

Little Chalfont Park – Summary of the Transport Assessment Work for the Outline Consent

Overview

In transport terms, the principle of development on this site is already established. This includes how the site will be accessed and what improvements are needed to make it acceptable in transport terms. Those matters were assessed in detail at the planning application stage in a Transport Assessment (TA) and subsequent Technical Notes. That work was subject to extensive scrutiny by Buckinghamshire Council (BC) Highways and was agreed by them following detailed discussions. A further level of scrutiny of transport matters was provided by the subsequent planning inquiry. Transport was discussed, and the Inspector was satisfied that the scheme was acceptable and allowed the appeal.

Trip Generation

The trip generation of the development was estimated, using industry standard software, TRICS. Details are summarised below.

Residential	Vehicle trips per home ('mixed housing')			Vehicle trips for 380 homes		
	Arr	Dept	Two-way	Arr	Dept	Two-way
8-9am	0.139	0.377	0.516	53	143	196
5-6pm	0.359	0.164	0.523	136	62	199
7am-7pm	2.264	2.249	4.513	860	855	1,715

Primary school	Vehicle trips per pupil			Vehicle trips for 210 pupils assuming 50% are internal		
	Arr	Dept	Two-way	Arr	Dept	Two-way
8-9am	0.402	0.254	0.656	42	27	69
5-6pm	0.011	0.046	0.057	1	5	6
7am-7pm	0.997	0.975	1.972	105	102	207

Retirement homes	Vehicle trips per unit			Vehicle trips for 100 units		
	Arr	Dept	Two-way	Arr	Dept	Two-way
8-9am	0.129	0.066	0.195	13	7	20
5-6pm	0.072	0.104	0.176	7	10	18
7am-7pm	1.504	1.493	2.997	150	149	300

Care home	Vehicle trips per bedroom			Vehicle trips for 60 bedrooms		
	Arr	Dept	Two-way	Arr	Dept	Two-way
8-9am	0.068	0.045	0.113	4	3	7
5-6pm	0.034	0.061	0.095	2	4	6
7am-7pm	0.557	0.519	1.076	33	31	65

Local centre				Vehicle trips assuming 50% internal		
	Arr	Dept	Two-way	Arr	Dept	Two-way
8-9am				18	15	33
5-6pm				14	15	29
7am-7pm				186	182	368

Access distribution

Burttons Lane (110 dwellings) – vehicle trips

	Arr	Dept	Two-way
8-9am	16	42	58
5-6pm	39	18	57
7am-7pm	249	247	496

Lodge Lane (everything else) – vehicle trips

	Arr	Dept	Two-way
8-9am	114	153	267
5-6pm	121	78	199
7am-7pm	1085	1071	2156

Traffic modelling

Junction modelling was undertaken covering the following network:

- Junction 1 - A404/Cokes Lane/Burttons Lane linked mini-roundabout and priority junctions;
- Junction 2 – A404/Oakington Avenue Priority junction;
- Junction 3 – A404/Church Grove Priority junction;
- Junction 4 – A404/Church Grove/Stoney Lane staggered crossroads;
- Junction 5 – Burttons Lane site access priority junction; and,
- Junction 6 – Lodge Lane site access priority junction.



This modelling was based on traffic counts conducted in December 2017. Future year scenarios were produced through applying a growth rate from the National Trip End Model (NTEM), produced via the TEMPRO programme. Development traffic was then forecast using trip rates from the TRICS database, distributed in accordance with 2011 census Journey to Work data.

This modelling exercise concluded that the additional traffic associated with the proposals could generally be accommodated on the local highway network. It was acknowledged that the A404/Cokes Lane mini roundabout suffers from existing congestion and delays, which were forecast to worsen. A scheme was identified, which was shown to effectively mitigate the impact of the proposals on delays and queuing at the junction.

In the response from BC Highways, dated March 2022, it was requested that strategic modelling be conducted to address a range of concerns, including the use of older data collected on a single day, concerns regarding traffic assignment and the inclusion of committed developments in the area. In addition, the method used to derive trip rates was questioned. A number of detailed criticisms were also made of individual junction models.

BC commissioned Jacobs to carry out a strategic highways model covering the junctions identified above and a wider network.

The strategic model covered four scenarios:

- 2019 Base Year
- 2036 Do Minimum (without development)
- 2036 Do Something 1 (including proposed development)
- 2036 Do Something 2 (sensitivity test)

The DS1 and DS2 scenarios differ in that DS1 assumes an equal split in floorspace between convenience retail, GP Surgery, café and community hall uses, which is considered to most accurately reflect the intention for this facility. Whereas DS2 assumes that the proposed local centre will be entirely occupied by convenience retail. This approach reflects the flexible use applied for in this location.

The traffic flows obtained from the strategic model were input into the junction models prepared as part of the original TA. During this process, the models were reviewed in light of the feedback received from BC.

With the exception of the Cokes Lane junction, the local highway network is generally forecast to continue to operate within normal capacity thresholds (i.e. RFC less than 0.85). Levels of queuing and delay are also generally forecast to be moderate, not exceeding 4 PCUs or 30 seconds respectively.

The Cokes Lane mitigation scheme presented in the TA was been assessed, with the flows from the strategic model and taking on board BC's comments on the model. The results show that the proposed mitigation can be expected to largely mitigate the impact of the proposals – with increases in maximum queue and delay reduced to 3 cars and 4 seconds when compared to the 2036 without development scenario.

It was concluded that, with mitigation, the residual impacts associated with the development do not amount to a severe or unacceptable impact set out in the NPPF.

Consideration of additional junctions/links

The original TA also looked at the increases in traffic at:

- A413 Amersham Road / Vache Lane double mini roundabout (Chalfont St Giles)
- A404 White Line Road / Stanley Hill / A4154 double mini roundabout (Amersham)

It concluded that the increases were below the level predicted by the 2017 BCC model for a greater number of homes, and that the impact was therefore acceptable. The TA did mention a possible proportionate financial contribution towards potential mitigation at the A404/A4154 if BC identified a mitigation scheme; but this was not taken forward by BC (as the impact was not severe).

In the Transport Statement of Common Ground for the inquiry, BC states that it was that the strategic modelling does not indicate that the proposals will lead to an increase in vehicle movements at Roughwood Lane. The Inspector agreed that there would not be an unacceptable increase here.