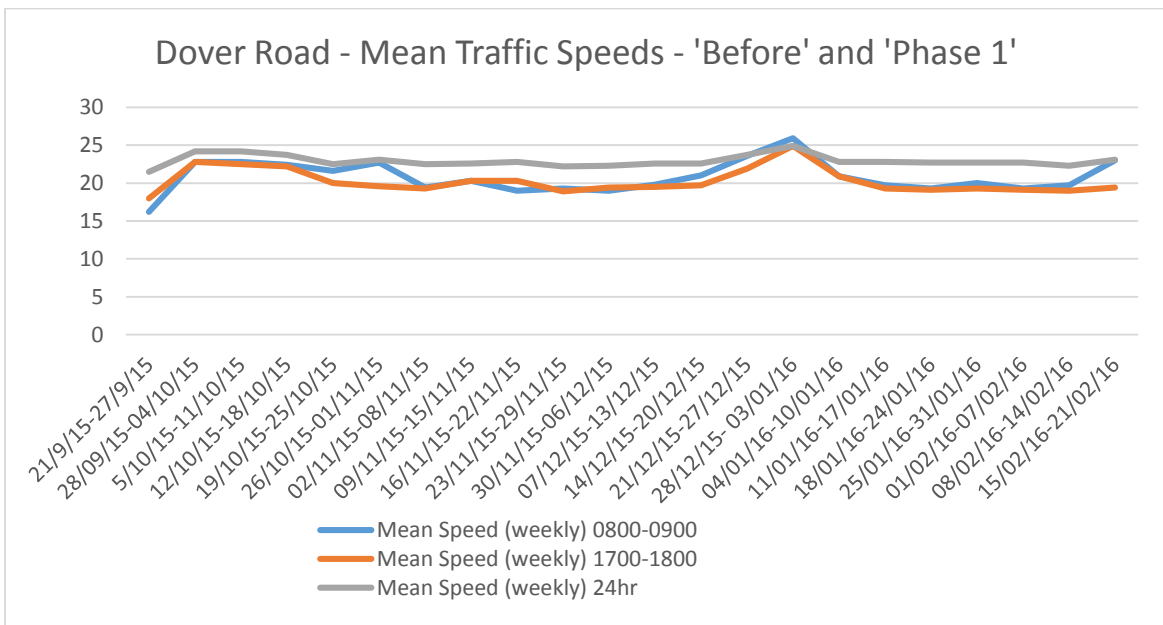


When comparing the road before a scheme was in place and after the northbound scheme was implemented it can be seen that overall on average there has been a very slight increase, in the region of 2%.

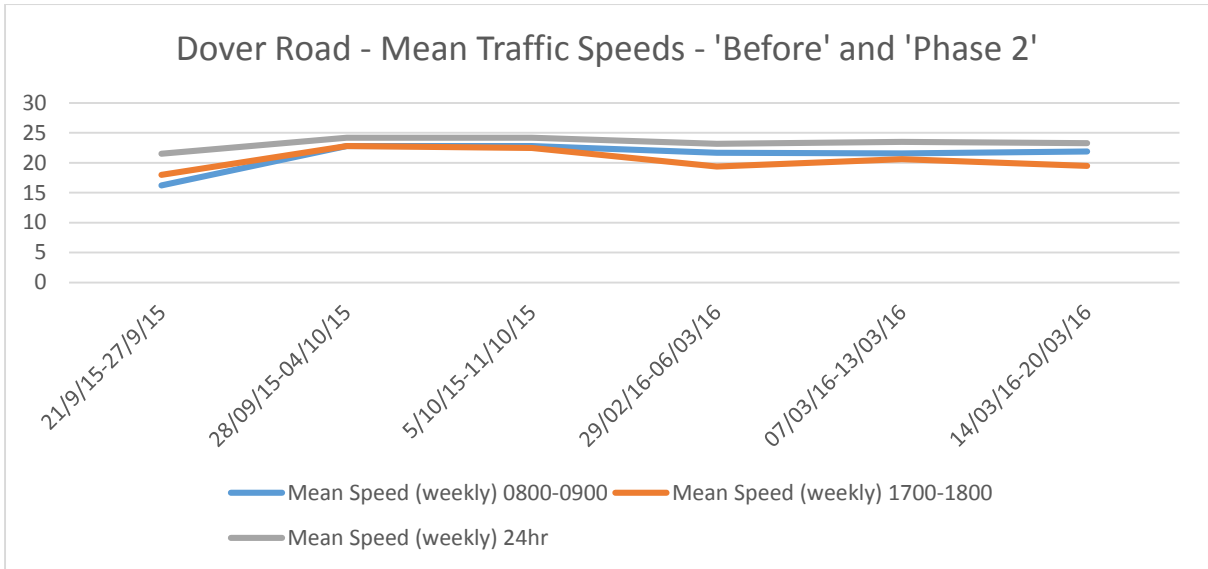
Mean Traffic Speeds



The above graph shows the pattern of traffic speeds from before any scheme, through the full closure of Station Road and the northbound opening. Speeds have fluctuated throughout the schemes with an obvious peak around the Christmas period which coincides with the lower traffic levels.



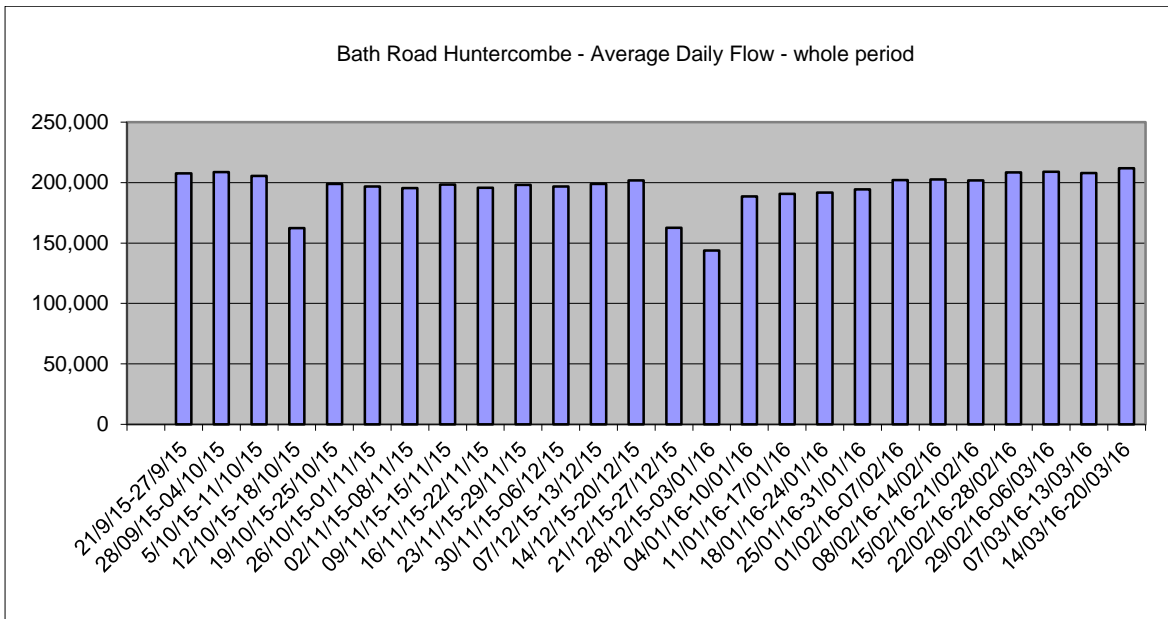
The above graph shows the changing traffic speeds before the closure of Station Road and during the full closure. Although there have been slight fluctuations throughout, the speeds have stayed relatively consistent, with a rise over Christmas correlating with the reduction in the volume of traffic.



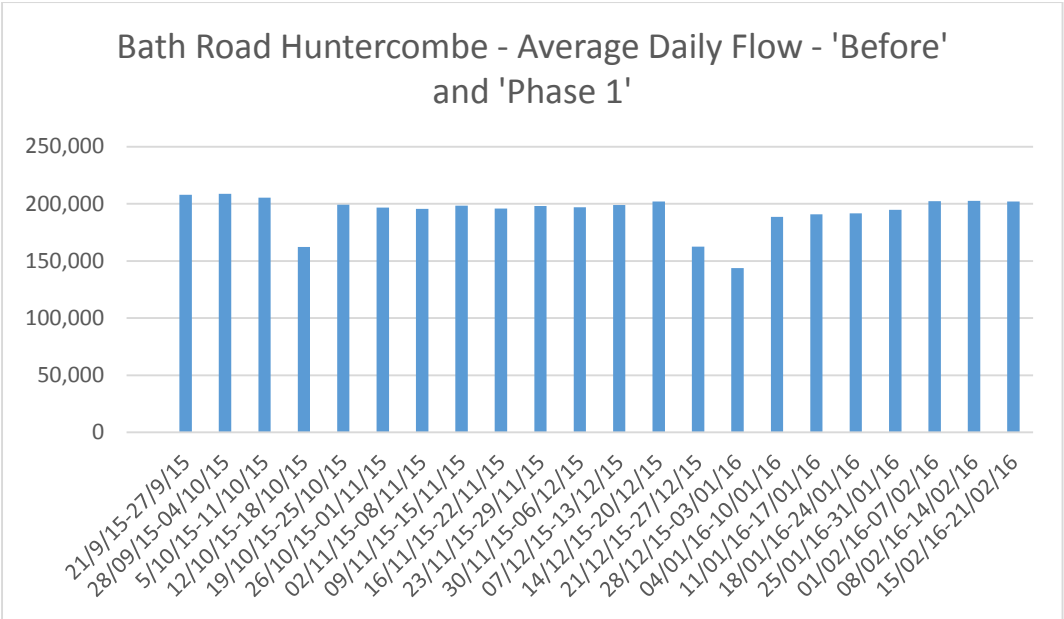
This graph illustrates traffic speeds before any scheme and during the northbound only scheme. As can be seen speeds have stayed relatively consistent, with a slight drop in the mean PM peak speed.

Bath Road (Huntercombe Roundabout)

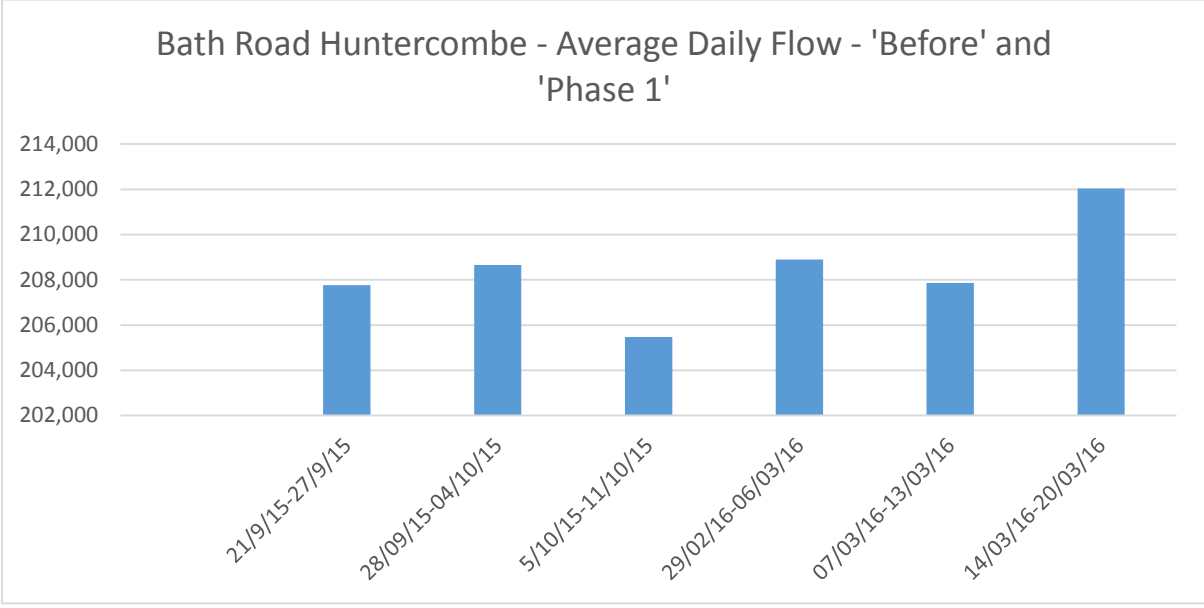
Daily Traffic Flow



The graph above shows the pattern through the whole experimental period. As with Dover Road, flows have fluctuated throughout but with a marked decrease over the Christmas period. Levels during the northbound scheme are slightly higher than that during the full closure or before any scheme.

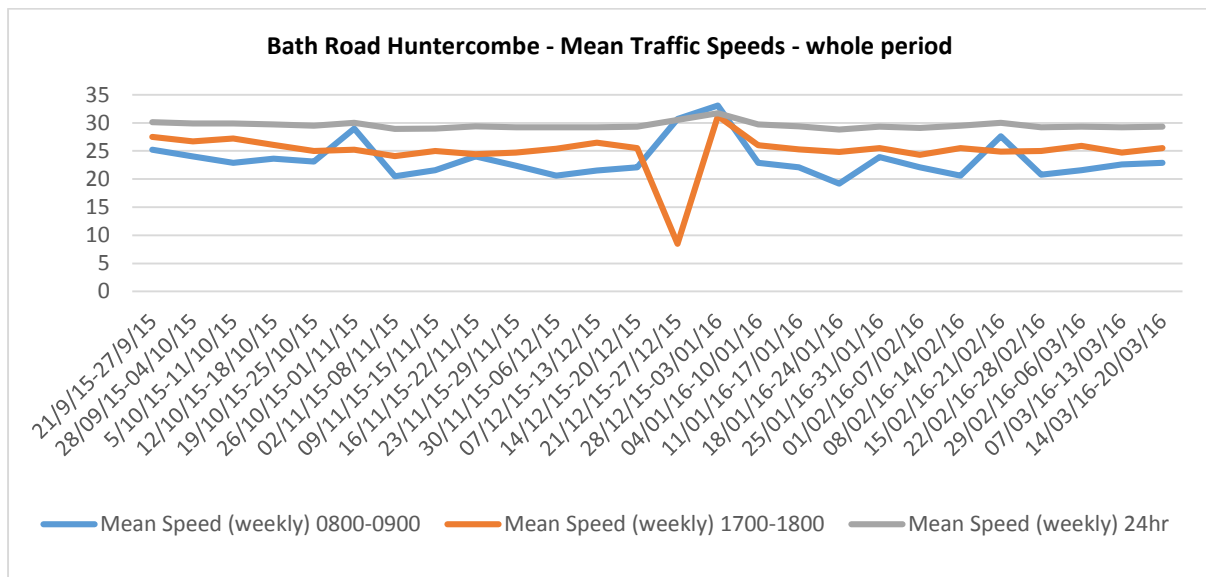


The above graph shows in more detail the change in flows for the road before the scheme and during the closure of Station Road. Traffic levels fell by about 7% in this time.

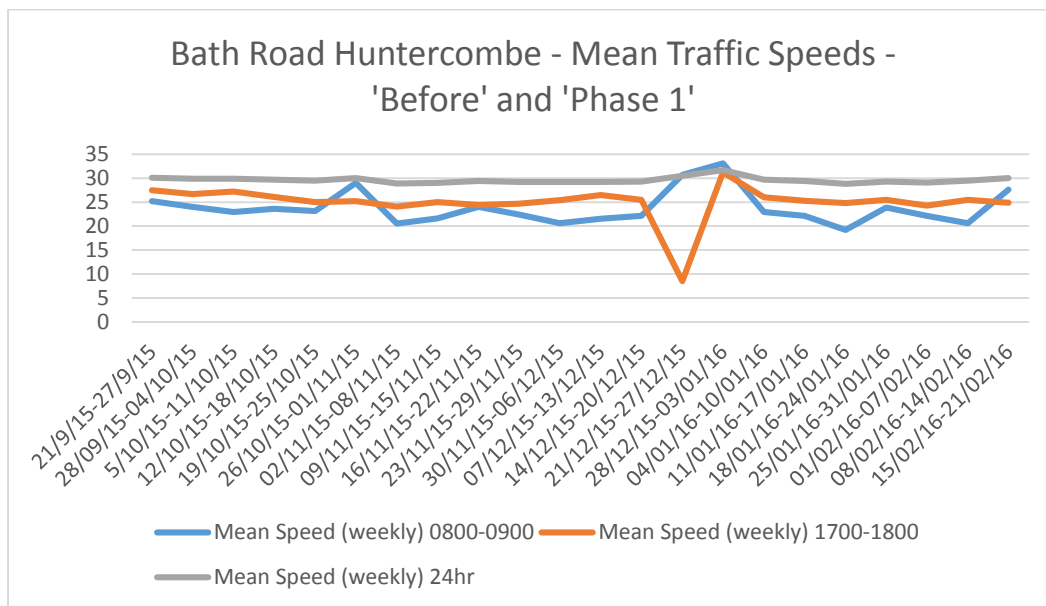


When comparing the traffic levels on the road before the closure of Station Road and during the northbound scheme it can be seen that there has been a rise. Although in the most recent week of data this has been greater, overall it is a rise of approximately 1%.

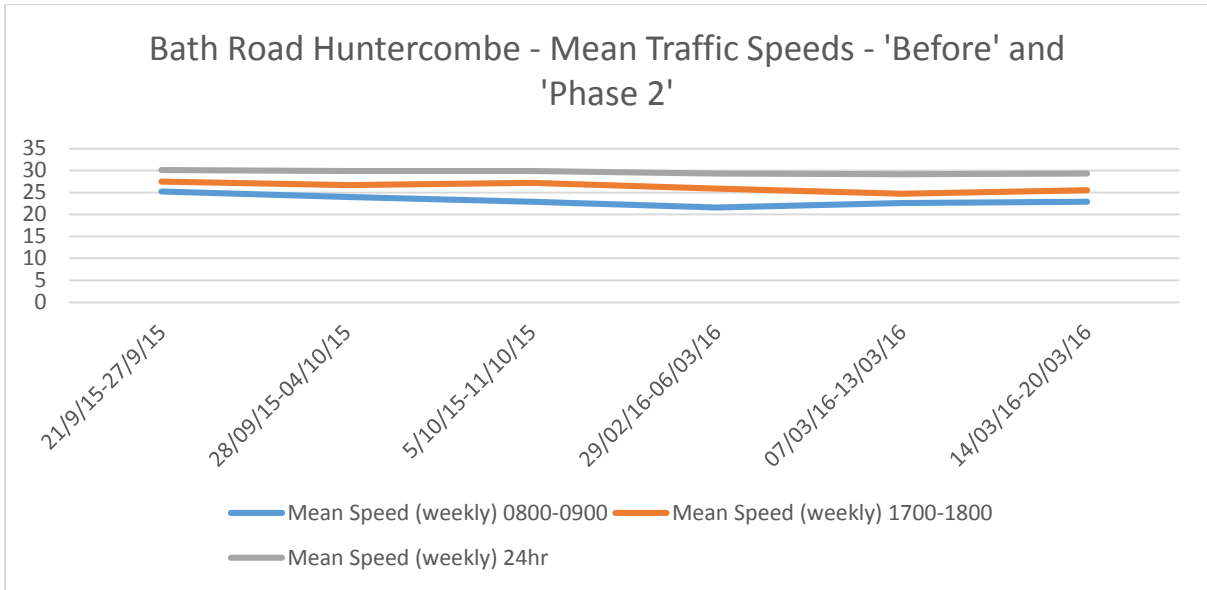
Mean Traffic Speeds



Over the whole experimental period mean traffic speeds have fluctuated, especially the AM peak speed. There was a large decrease in the mean weekly speeds in the middle of December but this coincided with a rise in the AM and PM peak speeds.



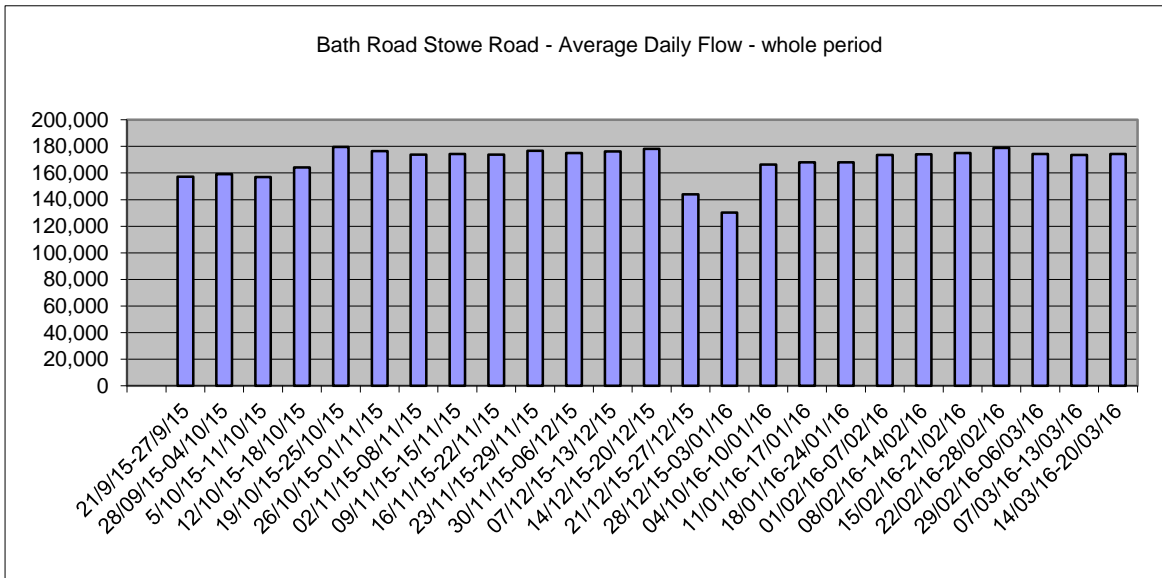
When comparing the road before any schemes to after full closure, as stated before there were major fluctuations around the middle of December but speeds on the whole stayed relatively consistent.



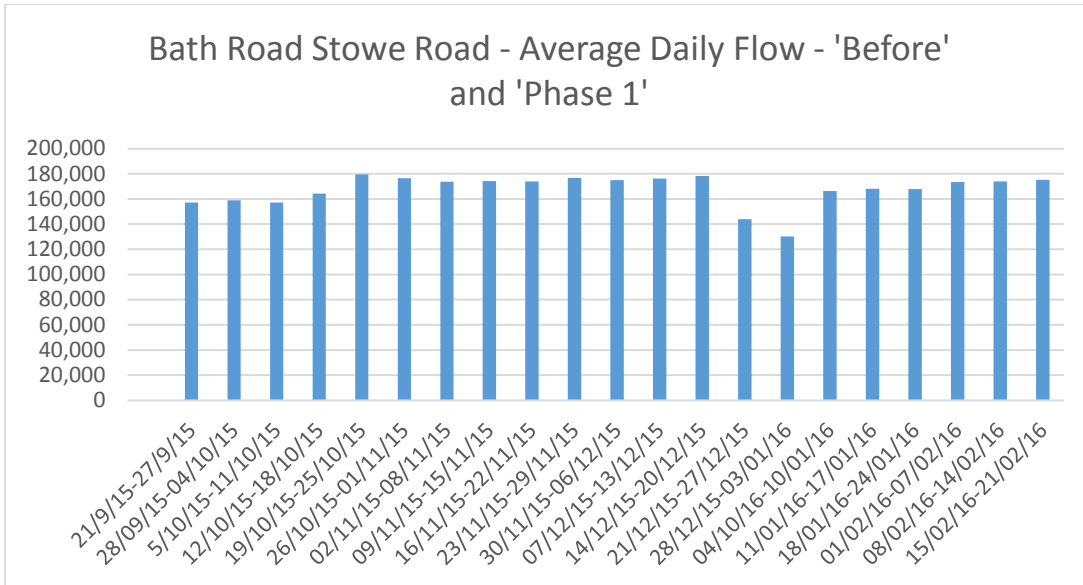
Speeds along the road before any scheme and during the northbound scheme are very similar, with only a very slight decrease noted.

Bath Road (west of Stowe Road)

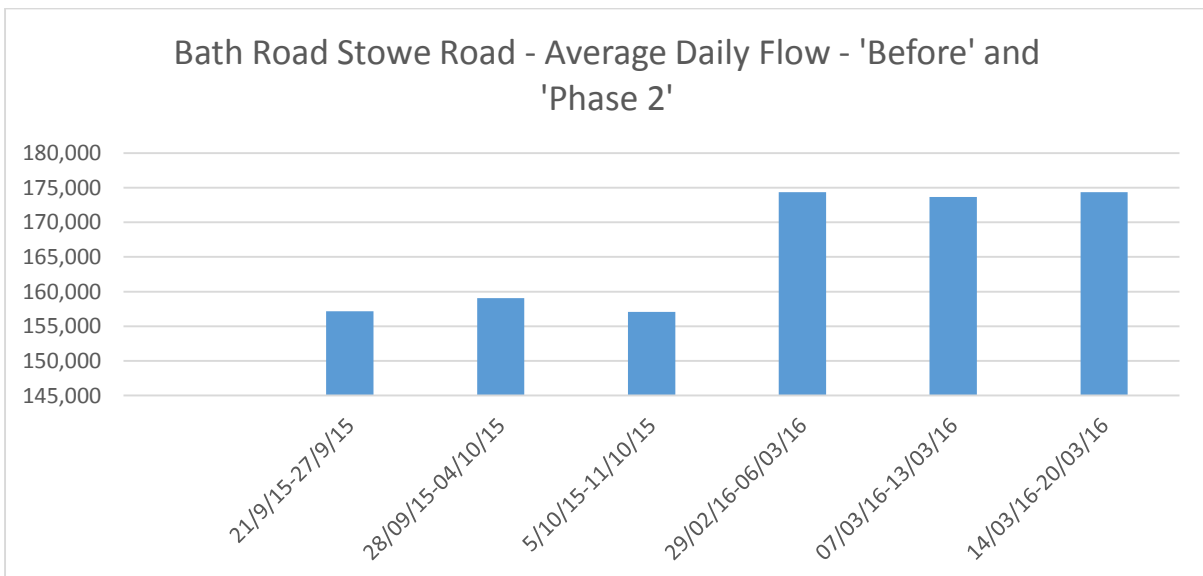
Average Traffic Flow



The data shows that average daily traffic flows have risen on Bath Road since both the full closure of Station Road and the Northbound Scheme. Flows after the northbound scheme were slightly higher again that during the full closure.

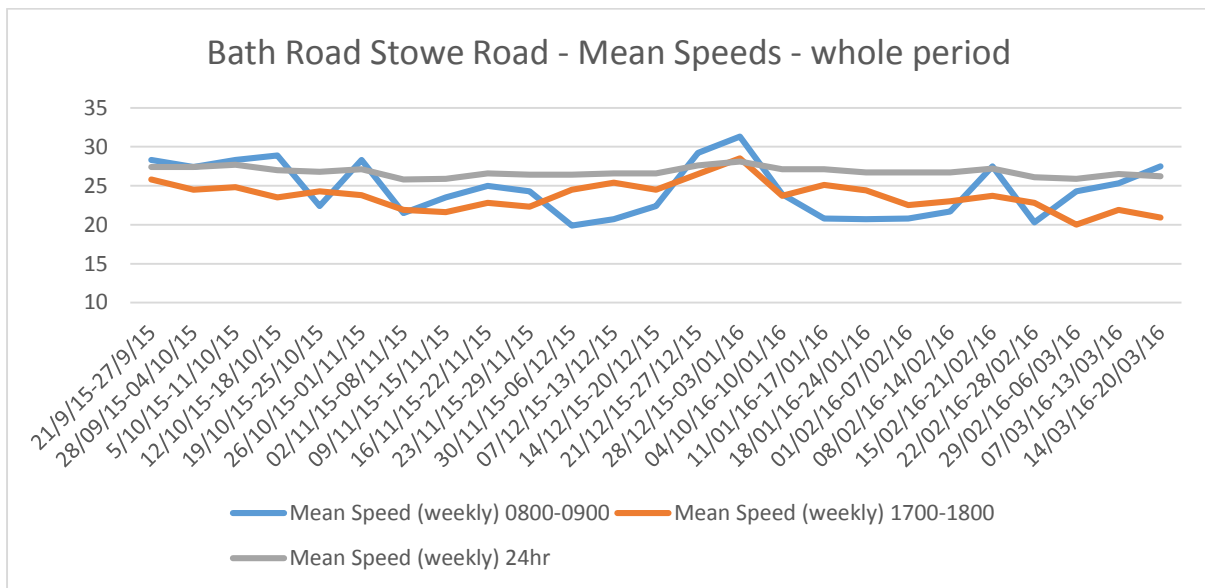


Traffic levels along Bath Road rose after the closure of Station Road, the rise was in the region of 8%.

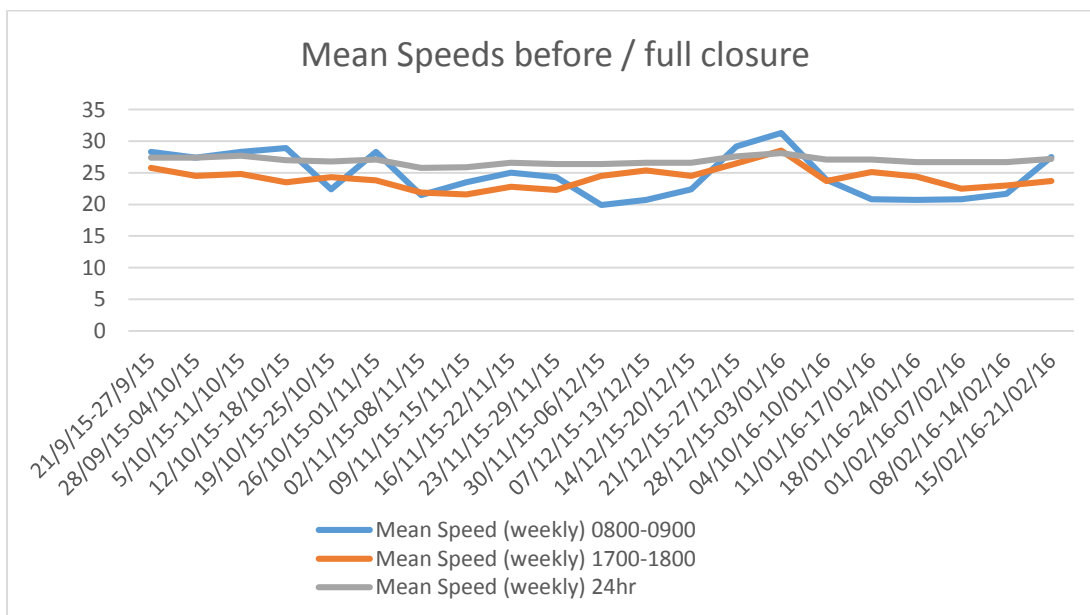


When comparing the traffic flows before any scheme to that during the northbound only scheme it can be seen that there has been a rise. This is calculated to be around 10%.

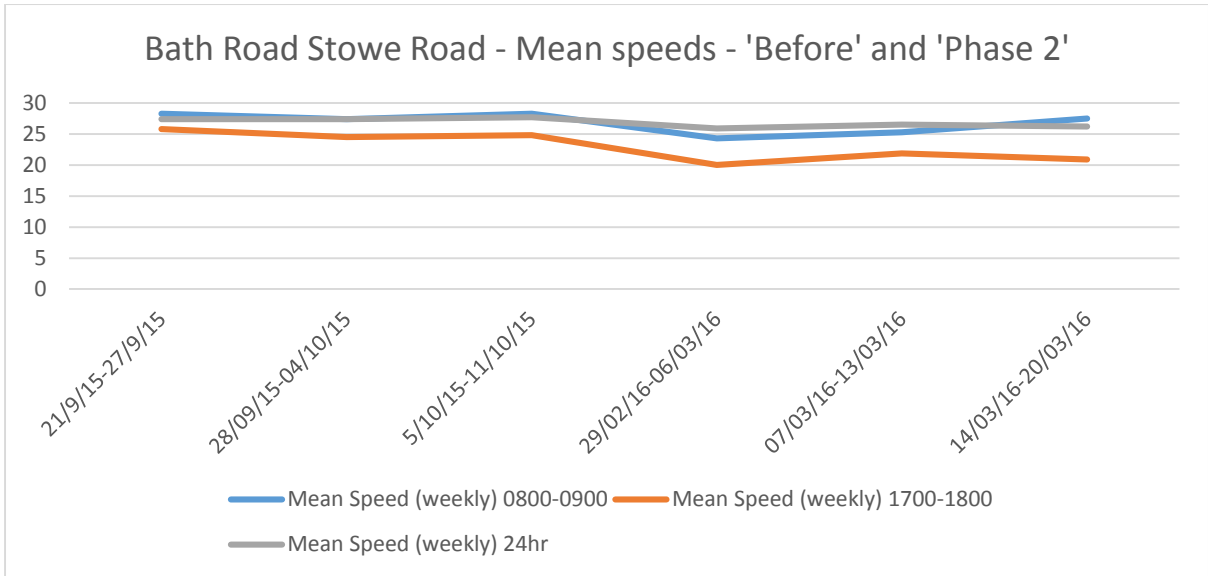
Mean Traffic Speeds



Over the whole experimental period speeds have fluctuated considerably. Especially the AM and PM peak speeds. Overall it appears as though there has been a very slight decrease in speeds.



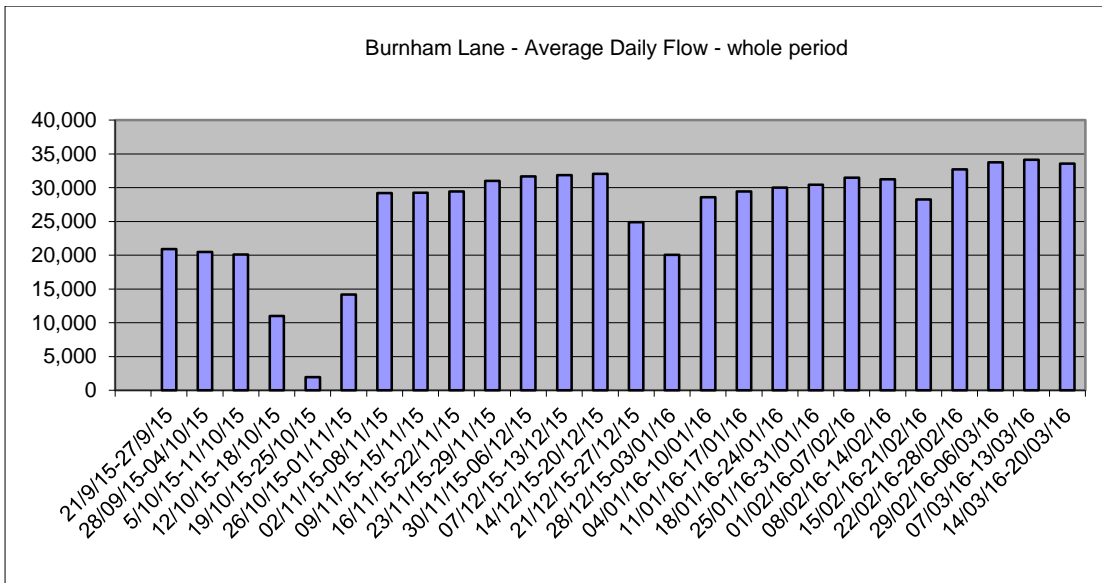
The graph above shows the speeds along Bath Road before any scheme and during the full closure of Station Road. There was a rise in speeds over the Christmas period and overall just a very small decrease in speed.



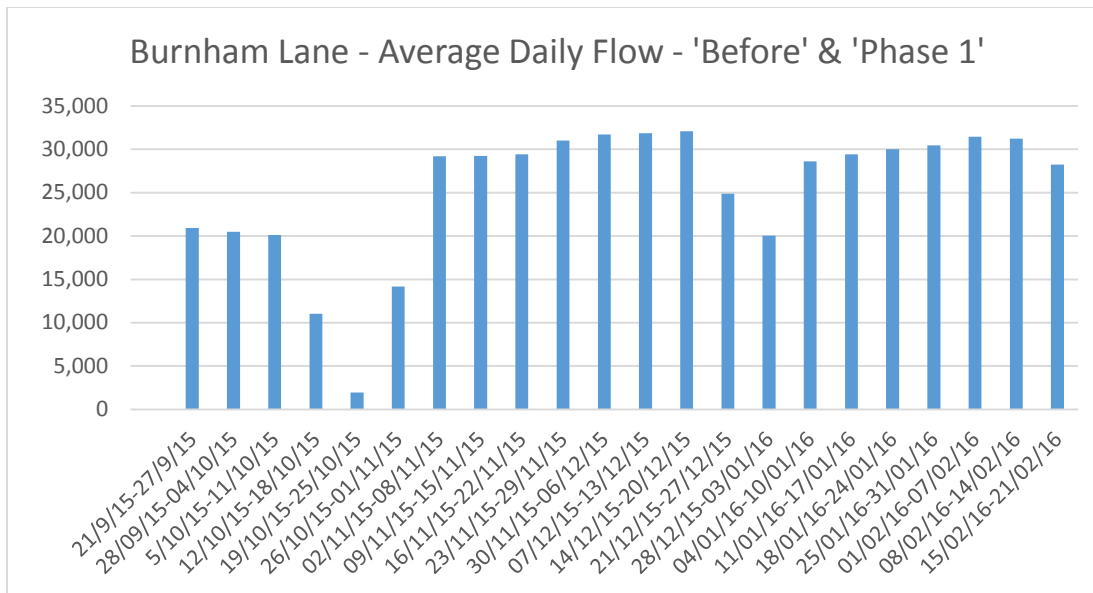
When comparing speeds before any scheme and during the northbound only scheme it can be seen that they have stayed relatively consistent. Overall there has been a small decrease, this is most obvious in the PM peak speeds. 31

Burnham Lane (near railway bridge, one way section)

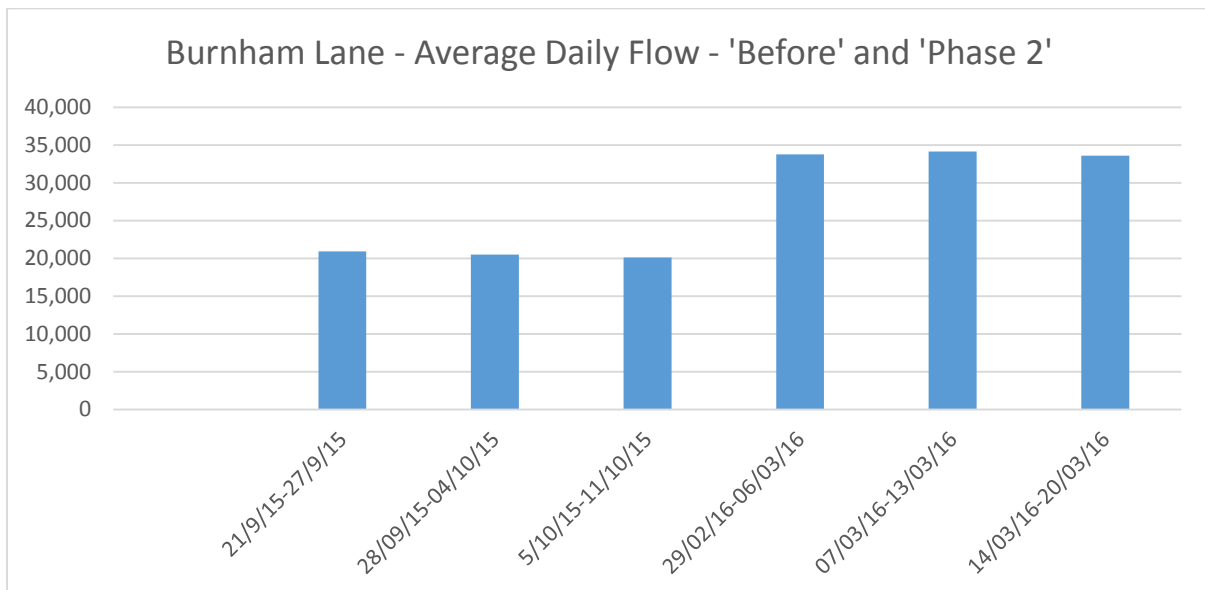
Average Traffic Flow



The changes along Burnham Lane have been quite marked. There was a significant rise in traffic levels after the full closure of Station Road and a further increase after the northbound only scheme was implemented.

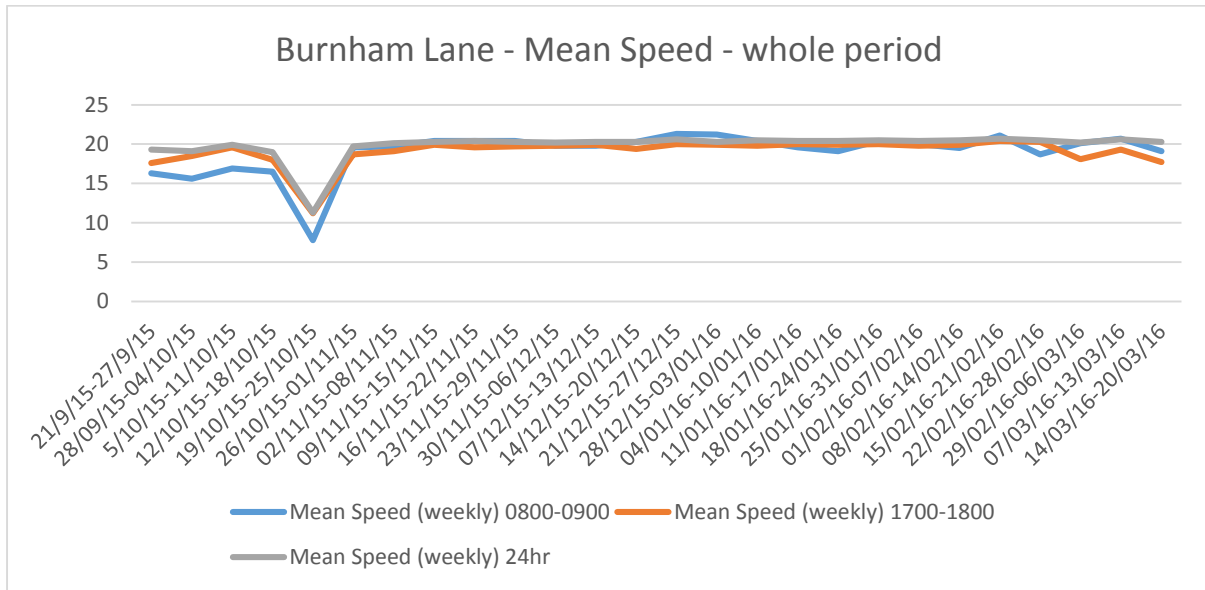


As shown above there was a marked increase in traffic levels along Burnham Lane after the closure of Station Road, this has been calculated to be an increase of approximately 31%. A decrease at the time around Christmas can again be seen, as can a large decrease in traffic levels in the week that the scheme was implemented and the week following this.

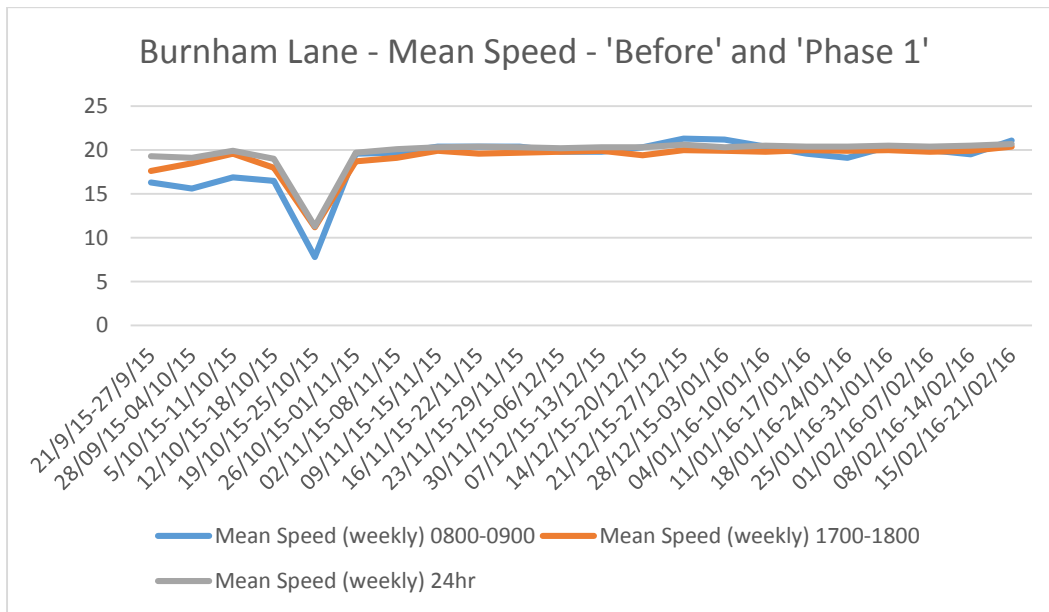


The increase in traffic levels is even more apparent when comparing the levels before any scheme and during the northbound only scheme. Here the increase is in the region of 65%.

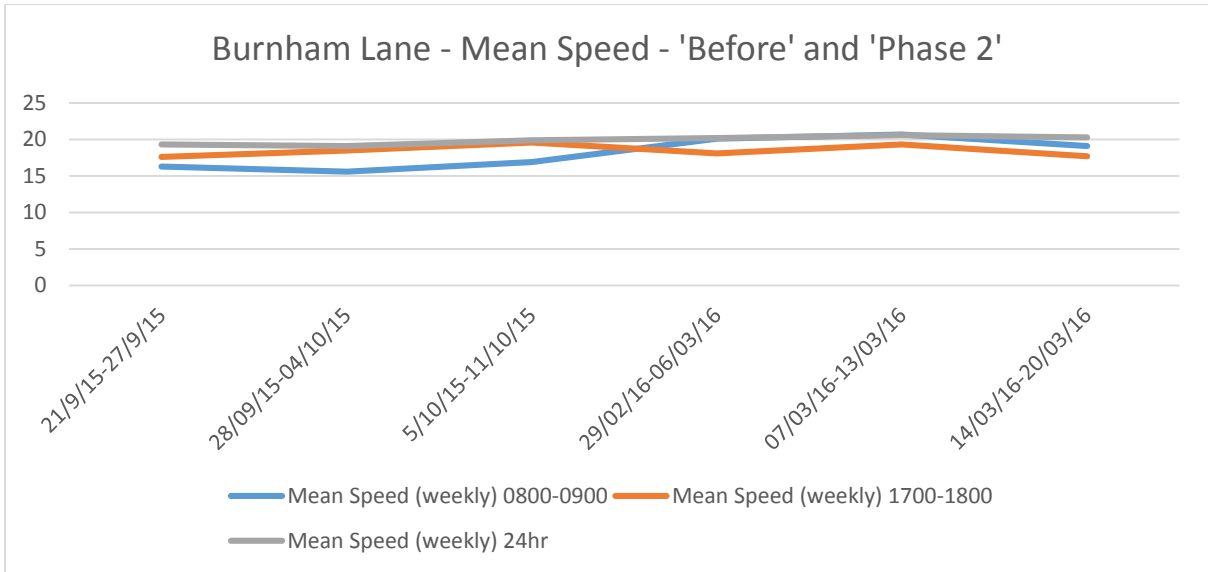
Mean Traffic Speeds



Over the whole period (September – present), apart from a large decrease in speed along Burnham Lane the week the full closure was implemented, speeds have stayed consistent.



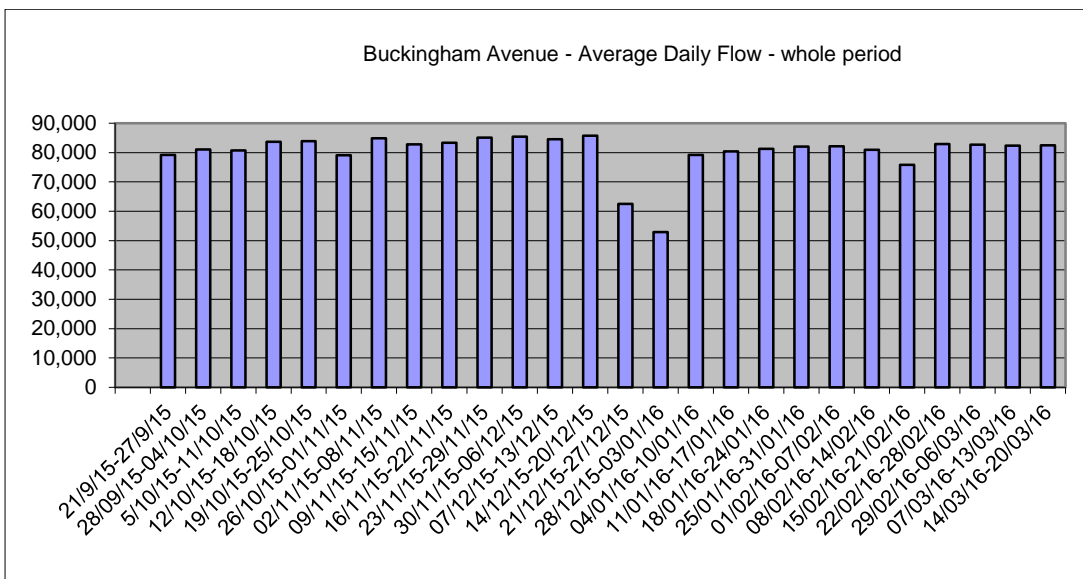
As stated above there was a large decrease in speeds along the road the week that the full closure was implemented. Apart from this time, throughout the rest of the full closure scheme speeds stayed very consistent, with overall a slight rise.



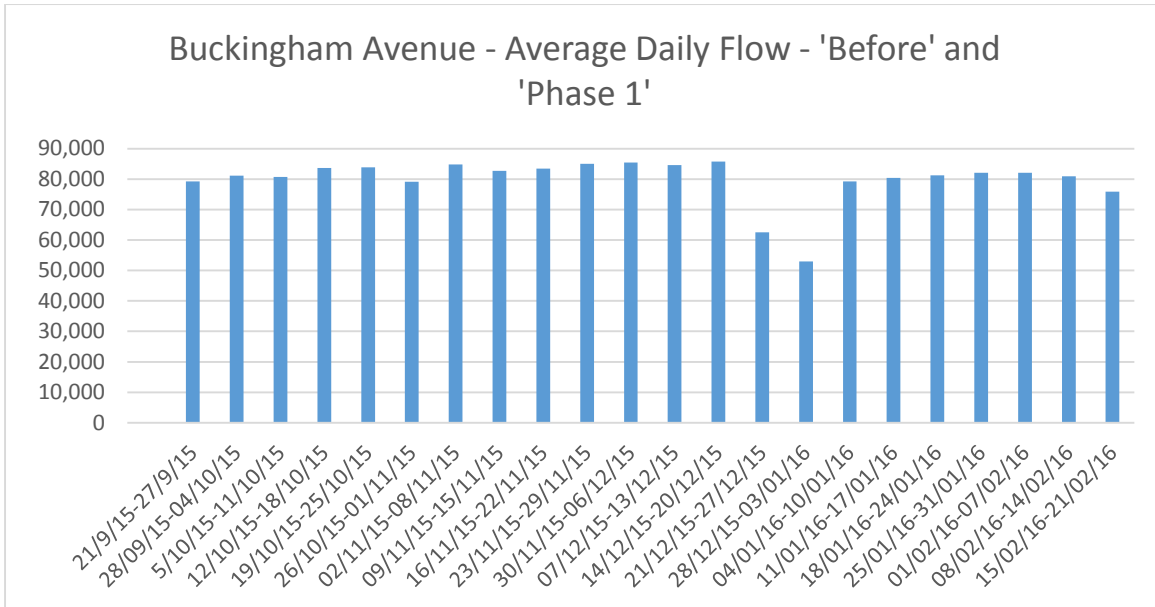
As with the full closure of Station Road, the northbound scheme did not result in a significant change in speeds on Burnham Lane. There was a slight increase in the mean AM peak speed.

Buckingham Avenue

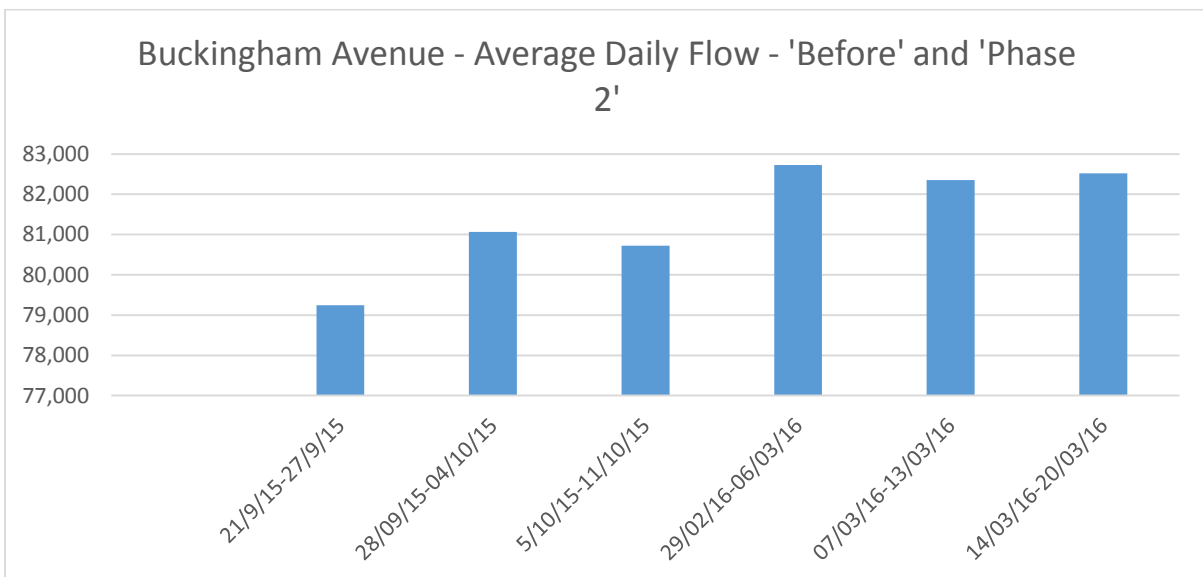
Average Traffic Flow



There has been very little overall change in the mean traffic flows along Buckingham Avenue throughout the whole experimental period. Apart from the dip in traffic levels over the Christmas period, they have stayed quite consistent.

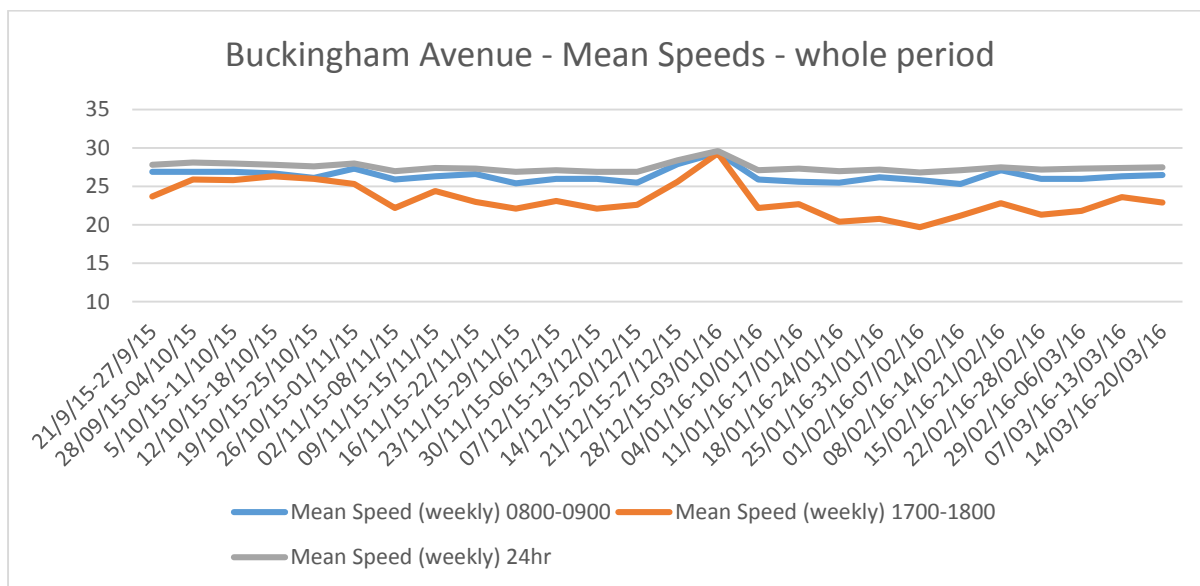


Traffic levels after the full closure of Station Road were very similar to those before, with a 1% decrease in levels, probably due to the effect of Christmas.

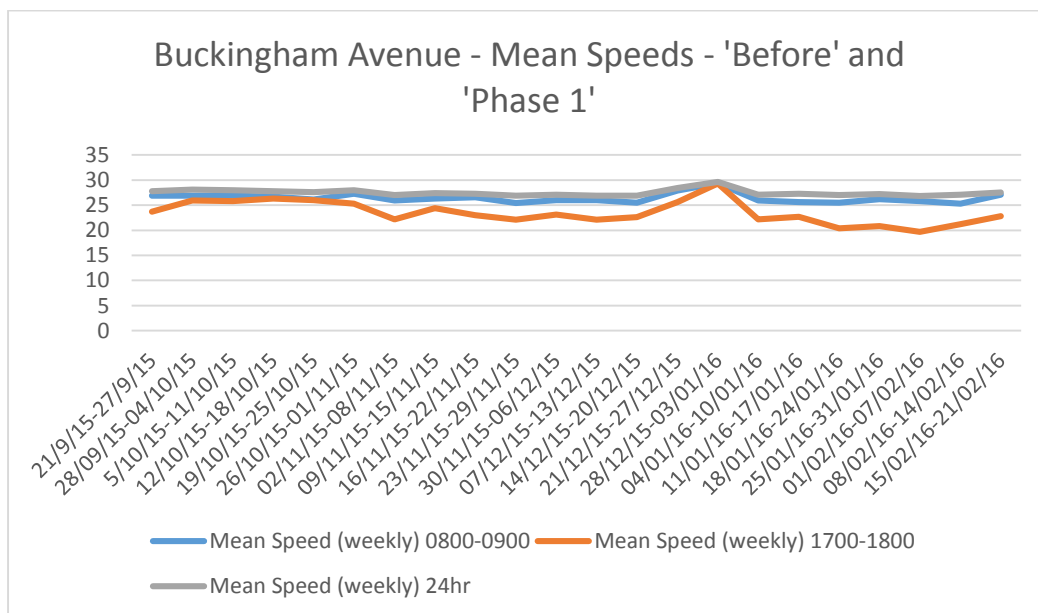


The increase in traffic levels after the re-opening of Station Road northbound compared to before any scheme was in the region of 3%, this is slightly higher than that during the full closure of Station Road.

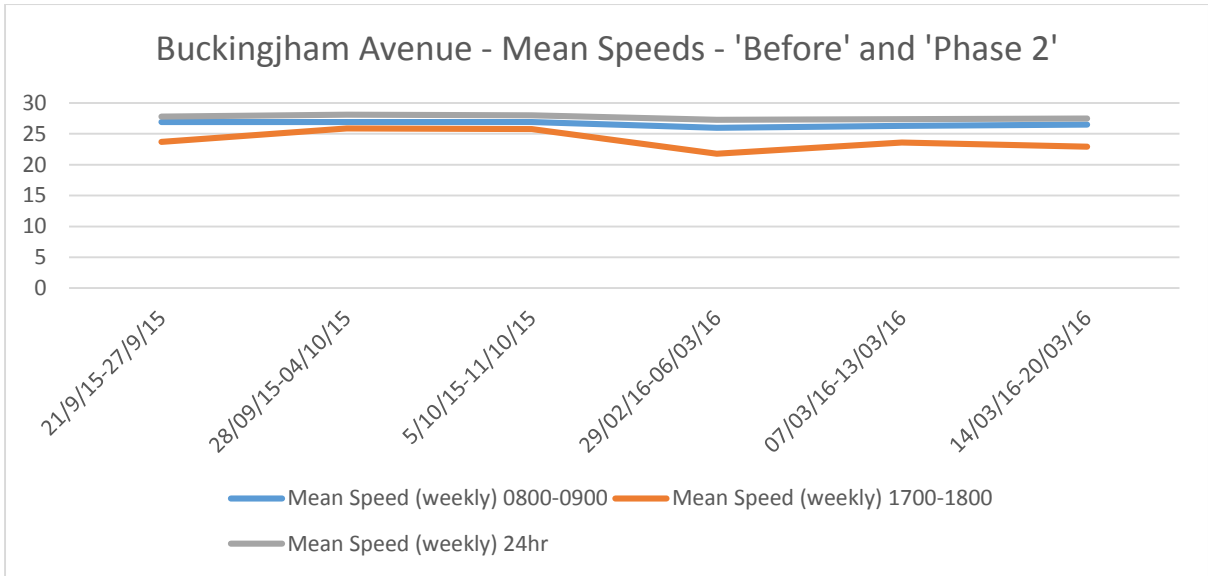
Mean Traffic Speeds



Over the whole experimental period speeds decreased slightly during the closure of Station Road and recently, during the opening of the road northbound have risen again. There was once again a spike in speeds during the Christmas period.

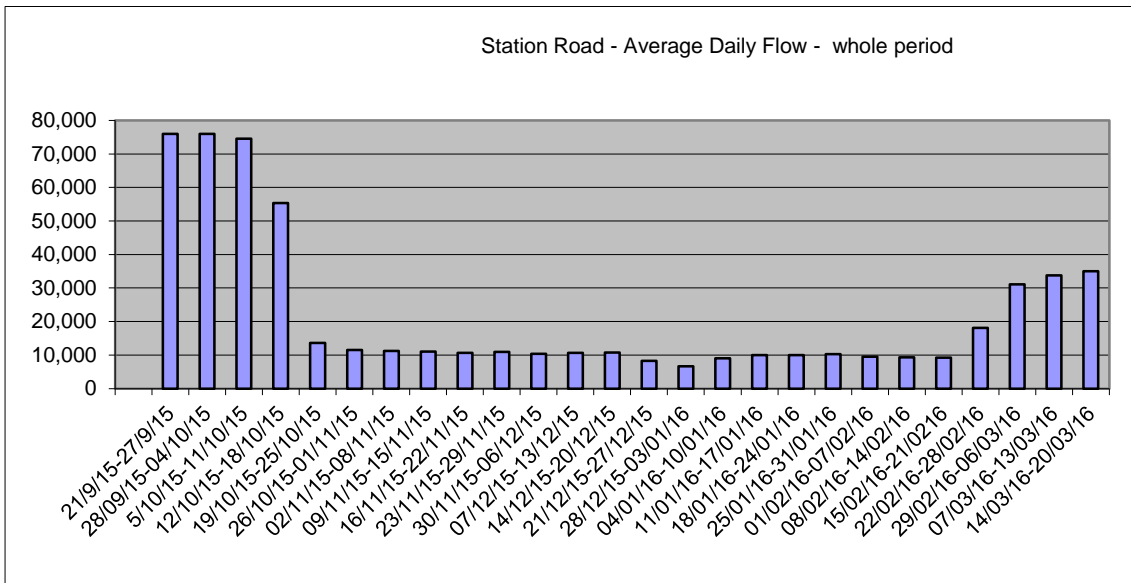


As previously stated speeds along Buckingham Avenue decreased slightly during the full closure of Station Road, this was most apparent in the PM mean speeds and the decrease was greatest during January / February.

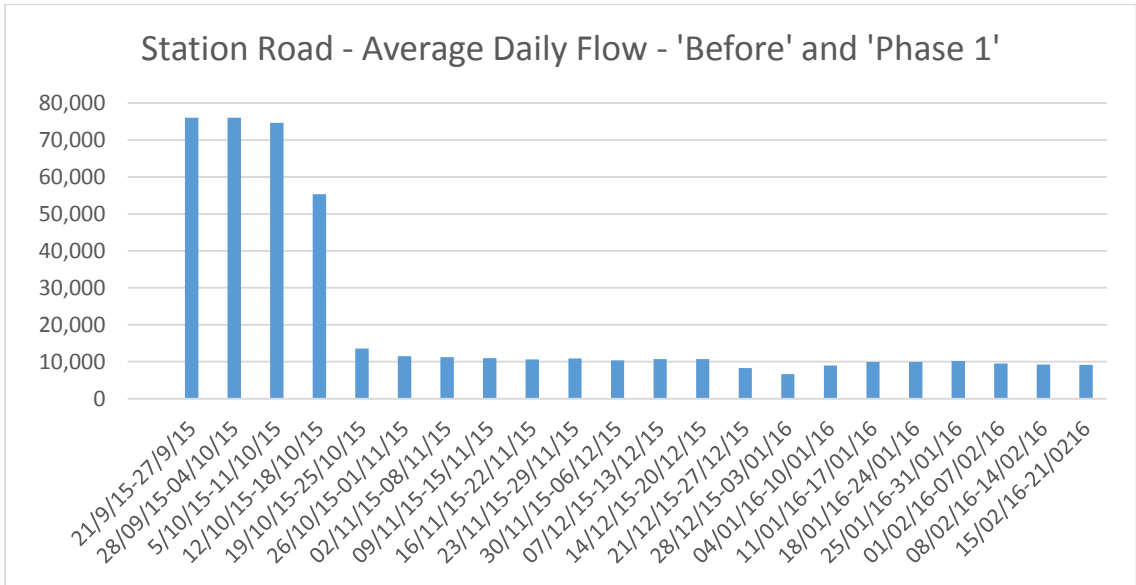


Speeds started to rise again when Station Road was opened northbound. After this they were almost identical to before any schemes were implemented, apart from the PM mean speeds which show a very slight decrease.

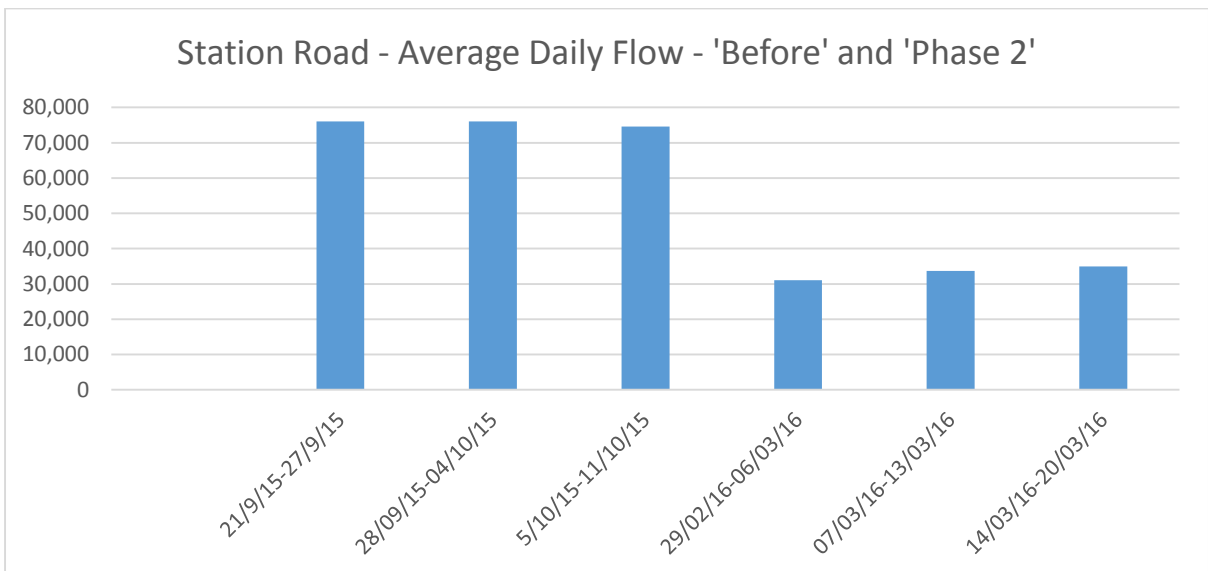
Station Road (south of railway bridge)



As would be expected after the closure of Station Road under the bridge, traffic levels dropped off dramatically. An 87% decrease in traffic levels has been recorded. Once the road was opened northbound traffic levels have begun to rise again.

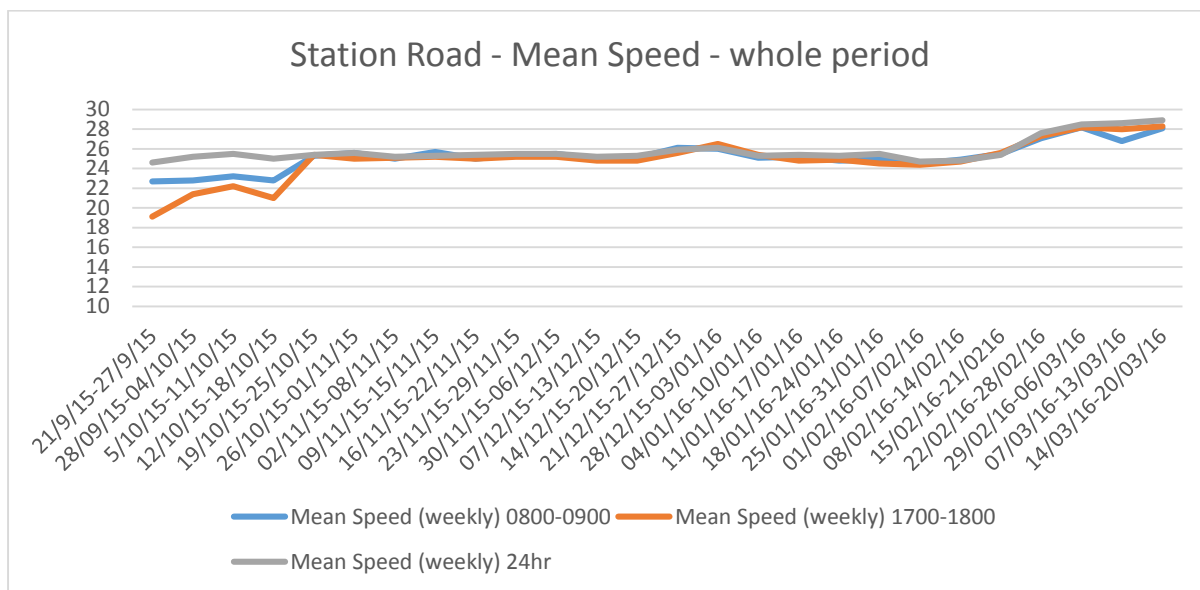


As stated above traffic levels after the closure of Station Road under the bridge fell by about 87%.

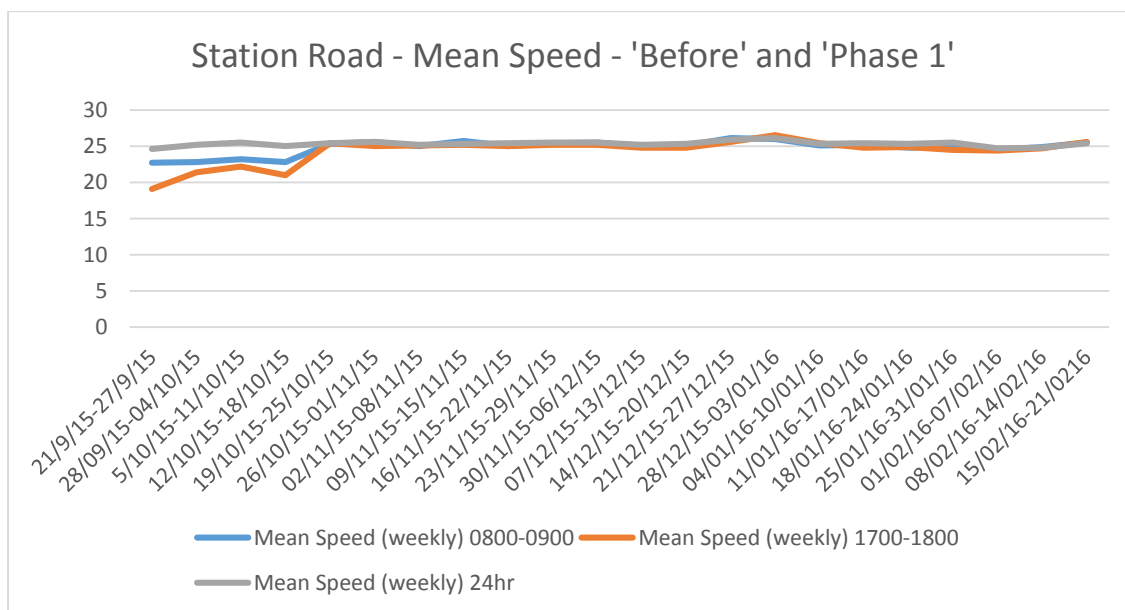


Since northbound traffic has been re-introduced onto the Station Road, traffic levels have started to rise again, however they are still much lower than before any schemes were implemented. The difference is approximately -56%.

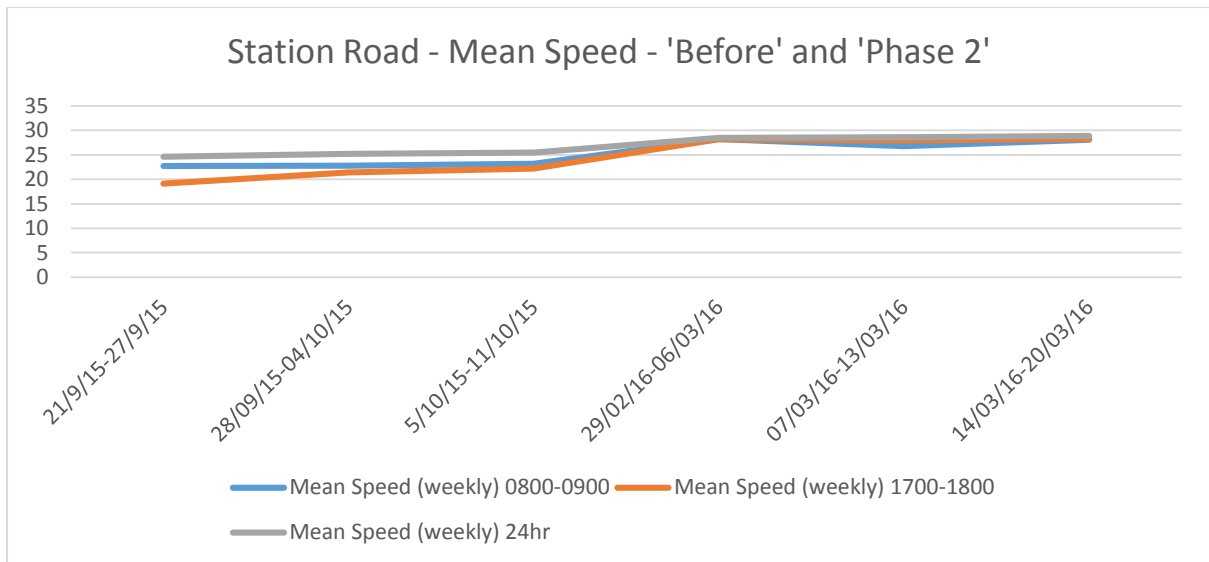
Mean Traffic Speeds



Mean traffic speeds along Station Road rose once the road had been closed and have continued to rise past the point of the road reopening northbound.



Traffic speeds rose along Station Road just after it was closed under the bridge. Following this, during the closure speeds stayed consistent.



Since the full closure of Station Road, speeds have risen on Station Road, as can be seen from the above graph this is particularly apparent since the re-opening of the road northbound. Speeds are now on average between 5 and 10 mph faster than they were when there was no scheme in place.