



COTSWOLD
DISTRICT COUNCIL



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ATKINS

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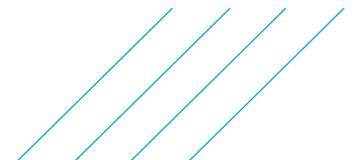
Cirencester Rugby Club

Proposed Car Park

Summary of on-going assessment

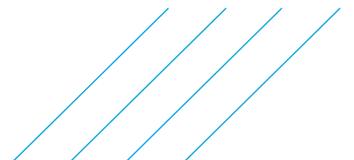
Project Overview

- ◆ Atkins have been commissioned to undertake a Transport Assessment in support of a proposed car park at Cirencester Rugby Club.
- ◆ Early design investigations indicate that the car park could provide up to **164** car parking spaces.
- ◆ The car park will be used as a commuter car park, operated by using a permit holder system for town centre employees.
- ◆ The car park will be managed in the same way as other public car parks, with enforcement being brought within the remit of existing traffic wardens



Data Collection

- **Automatic Traffic Count (ATC) on The Whiteway;**
Capturing the typical number of vehicles traveling along the road and their typical travel speeds.
- **Junction Turning Count at The Whiteway / Grove Lane / Spitalgate Lane signals**
Capturing the turning movements and the number of vehicles travelling through the junctions on a typical day.
- **Parking survey along The Whiteway.**
Capturing the number of vehicles parked along The Whiteway and the potential spare capacity of on-street parking spaces.
- **Ticket information for town centre car parks.**
Capturing arrival times and parking patterns of commuters and season ticket holder.



Data Analysis

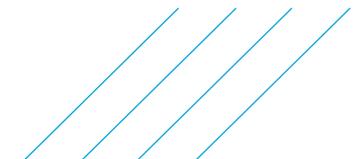
Automatic Traffic Count (ATC) on The Whiteway;

Period	Northbound		Southbound		Both Directions	
	Mean	85 th Perc	Mean	85 th Perc	Mean	85 th Perc
AM Peak (0700-1000)	30	36	33	40	32	38
Inter Peak (1100-1500)	28	35	30	37	29	37
PM Peak (1600-1900)	28	37	32	39	30	38
Daily	28	35	32	39	30	37

Speed survey results indicated that traffic speeds along The Whiteway are typically well within the speed limit.

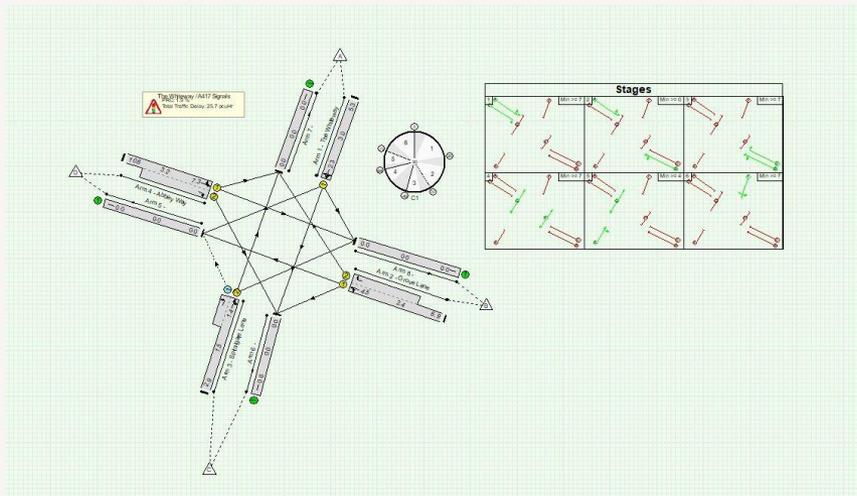
Time	Weekday				Weekend			
	Arr.	Dep.	Occ.	% Spare Capacity	Arr.	Dep.	Occ.	% Spare Capacity
Pre-0700-0800	3	0	3	93%	0	0	0	100%
0800-0900	2	1	4	90%	4	0	4	90%
0900-1000	13	0	17	58%	3	3	4	90%
1000-1100	1	0	18	55%	8	0	12	70%
1100-1200	13	3	28	30%	2	3	11	73%
1200-1300	3	2	29	28%	1	1	11	73%
1300-1400	1	7	23	43%	1	1	11	73%
1400-1500	3	0	26	35%	0	1	10	75%
1500-1600	6	9	23	43%	0	0	10	75%
1600-1700	1	0	24	40%	1	1	10	75%
1700-1800	1	8	17	58%	0	1	9	78%
1800-1900	0	10	7	83%	0	6	3	93%

Parking survey results indicated that utilisation of parking along The Whiteway is higher in the week than on a weekend. During the weekday peak parking period there is 28% spare capacity on the road link (11 spaces).

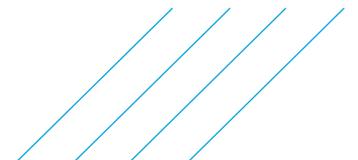


Data Analysis

➤ Junction Turning Count at The Whiteway / Grove Lane / Spitalgate Lane signals.



Modelling suggests that the junction is currently approaching capacity. There are plans for improvements to the junction so that timings can be adjusted depending on vehicle flow, allowing a better balance of 'green time' for all arms of the junction.



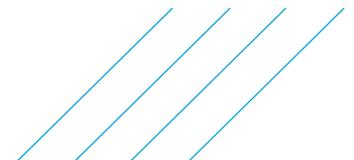
Data Analysis

◆ Potential traffic to / from the car park.

Time	Development Trip Generation		
	Arr.	Dep.	Two-Way
AM Peak Hour (0800-0900)	69	0	69
PM Peak Hour (1700-1800)	0	79	79

Using the existing ticketing information and National Travel Survey data, a forecast of the number of vehicle trips during the peak hours has been made.

Note, that this is below the full capacity of the car park (i.e. 164) as not all users of the car park will arrive and depart within the same *hour*. The analysis is based on the car park being full, with the remainder of users arriving / departing spread across the day, outside of the peak hours.



Data Analysis

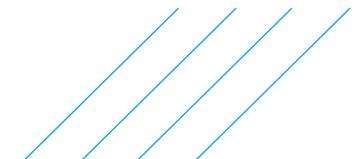
◆ Potential traffic to / from the car park at junction.

Junction	Direction (From / To)	Distribution (%)
The Whiteway / Grove Lane Signals	Grove Lane (A417 East)	76%
	Spitalgate Lane	0%
	Abbey Way (A417 West)	14%

Based on Journey to Work travel data and online journey planning tools, the 'new' car trips to / from the car parks have been distributed across the road network, with 90% travelling through the signalised junction on The Whiteway.

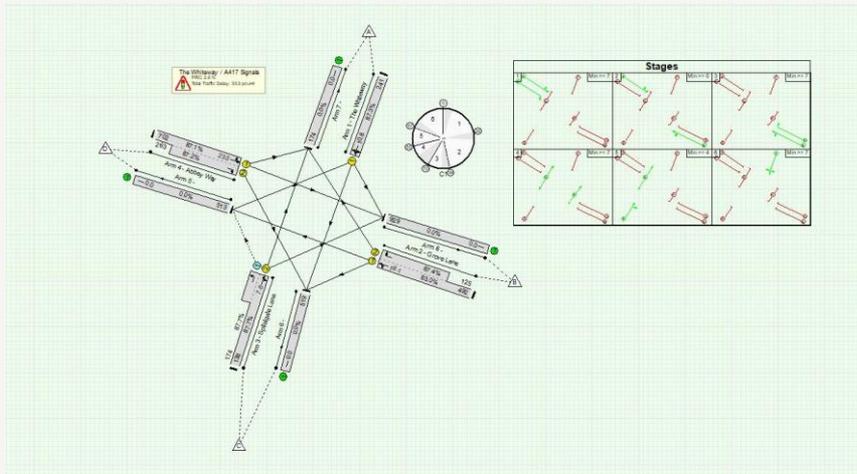
Peak Hour	Junction	Direction (From / To)	Arrival	Departure	Two-Way
AM	The Whiteway / Grove Lane Signals	Grove Lane (A417 East)	52	0	52
		Spitalgate Lane	0	0	0
		Abbey Way (A417 West)	10	0	10
PM	The Whiteway / Grove Lane Signals	Grove Lane (A417 East)	0	60	60
		Spitalgate Lane	0	0	0
		Abbey Way (A417 West)	0	11	11

During the peak hours there are expected to be up to 60 additional vehicles travelling through the signalised junction (1 vehicle a minute).

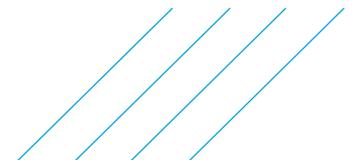


Data Analysis

- Junction Turning Count at The Whiteway / Grove Lane / Spitalgate Lane signals.

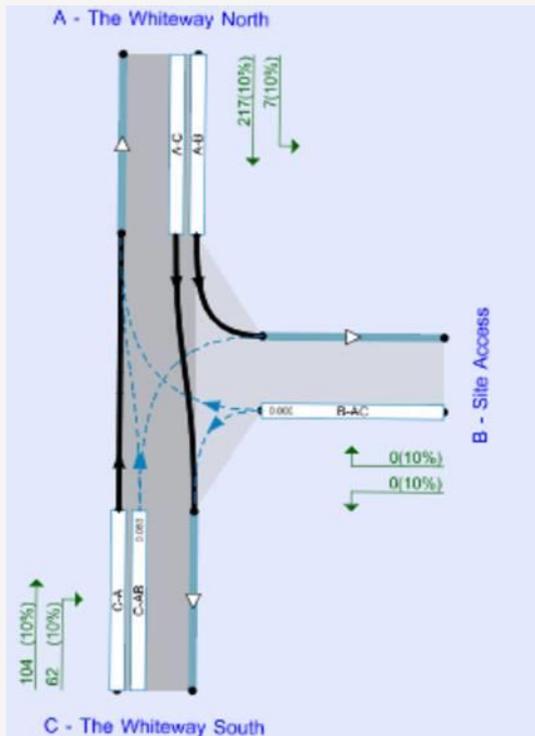


Modelling suggests that whilst in the future the junction is predicted to get busier the signal timings can be adjusted to balance queuing and negate the potential addition of 60 vehicles in the peak hour.



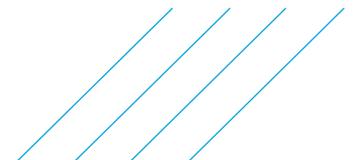
Data Analysis

Access junction.



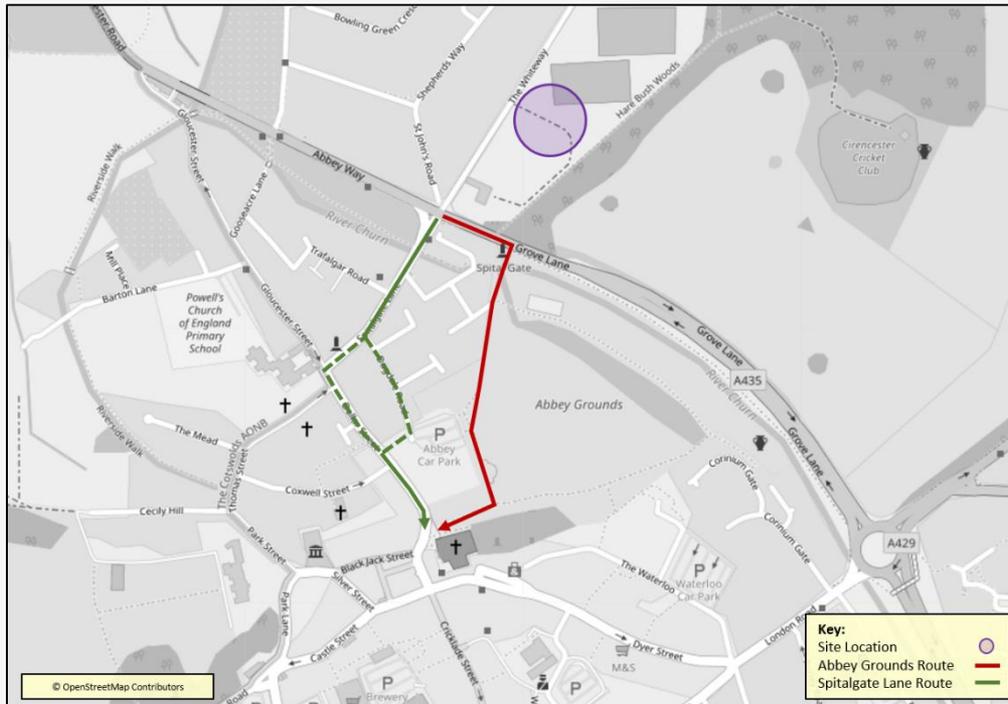
An indicative model has been developed which reviews whether there could be any blocking back to the signalised junction from people wanting to turn right into the new car park. It assumes the narrowest possible width of the road (accounting for parked vehicles on The Whiteway).

Analysis indicates that there is sufficient gap availability within southbound traffic to allow right turning vehicles to access the site, without significant blocking of northbound traffic on The Whiteway.



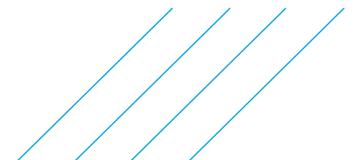
Data Analysis

Walking and Cycling Routes Assessment.



A qualitative review is being undertaken of the potential walking and cycling routes to the town centre from the existing car park.

The principal considerations during the review are centred around pedestrian / cycling safety and convenience. The purpose of the review is to identify any locations where provision for pedestrians / cyclists is insufficient to accommodate any potential increase in pedestrians / cyclists from the Rugby Club car park.



On-going considerations

- Design of the access junction for the car park.
- Discussions with Gloucestershire County Council Highways team regarding analysis of potential traffic impact.
- Discussions with Gloucestershire County Council Highways team regarding potential need for Traffic Regulation Orders:
 - Whether there is a need for parking restrictions along The Whiteway;
 - Whether the removal of parked vehicles could result in an increase in vehicle speeds;
 - Whether there is a need for a speed limit change;
 - Whether a speed limit change could require the addition of traffic calming measures.



