

High Street Walton on Thames Pedestrian Crossing Facilities

Feasibility Report

February 2018



Project Title: High Street, Walton on Thames
Pedestrian Crossing Facilities

Document Title: Feasibility Report

Client Reference: PC0808

Date: February 2018

Prepared By: Jonathan Wilkinson

Authorised By: Peter Shimadry

Amendment List

Issue / Rev	Issue / Rev Date	Removed		Inserted	
		Page	Issue / Rev	Page	Issue / Rev

File path: I:\EA\PC all\Resource Pool\.....

CONTENTS

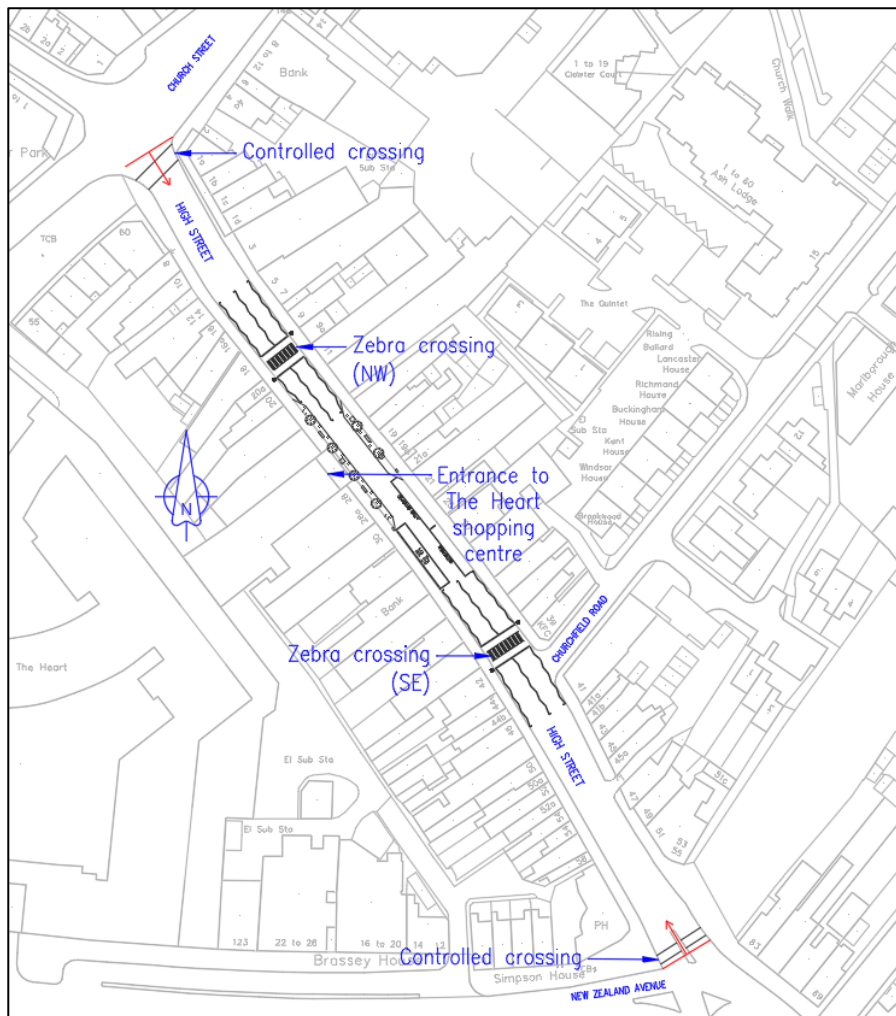
	Page No.
1. INTRODUCTION	3
2. SITE ANALYSIS	3
3. DATA COLLECTION	
3.1. Personal Injury Collision Data	7
3.2. Pedestrian Desire Lines	7
4. DISCUSSION AND OPTIONS	
4.1. Do nothing	9
4.2. Option 1 Zebrite belisha beacons	9
4.3. Option 2 Uncontrolled crossing on a road table	10
4.4. Option 3 Footway buildout NW zebra crossing	11
4.5. Option 4 Zebra crossing on a road table	11
4.6. Option 5 Footway buildouts SE zebra crossing	12
4.7. Other options considered	12
5. RECOMMENDATION	12

1. INTRODUCTION:

This study looks at the existing pedestrian crossing facilities within the High Street, whether they suit current pedestrian desire lines and whether safety improvements are feasible. The study will pay particular attention to the area outside The Heart shopping centre which is a popular place to cross the road.

2. SITE ANALYSIS:

This study looks at the High Street from its junction with Church Street to the junction with New Zealand Avenue a distance of approximately 250m. This section of the High Street is a single carriageway unclassified 'D' road with a 30mph speed limit. Contained within this section are 2 bus stops, a number of parking bays, 6 disabled parking bays and loading bays. See Location Plan below.



Location Plan

At the north-west end of the High Street (junction with Church Street) there is a controlled crossing which forms part of the signalised junction. Approximately 53m further south-east is a Zebra Crossing (outside Caffé Nero) (See Figure 1). A further 33m south-east is the entrance to The Heart shopping centre, outside the shopping centre are footway build outs on both sides of the carriageway (See Figure 2). A further 69m south-east is a second zebra crossing adjacent to the junction with Churchfield Road (See Figure 3). 89m south-east of the second zebra crossing is a controlled crossing which forms part of the signalised junction at New Zealand Avenues.

The visibility to the zebra crossings is affected by the existing parking arrangements as well as street furniture on the footways, including trees and planters.



Figure 1: North-east zebra crossing.



Figure 2: Footway build outs outside The Heart shopping centre.



Figure 3: South-east zebra crossing.

3. DATA COLLECTION:

3.1 Personal Injury Collision Data

An assessment has been made of the personal injury collisions for the High Street between the junctions with Church Street and New Zealand Avenue for the last 3 full years and part of 2017 where data is available, giving the period between 1st January 2014 and 30th September 2017. The Police and Surrey County Council do not collect or hold 'damage only' collision data, and therefore we are unable to report or comment on these.

Latest 3 year and year to date collisions (01/01/14 to 30/09/17)			
Year	Slight	Serious	Fatal
2014	4	1	0
2015	5	0	0
2016	4	0	0
2017 (Jan to Sept)	2	0	0
Total	15	1	0

When the police attend personal injury collisions they assess and log the contributory factors that lead to the collision. The table below shows all the factors that led to the collisions that have been recorded at this location during this assessment period. Some collisions have a number of factors attributed to them.

Collision contributory factors (01/01/14 to (30/09/17)	
Factor	Number
No factors given	2
Failed to look properly	7
Failed to signal/misleading signal	1
Poor turn or manoeuvre	2
Careless/reckless/in a hurry	1
Defective brakes	1
Failed to judge other persons path	2
Too close	1
Vision affected by dazzling sun	2
Defective traffic signals	2
Ped failed to look properly	1
Junction overshoot	1
Swerving	1
Disobeyed pedestrian crossing facility	1
Impaired by drugs	1
Stolen vehicle	1
Inexperienced/learner driver	1
Disobeyed automatic traffic signal	1

Seven of the recorded collisions involve a pedestrian. Two of these will be disregarded as they are not relevant to this study as the cause was not related to the Highway. The five remaining were slight injuries. Three took place at the south-east zebra crossing, one near The Heart shopping centre and one at the north-west zebra crossing.

At the north-west crossing a driver collided with a pedestrian using the crossing, the only contributory factor listed for the collision was that the driver was dazzled by the sun.

At the south-east crossing all three collisions involved pedestrians being struck by drivers. For one no contributory factors were listed or additional details provided. One collision involved a driver of a stolen car impaired by drugs colliding with a pedestrian on the crossing. The third was a collision where the driver had been dazzled by the sun.

The contributory factor of the collision near The Heart was listed as a pedestrian failing to look properly. The report states that a pedestrian stepped out between parked cars into the path of a car.

3.2 Pedestrian Desire Lines

On Wednesday 23rd August 2017 a site visit was carried out and observations were made on the pedestrian crossing roads at the existing zebra crossings and the area outside The Heart shopping centre.

Observations show that approximately 41% of pedestrians counted used the north-west zebra crossing, 31% crossed at the south-east crossing and 28% crossed outside The Heart shopping centre where there are currently no crossing facilities.

All pedestrians crossing at the north-west crossing either came from the direction of The Heart shopping centre or were heading in the direction of The Heart shopping centre. A number of pedestrians using this crossing came from the direction of The Heart to cross and then headed back towards The Heart.

The south-east crossing is used by a number of pedestrians who are not heading towards The Heart or coming from the direction of The Heart. It was noted that a number of pedestrians coming from or going to Churchfield Road use the south-east crossing.

4. DISCUSSION AND OPTIONS:

4.1 Do nothing

This option looks at carrying out no works.

There were 5 personal injury collisions involving pedestrians recorded between 1st January 2014 and 30th September 2017 that are relevant to this study. However it is difficult to draw any conclusions from the collision data available as there are no patterns to the collisions other than two car drivers were dazzled by the sun.

Conclusion

It is difficult to draw any conclusion from the collision data and whether making changes to the existing crossings would improve the situation. However site observations indicate that relocating existing crossing locations may better serve pedestrian desire lines. It was also observed that visibility of pedestrians waiting to cross on the west side of the north-west crossing were obscured from approaching traffic by trees on the footway buildouts outside The Heart shopping centre. The visibility of pedestrians on the south-east crossing could be improved as they can be obscured by parked vehicles.

4.2 Option 1 – Zebrite belisha beacons

This options looks at replacing the existing belisha beacons with zebrite beacons. Zebrite beacons would improve conspicuity of the crossings.



Figure 2. Example of a Zebrite beacon.

Conclusion

Two of the collisions on the zebra crossings had the contributory factor of the car drivers being dazzled by the sun. Replacing the existing beacons with zebrite beacons would further highlight the crossing to drivers, it is not possible to say whether it would have prevented any of the collisions.

Guide for construction costs - £11,000 - £15,000

4.3 Option 2 – Uncontrolled crossing on a road table outside The Heart shopping centre and removal of the adjacent zebra crossing (see drawing PC808_01 Sheet 1)

There are currently footway build outs on both sides of the carriageway outside The Heart shopping centre, this option is to install an uncontrolled crossing on a raised table positioned between the two build outs. Due to the proximity of the adjacent north-west zebra crossing (30m approx), this zebra would be removed. The raised table would calm traffic approaching the crossing point. Existing trees and a disabled parking bay would have to be removed and the bus stop to the south-east would need relocating to create the required pedestrian visibility. The existing footway buildout outside The Heart shopping centre would have to be reduced in size to accommodate the new bus stop. Existing street furniture would have to be removed or relocated to make space for the crossing facility.

Conclusion

The new uncontrolled crossing point would better suit the desire line of pedestrians. Removing the zebra crossing and introducing an uncontrolled could result in pedestrians waiting to cross the road for longer and possibly taking more risks. The removal of trees and a disabled parking bay may prove unpopular, it may be possible to convert an existing parking bay to disabled elsewhere.

It would also be possible to have an uncontrolled crossing without a raised table but the additional traffic calming benefit would be lost.

Guide for construction costs - £50,000 - £70,000

4.4 Option 3 – Build out footway at the north-west zebra crossing (see drawing PC808_01 Sheet 2).

This option looks at building out the existing footway on the west side of the carriageway at the existing north-west zebra crossing, the footway buildout would be a continuation of the existing buildout outside The Heart shopping centre. The implementation of the build out would improve the visibility of the pedestrians who are currently obscured to traffic approaching from the south-east by trees on the existing build out.

Conclusion

This option would improve the existing zebra crossing but does not accommodate the desire lines of pedestrians crossing outside The Heart shopping centre.

Guide for construction costs - £20,000 - £40,000

4.5 Option 4 - Zebra crossing on a road table outside The Heart shopping centre and removal of the adjacent zebra crossing (see drawing PC808_01 Sheet 2).

This option looks at installing a zebra crossing on a raised table outside The Heart shopping centre, due to its proximity the adjacent north-west zebra crossing would have to be removed. The raised table would calm traffic approaching the crossing point. Existing trees and a disabled parking bay would have to be removed and the bus stop to the south-east would need relocating to create the required pedestrian visibility. Existing street furniture would have to be removed or relocated to make space for the crossing facility.

Conclusion

The current north-west zebra crossing is well used but all the pedestrians observed using it were either heading in the direction of The Heart shopping centre or coming from that direction. Relocating a zebra crossing to outside The Heart shopping centre is unlikely to have a negative impact on the observed pedestrians and provide a safer facility for those who cross outside The Heart shopping centre. The raised table would calm traffic approaching the crossing point. The removal of trees and a disabled parking bay may prove unpopular, it may be possible to convert an existing parking bay to disabled elsewhere.

It would also be possible to have an zebra crossing without a raised table but the additional traffic calming benefit would be lost.

Guide for construction costs - £60,000 - £80,000

4.6 Option 5 – Build out footways at south-east zebra crossing (see drawing PC808_01 Sheet 3).

This option looks at building out the footways at the existing south-east zebra crossing. The implementation of the build outs would improve the visibility of the pedestrians who can be obscured to approaching traffic by parked vehicles.

Conclusion

This option would improve the existing zebra crossing.

Guide for construction costs - £20,000 - £40,000

All of the above options would require safety auditing before pursuing.

4.7 Other options considered

The option to install an additional zebra crossing outside The Heart shopping centre adjacent to the existing north-west crossing was considered but rejected due to its proximity. Having two zebra crossings so close together would be confusing for drivers and unnecessary.

The option to install an uncontrolled crossing on a raised table outside The Heart shopping centre adjacent to the existing zebra crossing was considered. However due to the proximity of the zebra crossing drivers would not be anticipating an uncontrolled crossing point, for this reason the idea was rejected.

5. RECOMMENDATION:

Option 4 to install a zebra crossing outside The Heart shopping centre and remove the adjacent zebra is the preferred choice. This arrangement would better serve the pedestrian desire lines and provide a safe facility to cross the road. The removal of the adjacent north-west crossing is unlikely to have any negative impact on pedestrian journeys.

Option 1 is also recommended, with improved belisha beacons for new and/or existing zebra crossings.