

## TECHNICAL NOTE

**Job Name:** Reading Local Plan Partial Update  
**Job No:** 332611429  
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**Subject:** Local Plan Impacts on A4 West Berkshire

### 1. Introduction

- 1.1. Stantec were commissioned by Reading Borough Council (RBC) to support in provision of the transport evidence base for Reading Local Plan Partial update.
- 1.2. This technical note sets out an assessment of the impact of the 2041 Local Plan Partial Update on the A4 in West Berkshire to the east of M4 junction 12, as well as the potential Pincents Lane development which is proposed to have approximately 128 dwellings. The SATURN highway model used for the Local Plan update has been used to inform this assessment. It is noted that the Pincents Lane development is not directly included within the model, but wider background growth within West Berkshire is allowed for in the development of the forecast model.

### 2. Traffic Flow Impacts

- 2.1. The flow differences on the A4 in West Berkshire, with focus on A4 near Burghfield Road junction and on the A4 near Sainsbury in Calcot demonstrates marginal impact when the Local Plan trips are added into the model. Table 1 summarises the flow changes on these sections of the A4. Table 1: Flow Difference Summary on A4

Time Period	Location	Direction	2041 Ref	2041 LP	Diff	% Diff
AM	A4 / Burghfield Road	EB	998	991	-7	-1%
	A4 / Burghfield Road	WB	864	896	32	4%
	A4 near Sainsbury in Calcot	EB	1542	1520	-22	-1%
	A4 near Sainsbury in Calcot	WB	2092	2140	48	2%
PM	A4 / Burghfield Road	EB	1008	1012	4	0%
	A4 / Burghfield Road	WB	1123	1097	-26	-2%
	A4 near Sainsbury in Calcot	EB	2070	2070	0	0%
	A4 near Sainsbury in Calcot	WB	1661	1647	-14	-1%

- 2.2. Generally, the impact of the local plan scheme on the A4 section is within a marginal  $\pm 4\%$  change in flows. The largest change is a 4% (32 pcus) increase on A4 near Burghfield Road junction westbound direction in the morning peak.

#### DOCUMENT ISSUE RECORD

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- 2.3. It should be noted that the SATURN model is a strategic transport model, which allows for traffic rerouting in congested network conditions. It is normal to see small fluctuations in flows which result in slight decreases in some areas, even when small amounts of traffic are added to the model. This explains why we see a small reduction in flows in the PM peak.

### 3. Vehicle-Capacity Ratios

- 3.1. An assessment of the vehicle/capacity ratios (V/C) of 4 key junctions on the A4 west of A4/Burghfield Road junction has also been undertaken. The V/C ratio is a measure of how a junction performs when comparing flows to theoretical capacity. When a figure of 100% is reached the junction is seen to be at capacity and delays will exponentially increase as traffic demands increase.
- 3.2. The 4 key junctions have been illustrated in Figure 1 below.

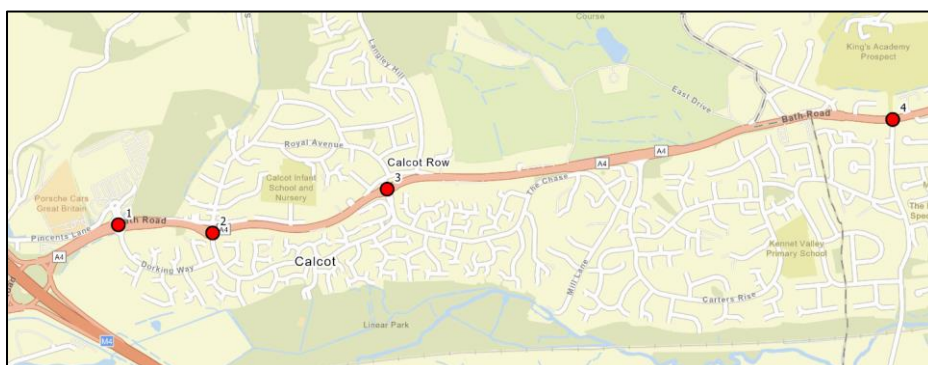


Figure 1: Key Junctions on A4 West Berkshire

- 3.3. Table 2 summarises the vehicle/capacity ratios at the 4 key junctions.

Table 2: Vehicle-Capacity Ratios on A4 West Berkshire

Junction ID	Description	AM Ref (%)	AM LP (%)	PM Ref (%)	PM LP (%)
1	A4/Dorking Way/Pincents Ln	90	93	86	87
2	A4/ Charrington Rd/Royal Ave.	97	99	100	101
3	A4/ Charrington Rd/ Old Bath Rd	100	99	108	109
4	A4/ Burghfield Rd	100	100	94	95

- 3.4. The Vehicle/Capacity (V/C) ratios differences are generally marginal except two junctions - Dorking Way/Bath Rd/ Pincents Ln and A4/ Charrington Rd/ Royal Ave junctions that increase by 2% in the AM peak; however, they remain under capacity.
- 3.5. Where the junction is over-capacity, the increase is less than 1.5%, which is deemed to be the threshold where impacts of the Local Plan traffic is deemed to be excessive and could indicate that mitigation could be required. This is not the case in this circumstance.

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### 4. Pincents Lane Development

- 4.1. Whilst the Pincents Lane development is not included directly within the model, it should be noted that a development of this size (112 dwellings) will generate around 47 two-way trips in both AM and PM peaks. This is based on the same trip rates as used within the Local Plan assessment.
- 4.2. The increase in flows, when considered against flows shown in Table 1 above, and the Local Plan flow increases, it is reasonable to conclude that even if the development were to be added to the model the conclusions reached for the Local Plan impacts would remain unchanged. It is also noted that the main junction that will be impacted by the Pincents Lane development is the A4/Dorking Way/Pincents Lane junction, which is shown to operate within capacity within the model.

**Commented [PG1]:** Confirm what trip rates have been used

### 5. Conclusion

- 5.1. The traffic flows on the A4 up to Junction 12 in West Berkshire change marginally with insignificant impact as demonstrated by the V/C differences. Therefore, it can be concluded that the Reading Local Plan partial update will have little if any impact on the A4 in West Berkshire.