

Tritax Symmetry (Hinckley) Limited

HINCKLEY NATIONAL RAIL FREIGHT INTERCHANGE

The Hinckley National Rail Freight Interchange Development Consent Order

Project reference TR050007

Sapcote Technical Note [Appendix E - Sapcote Enhanced Option Noise Technical Note]

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Planning Act 2008

**The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009
Regulation 5(2)(q)**

Sapcote Technical Note
Appendix E - Sapcote Enhanced Option
Noise Technical Note

Project	Hinckley Rail Freight Interchange		
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Noise Technical Note – Sapcote Enhanced Scheme

1 Noise

- 1.1 The applicant has proposed an Enhanced scheme of traffic mitigation through the village of Sapcote, which seeks to address the additional concerns of the ExA. The main safety concern relates to there being insufficient room to pass and the potential overrunning of the narrow footways located on the north and south side of the B4669 by HGVs travelling through the village centre [ER 3.3.526]. It is also noted that the bus stop located on the narrow footways results in the congregation of school children and other pedestrians, both waiting for the bus and walking throughout the village [ER 3.3.531]. The ExA considered that the combination of the numbers of pedestrians in the area and the increased likelihood of HGV's coinciding and therefore overrunning on to the footways, would result in an unacceptable highway safety risk.
- 1.2 In this Enhanced scheme, the area outside the Co-op would become pedestrian only and the bus stop would be removed, with the zebra crossing, and wider northern footway unchanged. The Enhanced scheme would provide a length of narrower carriageway around New Road with cars and light vehicles able to pass each other but HGVs encouraged via signing and road markings to use the centre of the road, with oncoming vehicles informally giving way. The markings provided and narrower carriageway mean that large vehicles will be channelled away from the footways using an arrangement seen commonly on bridges with limited clearance where high vehicles must use the middle of the road.
- 1.3 The footway to the east of the Co-op on the south side of the B4669 would be widened to 2m minimum to allow space for users on the footway to pass each other.
- 1.4 In addition, a bus lay-by would be provided in the verge area to the east of New Road which allows westbound buses to wait off carriageway and allows passengers of buses to wait well away from the carriageway. The upgraded footway provides a safe route from the Co-op area to the bus stop.
- 1.5 The Enhanced scheme has been subject to an independent Stage 1 RSA and all recommendations have been agreed. Furthermore, no fundamental safety problems were identified by the RSA team. The Enhanced scheme addresses the concerns of the ExA around pedestrians waiting for buses on narrow footways and within the area outside the Co-op.

- 1.6 This note has been prepared to assess the impact of the Sapcote Enhanced scheme with regards to noise.

Previous Assessment

- 1.7 Noise associated with off-site development generated road traffic was assessed as part of the noise and vibration ES Chapter (Chapter 10, 6.1.10A Rev 08; referred to hereafter as the 'Chapter assessment'), and this assessment formed part of the Examination material (REP4-039).
- 1.8 Further to the Chapter assessment of development generated road traffic, an additional assessment (Appendix C – Update to Development Generated Road Traffic Noise Assessment (REP4-132), doc ref 18.13.3 Revision 01; referred to hereafter as the 'Additional Study') was undertaken of road links which extended beyond the study area presented in the Chapter assessment. It was the Additional Study which included road links through Sapcote, in particular Hinckley Road (B4669) and Leicester Road (B4669).
- 1.9 Both the Chapter assessment and the Additional Study adopted the same methodology within the Chapter assessment (set out in Off-site road traffic noise impacts from paragraph 10.216 onwards) and predicted the likely change in noise level as a result of development generated traffic along the identified links for the short-term and long-term.
- 1.10 The potential effect was considered, where necessary, and this methodology has been examined. This approach was accepted by the Examining Authority and by the Local Authorities as referenced in the Examining Authority's Report, ExA's Consideration, Noise Assessment, Off-site Road Traffic noise, paragraph 3.5.111:

"Overall, in accordance with the requirements of paragraph 5.193 of the NPSNN and paragraph 5.222 of the dNPSNN, we are satisfied that the Applicant's road traffic noise assessment depicts a robust range of outcomes for relevant receptors and adequately considers mitigation. This is particularly so noting that the Operational Phase Noise Assessment of Offsite Road Traffic is agreed with both BDC and HBBC."

- 1.11 The calculation method detailed within Calculation of Road Traffic Noise (CRTN) was adopted for predicting the noise levels from road traffic, with and without the development generated traffic. The change between the 'with' and 'without' scenarios was assessed against the short-term and long-term criteria based on the principles set out in the Design Manual for Roads and Bridges LA111 Revision 2 (DMRB).
- 1.12 The results of the Additional Study indicated that for all links through Sapcote, the change in noise level in the short term and long term is less than 3dB at sensitive receptors adjacent to the B4669 through Sapcote. This indicates minor, adverse effects in the short-term and negligible adverse effects for the long-term, both of which are not significant.

Assessment of Enhanced Scheme

- 1.13 As part of the Enhanced scheme, the carriageway will be marginally widened, by 1.5m to allow HGVs to give way to each other, when required. This widening will result in the edge of the carriageway being approximately 1m closer to receptors than the existing carriageway. For the majority of the time, traffic will flow freely and traffic will only be required to give way when an HGV is wanting to pass, and under these circumstances there would be an element of queuing.

- 1.14 The noise modelling and assessment of the Enhanced scheme has been undertaken using the same accepted methodology as the Chapter assessment and Additional study. While the calculation methodology detailed within CRTN, and the assessment methodology detailed within DMRB, does not specifically account for queuing traffic, the aim of CRTN is to permit prediction of road traffic noise in as many cases as possible covering both free and non-free flowing traffic.
- 1.15 The B4669 through Sapcote has previously (in line with the Additional Study) been modelled at a speed of 48km/h (30 mph) reflecting free flowing traffic. To represent a situation where there is queuing traffic, the speed has been reduced to 20km/h (12mph), which is the minimum speed permitted within the calculation methodology and is considered to represent these conditions. This has been applied for 100m either side of the Enhanced scheme to account for average queue lengths.
- 1.16 The queuing traffic and the widening of the road has been included within the noise model to determine the impact at receptors located adjacent to the Enhanced scheme to the south of the B4669, which are the receptors expected to be most affected by the changes, under both normal free flowing traffic conditions and queuing traffic. The results are shown below in **Table 1**.

Table 1: Increase in Short-Term and Long-Term Noise Levels

Traffic Condition	Noise Level dB $L_{A10,18h}$	
	Increase in Noise Level Between Do-Something and Do-Minimum Opening Year	Increase in Noise Level Between Do-Something and Do-Minimum Future Year
Queuing Traffic	+1.0	+2.0
Free-flowing Traffic	+2.0	+3.0

- 1.17 The results of the noise modelling indicate that the proposals do not change the magnitude of impact in the short-term or long-term, from what has previously been stated within the Additional Study. Therefore, the effect remains as minor, adverse in the short-term and negligible adverse for the long-term, both of which are not significant.

Bus Stop

- 1.18 The bus stop, which is currently located near to the junction of Church Street and Leicester Road, is to be relocated further east along Leicester Road. There is no regular bus service through Sapcote, with only a school bus timetabled which stops to pick pupils up in the morning and drop them off in the afternoon, resulting in only two buses per day. The buses will only run on weekdays during term time and it is understood there is only one bus in the morning and one in the afternoon and the average stopping time is 90 seconds.
- 1.19 Given the buses will only be stationary for a short period of time and given the infrequency of the events (twice per weekday, term time only), it is considered unlikely that adverse noise impacts would be experienced at nearby receptors, and therefore no further assessment of this noise source is required.
- 1.20 There is potential for noise associated with groups of pupils gathering whilst waiting for the bus. However, they will only be waiting at the bus stop during the morning, and this is unlikely to be for significant periods of time, with passengers dissipating quickly in the afternoon once the bus drops them off. Furthermore, during these times, road traffic is

likely to be at its busiest. Given this and the infrequent use of the bus stop, it is considered unlikely that significant adverse noise impacts would be experienced at adjacent receptors.

Conclusions

- 1.21 Noise modelling and assessment of the Enhanced scheme has been undertaken in accordance with the accepted methodology with reference to the guidance detailed within the Chapter assessment, which has been examined and accepted. The results of the noise modelling indicate that the proposals do not change the magnitude of impact of changes in road traffic noise in the short-term or long-term and the effect remains as minor, adverse in the short-term and negligible adverse for the long-term, both of which are not significant.
- 1.22 The bus stop, which is currently located near to the junction of Church Street and Leicester Road, is to be relocated further east along Leicester Road. Given the infrequency of bus services through Sapcote, it is considered unlikely that adverse noise impacts would be experienced from vehicular noise at nearby receptors. There is a potential for noise associated with pupils gathering at the bus stop, but it is considered unlikely that a significant adverse impact would arise at adjacent receptors.
- 1.23 This note and its contents have been reviewed by BDC and HBBC. [Their consultant, MEC, has stated in their response to the first draft of this note \(document name "Combined Responses from Consultants to HNRFI Documentation 28th October 2024", p3\), "There are no comments on the additional noise and air quality notes prepared for Sapcote".](#)