

Junction	A414/ Thieves Lane/ Hertingfordbury Road Roundabout
Reference	EH36
Location	<p>The A414/ Thieves Lane/ Hertingfordbury Road roundabout forms the western edge of the Hertford Urban area. The A414 is a dual carriageway strategic road providing a connection between the A1(M) and A10 through the centre of Hertford.</p> <p>This report assesses the impact of traffic arising from the District Plan policy HERT 3 West of Hertford housing sites on this junction.</p>

Description of Junction

The junction of the A414 and Thieves Lane is a four arm roundabout with dual carriageway approaches from the A414 to the east and west, Thieves Lane to the north and Hertingfordbury Road to the south.

The A414 is the main east-west road in the local area, and is subject to a 70mph speed limit in the vicinity of the junction. Thieves Lane forms the current western edge of the Hertford urban area and is subject to a 40mph speed limit. Hertingfordbury Road provides access to the settlement of Hertingfordbury to the south and is subject to a 30mph speed limit.

An aerial photograph showing the junction is shown in Figure 1 below.



Development Impact

The source of this information is the Transport Assessment for the HERT 3 West of Hertford residential development sites dated July 2014.

Baseline

Table 1 below shows the maximum observed queue lengths at the A414/ Thieves Lane/ Hertingfordbury Road roundabout during the AM (08:00 – 09:00) and PM (17:00 – 18:00) peak hours.

Table 1 – Observed Queue Lengths (Vehicles)

	AM Peak	PM Peak
Hertingfordbury Road	4	3
A414 Eastbound	12	6
Thieves Lane	9	4
A414 Westbound	10	8

The queue length data shows that queues form on the two A414 entries and the Thieves Lane entry to the roundabout in both the AM and PM peak hours; however, the extent of observed queueing does not suggest that there are currently any capacity problems at the junction.

Development Impact

The Transport Assessment contains the results of ARCADY models assessing the cumulative impact of the District Plan HERT 3, West of Hertford housing developments on the operation of the A414/Thieves Lane roundabout. The results of the modelling, in terms of the ratio of flow to capacity, are set out in Table 2 below.

Table 2 – Ratio of Flow to Capacity Summary

	Thieves Ln		A141 E		H'fordbury Rd		A414W	
	AM	PM	AM	PM	AM	PM	AM	PM
2014 Baseline	0.57	0.23	0.58	0.41	0.47	0.19	0.38	0.48
Future Situation with HERT3 Sites	0.72	0.33	0.63	0.45	0.57	0.22	0.42	0.54

The junction modelling demonstrates that the junction will be operating within capacity and the cumulative impact of the HERT3 developments is not severe. Consequently, it is considered that there is no mitigation required at the A414/Thieves Lane roundabout to accommodate the traffic resulting from the District Plan Hert3 West of Hertford development scenario.

Required Mitigation

None required.

Outline Cost Analysis*

Mitigation works not required to accommodate District Plan traffic

Works Element	Estimated Cost	Notes
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N/A	N/A	N/A
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Supporting Information

A414/Thieves Lane Roundabout **Site Photographs** (note – road works were in place on A414 when photographs were taken)



Image 1: Thieves Lane approach to A414



Image 2: view towards A414 eastbound approach from Thieves Lane



Image 3: A414 westbound approach showing uncontrolled pedestrian crossing



Image 4: Uncontrolled pedestrian/ cycle crossing on A414 to east of Thieves Lane roundabout



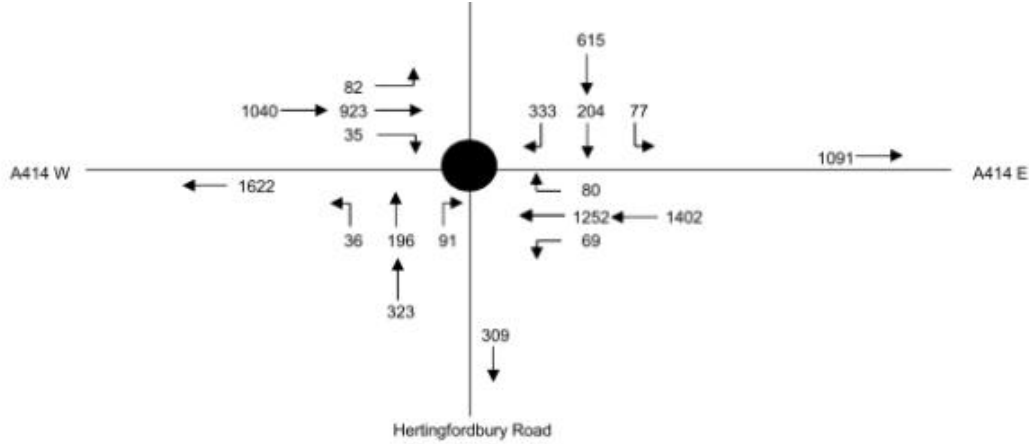
Image 5: Hertingfordbury Road approach to A414



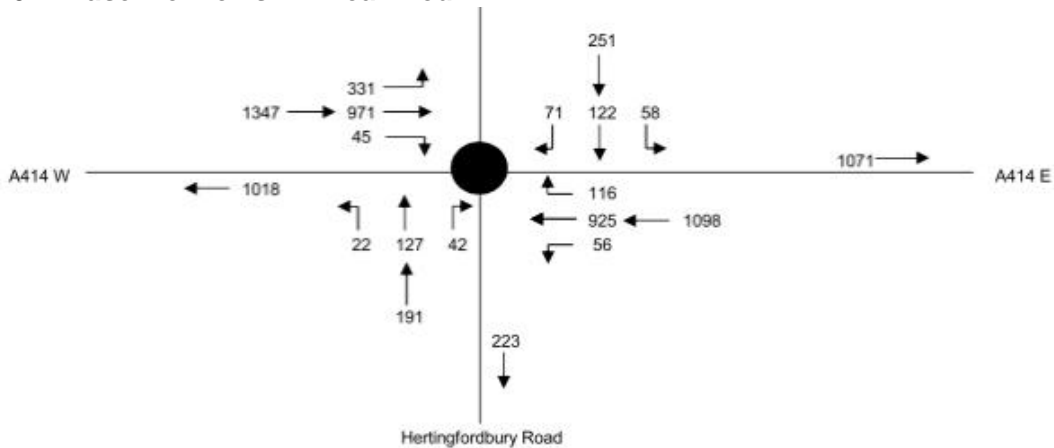
Image 6: Very worn road marking on cycle path to Hertingfordbury.

Traffic Flow Information

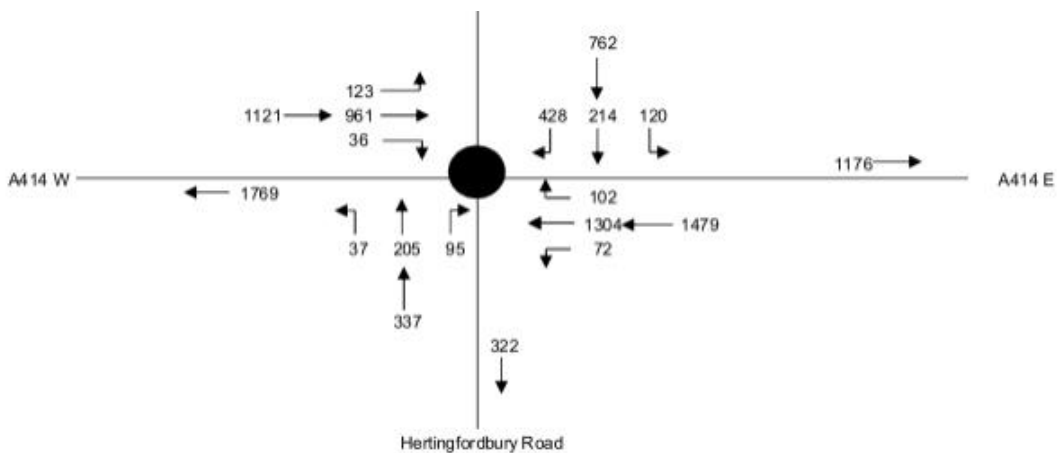
2014 Baseline flows AM Peak Hour



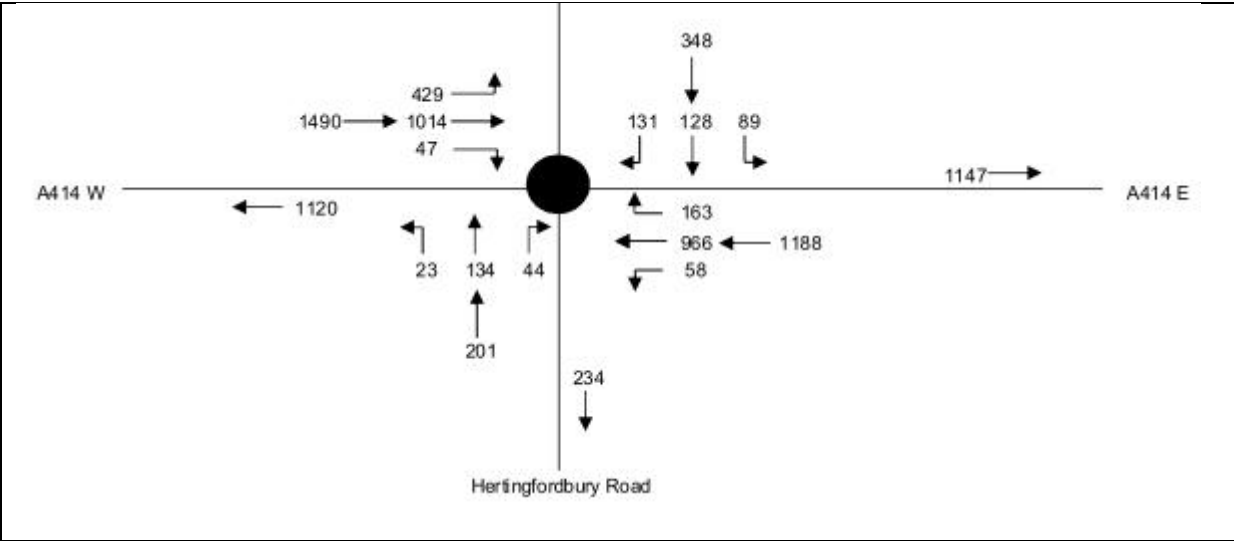
2014 Baseline Flows PM Peak Hour



Future Situation with District Plan HERT3 West of Hertford Developments AM Peak Hour



Future Situation with District Plan HERT3 West of Hertford Developments PM Peak Hour



Highway Boundary Plans

A414/Thieves Lane Roundabout

