

HAMPSHIRE COUNTY COUNCIL

Decision Report

Decision Maker:	Executive Member for Economy, Transport and Environment
Date:	21 January 2014
Title:	Project Appraisal: Leigh Road/Passfield Avenue / Woodside Avenue, Eastleigh
Reference:	5495
Report From:	Director of Economy, Transport and Environment

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1 Executive Summary

- 1.1 The purpose of this paper is to gain approval to procure and spend and enter into necessary contractual arrangements to implement the proposed improvements at Leigh Road, Woodside Avenue and Passfield Avenue in Eastleigh, at an estimated cost of £1,000,000 funded from Section 106 developer contributions and Local Transport Plan funding.
- 1.2 The scheme consists of two new toucan crossings on the north and west arms of the junction; and widening, to varying degrees, on all arms of the junction.

2 Alternative Options Considered and Rejected:

- 2.1 Three options have been investigated further to reduce traffic queues and delay and introduce controlled pedestrian and cycle crossings.

Option 1: The works would extend both the left turn lane on Leigh Road (W) and the nearside lane on Leigh Road (E). The Passfield Avenue approach would be widened to three lanes but the exit into Woodside Avenue would be only one lane. It also includes the provision of controlled pedestrian and cycle crossings (TOUCAN), east – west across Woodside Avenue, and north – south across Leigh Road (W).

Option 2: As Option 1 but with a two lane exit on Woodside Avenue.

Option 3: As Option 2 but the Passfield Avenue approach would only be two lanes.

- 2.2 All three options provide controlled pedestrian and cyclist crossings across the Woodside Avenue and Leigh Road (W) arms to connect with the existing and planned cycle routes. All three also offer substantial improvements to traffic movements by reducing queues, delays and journey times as demonstrated in Table 1. All options retain bus priority and emergency services green wave facilities.
- 2.3 Option 2 has been taken forward for implementation as this provides the greatest improvement to capacity and reduction in queue length.
- 2.4 Success will predominantly be through a reduction in the average vehicle waiting time at the junction, and also a reduction in the accident statistics at the junction. These measures will be monitored once the project is completed.

3 Background

- 3.1 The Leigh Road/Passfield Avenue/Woodside Avenue crossroads is a key junction in Eastleigh's primary road network, serving both east-west and north-south movements within the town and connecting the town centre to M3 Junction 13. Passfield Avenue provides a link to M27 Junction 5, which is necessary because Junction 13 does not facilitate movements to M27 eastbound, and Woodside Avenue can be used to reach M3 Junction 12.
- 3.2 The junction is signal controlled but there are uncontrolled left turn lanes with give-way priority from Leigh Road (E) into Passfield Avenue and from Leigh Road (W) into Woodside Avenue. All four approach roads are traffic sensitive streets and strategic routes, the latter involving Highways Agency diversionary routes. There are bus routes on Leigh Road (east and west) and Passfield Avenue, as well as existing and planned cycle facilities on all four approach roads.
- 3.3 Attention has been given to this junction to address:
 - Traffic congestion and delays at peak times;
 - The impact of traffic queuing on Leigh Road at the junction contributing to its designation as part of the Eastleigh Air Quality Management Area in 2005;
 - The lack of controlled pedestrian crossings; and
 - The lack of cycle crossings to connect existing and planned cycle facilities on all four approach roads.
- 3.4 Traffic flows are high on all arms of the junction and congestion and delays to traffic are issues at peak times. The situation regarding queue lengths and delays was investigated in a feasibility study carried out in 2007. The data shows that the afternoon peak is worse than the morning peak, and delays and queue lengths were substantial in both peak periods.

- 3.5 The junction is a missing link in the cycle network as it lacks pedestrian and cyclist crossing phases, making it difficult for users to safely cross the busy junction. Currently pedestrians and cyclists cross the arms of the junction by utilising the inter-green period between stage changes and cross at the dropped crossing points using the central refuge islands.
- 3.6 In the past five years nine Personal Injury Accidents occurred at the junction. Two, classed as slight, involved cyclists of 12 and 13 years of age who left the footway to cross an arm of the junction and collided with a vehicle. One serious accident happened when an invalid carriage also left the footway to cross an arm of the junction. Controlled crossings would help to address this problem.
- 3.7 The 2007 feasibility study recommended Option 1, however the analysis contained the caveat that until the design, site geometrics and signal staging were finalised the results were only preliminary. In 2010 the traffic modelling was repeated using the updated information. The results, shown in the table below, meant that Option 2 was now the recommended option.

Table 1

	Option 1	Option 2	Option 3
Woodside Avenue	48%	52%	42%
Leigh Road (E)	58%	64%	55%
Passfield Avenue	65%	73%	51%
Leigh Road (W)	72%	74%	70%

Percentage Reduction in Average Queue Length (from 2010 study)

- 3.8 Neither report recommended Option 3, which had only a two lane approach to the signals from Passfield Avenue, despite it being the lowest cost scheme. This is because the layout is the worst performing option in terms of reductions in traffic delays, journey times and queue lengths. The traffic modelling results indicate that whilst all options give noticeable improvements, Option 2 gives the best results on every arm of the junction. Therefore Option 2 is the preferred option even though it requires third party land.

4 Finance

4.1	<u>Estimates</u>	<u>£'000</u>	<u>% of total</u>	<u>Funds Available</u>	<u>£'000</u>
	Design Fee	100	10	S106 Contributions	850
	Client Fee	10	1	LTP	150
	Supervision	40	4		
	Construction and Land	850	85		
	Total	<u>1,000</u>	<u>100</u>	Total	<u>1000</u>

4.2	<u>Revenue Implications</u>	<u>£'000</u>	<u>% Variation to Committee's budget</u>
	Net increase in maintenance expenditure	4	0.004
	Capital Charge	62	0.041
	Total Expenditure	<u>66</u>	<u>0.045</u>

5 Programme

- 5.1 It is intended to implement the scheme prior to the introduction of road closures in the area associated with the delivery of the Pinch Point scheme at the M27 junction 5 by the Highways Agency (HA). At present the HA are committed to starting works on Junction 5 in June 2014. However, it isn't until the start of widening and surfacing works that there will be a need to close any roads or implement any diversionary routes. Currently the HA are unable to say with any certainty when the surfacing works will commence. Should the works start in August or September of 2014, as currently indicated by the HA, then all works at Leigh Road/Passfield Avenue/Woodside Avenue will be able to be implemented before this time. However, should the works start early in the HA's contract programme the intention is for the Leigh Road/Passfield Avenue/Woodside Avenue scheme to be delivered in two phases. The first phase would start in May 2014 and would involve improvements to the Leigh Road/Passfield Avenue side of the junction which would also deliver capacity improvements to aid the use of this junction as a diversionary route. The remainder of the scheme would be delivered as Phase 2 following completion of the surfacing works at Junction 5.

The timeline shown below is based on all works being able to be completed prior to the HA commencing their surfacing works.

	Gateway Stage				
	1	3	Start on site	End on site	4
Date(mm/yy)	12/12	01/14	05/14	9/14	3/16

6 Scheme Details

6.1 The scheme will include the measures listed below:

- A toucan crossing across the Leigh Road west arm of the junction.
- A toucan crossing on the Woodside Avenue arm of the junction; third party land is required.
- Passfield Avenue will be widened in order to incorporate a new left turn lane with filter signal; third party land is required.
- Woodside Avenue nearside kerb realigned in order to retain the two exit lanes; third party land will be required.
- Signalisation of the left turn lane on Leigh Road west side.
- Widening on Leigh Road east approach, in order to extend the nearside lane.
- Widen Leigh Road west nearside, in order to extend the existing left turn lane.

7 Departures from Standards

7.1 None.

8 Community Engagement

8.1 Eastleigh Borough Council and its Local Area Committee, together with residents, generate a high demand for pedestrian and cycle crossing facility improvements at this junction, and the current vehicle congestion experienced at this main crossroads is well documented. There is a wealth of evidence /documentation held on the scheme file which demonstrates the support for these improvements.

8.2 Both Eastleigh Borough Council and the local County Council members support the scheme.

9 Statutory Procedures

- 9.1 Both toucan crossings will require the statutory public notices.

10 Land Requirements

- 10.1 For the construction of this scheme two strips of land are required and consent to work on private land is needed to reduce the impact of the works on the public highway.
- 10.2 The first and largest strip of land is adjacent the Holiday Inn on the corner of Leigh Road and Passfield Avenue, which is required for the Passfield Avenue left turn lane. An agreement in principle has been made. However this land is leased and there are a number of parties involved. Hampshire County Council, Eastleigh Borough Council, and parties associated with the Holiday Inn have been working in parallel to achieve land transfer in a very tight timescale to enable this element of the works to be undertaken prior to the M27 Junction 5 works diversion.
- 10.3 If the land is not transferred in time, leaving a sufficient gap to complete the whole of the works, then the scheme will be split into two phases to enable the M27 Junction 5 works to go ahead in the middle. This is seen as a medium risk with respect to time delay but not a show stopper. Should, for any reason, the land not be transferred it is proposed to implement Option 3, which still offers substantial improvements to traffic movements by reducing queues, delays and journey times, but does not require the land needed to widen the Passfield Avenue approach to provide an additional lane.
- 10.4 The second parcel of land is along the frontage of the Badi Murchi Indian restaurant on the corner of Leigh Road and Woodside Avenue. This land is required for the Toucan Crossing across Woodside Avenue. Agreement in principle has also been reached with the land owner to dedicate the land subject to accommodation works and fencing by Hampshire County Council. If this parcel of land is not secured in time (which is seen as unlikely as the landowner is keen for us to carry out the agreed accommodation works), the crossing can still be constructed but will only have the Toucan element installed after the land has been acquired and the footway is widened to a cycleway.
- 10.5 All legal costs for these transfers will be funded by the scheme, and this has been included in the scheme cost calculations. A contingency has also been included to cover legal fees.
- 10.6 The acquisition, dedication, or licence of all interests in land required to implement the proposals shall be included for approval in the Schedule of Routine Transactions to be submitted by the Director of Culture, Communities and Business Services to the Executive Member for Policy and Resources and Leader of the County Council.

11 Maintenance Implications

- 11.1 There will be a small increase in the Council's maintenance liability due to the two new toucan crossings and the two arms of the junction which will be widened slightly.

12 Recommendations

- 12.1 That approval be given to procure and spend and enter into necessary contractual arrangements to implement the proposed improvements to Leigh Road, Woodside Avenue and Passfield Avenue in Eastleigh, at an estimated cost of £1,000,000 funded from Section 106 developer contributions and Local Transport Plan funding.
- 12.2 That the Executive Member for Economy, Transport, and Environment recommend to the Executive Member for Policy and Resources that appropriate action be taken to acquire the necessary land to implement the proposals referred to in 12.1.

LTP3 Priorities and Policy Objectives

3 Priorities

- To support economic growth by ensuring the safety, soundness and efficiency of the transport network in Hampshire
- Provide a safe, well maintained and more resilient road network in Hampshire
- Manage traffic to maximise the efficiency of existing network capacity, improving journey time reliability and reducing emissions, to support the efficient and sustainable movement of people and goods

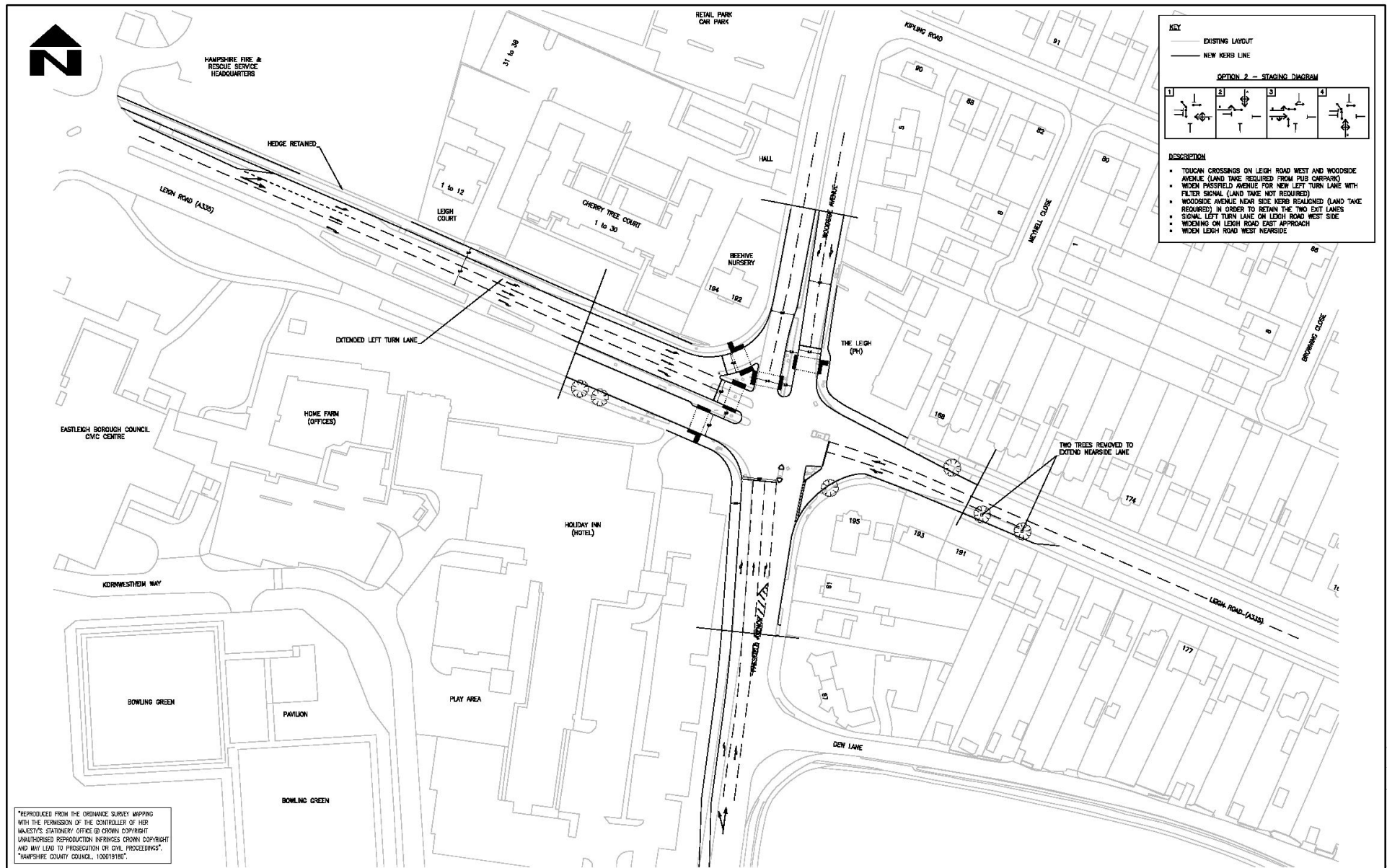
14 Policy Objectives

- Improve road safety (through delivery of casualty reduction and speed management)
- Efficient management of parking provision (on and off street, including servicing)
- Support use of new transport technologies (i.e. Smartcards; RTI; electric vehicle charging points)
- Work with operators to grow bus travel and remove barriers to access
- Support community transport provision to maintain 'safety net' of basic access to services
- Improve access to rail stations, and improve parking and station facilities
- Provide a home to school transport service that meets changing curriculum needs
- Improve co-ordination and integration between travel modes through interchange improvements
- Apply 'Manual for Streets' design principles to support a better balance between traffic and community life
- Improve air quality
- Reduce the need to travel, through technology and Smarter Choices measures

- Promote walking and cycling to provide a healthy alternative to the car for short local journeys to work, local services or school
- Develop Bus Rapid Transit and high quality public transport in South Hampshire, to reduce car dependence and improve journey time reliability
- Outline and implement a long term transport strategy to enable sustainable development in major growth areas

Other

Please list any other targets (i.e. National Indicators, non LTP) to which this scheme will contribute.



KEY

— EXISTING LAYOUT
 — NEW KERB LINE

OPTION 2 - STAGING DIAGRAM

DESCRIPTION

- TIGHTEN CROSSINGS ON LEIGH ROAD WEST AND WOODSIDE AVENUE (LAND TAKE REQUIRED FROM PLUS CARPARK)
- WIDEN PASSFIELD AVENUE FOR NEW LEFT TURN LANE WITH FILTER SIGNAL (LAND TAKE NOT REQUIRED)
- WOODSIDE AVENUE NEAR SIDE KERB REALIGNED (LAND TAKE REQUIRED) IN ORDER TO RETAIN THE TWO EXIT LANES
- SIGNAL LEFT TURN LANE ON LEIGH ROAD WEST SIDE
- WIDENING ON LEIGH ROAD EAST APPROACH
- WIDEN LEIGH ROAD WEST NEARSIDE

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HAMPSHIRE COUNTY COUNCIL ENVIRONMENT DEPARTMENT IMPLEMENTATION GROUP						DRAWN: SB/TM CHECKED: JMH DESIGNED: PFR APPROVED: SS IDH		PROJECT: LEIGH ROAD CYCLE IMPROVEMENTS LEIGH ROAD/WOODSIDE AVENUE JUNCTION REVIEW		DRAWING TITLE: ITS STUDY JUNCTION LAYOUT FEASIBILITY OPTION 2	
ALISON QUANT BSc MSc MRTP, DIRECTOR OF ENVIRONMENT, THE CASTLE, WINCHESTER.				SCALE: A1 1:500		DATE: DEC 2008		SHEET No: 2 OF 3		DRAWING No: 17/A335/14/006	
REV.	AMENDMENT	DATE	DRAWN	CHECKED	APPD	REV	DATE	APPD	REV	DATE	APPD

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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):	

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.)

DocumentLocation

None

IMPACT ASSESSMENTS:

1. Equalities Impact Assessment:

- 1.1 The proposals in this report have been developed with due regard to the requirements of the Equality Act 2010, including the Public Sector Equality Duty and the Council's equality objectives. The website contains a summary assessment of the impacts on Developing Hampshire's highway network and transport systems.
- 1.2 It is considered that the issues covered by this report will not have impacts requiring further specific actions by the Council above those already established in its existing policies and working procedures.

2. Impact on Crime and Disorder:

- 2.1. The scheme is not expected to have an impact on crime and disorder in the local area.

3. Climate Change:

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

The scheme will reduce congestion and waiting times at the junction, which means that the volume of emissions from queuing cars will drop.

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

The scheme will increase the safety and comfort of pedestrians and cyclists, therefore encouraging more sustainable forms of transport.