

APPENDIX C – CASE STUDY 2

Road safety improvement Scheme: Collision Reduction Scheme 2016/17

Location: Hospital Bridge Road/Percy Road/Powder Mill Lane/Percy Road, Whitton - signalised junction improvement scheme

Background

In summer 2015 improvements were made to the junction of Hospital Bridge Road with Powder Mill Lane. This scheme was as a result of local complaints with regards to congestion on Powder Mill Lane in addition to a number of collisions at the junction. This scheme consisted of changes to the central traffic islands, kerb-lines, approach lane widths and general arrangement of the junction. One issue which was highlighted from the collision assessment was an issue with right turning vehicles into Percy Road believing that they had the right of way when lights were green and not appreciating that south bound traffic had priority. It had been thought that this was due to poor sightlines and that the scheme detailed above, which improved sightlines significantly, would assist.

Whilst the above scheme had a positive impact on traffic movement through the junction, unfortunately these right turning collisions continued to happen. Following two collisions in late 2015, caused by right turning vehicles into Percy Rd (colliding with southbound Hospital Bridge Road traffic), it was considered essential to introduce a dedicated right turn traffic signal for vehicles turning into Percy Road. It was therefore proposed to stop all right turning traffic on a red light and when on green these vehicles can make their turn without conflict.

Collisions

In the 3 years prior to this scheme, August 2013 to August 2016, there were 13 collisions in total at this junction. Of these, 7 involved vehicles turning right from Hospital Bridge Road into Percy Road. This approximately equates to 2 per year following the same manoeuvre.

Proposed improvements

To prevent these collisions, it was proposed to stop all right turning traffic on a red light and when on green these vehicles would turn without conflict. Transport for London undertook detailed traffic signal modelling to assess the impact of this change on the surrounding network. Given the close proximity of the A316 junction, there was a real need to ensure that any changes did not have a negative impact on movement along the A316. The results showed that the additional dedicated right turn signal would not impact on the operation of the A316/Hospital Bridge Road roundabout.

Consultation

The dedicated right turn lane was being considered in light of collisions and was referred to previously when phase 1 of the junction scheme was consulted on. A consultation was therefore not undertaken on this element of the scheme and all 3 ward councillors were supportive.

Approval

The scheme was approved for implementation in May 2016 by the Cabinet Member for highways and Street Scene and construction was undertaken during August 2016.

Before:



After:



Conclusion.

It can be concluded that the introduction of the separate right turn for traffic from Hospital Bridge Road into Percy Road has been extremely effective in terms of collision reduction and the review of the collision post implementation would suggest a saving of at least 2 collisions per year at this junction.

FYRR Calculation:

Annual accidents saved = 2

Average cost of a collision in 2013 = £80,000

Cost of accident saved per year = 2 x £80k = £160,000

Total cost of scheme when constructed in 2013 = £15,000

FYRR = (£160,000/£15,000) x 100% = 1067%