

**The impact of traffic generated by
The Strategic Rail Freight Interchange**

Proof of Evidence

by

Michael Sault CEng, FIET

Public Inquiry

PINS Ref : APP/B1930/W/22/3313110

and APP/B1930/W/22/3312277

LPA REF: 5/2022/0927 and 5/2021/3194

Contents

Section 1 Introduction

**Section 2 Radlett Rail Freight Interchange
Traffic Evidence**

Section 3 Conclusion

1.0 Introduction

- 1.1 My name is **Michael Sault** and my credentials as an expert witness are summarised as follows: I have been a Chartered Engineer since 1985 and a Fellow of the Institution of Engineering and Technology since 2001.
- 1.2 I have over 20 years' professional experience in the planning and implementation of large-scale logistics facilities and networks. I have previously been employed in senior roles in this capacity by Tesco in the UK and China, by Alibaba in Singapore, and in private practice. I retired in 2022.
- 1.3 This Proof of Evidence (PoE) examines the anticipated impact on traffic volumes in the local area of the development of the Strategic Rail Freight Interchange (SRFI), granted in 2014 by the then Secretary of State (*App/B1930/A/09/2109433/Nwf – appeal allowed*).
- 1.4 In researching the information which underpins my evidence, I have drawn upon the traffic generation agreed with the Highways Authority in 2009 (*CD 6.18.1 – page 36*) as part of the original planning submission, HCC A414 Corridor Strategy published in 2019 (*CD 6.19*) and “E-commerce growth in UK” by Smartinsights published in 2022 (*CD 6.18.2*).
- 1.5 The impact of the traffic generated by the proposed developments North and South of Chiswell Green Lane cannot be considered in isolation but should be viewed in conjunction with the impact of other large committed developments in the area.

2.0 Traffic evidence

2.1 The Strategic Rail Freight Interchange

2.1.1 My Proof of Evidence deals specifically with the traffic to be generated by the SRFI. The original traffic assessment from the 2006 planning application was not updated when re-used in 2009 and has not been updated since then, so that will be used as a base case

2.1.2 The logistics industry has evolved considerably since 2009 as consumer behaviour has changed, requiring different solutions. I will present an updated traffic assessment based on e-commerce market data.

2.1.3 There are currently no details in the public domain of the eventual operators and uses of the warehouses in the SRFI development so we have considered a usage scenario based on probable uses.

2.2 Baseline Case

2.2.1 The table below is the agreed traffic assessment from the 2009 planning application (re-stating the 2006 application figures) based on 331,665 sqm of warehouse space.

	Total Traffic Generation					
	HGV		Light Vehicles		Total	
	In	Out	In	Out	In	Out
AM Peak (0800-0900)	96	106	308	106	484	213
PM Peak (1700-1800)	107	78	99	392	206	469
24 Hour (0000-2400)	1592	1605	3530	3527	5122	5132

2.2.2 Based on previous experience, taking account of the 20m maximum height restriction and making reasonable assumptions about stock movement, these numbers are in the range expected for conventional warehouses. It is reasonable to assume the traffic assessment was based on a business-to-business operating model, given that e-commerce accounted for less than 2.5% of UK retail sales in 2009, and the traffic numbers are consistent with that assumption.

2.2.3 The original transport assessment numbers of 10,254 additional vehicles a day represents a significant increase in road traffic on roads that are already congested. The Hertfordshire County Council A414 Corridor Strategy Report 2019 (CD 6.19) shows the daily vehicle numbers for the traffic on the A414 as 34,177. The SFRI will add at least 30% more traffic to an already congested road with no commitment from the developer to road improvements estimated to cost in excess of £120m.

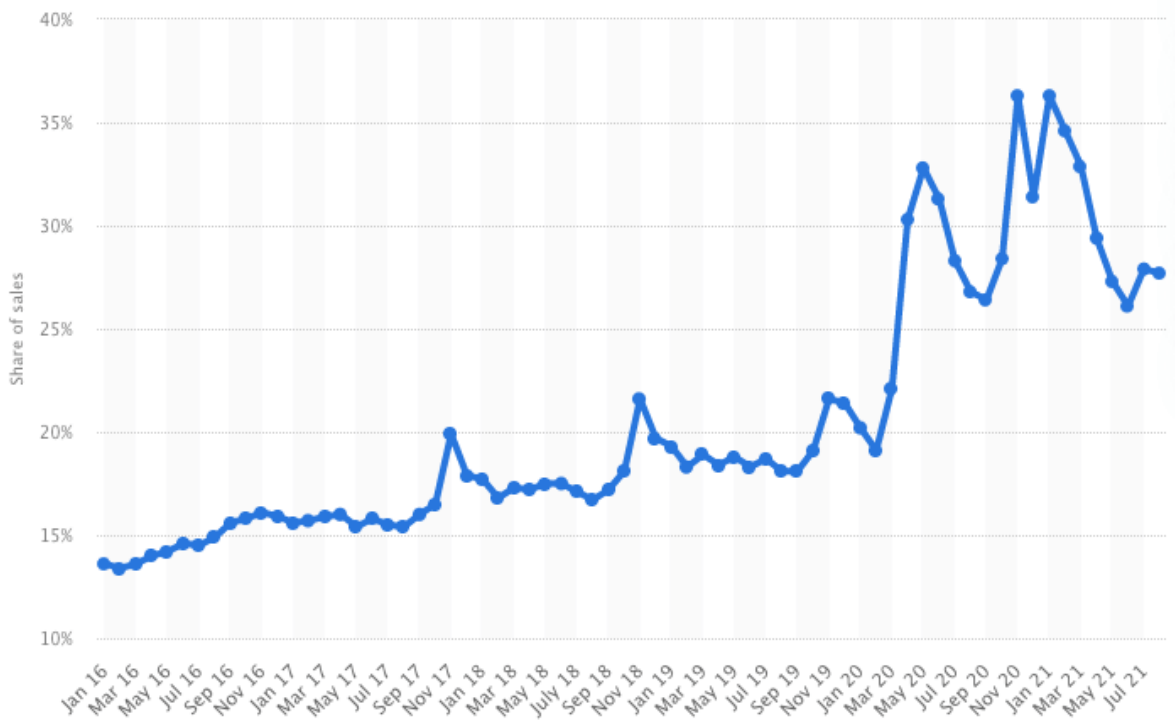
2.2.4 The 2009 application anticipates that 50% of the goods coming into the site would be delivered by rail. In my opinion, based on actual rail usage at other rail freight terminals and the changes that would be necessary to the tracks in this location, this is unlikely to happen, largely due to the enormous investment necessary to upgrade the rail links into the site. The challenge of achieving net zero carbon targets at a time when there is little excess

funding available will mean that a greater proportion, even all, the goods coming into the site will be brought in by HGV, thereby increasing the anticipated HGV numbers on the road network.

2.2.5 Although there is no traffic plan or detail on the SRFI operators, it is reasonable to assume that much of the light vehicle traffic, responsible for bringing goods out for delivery, will spill over into the minor roads in the surrounding area to avoid the congestion on the A414.

2.3 The impact of e-commerce

2.3.1 The graph below, using data from SmartInsights (CD 6.18.2), shows the growth in e-commerce in the UK since the original SRFI traffic assessment.



- 2.3.2** Although there is a range of predictions on future rates of growth, there is a consistent view that e-commerce will continue to take an increasing percentage of retail sales. This migration to e-commerce will impact how large-scale logistics infrastructure is used and will change the mix and volume of traffic.
- 2.3.3** Based on my experience, the largest of the warehouses at SFRI would be capable of servicing 100,000 online orders per day.
- 2.3.4** The HGV numbers are unlikely to reduce, as goods will generally be delivered in bulk and the previously-used “light goods vehicles” already includes staff travel, so are unlikely to change much. Assuming a “light van” fill rate, this would be an additional 1,250 vehicles in and 1,250 vehicles out of the SFRI per day (2,500 total), giving a daily total of 12,754 additional vehicles per day.
- 2.3.5** 12,754 additional vehicles per day represents a 37.3% increase on the 2019 A414 traffic numbers.
- 2.3.6** Current trends are towards consumers wanting quicker deliveries within a fixed time window; this is what drives the use of smaller vehicles and increased traffic volumes.

2.4 Burston Retirement Village

2.4.1 Permission was granted in July 2015 for a retirement village to be built at Burston Nurseries (*CD 6.18.3*). While the vehicular impact of the retirement village will be negligible, conditions of the grant of permission included reducing the 70mph speed restriction to 50mph on the A405 dual carriageway between the Tippendell Lane and Noke roundabouts, and for traffic lights and a crossing to be established on the A405 at the entrance to Burston Nurseries (*CD 6.18.4 – page 3, CD 6.18.5*).

2.4.2 The reduction in speed limit combined with the traffic lights will, in themselves, cause some local traffic to divert off the A405 and onto the Watford Road through Chiswell Green via Tippendell Lane.

2.4.3 Adding an increased volume of vehicles from the SRFI will exacerbate this change in behaviour.

2.5 Direction of additional vehicles

2.5.1 According to the Report of the Director of the Environment at Hertfordshire County Council, Steve Bailes, in October 2006 and the 2006 planning application, there will be one sole exit from the SRFI site, being onto the A414. 97% of all vehicles will travel northeast towards Hatfield and the A1M or southwest along the A414 and A405 towards the M25. It is expected that 43% will travel towards northeast and 54% to the southwest (*CD 6.19.1 - 5.6*).

2.5.2 The percentage expected to travel southwest as a proportion of the total anticipated number of vehicles generated by the SRFI will equate to an estimated 7,000 additional vehicles per day. If we were to update these figures to reflect 2023 data, the figures would be much larger.

2.5.3 The efficiency of delivery drivers required by e-commerce customer demand obliges delivery companies to utilise complex route planning systems which will seek to minimise hold-ups and delays. Combined with the existing local traffic, the impact will be to push even more vehicles off the A405 and onto local roads – in particular Watling Street, Tippendell Lane and the Watford Road.

3.0 Conclusion

- 3.1 In light of the key findings of my evidence, it can be seen that the traffic from the SFRI will significantly increase road congestion, even based on 2009 assessment levels. Realistically, the level of traffic will far exceed the previously projected figures as a result of the impact of e-commerce.
- 3.2 Although the traffic from the SFRI does not connect directly to Chiswell Green Lane, it is reasonable to assume that light vehicle traffic will use all of the local minor roads to avoid congestion. All of the major logistics companies used complex route planning systems to make full use of all available routes.
- 3.3 In considering the proposed Chiswell Green Lane developments, the impact of the estimated additional 12,754 vehicles per day from the SFRI on local traffic should be taken into account.