Dear Mr Singleton,

The applicant and Highways England's (HE) Deadline 7 responses (please see Appendices 1 & 2) to my Deadline 6 submission (please see Appendix 3) are fundamentally flawed; they lack detail, accuracy and precision.

Sections 1 and 2 of this Deadline 8 submission will explain why this is the case and will present further information and questions for you to consider. The highways issues discussed in Section 2 of this Deadline 8 submission (and my earlier submissions) are of particular concern, as they have the potential to directly and severely affect the lives, health and wellbeing of many hundreds of people.

I am acutely aware that the examination will formally close on 27th August 2019, but without clarification from the applicant and HE on the matters I am raising in this submission, I fail to see to how the Examining Authority (ExA) and the Secretary of State can make an informed and fair determination of the West Midlands Interchange (WMI) proposal.

The questions I would like the applicant to answer are **1 – 6 and 10** and the questions I would like HE to address are **5, 7 – 9 and 11**. The questions are located in Sections 1 and 2 of this Deadline 8 submission and for the complete avoidance of doubt are identified with purple markings.

If after reviewing my submission you do not intend to ask further questions, could you please write to me to explain the reasons why you cannot or do not want to do this?

Kind regards,

Daniel Williams

Deadline 8 - Section 1 – The Planning Justification:

The Deadline 6 questions which I posed to the applicant and the applicant's Deadline 7 responses to them are provided in their entirety in Appendix 1. Section 1 of this Deadline 8 submission will concern itself with the outstanding planning justification issues and will, where appropriate, omit excessive discussion which duplicates that of other contributing parties. The applicant's responses to questions 1 and 2 posed by me in Deadline 6 have largely been addressed by South Staffordshire District Council's (SSDC) 'Deadline 7 Submission - *Response to the Examining Authority's 3rd Written Questions'.* The ExA will, I am sure, have considerable regard for SSDC's comprehensive appraisal of the WMI proposal, its necessity, policy justification, phasing and lack of Greenbelt safeguards.

Daniel Williams' *Deadline 6 – Question 3* asked:

> *"How many individual operators are using the DIRFT 1&2 warehousing and its rail connection as of July 2019? How many are using just the warehouses? Could you provide company names please?"*

The applicants' Deadline 7 response to this was:

> *"The information requested is not in the public domain, but the Applicant has attempted to answer the queries based on information provided by ProLogis in publicity materials and the DIRFT III DCO Application, and the FTA publication "On track! Retailers using rail freight to make cost and carbon savings."*

> *"The Applicant understands that occupiers in 14 out of 19 warehouses at DIRFT I and II use rail services based on the names of the occupiers: Tesco, Eddie Stobart, DHL Sainsbury's and Malcolm Group, some of whom own multiple units. The Applicant stresses that this view is based on the information available in the public domain listed above and industry knowledge, but the Applicant is not party to commercially confidential logistics arrangements of every rail user."*

QUESTION 1: The applicant – For the avoidance of doubt can the applicant please provide references for the specific DIRFT III DCO documents to which it refers? Could it also provide web links to the other documentation to which it refers? If it is not possible to access these documents could the applicant please be provide 'hard copies' or PDFs for the ExA to host online? If third party owners of this material do not wish to release the documentation to the ExA, can copies of the refused/unanswered written requests be submitted to the ExA for IPs to view?

The information requested in Deadline 6 – question 3 was not a 'query'; it was an attempt to understand a central plank of the applicant's justification for the proposed scheme. The applicant's DCO submission makes repeated reference to the 'success' of the DIRFT I & II facilities. The DIRFT facilities have been repeatedly presented as a model for the proposed WMI. Yet, when it comes to understanding and explaining their most basic purpose; their operation as a rail-freight interchange, the applicant belatedly states it only 'understands' who may operate, to some extent, in some of the facility's buildings. The applicant's Deadline 5 response (Document 15.1 – 2.2.27) to my Deadline 2 submission states that '*At least 15 of the DIRFT's 20 operators were rail users'*. At Deadline 7 this has morphed without explanation into '*14 occupiers in the 19 units are rail users*'.

For the applicant to have such a poor grasp of the DIRFT's operations given it's proximately and apparent comparability to the proposed WMI is telling. The applicant's huge financial and technical capability could have been utilised to deliver a reliable understanding of DIRFT's operations including the basic ratios of road-road versus rail-road usage if the applicant had chosen to do this.

At Deadline 5 the applicant submitted a letter dated 5th July 2019, which offered warm support for the WMI rail connection (see Appendix 4) from the managing director of the iPort strategic rail freight interchange in Doncaster (Steve Freeman). This demonstrates that the applicant has trusted connections within the industry, who could have provided insightful market knowledge which could have been utilised to explain wider market behaviour. I am confident the ExA will draw its own conclusions as to why the applicant therefore had intended to stay silent on the matter.

It is also noted that Doncaster's iPort currently has an advertisement published (as of 20th August 2019 - a full 'screengrab' of this has been placed into Appendix 5 of this submission) on its website[1] where Mr Freeman, its managing director, states:

> *"This latest news [iPort Phase 2 outline planning has been approved] reinforces our position that Doncaster is a thriving e-commerce location. The second phase in development offers both built-to-suit and speculative warehouse space for businesses looking for a location close to the M18 and its links to the national motorway network, while having our rail freight terminal on site will be **an added advantage** to many."*

[1] https://www.iportrail.com/verdion-launches-iport-phase-2-with-731000-sq-ft-mega-warehouse-deal/

This statement seems to suggest that Doncaster iPort views its rail-freight interchange as secondary to its primary function as road-centric warehousing and therefore appears to contradict the sentiment of Mr Freeman's 5th July 2019 letter.

QUESTION 2: Does the applicant recognise a difference between how Mr Freeman thinks the WMI and the iPort will operate as rail-freight interchanges? Please answer yes or no before explaining your answer.

In response to my Deadline 6 - questions 4 and 5 the applicant has said:

> *"As noted above the Applicant is unable to confirm whether NFT, Royal Mail, Mothercare, Ingram Micro and Optima Logistics make any use of rail through DIRFT I and II. These occupiers account for approximately 98,000 sq metres (18%) of the total of 560,600 sq metres of floorspace, based on measurement of the building footprints."*

QUESTION 3: Can the applicant identify and provide the source of this information and confirm that they have not used the measuring tool on *'Google Earth'* to generate an estimate.

The applicant's answers to my Deadline 6 - questions 6, 7 and 8 underscore the point that the extent of rail uptake will not be conditioned into the DCO nor will it ultimately be a measure of its success.

The applicant also states in response to my Deadline 6 - question 7 that:

> *"Based on the economics of freight transport and the growing evidence base from the existing network of SRFI there is no reason to expect that any warehouses would not be using the rail terminal."*

This is patently not true. The applicant's own evidence in response to my Deadline 6 -question 5 (see above) confirms that warehouse units amounting to at least 98000 square metres at DIRFT I & II are occupied by businesses that do not use rail.

Deadline 8 - Section 2 – Transport impacts on the A449 between the Station Road Junction and Junction 2 of the M54:

The Issue:

Part 3 of my Deadline 6 submission (provided in Appendix 3 of this document) demonstrated that in the event of consent being granted for the proposed WMI, dwellings residing alongside the A449 in the settlements of Standeford (Coven), Cross Green (Coven) and Coven Heath between Station Road and Junction 2 (J2) of the M54 will experience increases in sound which will exceed 3 decibels (dB). 3 dB is, as the applicant has acknowledged, severely detrimental to residential receptors and significant in environmental impact assessment (EIA) terms.

Paragraph 13.344 of the submitted Environmental Statement (ES) Chapter 13 states:

> *'Increases in road traffic noise of just 3 to 5dB would be classed as moderate adverse impacts, which when combined with the high sensitivity of the residential receptors along these roads, would be regarded as moderate adverse effects, which are **significant in EIA terms**.'*

The applicant's Appendix 13.5 projected dB increases (shown in Appendix 6 of this submission) will also compound the existing 70dB+ baseline levels in the Standeford (Coven), Cross Green (Coven) and Coven Heath settlements to the south of the proposed WMI.

In my Deadline 2 and 6 submissions I asserted that the applicant's Appendix 13.5 data submission, and the Environmental Statement (ES) Chapter 13 analysis of that data had obscured the noise generating and amplifying effects of a signal controlled junction (School Lane/Old Stafford Road/A449) within a two kilometre stretch of road (identified by the applicant as link 18 - the A449 between the Station Road junction and the Brewood Road junction).

I asserted that the anticipated increases in dB levels in links 18 and 20 (the A449 between the Brewood Road junction and J2 of the M54) were likely to be greater than those advocated by the applicant's submission. In my ExQ2 Rep2-178 I said the following:

> "*Signal controlled junctions amplify the frequency and intensity of the most disruptive sounds, such as harsh braking, engine revving, rapid acceleration, blaring radios and refrigeration cooling units being activated on HGVs when cab/engines are stationary at a red traffic lights. Around junctions these types of noise sources are sporadic and intermittent bursts of sound, particularly at night, which could be problematic for the occupants of vulnerable older houses. For example, the constant drone of several passing cars may produce the same average amount of sound as a fully laden HGV slamming its brakes on at a traffic light change. However, the passing cars would not wake a sleeping child, whereas a harshly braking HGV could."*

The applicant's Deadline 7 (17.1.032) response to my concerns was the following:

> *"As stated in response to Brewood and Coven Parish Council (06 BCPC 005) in the Applicant's Responses to Other Parties Deadline 4 Submissions (Doc 15.2 REP5-006), calculations of road traffic noise follow the method set out in the Department of Transport's 1988 document Calculation of Road Traffic Noise (CRTN). Speed changes at junctions are ignored when using the CRTN methodology."*

Firstly, the applicant's Deadline 4 response to Brewood and Coven Parish Council does not cover or discuss this issue.

Secondly, the applicant appears to assert that the 1988 Department of Transport/Welsh Office memorandum *Calculation of Road Traffic Noise* (CRTN) which sets out the UK calculation methods for road traffic noise has been used to generate the applicant's appendix 13.5 data submission (provided in Appendix 6 of this submission), and the Environmental Statement (ES) Chapter 13 analysis of that data.

The CRTN states at paragraph 33 under the heading *Multiple roads and junctions*:

> *"The contribution from each individual length of road is calculated separately, using the appropriate mean speed (see para 14* [of the CTRN]*) and ignoring any speed change at the junction"*

This approach is reiterated again in Annex 5 of the *Design Manual for Roads and Bridges (Design Manual for Roads and Bridges (DMRB), Volume 11 Environmental Assessment, Section 3 Environmental Assessment Techniques, Part 7 Noise and Vibration (2011), The Highways Agency, Transport Scotland,*

The Welsh Government, The Department for Regional Development Northern Ireland), which states at paragraph A5.23:

> *"Speed variations at junctions should generally be ignored in assessing noise nuisance as there is a trade-off between the effects of reducing speed and the additional engine noise generated by deceleration and acceleration. An appropriate average speed may be used for predicting the noise from traffic on large gyratory systems."*

The 1988 CTRN and the 2011 DMRB guidance assert a direct and constant linear relationship between sound, speed and road junctions. This rationale is incredibly rigid. Lived experience and common sense would say this approach to understanding and anticipating sound from a highway is coarse and open to being inaccurate. It is noted that the 2011 DMRB guidance uses the word 'generally' to describe the relationship which is potentially significant when compared to the more rigid 1988 CRTN approach.

The CRTN manual also asserts that other methods of statistical analysis should be included and considered in the modelling for new roads and the intensification of use on existing roads.

Paragraph 13 of the CRTN states:

13. Traffic flow

13.1 On normal roads the flow of traffic in both directions shall be aggregated to obtain the total flow. But in cases where the two carriageways are separated by more than 5 metres or where the heights of the outer edges of the two carriageways differ by more than 1 metre, the noise level produced by each of the two carriageways shall be evaluated separately and then combined using Chart 11. In the case of the far carriageway the source line will be assumed to be 3.5 metres in from the far kerb and the effective edge of the carriageway used in the distance correction is 3.5 metres nearer than this, i.e. 7 metres in from the edge of the farside carriageway (see Annex 2).

QUESTION 4: The applicant – Why has submitted DCO Appendix 13.5 (this document is provided in Appendix 6 of this submission) not aggregated the north and south bound carriageways along the A449 in link 18?

Submitted DCO Technical Appendix 13.5 - Operational Noise Assessment information:

Table 13.5.7: Calculated changes in night-time road traffic noise, 2021, free-field LA10, 8hrs dB

Location	2016 baseline	2021 No development[1]	2021 With development[2]
A449 between Station Drive and Brewood Road (northbound)	67.8	67.5 (-0.3)	70.4 (+2.9)
A449 between Station Drive and Brewood Road (southbound)	70.4	70.7 (+0.3)	73.1 (+2.4)

Notes:
[1] the bracketed value is the change in noise level between the 2016 baseline and 2021 No Development scenario
[2] the bracketed value is the change in noise level between the 2021 No Development scenario and the 2021 With Development scenario

QUESTION 5: The applicant and HE - Would aggregation in accordance with the CRTN paragraph 13 methodology have given 3 dB plus increases in sound for link 18 (in submitted Appendix 13.5)?

Along the A449 to the south of Station Road most of the residential dwellings and urban structure is congregated around the intersecting junctions. The aerial photographs provided on page 8 of ExQ2 Rep2-178 (provided in Appendix 7) clearly show this. CRTN paragraph 26 asserts the following guidance where urban built form exists which can modify/amplify adverse sound for residential receptors:

26. Reflection effects

Reflection of noise from hard rigid surfaces adjacent to the source or in the neighbourhood of the reception point increases the noise level compared with that calculated under the above procedures, which give the free-field noise level. The 'free-field' noise level is appropriate where the site is open and clear and the reception point is away from other facades.

26.1 *Facade effect*

To calculate noise 1 metre in front of a facade, a correction of +2.5 dB(A) is to be made. (Other noise calculations along side roads lined with houses but away from the facade still require the same addition of the 2.5 dB(A) because of the proximity of facades, see para 27).

26.2 *Reflection from opposite facades*

Where there are houses, other substantial buildings or a noise fence or wall beyond the traffic stream along the opposite side of the road, a correction for reflection from the opposite facade facing the reception point is required. The correction only applies where the height of the reflecting surface is at least 1.5 metres above the road surface.

The correction for reflection from opposite facades is $+1.5(\theta'/\theta)$ dB(A)
where θ' is the sum of the angles subtended by all the reflecting facades on the opposite side of the road facing the reception point, and θ is the total angle subtended by the source line at the reception point (see Fig 5). The above correction is required in addition to the +2.5 dB(A) facade correction described in para 26.1. For calculating the reflection correction for a reasonably uniform row of houses on the opposite side of the road see para 34.2.

Not only do buildings/dwellings face one another around the intersecting A449 junctions south of Station Road, they are also opposite and adjacent to intersecting side roads. CTRN paragraphs 27 and 33 assert the following guidance be taken into consideration during a sound modelling exercise:

27. Side roads

For side roads the above correction applies only when there are houses or other substantial reflecting walls along the main road opposite the aperture of the side road and within the angle of view of the reception point. In this case however, θ is the angle of view of the main road at the reception point defined by the aperture of the side road, and θ' is the sum of the angles subtended by all the reflecting facades on the opposite side of the main road facing the reception point contained within the total angle θ (see Annex 13).*

33. Multiple roads including road junctions

Calculation of noise from multiple roads is achieved as an extension of the procedures outlined in Section I. The contribution from each individual length of road is calculated separately, using the appropriate mean speed (see para 14) and ignoring any speed change at the junction, and the overall predicted noise level obtained using Chart 11. Some difficulties may be encountered, however, since the segment boundaries may not be precisely defined in all cases. In general, the location of segments will depend upon the presence of buildings and the position where the source lines of each road segment intersect. Annex 16 illustrates how segmentation of two particular junction designs could be achieved. For the roundabout site the source lines could have been drawn to intersect at different positions which would have resulted in different segment angles. In such situations the noise contribution from each road segment should be calculated for each possible segment angle and the maximum resultant predicted noise level taken.

If the applicant's Appendix 13.5 data had aggregated the A449's north and south bound carriageways; included the sound contribution from intersecting side roads and the amplifying effects of urban built form in accordance with the CRTN methodology; the likelihood is the predicted increases in sound (in the applicant's Appendix 13.5) would almost certainly have been shown to exceed 5 dB, and in some instances may well have exceeded 10 dB in parts of links 18 and 20.

QUESTION 6: Does the applicant agree or disagree with this conclusion? Please explain your answer.

QUESTION 7: Does HE agree or disagree with this conclusion? Please explain your answer and state what dB changes would induce a tipping point where acoustic mitigation would be required at junctions/settlements south of Station Road alongside the A449?

HE's Deadline 7 submission said only the following in response to my Deadline 6 request for their opinion and expertise on the highways matters I have raised:

> *"Highways England has reviewed the submissions of Mr Williams as requested and has nothing further to add to submissions already made on these points."*

QUESTION 8: Why does HE have nothing further to add?

The seriousness, size and complexity of issues I am raising requires detailed and considered analysis by impartial experts. HE must fulfil its role as a statutory consultee for this DCO application and advise the ExA and the public accordingly. The answer it has provided on this occasion is astoundingly poor and completely unacceptable. As a bare minimum HE should be referencing specific documents/paragraphs it has already contributed where it feels an interested party can find the information required.

QUESTION 9: Can HE now do this with respect to all of the content and questions posed in Section 2 of this Deadline 8 submission?

Mitigation:

In my deadline 6 submission I expressed concerns regarding the £9000 maximum noise mitigation fund for affected dwellings:

> *"Following the submission of Rep2-178 on 5th April 2019, the applicant submitted an addendum (13A) to Chapter 13 (noise and vibration) of the ES. At its core the 13A addendum has sought to increase the number of dwellings which will become the*

beneficiaries of bespoke sound mitigation measures. The increase in the number of eligible dwellings has been brought about by reducing the sound level thresholds which trigger mitigating assistance. Critically, the change in threshold levels is only applicable to dwellings which reside within 300 metres of the order limits as defined by site location plan 4049-10 (Rev. 5).

*The applicant has stated that **in all circumstances** dwellings experiencing additional adverse noise (irrespective of its adverse extent) which are located more than 300 metres from the order limits, will not be eligible for mitigating assistance. The applicant has cited that the '1975 Noise Insulation Regulations' renders them devoid of all responsibility – this is completely unacceptable.*

I also note that the Deadline 5 Draft Development Consent Obligation (Clean) caps the financial assistance a property can receive to mitigate adverse sound to a maximum amount of £9000. If financial assistance is offered to properties residing alongside the A499 to the south of the Order limits; £9000 will in many instances be woefully inadequate. In some instances heavy duty acoustic fencing will be required, particularly where affected dwellings reside in close proximity to the highway. The installation of this fencing may need to be many tens of metres in length to be effective and may require the relocation of existing Highway England infrastructure (street lights, road signs etc.), pre and post 'soft' landscaping works, as well as detailed plans and engineering analysis prior to any installation works."

The applicant's (Deadline 7) response to this was:

"The proposed mitigation package has been agreed with SSDC as confirmed by Section 14 of the SoCG (REP2-006)."

QUESTION 10: The applicant – Is the applicant implying that I am correct to conclude £9000 would not be sufficient to help mitigate most of the affected dwellings on the A449 to the south of Station Road (the Order limits), but it is too late to raise the cap as SSDC have already rubber stamped the £9000 figure? Please explain your answer.

The Section 14 SoCG was agreed when the maximum £9000 sound mitigation package concerned itself principally with dwellings residing within the 300m buffer around the Order limits. Dwellings located outside of the 300m Order limit buffer reside in a completely different context (near a dual carriageway with junctions) to those dwellings situated alongside mainly 30 mph roads immediately adjacent to the proposed WMI site.

Question 11: HE - If the applicant is not going to mitigate unacceptable adverse rises in nuisance sound beyond the 300m Order limit buffer, will HE? If so, can HE provide further details and explain why to date it has stayed silent on the matter? If HE is not going to provide acoustic mitigation from the public purse, can a comprehensive explanation as to why this will be the case be provided to the ExA as a matter of urgency?

Appendix 1:

The Applicant's Deadline 7 Response to Daniel Williams' Deadline 6 Questions

Deadline 8

Body / Individual (PINS Reference)	Comment (Reference)	Applicant's Response
		[redacted]
Daniel Williams 17.1.031	Mr Williams raised a number of questions related to potential future occupation of the Proposed Development and the use of the rail terminal, as well as questions related to the use and occupation of DIRFT. These questions comprise: 1. If 24.9% of the proposed WMI buildings are occupied by operators who go on to decide road-road logistics is preferable, for whatever reason, to road-rail operations, would 1.99 million square feet of B8/B2 warehouse development in the Greenbelt be an acceptable outcome?	1. First, Mr Williams' question is based on an incorrect assumption that "rail terminus will only be borne as a cost after 25% of the site's buildings have been occupied". As set out at paragraph 6.2 of the Applicant's Post Hearing Submission (ISH5), rail infrastructure costs are incurred from the outset of the development and are distributed in line with the following milestones: • Opening of the initial rail terminal – Year 2-4 post occupation of first warehouse - £32.5m • Completion of the full rail terminal – Year 7-9 post occupation of first warehouse - £8.1m

Body / Individual (PINS Reference)	Comment (Reference)	Applicant's Response
		With regards to the question, the acceptability of the Proposed Development is determined by assessing it against the policies in the NPS and there is no purpose served in attempting to comment on the acceptability of hypothetical scenario. The Applicant's consideration of the acceptability of the Proposed Development is principally set out in Section 5 of the Planning Statement (APP-252); Green Belt an Update (Appendix 3, REP2-010); Compelling Need and VSC (Appendix 2, REP4-004); and the Post Hearing Submission (ISH5) (REP6-012).
	2. What specific safeguards exist to stop the question 1 scenario (just under 2 million square feet of warehousing being built and permanently occupied by road-road operators) from ever being a possibility?	2. Please refer to the Applicant's response to ExQ1.2.24 (i) and (iii) (Document 10.1, REP2-009) provided at Deadline 2.
	3. How many individual operators are using the DRIFT 1&2 warehousing and its rail connection as of July 2019? How many are using just the warehouses? Could you provide company names please?	3. The information requested is not in the public domain, but the Applicant has attempted to answer the queries based on information provided by ProLogis in publicity materials and the DIRFT III DCO Application, and the FTA publication "On track! Retailers using rail freight to make cost and carbon savings." The Applicant understands that occupiers in 14 out of 19 warehouses at DIRFT I and II use rail services based on the names of the occupiers: Tesco, Eddie Stobart, DHL,

Body / Individual (PINS Reference)	Comment (Reference)	Applicant's Response
		Sainsbury's and Malcolm Group, some of whom own multiple units. The Applicant stresses that this view is based on the information available in the public domain listed above and industry knowledge, but the Applicant is not party to commercially confidential logistics arrangements of every rail user.
	4. At DRIFT 1&2 in July 2019 - how many of the individual warehouse units are occupied by non-rail users? Could you provide company names please?	4. It is not known how far the remaining occupiers at DIRFT I and II (NFT, Royal Mail, Mothercare, Ingram Micro and Optima Logistics) make any use of rail through the site. Royal Mail operates its own rail services through RFI at Wembley, Warrington, Glasgow and Newcastle.
	5. What is the combined square footage of the warehousing at DRIFT 1&2? As of July 2019 - how much (in square feet or metres) is occupied by non-rail users?	5. As noted above the Applicant is unable to confirm whether NFT, Royal Mail, Mothercare, Ingram Micro and Optima Logistics make any use of rail through DIRFT I and II. These occupiers account for approximately 98,000 sq metres (18%) of the total of 560,600 sq metres of floorspace, based on measurement of the building footprints.
	6. In percentage terms – please specify how much of the total/finished B8/B2 floor space would need to be completely rail dependant to be able to deem the WMI a successful use of 650 acres of Greenbelt?	6. The Applicant has no doubt that the Proposed Development would be particularly attractive to occupiers seeking access to rail freight. The scarcity of the opportunity to use rail freight in the region, combined with the outstanding quality of the rail freight connection, the rail route and the line capacity all combined to make WMI an outstanding candidate as a SRFI.

Body / Individual (PINS Reference)	Comment (Reference)	Applicant's Response
		Financially, the attractiveness of the rail offer is also determined by cost competitiveness versus road networks. Please refer to Network Rail's response to ExQ2.2.13 at Deadline 5 (REP5-058) for further details. Nevertheless, it is not for the Applicant to determine the 'successful' use of Green Belt land. This is not a test in planning policy. The acceptability of the Proposed Development is determined by assessing it against the policies in the NPS and, with regards to the use of Green Belt land, the assessment must determine whether there are very special circumstances to justify inappropriate development. Very special circumstances will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm, is clearly outweighed by other considerations. With regards to the use of rail, as set out in the Applicant's response to ExQ1.2.24 (Documeny 10.1, REP2-009), the NPS seeks to provide the opportunity to secure the benefits of the use of rail in the freight journey, but there is no evidence of the Government requiring or artificially enforcing that outcome. Instead, the NPS points to the need for SRFIs to provide the necessary opportunity but recognises the need for market flexibility. In particular, paragraph 2.45 of the NPS provides:

Body / Individual (PINS Reference)	Comment (Reference)	Applicant's Response
		"*In addition, the nature of the commercial development is such that some degree of flexibility is needed when schemes are being developed, in order to allow the development to respond to market requirements as they arise.*" With this in mind, paragraph 4.83 provides: "*Rail freight interchanges are not only locations for freight access to the railway but also locations for businesses, capable now or in the future, of supporting their commercial activities by rail. Therefore, from the outset, a rail freight interchange (RFI) should be developed in a form that can accommodate both rail and non-rail activities*." For this reason, the Secretary of State has not imposed requirements on the only other 2 SRFIs to have been consented through the DCO process (DIRFT III and EMG) to require either rail-linked warehouses, or to control the nature of the users of the warehouses, or to impose restrictions on their operation. Instead, the Secretary of State has been satisfied that the purpose of the proposal is to facilitate the important mode shift identified as the objective of SRFI in the NPS by providing the long-term opportunity for businesses to be located with direct access to a high-quality rail freight interchange.

Body / Individual (PINS Reference)	Comment (Reference)	Applicant's Response
		This issue was addressed directly at EMG and the Secretary of State's decision letter provides (at paragraph 24): "*With regard to the risk that a significant part of the development could remain roadbased, the Secretary of State considers that the requirement for the rail freight terminal to be operational before the occupation of more than 260,000m2 of rail served warehousing gives sufficient assurance that the rail facilities will be delivered as soon as is reasonably practicable in the programme for this development. While he accepts that in a commercial project of this sort there can be no absolute certainty that the rail facilities will be used to their fullest extent, he is reassured that the strong and growing demand for rail freight facilities including SRFIs recognised by the Examining Authority, and as expressed in the NPSNN (paragraph 2.45), means that there are reasonable prospects that as this SRFI is developed it will fulfil its potential for contributing to modal transfer in the freight sector, which is the clear purpose of this application.*"
	7. In 15 years' time how many warehouse units occupied by road-road only users would render the WMI scheme a failure as a strategic rail freight interchange?	7. As stated above, with the rail terminal open and rail served warehouses constructed, the Applicant does not see any prospect of WMI not operating successfully as a SRFI. Based on the economics of freight transport and the growing evidence base from the existing network of SRFI there is no reason to expect that any warehouses would not be using the

Body / Individual (PINS Reference)	Comment (Reference)	Applicant's Response
	8. In 15 years' time how many warehouse units occupied by road-road only users would render the WMI scheme an inappropriate use of the West Midlands Greenbelt?	rail terminal, nor that it would not be an important facility for the logistics industry in the wider area. 8. See answer to 6 and 7 above.
Daniel Williams 17.1.032	Mr Williams also raised concerns regarding Technical Appendix 13.5 – Operational Noise Assessment Information. Specifically, it is considered that the Appendix obscured the noise generating and amplifying effects of a signal-controlled junction (School Lane/Old Stafford Road/A449). Mr Williams also expressed concerns that £9,000 would be inadequate for noise mitigation compensation.	As stated in response to Brewood and Coven Parish Council (06 BCPC 005) in the Applicant's Responses to Other Parties Deadline 4 Submissions (Doc 15.2 REP5-006), calculations of road traffic noise follow the method set out in the Department of Transport's 1988 document Calculation of Road Traffic Noise (CRTN). Speed changes at junctions are ignored when using the CRTN methodology. The proposed mitigation package has been agreed with SSDC as confirmed by Section 14 of the SoCG (REP2-006)

Appendix 2:

Highways England's Deadline 7 Response to Daniel Williams Deadline 6 Questions

Deadline 8

Question 3.3.2

Highways England has reviewed the submissions of Mr Williams as requested and has nothing further to add to submissions already made on these points.

Yours sincerely,

[redacted]

Kathryn Simmonite
OD Midlands
Email: kathryn.simmonite@highwaysengland.gov.uk

Appendix 3:

Daniel Williams' Deadline 6 Submission

Deadline 8

Dear Mr Singleton,

The applicant's deadline 5 response to ExQ2 representation (Rep2-178 – attached to this document as Appendix 1) has not addressed parts 2 or 3 of my submission. Sections 2 and 3 of my submission were concerned with specific transport and noise issues along the A449 between the Station Road junction and junction 2 (J2) of the M54.

1- <u>The Chronology of Events:</u>

- On 5th June 2019 during the *'Accessibility and Transport Hearing'* the examining authority [Mr Singleton] asked the applicant to address Rep2-178 as a whole.

- On 11th June 2019 the '*Action List*' for the 5th June 2019 proceedings was published. It stated under point 6 (*likely traffic effects on the A449 south of Station Drive*) the applicant is to respond to REP2-178 by 5th July 2019.

- On 27th June 2019 I wrote to you [Mr Singleton] and Mr Ranger to inform you that the ExQ2 further written questions published on 19th June 2019 had only posed questions from part 1 of my three part ExQ2 submission. Part 1 of Rep2-178 is not transport related; it discusses the overarching planning need and justification for the proposed development.

- On 5th July 2019 the West Midland Interchange (WMI) Development Consent Order case manager Robert Ranger responded to my 27th June 2019 email to say…

  …'I'll pass on your concerns to Mr Singleton… I'm afraid I do not know what the applicant will submit for deadline 5; but we will publish all the submissions on our website as soon as possible.'

  It would appear that the applicant has used the examining authority's 19th June 2019 mistake to stay silent on the specific issues that were raised in parts 2 and 3 of my ExQ2 submission.

2- <u>Analysis of the Applicant's Deadline 5 Rep2-178 Response:</u>

The applicant has not adequately answered the numbered questions from Rep2-178 (please see Appendix 1). Instead the applicant has selectively and partially addressed some of the questions I posed, in other instances the applicant has completely ignored valid questions.

Below I have analysed the response the applicant did provide (the applicant is in red). Because of the response's deficiencies I have been compelled to ask further questions. The questions posed in this deadline 6 document are included in the remainder of this section (section 2) and section 4. For the applicant's benefit and the complete avoidance of doubt I have numbered and clearly identified all of the questions.

'The cost of the rail infrastructure as a percentage of the value of the completed development would not provide an impression of the importance of the rail as part of the site's development. The full cost of installing the rail infrastructure is borne earlier and incurred over a shorter period of time than the revenue generated from

the delivery of the full development is received. The Applicant can confirm that the site wide infrastructure costs are, at the time of assessment, approximately £117m, of which the rail infrastructure is in excess of £40m. The rail infrastructure is therefore a key component of the site's infrastructure and significant in its size.'

The rail terminus will only be borne as a cost after 25% of the site's buildings have been occupied. 25% of the buildings equates to 2 million square feet of B2/B8 warehousing.

QUESTION 1: If 24.9% of the proposed WMI buildings are occupied by operators who go on to decide road-road logistics is preferable, for whatever reason, to road-rail operations, would 1.99 million square feet of B8/B2 warehouse development in the Greenbelt be an acceptable outcome? Yes or no? Please do not answer this question by saying that this will not happen so you cannot or do not need to answer the question.

QUESTION 2: What specific safeguards exist to stop the question 1 scenario (just under 2 million square feet of warehousing being built and permanently occupied by road-road operators) from ever being a possibility? Please do not answer this question by saying that this will not happen so you cannot or do not need to answer the question.

'At least 15 occupiers of the 20 DIRFT 1&2 warehouse units have used rail services representing a major proportion of the occupiers.'

15 of the 20 operators have used rail services - the use of the word have is not the same as are.

QUESTION 3: How many individual operators are using the DRIFT 1&2 warehousing and its rail connection as of July 2019? How many are using just the warehouses? Could you provide company names please?

QUESTION 4: At DRIFT 1&2 in July 2019 - how many of the individual warehouse units are occupied by non-rail users? Could you provide company names please?

QUESTION 5: What is the combined square footage of the warehousing at DRIFT 1&2? As of July 2019 - how much (in square feet or metres) is occupied by non-rail users?

'The level of rail usage at which the WMI would be considered a successful SRFI is subjective once the minimum requirement for an SRFI of 4 trains per day has been achieved, but the WMI has set out clearly its aim of achieving 10 trains per day, which would mean it had achieved as many trains per day as any other SRFI in the UK.'

This statement by the applicant does not help to explain the anticipated correlation between the square footage of the proposed buildings and their rail dependence. 10 trains a day may sound a lot but if they go on to only serve 50% of the buildings for example, the proposed scheme would be severely flawed.

QUESTION 6: In percentage terms – please specify how much of the total/finished B8/B2 floor space would need to be completely rail dependant to be able to deem the WMI a successful use of 650 acres of Greenbelt?

QUESTION 7: In 15 years' time how many warehouse units occupied by road-road only users would render the WMI scheme a failure as a strategic rail freight interchange?

QUESTION 8: In 15 years' time how many warehouse units occupied by road-road only users would render the WMI scheme an inappropriate use of the West Midlands Greenbelt?

'It is premature to be marketing the scheme in advance of a DCO decision; not only would it be presumptuous but occupiers requirements details of the consent, and a level of certainty about delivery and timescales to enable proper business planning – it is generally not for occupiers to take planning and property risk. Nonetheless the Applicant has been in receipt of interest from a number of major companies' links. Interest is commercially confidential but is drawn from all main sectors of B8 logistics.'

In this DCO process the onus is on the applicant to explain and prove beyond reasonable doubt there are 'very special circumstances' for the proposed road-rail infrastructure and the associated 8 million square feet of warehousing in the Greenbelt. Demonstrating market demand is not presumptuous – it is reasonable, achievable and necessary.

Businesses do not keep all of their long term plans and objectives secret all of the time. If the rail-road mode of logistics is cheaper for many B8/B2 business operators and less environmentally polluting than almost all road-road logistic operations, I see no logical reason why companies would not want make non-committal offers of support to the rail-road principals of the scheme.

The fact that a single company cannot be found to publicly say '*we XXX aspire to use/partly use/use more rail in our operations, in the West Midlands region toward the latter part of the next decade, because it's cheaper and less environmentally polluting than purely road based logistic operations*' is quite extraordinary and telling in equal measure.

3- <u>The Outstanding Transport & Noise Issues:</u>

The data provided by '*Technical Appendix 13.5 - Operational Noise Assessment information*' divides the anticipated flows of traffic to the south of the proposed WMI on the A449, and the increases in noise pollution this will create, into northbound and southbound carriageways. Please see the extract immediately below and the text highlighted yellow in Appendix 2 of this document.

Submitted DCO Technical Appendix 13.5 - Operational Noise Assessment information:

Table 13.5.7: Calculated changes in night-time road traffic noise, 2021, free-field LA10, 8hrs dB

Location	2016 baseline	2021 No development[1]	2021 With development[2]
A449 between Station Drive and Brewood Road (northbound)	67.8	67.5 (-0.3)	70.4 (+2.9)
A449 between Station Drive and Brewood Road (southbound)	70.4	70.7 (+0.3)	73.1 (+2.4)

Notes:
[1] the bracketed value is the change in noise level between the 2016 baseline and 2021 No Development scenario
[2] the bracketed value is the change in noise level between the 2021 No Development scenario and the 2021 With Development scenario

This is not how decibels (dB) work, nor is it how people receive or experience sound from a sound generating entity like a single road. At best, the nocturnal noise Standeford's residents will experience (when the noise from the two A449 carriageways is combined) will exceed 3dB. The applicant's submission (paragraph 13.344) is clear; the settlement of Standeford and its residents will experience **significant**, adverse noise in the event of a WMI DCO approval.

Paragraph 13.344 of the submitted Environmental Statement (ES) Chapter 13…

> *'Increases in road traffic noise of just 3 to 5dB would be classed as moderate adverse impacts, which when combined with the high sensitivity of the residential receptors along these roads, would be regarded as moderate adverse effects, which are* ***significant in EIA terms****.'*

As I made explicitly clear in part 2 of my ExQ2 representation (Rep2-178 – please see Appendix 1), the applicant's appendix 13.5 data submission, and the ES Chapter 13 analysis of that data has obscured the noise generating and amplifying effects of a signal controlled junction (School Lane/Old Stafford Road/A449) within a two kilometre stretch of road (identified by the applicant as link 18 - the A449 between the Station Road junction and the Brewood Road junction).

This coupled with the existing 70dB+ baseline levels in this locality (please see the yellow highlighted text in Appendix 2); the nature of the Standeford settlement itself (older 2 and 3 storey road facing dwellings) and how the dwellings reside in close proximity to the A449 (many dwellings predate the construction of the road itself in the 1920's) are critical, nuanced details that have been given absolutely no regard by the applicant's submission. In short, the problem will be far worse than has been advocated.

Following the submission of Rep2-178 on 5th April 2019, the applicant submitted an addendum (13A) to Chapter 13 (noise and vibration) of the ES. At its core the 13A addendum has sought to increase the number of dwellings which will become the beneficiaries of bespoke sound mitigation measures. The increase in the number of eligible dwellings has been brought about by reducing the sound level thresholds which trigger mitigating assistance. Critically, the change in threshold levels is only applicable to dwellings which reside within 300 metres of the order limits as defined by site location plan 4049-10 (Rev. 5).

The applicant has stated that **<u>in all circumstances</u>** dwellings experiencing additional adverse noise (irrespective of its adverse extent) which are located more than 300 metres from the order limits, will not be eligible for mitigating assistance. The applicant has cited that the '*1975 Noise Insulation Regulations*' renders them devoid of all responsibility – this is completely unacceptable.

I also note that the Deadline 5 *Draft Development Consent Obligation (Clean)* caps the financial assistance a property can receive to mitigate adverse sound to a maximum amount of £9000. If financial assistance is offered to properties residing alongside the A499 to the south of the Order limits; £9000 will in many instances be woefully inadequate. In some instances heavy duty acoustic fencing will be required, particularly where affected dwellings reside in close proximity to the highway. The installation of this fencing may need to be many tens of metres in length to be effective and may require the relocation of existing Highway England infrastructure (street lights, road signs etc.), pre and post 'soft' landscaping works, as well as detailed plans and engineering analysis prior to any installation works.

4- <u>Moving Forward:</u>

Could you [Mr Singleton] please ask the applicant to respond in writing to parts 2 and 3 of my ExQ2 submission and could you also ask them to have full regard to the contents and the conclusions I have made in this deadline 6 submission? Could the applicant also directly and systematically answer each of the individually numbered questions I have posed in section 2 of this deadline 6 submission? It

would be very helpful if the applicant could avoid using conflated prose which cherry pick favourable topics and smear out inconvenient ones.

The applicant appears determined to keep citing the *1975 Noise Insulation Regulations* to shirk any responsibility for what will happen along the southern A449 corridor. **I would like to understand where Highways England think the tipping point resides for when and where action/mitigation would be needed in the event of an approval and the inevitable intensification of vehicular (specifically HGV) use along the A449 between Station Road and J2 of the M54.**

Could you [Mr Singleton] also please ask Highways England to respond to parts 2 and 3 of my ExQ2 submission and the contents of this deadline 6 submission which relate to transport and noise issues along the A449 (Station Road to J2-M54)? As the custodians of the strategic road network, future remedial action on and immediately alongside the A449 will become their responsibility and affect the public money they manage.

****

Appendix 4:

Support for the WMI from iPort, Doncaster

Deadline 8

Peter Frost
Managing Director
Four Ashes Limited
c/o Kilbride Rail Limited
Bury House
1-3 Bury Street
Guilford
Surrey
GU2 4AW

iportrail Ltd
Railport Terminal Building
Railport Way
New Rossington
Doncaster
DN11 0BQ

Date: 5th July 2019

Dear Peter,

West Midlands Interchange

I am writing to express support for the proposal for an SRFI at West Midlands Interchange (WMI).

The proposed development will see a significant investment in new rail infrastructure for the West Midlands region, including a new intermodal freight terminal with direct connections to the West Coast Main Line, capable of accommodating up to 10 trains per day and trains of up to 775m long, including container storage, Heavy Goods Vehicle ('HGV') parking, rail control building and staff facilities;

At iPort we have been very successful in building up the traffic at the rail terminal over the last year from a standing start at which point approximately 156,000 sq m of floorspace was occupied, to the 4 services per day that are currently running with more planned. Three out the four occupiers of warehousing at iPort are now using rail services.

The key element that enabled the success of iPort's rail operations, apart from hard work and good industry contacts and knowledge, has been the opening of the warehousing. There was limited commercial interest to build on before the warehousing was occupied. A base of core customers is needed to be able to form full train loads and provide the variety of destination for the rail services that is need to attract customers to rail.

I am pleased to support the WMI proposals for a Strategic Rail Freight Interchange and would be pleased for this letter to be forwarded to the Examining Authority in support of the DCO application.

Please do not hesitate to contact me if I can be of any further assistance,

Yours Sincerely

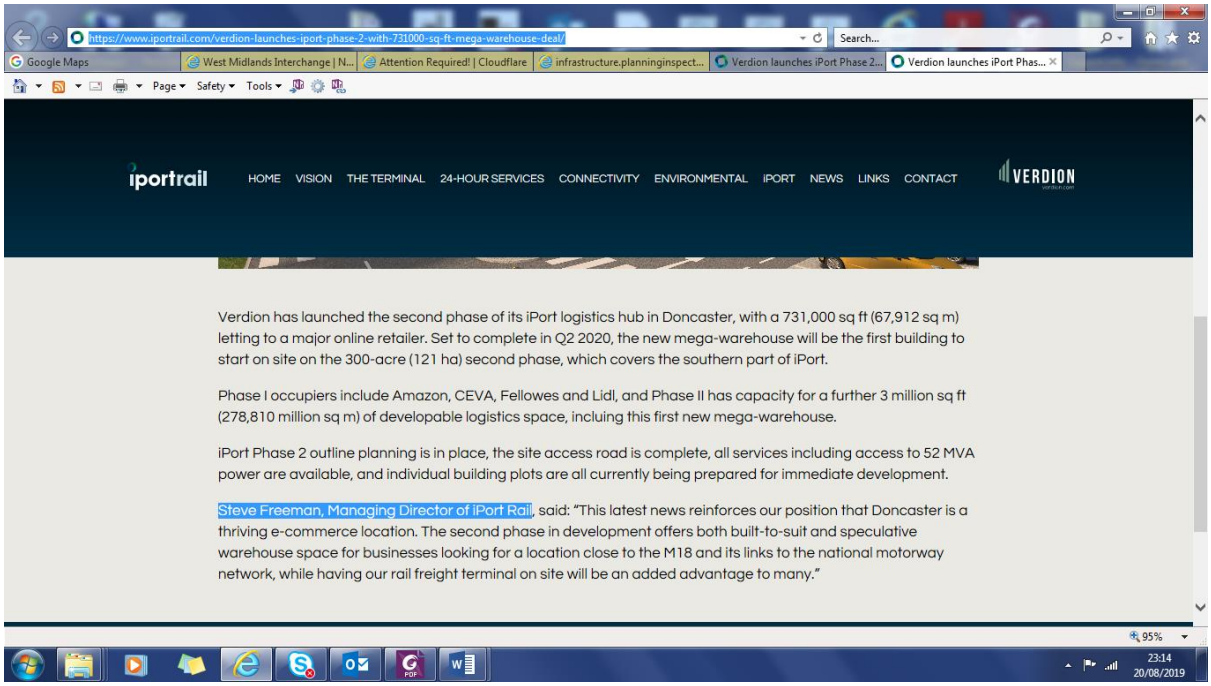
[redacted]

Steve Freeman
Managing Director
Iportrail Ltd

Appendix 5:

iPort’s website

Deadline 8


https://www.iportrail.com/verdion-launches-iport-phase-2-with-731000-sq-ft-mega-warehouse-deal/
Search...
Google Maps
West Midlands Interchange | N...
Attention Required! | Cloudflare
infrastructure.planninginspect...
Verdion launches iPort Phase 2...
Verdion launches iPort Phas...
Page
Safety
Tools
iportrail
HOME
VISION
THE TERMINAL
24-HOUR SERVICES
CONNECTIVITY
ENVIRONMENTAL
iPORT
NEWS
LINKS
CONTACT
VERDION
Verdion has launched the second phase of its iPort logistics hub in Doncaster, with a 731,000 sq ft (67,912 sq m) letting to a major online retailer. Set to complete in Q2 2020, the new mega-warehouse will be the first building to start on site on the 300-acre (121 ha) second phase, which covers the southern part of iPort.
Phase I occupiers include Amazon, CEVA, Fellowes and Lidl, and Phase II has capacity for a further 3 million sq ft (278,810 million sq m) of developable logistics space, incluing this first new mega-warehouse.
iPort Phase 2 outline planning is in place, the site access road is complete, all services including access to 52 MVA power are available, and individual building plots are all currently being prepared for immediate development.
Steve Freeman, Managing Director of iPort Rail, said: "This latest news reinforces our position that Doncaster is a thriving e-commerce location. The second phase in development offers both built-to-suit and speculative warehouse space for businesses looking for a location close to the M18 and its links to the national motorway network, while having our rail freight terminal on site will be an added advantage to many."
95%
23:14
20/08/2019

Appendix 6:

The Applicant's Appendix 13.5 submission with annotations

Deadline 8

Document 6.2

The West Midlands Rail Freight Interchange Order 201X

Technical Appendix 13.5 - Operational Noise Assessment information

Regulation 5(2)(a)

Resound - July 2018

West Midlands Interchange

Four Ashes Ltd

Technical Appendix 13.5: Operational Noise Assessment Information

Table A13.5.1: Off-site daytime road traffic flows – 2021

Road	2016 baseline	2021 No development	2021 With development
M6 between Junction 13 and 14 (northbound)	64,931 (20.2)	80,202 (15.9)	80,579 (16.1)
M6 between Junction 13 and 14 (southbound)	64,322 (21.3)	83,765 (15)	84,586 (15.3)
A449 between M6 J13 and Pinfold Lane	13,794 (2.9)	16,997 (6.7)	19,001 (7.4)
Teddesley Road between Marsh Lane and Penkridge Road	3,371 (0.6)	3,521 (0.6)	3,521 (0.6)
Cannock Road between Wolgarston Way and A34	11,626 (1.3)	16,924 (6.7)	17,532 (7.9)
A5 between M6 Junction 12 and Proposed Site Access	20,898 (12.4)	23,153 (6)	32,828 (15)
A5 between Vicarage Road and M6 J12	18,795 (21.5)	19,851 (15.2)	23,982 (18.4)
M6 between Junction 9 and 10 (northbound)	89,882 (18.6)	131,524 (11.8)	132,228 (12.3)
M6 between Junction 9 and 10 (southbound)	82,497 (15)	106,575 (13.4)	108,165 (14.2)
A5 between Vicarage Road and A4061 Wolverhampton Road	20,468 (15.6)	22,632 (12.3)	25,425 (13.5)
A5 between A449 and Proposed Site Access	20,239 (15.1)	21,451 (7.1)	21,091 (11.6)
A5 between A449 and A41	14,047 (4.3)	18,840 (5.7)	20,039 (7.4)
A5 between A41 and A4640 Redhill Way	8,447 (4.3)	11,571 (10.1)	11,766 (11.3)
A449 between A5 and Gravelly Way (northbound)	9,228 (16.2)	11,842 (4.2)	12,237 (8.8)
A449 between A5 and Gravelly Way (southbound)	9,695 (15.2)	11,119 (3.6)	10,460 (9.2)
A449 between Gravelly Way and Station Drive (northbound)	9,888 (8)	10,737 (3)	15,698 (6.9)
A449 between Gravelly Way and Station Drive (southbound)	9,652 (9)	12,132 (3.1)	14,601 (10.7)
Vicarage Road between Site Access and A5	6,594 (6.8)	6,574 (7.4)	8,503 (21.9)
Straight Mile between Vicarage Road and Oak Lane	1,719 (0.6)	1,802 (1.4)	1,822 (1.8)
Station Road / Vicarage Road between Enterprise Drive and Proposed Site Access	8,217 (5.3)	6,416 (7.4)	5,472 (11)
Station Drive between A449 and Enterprise Drive	9,604 (2.5)	10,299 (6.5)	9,084 (8.3)
Four Ashes Road between A449 and Claygates Road	2,048 (0.5)	2,163 (2.7)	2,289 (3.5)
A449 between Station Drive and Brewood Road (northbound)	13,987 (4.6)	16,030 (3.4)	18,644 (6.8)
A449 between Station Drive and Brewood Road (southbound)	15,129 (4.8)	15,957 (3.6)	18,561 (9)
Old Stafford Road between A449 and New Road	2,483 (2.4)	2,593 (2.4)	2,593 (2.4)
Coven Road / Brewood Road / Poplars Farm Way between Lawn Lane and Tinkers lane	3,612 (0.5)	3,772 (0.5)	3,772 (0.5)
Poplars Farm Way between A449 and Lawn Lane	9,143 (0.6)	8,434 (2.6)	8,706 (2.4)
Lawn Lane between Brewood Road and Wobaston Road	4,860 (0.9)	5,075 (0.9)	5,075 (0.9)
A449 Stafford Road M54 J2 to Brewood Road (northbound)	11,535 (17.7)	14,074 (3.8)	16,415 (7.2)
A449 Stafford Road M54 J2 to Brewood Road (southbound)	11,637 (16.5)	14,727 (4)	16,742 (9)
A449 Stafford Road M54 J2 to Station Road/ Wobaston Road junction (northbound)	15,413 (14.9)	18,161 (3.7)	20,035 (6)
A449 Stafford Road M54 J2 to Station Road/ Wobaston Road junction (southbound)	17,901 (13.9)	21,867 (3.5)	23,196 (5.9)
Wobaston Road between Stafford Road and The Droveway	21,284 (6.4)	27,688 (1.8)	27,947 (1.7)
A449 Stafford Road between Wobaston Road and A460	29,281 (13.7)	37,997 (2.7)	40,764 (5.2)

Road	2016 baseline	2021 No development	2021 With development
Church Road between A449 Stafford Road and Three Tuns Lane	959 (0.4)	1,001 (0.4)	1,001 (0.4)
Bargate Street, Brewood	2,772 (0.8)	2,895 (0.8)	2,895 (0.8)
Sandy Lane / The Pavement, Brewood	3,275 (0.6)	3,420 (0.6)	3,420 (0.6)
Coven Road, Brewood between The Pavement and Tinkers Lane	5,089 (0.6)	5,315 (0.6)	5,315 (0.6)
B5012 Wolgarston Way between Cannock Road and A449	9,298 (1.5)	8,195 (5.9)	8,927 (5.5)
A449 between B5012 Boscomoor Lane and Pinfold Lane	17,751 (4.2)	13,947 (9.7)	15,872 (8.5)
A449 between B5012 Boscomoor Lane and A5	20,929 (2.4)	23,763 (3.9)	25,352 (5.9)
Camp Road between Penkridge Bank Road and A34	3,796 (0.5)	3,964 (0.5)	3,964 (0.5)
Penkridge Bank Road between Broadhurst Green Road and Marquis Drive	5,329 (2.1)	5,565 (2.1)	5,565 (2.1)
A5 between A4601 Wolverhampton Road and M6 Toll	21,509 (7.1)	26,617 (15.1)	27,000 (15.8)
A4601 Wolverhampton Road between A5 and M6 Toll	16,151 (3.1)	19,336 (14)	19,431 (14.1)
A4601 Wolverhampton Road between A5 and Longford Road	15,995 (1.4)	16,142 (7.9)	16,365 (8.4)
Bursnips Road	9,295 (7.8)	9,884 (7.8)	9,884 (7.8)
M6 between Junction 10 and 10a (northbound)	65,938 (15)	106,332 (14.9)	107,915 (15.5)
M6 between Junction 10 and 10a (southbound)	65,319 (15.7)	100,505 (15.9)	102,556 (16.7)
M6 between Junction 12 and 13 (northbound)	55,282 (13.9)	74,917 (13.7)	76,274 (13.8)
M6 between Junction 12 and 13 (southbound)	54,763 (14.7)	80,561 (14.6)	82,427 (14.6)
M6 between Junction 11a and 12 (northbound)	61,415 (16.3)	73,071 (13.8)	76,953 (15.1)
M6 between Junction 11a and 12 (southbound)	60,839 (17.2)	75,796 (14.6)	79,352 (15.9)
M6 between Junction 10a and 11 (northbound)	47,615 (18.5)	61,541 (18.3)	63,490 (19.1)
M6 between Junction 10a and 11 (southbound)	47,169 (19.5)	57,444 (19.3)	59,692 (20.4)
A5 between A34 and B4154	27,668 (12.2)	29,014 (13.2)	29,018 (13.4)
Notes: All roads are two-way, unless stated otherwise. Data presented in the form of 18 hour AAWT flows with the percentage of HGVs in brackets			

Table A13.5.2: Off-site daytime road traffic flows – 2036

Road	2016 baseline	2021 No development	2021 With development
M6 between Junction 13 and 14 (northbound)	64,931 (20.2)	90,039 (15.9)	90,369 (16.1)
M6 between Junction 13 and 14 (southbound)	64,322 (21.3)	94,039 (15)	94,859 (15.2)
A449 between M6 J13 and Pinfold Lane	13,794 (2.9)	18,399 (6.7)	20,537 (7.3)
Teddesley Road between Marsh Lane and Penkridge Road	3,371 (0.6)	3,831 (0.6)	3,831 (0.6)
Cannock Road between Wolgarston Way and A34	11,626 (1.3)	18,320 (6.7)	18,937 (7.9)
A5 between M6 Junction 12 and Proposed Site Access	20,898 (12.4)	25,279 (6)	35,346 (14.5)
A5 between Vicarage Road and M6 J12	18,795 (21.5)	21,674 (15.2)	25,923 (18.1)
M6 between Junction 9 and 10 (northbound)	89,882 (18.6)	147,655 (11.8)	148,222 (12.3)
M6 between Junction 9 and 10 (southbound)	82,497 (15)	119,646 (13.4)	121,192 (14.1)
A5 between Vicarage Road and A4061 Wolverhampton Road	20,468 (15.6)	24,710 (12.3)	27,527 (13.4)
A5 between A449 and Proposed Site Access	20,239 (15.1)	23,420 (7.1)	22,843 (11.4)
A5 between A449 and A41	14,047 (4.3)	20,394 (5.7)	21,611 (7.3)

Road	2016 baseline	2021 No development	2021 With development
A5 between A41 and A4640 Redhill Way	8,447 (4.3)	12,525 (10.1)	12,706 (11.1)
A449 between A5 and Gravelly Way (northbound)	9,228 (16.2)	12,930 (4.2)	13,267 (8.5)
A449 between A5 and Gravelly Way (southbound)	9,695 (15.2)	12,140 (3.6)	11,300 (9)
A449 between Gravelly Way and Station Drive (northbound)	9,888 (8)	11,723 (3)	16,969 (6.8)
A449 between Gravelly Way and Station Drive (southbound)	9,652 (9)	13,246 (3.1)	15,771 (10.5)
Vicarage Road between Site Access and A5	6,594 (6.8)	7,154 (7.4)	8,864 (21.3)
Straight Mile between Vicarage Road and Oak Lane	1,719 (0.6)	1,961 (1.4)	1,982 (1.8)
Station Road / Vicarage Road between Enterprise Drive and Proposed Site Access	8,217 (5.3)	6,982 (7.4)	5,831 (10.8)
Station Drive between A449 and Enterprise Drive	9,604 (2.5)	11,209 (6.5)	9,768 (8.2)
Four Ashes Road between A449 and Claygates Road	2,048 (0.5)	2,354 (2.7)	2,491 (3.5)
A449 between Station Drive and Brewood Road (northbound)	13,987 (4.6)	17,502 (3.4)	20,152 (6.7)
A449 between Station Drive and Brewood Road (southbound)	15,129 (4.8)	17,423 (3.6)	20,074 (8.8)
Old Stafford Road between A449 and New Road	2,483 (2.4)	2,822 (2.4)	2,822 (2.4)
Coven Road / Brewood Road / Poplars Farm Way between Lawn Lane and Tinkers lane	3,612 (0.5)	4,105 (0.5)	4,105 (0.5)
Poplars Farm Way between A449 and Lawn Lane	9,143 (0.6)	9,179 (2.6)	9,452 (2.4)
Lawn Lane between Brewood Road and Wobaston Road	4,860 (0.9)	5,523 (0.9)	5,523 (0.9)
A449 Stafford Road M54 J2 to Brewood Road (northbound)	11,535 (17.7)	15,367 (3.8)	17,739 (7.1)
A449 Stafford Road M54 J2 to Brewood Road (southbound)	11,637 (16.5)	16,079 (4)	18,110 (8.8)
A449 Stafford Road M54 J2 to Station Road/ Wobaston Road junction (northbound)	15,413 (14.9)	19,801 (3.7)	21,724 (5.9)
A449 Stafford Road M54 J2 to Station Road/ Wobaston Road junction (southbound)	17,901 (13.9)	23,842 (3.5)	25,198 (5.8)
Wobaston Road between Stafford Road and The Droveway	21,284 (6.4)	30,575 (1.8)	30,862 (1.7)
A449 Stafford Road between Wobaston Road and A460	29,281 (13.7)	41,589 (2.7)	44,411 (5.1)
Church Road between A449 Stafford Road and Three Tuns Lane	959 (0.4)	1,106 (0.4)	1,106 (0.4)
Bargate Street, Brewood	2,772 (0.8)	3,197 (0.8)	3,197 (0.8)
Sandy Lane / The Pavement, Brewood	3,275 (0.6)	3,776 (0.6)	3,776 (0.6)
Coven Road, Brewood between The Pavement and Tinkers Lane	5,089 (0.6)	5,869 (0.6)	5,869 (0.6)
B5012 Wolgarston Way between Cannock Road and A449	9,298 (1.5)	9,049 (5.9)	9,805 (5.5)
A449 between B5012 Boscomoor Lane and Pinfold Lane	17,751 (4.2)	15,265 (9.7)	17,134 (8.4)
A449 between B5012 Boscomoor Lane and A5	20,929 (2.4)	25,724 (3.9)	27,336 (5.8)
Camp Road between Penkridge Bank Road and A34	3,796 (0.5)	4,314 (0.5)	4,314 (0.5)
Penkridge Bank Road between Broadhurst Green Road and Marquis Drive	5,329 (2.1)	6,056 (2.1)	6,056 (2.1)
A5 between A4601 Wolverhampton Road and M6 Toll	21,509 (7.1)	29,021 (15.1)	29,288 (15.8)
A4601 Wolverhampton Road between A5 and M6 Toll	16,151 (3.1)	21,164 (14)	21,250 (14.1)
A4601 Wolverhampton Road between A5 and Longford Road	15,995 (1.4)	17,667 (7.9)	17,867 (8.3)
Bursnips Road	9,295 (7.8)	10,699 (7.8)	10,699 (7.8)

Road	2016 baseline	2021 No development	2021 With development
M6 between Junction 10 and 10a (northbound)	65,938 (15)	119,373 (14.9)	120,909 (15.4)
M6 between Junction 10 and 10a (southbound)	65,319 (15.7)	112,832 (15.9)	114,870 (16.6)
M6 between Junction 12 and 13 (northbound)	55,282 (13.9)	84,106 (13.7)	85,550 (13.7)
M6 between Junction 12 and 13 (southbound)	54,763 (14.7)	90,441 (14.6)	92,442 (14.6)
M6 between Junction 11a and 12 (northbound)	61,415 (16.3)	82,033 (13.8)	86,006 (14.9)
M6 between Junction 11a and 12 (southbound)	60,839 (17.2)	85,092 (14.6)	88,787 (15.7)
M6 between Junction 10a and 11 (northbound)	47,615 (18.5)	69,089 (18.3)	71,036 (19)
M6 between Junction 10a and 11 (southbound)	47,169 (19.5)	64,489 (19.3)	66,751 (20.3)
A5 between A34 and B4154	27,668 (12.2)	31,678 (13.2)	31,612 (13.4)
Notes: All roads are two-way, unless stated otherwise. Data presented in the form of 18 hour AAWT flows with the percentage of HGVs in brackets			

Table A13.5.3: Off-site night-time road traffic flows – 2021

Road	2016 baseline	2021 No development	2021 With development
M6 between Junction 13 and 14 (northbound)	8,246 (48.1)	10,191 (37.8)	10,366 (37.8)
M6 between Junction 13 and 14 (southbound)	9,456 (42.5)	12,322 (30)	12,563 (30.2)
A449 between M6 J13 and Pinfold Lane	1,051 (8)	1,295 (18.2)	1,529 (20.4)
Teddesley Road between Marsh Lane and Penkridge Road	176 (0.5)	181 (0.5)	181 (0.5)
Cannock Road between Wolgarston Way and A34	649 (1.5)	945 (7.7)	1,103 (9.4)
A5 between M6 Junction 12 and Proposed Site Access	1,482 (67.1)	3,402 (15.4)	5,418 (30.1)
A5 between Vicarage Road and M6 J12	3,678 (41)	3,884 (28.9)	4,972 (30.7)
M6 between Junction 9 and 10 (northbound)	11,069 (37.3)	14,524 (26.2)	14,932 (26.9)
M6 between Junction 9 and 10 (southbound)	14,221 (28.9)	20,512 (23.4)	21,010 (24.5)
A5 between Vicarage Road and A4061 Wolverhampton Road	2,240 (38)	2,508 (31.9)	3,293 (29.5)
A5 between A449 and Proposed Site Access	3,896 (42.3)	4,129 (19.3)	4,264 (25.2)
A5 between A449 and A41	1,104 (8.9)	1,482 (11.7)	1,789 (16.1)
A5 between A41 and A4640 Redhill Way	624 (8.5)	856 (20)	948 (24.8)
A449 between A5 and Gravelly Way (northbound)	398 (16.2)	1,703 (11.3)	1,911 (19)
A449 between A5 and Gravelly Way (southbound)	326 (20.1)	1048 (6)	1,249 (16.7)
A449 between Gravelly Way and Station Drive (northbound)	839 (16.7)	912 (6.2)	1,732 (12.9)
A449 between Gravelly Way and Station Drive (southbound)	1,201 (24.7)	1,511 (8.6)	2,137 (23.3)
Vicarage Road between Site Access and A5	541 (14.9)	540 (16.2)	1,643 (29.9)
Straight Mile between Vicarage Road and Oak Lane	88 (0.9)	93 (2)	98 (2.5)
Station Road / Vicarage Road between Enterprise Drive and Proposed Site Access	629 (11.8)	492 (16.5)	732 (18.9)
Station Drive between A449 and Enterprise Drive	735 (5.6)	789 (14.3)	994 (16.2)
Four Ashes Road between A449 and Claygates Road	100 (0.4)	106 (2.2)	112 (2.8)
A449 between Station Drive and Brewood Road (northbound)	1,187 (9.6)	1,188 (7.5)	1,885 (13)
A449 between Station Drive and Brewood Road (southbound)	1,883 (13.1)	2,277 (9.5)	2,970 (19.3)
Old Stafford Road between A449 and New Road	136 (3.8)	140 (3.8)	140 (3.8)

Road	2016 baseline	2021 No development	2021 With development
Coven Road / Brewood Road / Poplars Farm Way between Lawn Lane and Tinkers lane	150 (0.5)	154 (0.5)	154 (0.5)
Poplars Farm Way between A449 and Lawn Lane	512 (0.3)	472 (1.3)	553 (1)
Lawn Lane between Brewood Road and Wobaston Road	258 (0.9)	266 (0.9)	266 (0.9)
A449 Stafford Road M54 J2 to Brewood Road (northbound)	1,170 (35.3)	1,427 (7.5)	2,062 (12.7)
A449 Stafford Road M54 J2 to Brewood Road (southbound)	1,148 (24.1)	1,453 (5.8)	2,016 (14.5)
A449 Stafford Road M54 J2 to Station Road/ Wobaston Road junction (northbound)	2,042 (17.9)	2,407 (4.4)	2,877 (7.8)
A449 Stafford Road M54 J2 to Station Road/ Wobaston Road junction (southbound)	1,709 (15.9)	2,087 (4)	2,419 (8.4)
Wobaston Road between Stafford Road and The Droveway	1,843 (8.9)	2,398 (2.4)	2,420 (2.4)
A449 Stafford Road between Wobaston Road and A460	2,997 (17.6)	3,889 (3.4)	4,600 (7.8)
Church Road between A449 Stafford Road and Three Tuns Lane	45 (0)	47 (0)	47 (0)
Bargate Street, Brewood	72 (0.6)	74 (0.6)	74 (0.6)
Sandy Lane / The Pavement, Brewood	123 (0.5)	127 (0.5)	127 (0.5)
Coven Road, Brewood between The Pavement and Tinkers Lane	182 (0.4)	187 (0.4)	187 (0.4)
B5012 Wolgarston Way between Cannock Road and A449	482 (1.8)	1,077 (5.8)	1,259 (5.9)
A449 between B5012 Boscomoor Lane and Pinfold Lane	1,358 (10.7)	640 (11.8)	869 (16)
A449 between B5012 Boscomoor Lane and A5	1,601 (6.3)	1,819 (9.9)	2,226 (14.7)
Camp Road between Penkridge Bank Road and A34	298 (0.1)	306 (0.1)	306 (0.1)
Penkridge Bank Road between Broadhurst Green Road and Marquis Drive	355 (3.2)	365 (3.2)	365 (3.2)
A5 between A4601 Wolverhampton Road and M6 Toll	2,059 (23.2)	1,781 (43.4)	2,192 (39)
A4601 Wolverhampton Road between A5 and M6 Toll	1,718 (5.4)	1,680 (50)	1,729 (49)
A4601 Wolverhampton Road between A5 and Longford Road	1,638 (2.1)	1,735 (14.7)	1,849 (15.1)
Bursnips Road	989 (13.7)	1,041 (13.7)	1,041 (13.7)
M6 between Junction 10 and 10a (northbound)	8,374 (35.6)	9,508 (22.9)	10,049 (24.2)
M6 between Junction 10 and 10a (southbound)	9,603 (31.5)	8,649 (24.9)	9,266 (26.6)
M6 between Junction 12 and 13 (northbound)	7,020 (33.2)	9,520 (32.6)	9,799 (32.4)
M6 between Junction 12 and 13 (southbound)	8,051 (29.3)	11,851 (29.3)	12,242 (28.8)
M6 between Junction 11a and 12 (northbound)	7,799 (38.8)	9,285 (32.9)	10,298 (33.8)
M6 between Junction 11a and 12 (southbound)	8,944 (34.3)	11,150 (29.2)	12,019 (30.7)
M6 between Junction 10a and 11 (northbound)	6,047 (44)	7,820 (43.6)	8,393 (43.5)
M6 between Junction 10a and 11 (southbound)	6,934 (38.9)	8,450 (38.5)	9,090 (39.3)
A5 between A34 and B4154	2,943 (21.5)	4,610 (26.4)	4,719 (26.1)
Notes: All roads are two-way, unless stated otherwise. Data presented in the form of 8 hour AAWT flows with the percentage of HGVs in brackets			

Table A13.5.4: Off-site night-time road traffic flows – 2036

Road	2016 baseline	2036 No development	2036 With development
M6 between Junction 13 and 14 (northbound)	8,246 (48.1)	11,441 (37.8)	11,609 (37.8)
M6 between Junction 13 and 14 (southbound)	9,456 (42.5)	13,833 (30)	14,074 (30.2)
A449 between M6 J13 and Pinfold Lane	1,051 (8)	1,402 (18.2)	1,646 (20.1)
Teddesley Road between Marsh Lane and Penkridge Road	176 (0.5)	197 (0.5)	197 (0.5)
Cannock Road between Wolgarston Way and A34	649 (1.5)	1,023 (7.7)	1,182 (9.3)
A5 between M6 Junction 12 and Proposed Site Access	1,482 (67.1)	3,715 (15.4)	5,770 (29.7)
A5 between Vicarage Road and M6 J12	3,678 (41)	4,241 (28.9)	5,352 (30.6)
M6 between Junction 9 and 10 (northbound)	11,069 (37.3)	16,306 (26.2)	16,698 (26.8)
M6 between Junction 9 and 10 (southbound)	14,221 (28.9)	23,028 (23.4)	23,517 (24.3)
A5 between Vicarage Road and A4061 Wolverhampton Road	2,240 (38)	2,739 (31.9)	3,526 (29.7)
A5 between A449 and Proposed Site Access	3,896 (42.3)	4,508 (19.3)	4,602 (25)
A5 between A449 and A41	1,104 (8.9)	1,604 (11.7)	1,913 (15.8)
A5 between A41 and A4640 Redhill Way	624 (8.5)	926 (20)	1,017 (24.3)
A449 between A5 and Gravelly Way (northbound)	398 (16.2)	1,859 (11.3)	2,059 (18.6)
A449 between A5 and Gravelly Way (southbound)	326 (20.1)	1,144 (6)	1,328 (16.3)
A449 between Gravelly Way and Station Drive (northbound)	839 (16.7)	996 (6.2)	1,840 (12.8)
A449 between Gravelly Way and Station Drive (southbound)	1,201 (24.7)	1,649 (8.6)	2,283 (23.2)
Vicarage Road between Site Access and A5	541 (14.9)	587 (16.2)	1,672 (29.6)
Straight Mile between Vicarage Road and Oak Lane	88 (0.9)	101 (2)	106 (2.5)
Station Road / Vicarage Road between Enterprise Drive and Proposed Site Access	629 (11.8)	535 (16.5)	759 (18.8)
Station Drive between A449 and Enterprise Drive	735 (5.6)	859 (14.3)	1,047 (16)
Four Ashes Road between A449 and Claygates Road	100 (0.4)	115 (2.2)	122 (2.8)
A449 between Station Drive and Brewood Road (northbound)	1,187 (9.6)	1,297 (7.5)	1,997 (13)
A449 between Station Drive and Brewood Road (southbound)	1,883 (13.1)	2,486 (9.5)	3,186 (19.1)
Old Stafford Road between A449 and New Road	136 (3.8)	152 (3.8)	152 (3.8)
Coven Road / Brewood Road / Poplars Farm Way between Lawn Lane and Tinkers lane	150 (0.5)	168 (0.5)	168 (0.5)
Poplars Farm Way between A449 and Lawn Lane	512 (0.3)	514 (1.2)	595 (1.1)
Lawn Lane between Brewood Road and Wobaston Road	258 (0.9)	289 (0.9)	289 (0.9)
A449 Stafford Road M54 J2 to Brewood Road (northbound)	1,170 (35.3)	1,558 (7.5)	2,196 (12.7)
A449 Stafford Road M54 J2 to Brewood Road (southbound)	1,148 (24.1)	1,586 (5.8)	2,151 (14.1)
A449 Stafford Road M54 J2 to Station Road/ Wobaston Road junction (northbound)	2,042 (17.9)	2,624 (4.4)	3,101 (7.7)
A449 Stafford Road M54 J2 to Station Road/ Wobaston Road junction (southbound)	1,709 (15.9)	2,276 (4)	2,611 (8.2)
Wobaston Road between Stafford Road and The Droveway	1,843 (8.9)	2,648 (2.4)	2,673 (2.4)
A449 Stafford Road between Wobaston Road and A460	2,997 (17.6)	4,257 (3.4)	4,973 (7.6)
Church Road between A449 Stafford Road and Three Tuns Lane	45 (0)	51 (0)	51 (0)
Bargate Street, Brewood	72 (0.6)	82 (0.6)	82 (0.6)

Road	2016 baseline	2036 No development	2036 With development
Sandy Lane / The Pavement, Brewood	123 (0.5)	140 (0.5)	140 (0.5)
Coven Road, Brewood between The Pavement and Tinkers Lane	182 (0.4)	207 (0.4)	207 (0.4)
B5012 Wolgarston Way between Cannock Road and A449	482 (1.8)	1,189 (5.8)	1,374 (5.8)
A449 between B5012 Boscomoor Lane and Pinfold Lane	1,358 (10.7)	700 (11.8)	927 (15.5)
A449 between B5012 Boscomoor Lane and A5	1,601 (6.3)	1,969 (9.9)	2,378 (14.5)
Camp Road between Penkridge Bank Road and A34	298 (0.1)	333 (0.1)	333 (0.1)
Penkridge Bank Road between Broadhurst Green Road and Marquis Drive	355 (3.2)	397 (3.2)	397 (3.2)
A5 between A4601 Wolverhampton Road and M6 Toll	2,059 (23.2)	1,942 (43.4)	2,345 (39.4)
A4601 Wolverhampton Road between A5 and M6 Toll	1,718 (5.4)	1,838 (50)	1,887 (49.1)
A4601 Wolverhampton Road between A5 and Longford Road	1,638 (2.1)	1,899 (14.7)	2,010 (15.1)
Bursnips Road	989 (13.7)	1,127 (13.7)	1,127 (13.7)
M6 between Junction 10 and 10a (northbound)	8,374 (35.6)	10,674 (22.9)	11,211 (24)
M6 between Junction 10 and 10a (southbound)	9,603 (31.5)	9,710 (24.9)	10,326 (26.4)
M6 between Junction 12 and 13 (northbound)	7,020 (33.2)	10,687 (32.6)	10,978 (32.4)
M6 between Junction 12 and 13 (southbound)	8,051 (29.3)	13,304 (29.3)	13,715 (28.9)
M6 between Junction 11a and 12 (northbound)	7,799 (38.8)	10,424 (32.9)	11,448 (33.7)
M6 between Junction 11a and 12 (southbound)	8,944 (34.3)	12,517 (29.2)	13,406 (30.5)
M6 between Junction 10a and 11 (northbound)	6,047 (44)	8,779 (43.6)	9,351 (43.5)
M6 between Junction 10a and 11 (southbound)	6,934 (38.9)	9,486 (38.5)	10,128 (39.2)
A5 between A34 and B4154	2,943 (21.5)	5,034 (26.4)	5,131 (26.1)
Notes: All roads are two-way, unless stated otherwise. Data presented in the form of 8 hour AAWT flows with the percentage of HGVs in brackets			

Table 13.5.5: Calculated changes in daytime road traffic noise, 2021, free-field $L_{A10,18hrs}$ dB

Location	2016 baseline	2021 No development[1]	2021 With development[2]
M6 between Junction 13 and 14 (northbound)	82.6	83.0 (+0.4)	83.0 (0)
M6 between Junction 13 and 14 (southbound)	82.6	83.1 (+0.5)	83.1 (0)
A449 between M6 J13 and Pinfold Lane	72.5	74.2 (+1.7)	74.8 (+0.6)
Teddesley Road between Marsh Lane and Penkridge Road	65.1	65.3 (+0.2)	65.3 (0)
Cannock Road between Wolgarston Way and A34	68.6	71.5 (+2.9)	71.9 (+0.4)
A5 between M6 Junction 12 and Proposed Site Access	73.5	72.8 (-0.7)	75.9 (+3.1)
A5 between Vicarage Road and M6 J12	74.4	73.7 (-0.7)	75.0 (+1.3)
M6 between Junction 9 and 10 (northbound)	83.8	84.6 (+0.8)	84.7 (+0.1)
M6 between Junction 9 and 10 (southbound)	83.0	83.9 (+0.9)	84.1 (+0.2)
A5 between Vicarage Road and A4061 Wolverhampton Road	73.9	73.9 (0)	74.6 (+0.7)
A5 between A449 and Proposed Site Access	73.8	72.7 (-1.1)	73.4 (+0.7)
A5 between A449 and A41	72.2	73.8 (+1.6)	74.4 (+0.6)
A5 between A41 and A4640 Redhill Way	70.0	72.5 (+2.5)	72.7 (+0.2)
A449 between A5 and Gravelly Way (northbound)	73.6	72.9 (-0.7)	73.8 (+0.9)
A449 between A5 and Gravelly Way (southbound)	73.7	72.5 (-1.2)	73.2 (+0.7)
A449 between Gravelly Way and Station Drive (northbound)	72.8	72.3 (-0.5)	74.6 (+2.3)
A449 between Gravelly Way and Station Drive (southbound)	72.8	72.8 (0)	74.9 (+2.1)
Vicarage Road between Site Access and A5	67.5	67.6 (+0.1)	70.9 (+3.3)
Straight Mile between Vicarage Road and Oak Lane	61.5	62.0 (+0.5)	62.1 (+0.1)
Station Road / Vicarage Road between Enterprise Drive and Proposed Site Access	68.1	67.5 (-0.6)	67.5 (0)
Station Drive between A449 and Enterprise Drive	66.1	67.6 (+1.5)	67.5 (-0.1)
Four Ashes Road between A449 and Claygates Road	62.5	63.4 (+0.9)	63.9 (+0.5)
A449 between Station Drive and Brewood Road (northbound)	73.7	74.1 (+0.4)	75.4 (+1.3)
A449 between Station Drive and Brewood Road (southbound)	74.1	74.1 (0)	75.7 (+1.6)
Old Stafford Road between A449 and New Road	64.1	64.3 (+0.2)	64.3 (0)
Coven Road / Brewood Road / Poplars Farm Way between Lawn Lane and Tinkers lane	61.1	61.3 (+0.2)	61.3 (0)
Poplars Farm Way between A449 and Lawn Lane	65.1	65.6 (+0.5)	65.6 (0)
Lawn Lane between Brewood Road and Wobaston Road	66.9	67.0 (+0.1)	67.0 (0)
A449 Stafford Road M54 J2 to Brewood Road (northbound)	74.8	73.6 (-1.2)	74.9 (+1.3)
A449 Stafford Road M54 J2 to Brewood Road (southbound)	74.7	73.8 (-0.9)	75.2 (+1.4)
A449 Stafford Road M54 J2 to Station Road/ Wobaston Road junction (northbound)	71.8	70.2 (-1.6)	71.2 (+1.0)
A449 Stafford Road M54 J2 to Station Road/ Wobaston Road junction (southbound)	72.3	70.9 (-1.4)	71.8 (+0.9)
Wobaston Road between Stafford Road and The Droveway	70.7	70.4 (-0.3)	70.5 (+0.1)
A449 Stafford Road between Wobaston Road and A460	74.4	73.1 (-1.3)	74.1 (+1.0)
Church Road between A449 Stafford Road and Three Tuns Lane	Unreliable	54.5	54.5 (0)

Location	2016 baseline	2021 No development[1]	2021 With development[2]
Bargate Street, Brewood	59.9	60.1 (+0.2)	60.1 (0)
Sandy Lane / The Pavement, Brewood	60.7	60.9 (+0.2)	60.9 (0)
Coven Road, Brewood between The Pavement and Tinkers Lane	62.6	62.8 (+0.2)	62.8 (0)
B5012 Wolgarston Way between Cannock Road and A449	65.6	66.4 (+0.8)	66.7 (+0.3)
A449 between B5012 Boscomoor Lane and Pinfold Lane	69.3	69.7 (+0.4)	70.0 (+0.3)
A449 between B5012 Boscomoor Lane and A5	69.5	70.5 (+1.0)	71.4 (+0.9)
Camp Road between Penkridge Bank Road and A34	65.7	65.9 (+0.2)	65.9 (0)
Penkridge Bank Road between Broadhurst Green Road and Marquis Drive	67.5	67.7 (+0.2)	67.7 (0)
A5 between A4601 Wolverhampton Road and M6 Toll	72.7	75 (+2.3)	75.2 (+0.2)
A4601 Wolverhampton Road between A5 and M6 Toll	68.5	72.0 (+3.5)	72.0 (0)
A4601 Wolverhampton Road between A5 and Longford Road	67.9	69.9 (+2.0)	70.1 (+0.2)
Bursnips Road	71.1	71.4 (+.3)	71.4 (0)
M6 between Junction 10 and 10a (northbound)	82.0	84.1 (+2.1)	84.2 (+0.1)
M6 between Junction 10 and 10a (southbound)	82.1	84 (+1.9)	84.1 (+0.1)
M6 between Junction 12 and 13 (northbound)	81.1	82.4 (+1.3)	82.5 (+0.1)
M6 between Junction 12 and 13 (southbound)	81.2	82.8 (+1.6)	82.9 (+0.1)
M6 between Junction 11a and 12 (northbound)	81.9	82.3 (+0.4)	82.7 (+0.4)
M6 between Junction 11a and 12 (southbound)	81.9	82.6 (+0.7)	82.9 (+0.3)
M6 between Junction 10a and 11 (northbound)	81.0	82.1 (+1.1)	82.3 (+0.2)
M6 between Junction 10a and 11 (southbound)	81.1	81.9 (+0.8)	82.2 (+0.3)
A5 between A34 and B4154	74.7	75.1 (+0.4)	75.1 (0)
Notes: [1] the bracketed value is the change in noise level between the 2016 baseline and 2021 No Development scenario [2] the bracketed value is the change in noise level between the 2021 No Development scenario and the 2021 With Development scenario [3] Traffic flow below validity of CRTN			

Table 13.5.6: Calculated changes in daytime road traffic noise, 2036, free-field $L_{A10,18hrs}$ dB

Location	2016 baseline	2036 No development[1]	2036 With development[2]
M6 between Junction 13 and 14 (northbound)	82.6	83.5 (+0.9)	83.5 (0)
M6 between Junction 13 and 14 (southbound)	82.6	83.6 (+1.0)	83.6 (0)
A449 between M6 J13 and Pinfold Lane	72.5	74.5 (+2)	75.1 (+0.6)
Teddesley Road between Marsh Lane and Penkridge Road	65.1	65.7 (+0.6)	65.7 (0)
Cannock Road between Wolgarston Way and A34	68.6	71.9 (+3.3)	72.3 (+0.4)
A5 between M6 Junction 12 and Proposed Site Access	73.5	73.1 (-0.4)	76.1 (+3.0)
A5 between Vicarage Road and M6 J12	74.4	74.1 (-0.3)	75.3 (+1.2)
M6 between Junction 9 and 10 (northbound)	83.8	85.1 (+1.3)	85.2 (+0.1)
M6 between Junction 9 and 10 (southbound)	83.0	84.4 (+1.4)	84.6 (+0.2)
A5 between Vicarage Road and A4061 Wolverhampton Road	73.9	74.2 (+0.3)	74.9 (+0.7)
A5 between A449 and Proposed Site Access	73.8	73.1 (-0.7)	73.7 (+0.6)

Location	2016 baseline	2036 No development[1]	2036 With development[2]
A5 between A449 and A41	72.2	74.1 (+1.9)	74.7 (+0.6)
A5 between A41 and A4640 Redhill Way	70.0	72.8 (+2.8)	73.1 (+0.3)
A449 between A5 and Gravelly Way (northbound)	73.6	73.3 (-0.3)	74.2 (+0.9)
A449 between A5 and Gravelly Way (southbound)	73.7	72.9 (-0.8)	73.5 (+0.6)
A449 between Gravelly Way and Station Drive (northbound)	72.8	72.6 (-0.2)	74.9 (+2.3)
A449 between Gravelly Way and Station Drive (southbound)	72.8	73.2 (+0.4)	75.2 (+2.0)
Vicarage Road between Site Access and A5	67.5	68.0 (+0.5)	71.1 (+3.1)
Straight Mile between Vicarage Road and Oak Lane	61.5	62.5 (+1.0)	62.6 (+0.1)
Station Road / Vicarage Road between Enterprise Drive and Proposed Site Access	68.1	67.9 (-0.2)	67.7 (-0.2)
Station Drive between A449 and Enterprise Drive	66.1	68.0 (+1.9)	67.8 (-0.2)
Four Ashes Road between A449 and Claygates Road	62.5	63.8 (+1.3)	64.3 (+0.5)
A449 between Station Drive and Brewood Road (northbound)	73.7	74.5 (+0.8)	75.7 (+1.2)
A449 between Station Drive and Brewood Road (southbound)	74.1	74.5 (+0.4)	76.0 (+1.5)
Old Stafford Road between A449 and New Road	64.1	64.7 (+0.6)	64.7 (0)
Coven Road / Brewood Road / Poplars Farm Way between Lawn Lane and Tinkers lane	61.1	61.7 (+0.6)	61.7 (0)
Poplars Farm Way between A449 and Lawn Lane	65.1	65.9 (+0.8)	66 (+0.1)
Lawn Lane between Brewood Road and Wobaston Road	66.9	67.4 (+0.5)	67.4 (0)
A449 Stafford Road M54 J2 to Brewood Road (northbound)	74.8	74.0 (-0.8)	75.2 (+1.2)
A449 Stafford Road M54 J2 to Brewood Road (southbound)	74.7	74.2 (-0.5)	75.5 (+1.3)
A449 Stafford Road M54 J2 to Station Road/ Wobaston Road junction (northbound)	71.8	70.6 (-1.2)	71.5 (+0.9)
A449 Stafford Road M54 J2 to Station Road/ Wobaston Road junction (southbound)	72.3	71.3 (-1.0)	72.2 (+0.9)
Wobaston Road between Stafford Road and The Droveway	70.7	70.9 (+0.2)	70.9 (0)
A449 Stafford Road between Wobaston Road and A460	74.4	73.5 (-0.9)	74.5 (+1.0)
Church Road between A449 Stafford Road and Three Tuns Lane	Unreliable	55.2	55.2 (0)
Bargate Street, Brewood	59.9	60.6 (+0.7)	60.6 (0)
Sandy Lane / The Pavement, Brewood	60.7	61.3 (+0.6)	61.3 (0)
Coven Road, Brewood between The Pavement and Tinkers Lane	62.6	63.2 (+0.6)	63.2 (0)
B5012 Wolgarston Way between Cannock Road and A449	65.6	66.9 (+1.3)	67.1 (+0.2)
A449 between B5012 Boscomoor Lane and Pinfold Lane	69.3	70.1 (+0.8)	70.3 (+0.2)
A449 between B5012 Boscomoor Lane and A5	69.5	70.8 (+1.3)	71.7 (+0.9)
Camp Road between Penkridge Bank Road and A34	65.7	66.2 (+0.5)	66.2 (0)
Penkridge Bank Road between Broadhurst Green Road and Marquis Drive	67.5	68.1 (+0.6)	68.1 (0)
A5 between A4601 Wolverhampton Road and M6 Toll	72.7	75.4 (+2.7)	75.5 (+0.1)
A4601 Wolverhampton Road between A5 and M6 Toll	68.5	72.4 (+3.9)	72.4 (0)
A4601 Wolverhampton Road between A5 and Longford Road	67.9	70.3 (+2.4)	70.5 (+0.2)

Location	2016 baseline	2036 No development[1]	2036 With development[2]
Bursnips Road	71.1	71.7 (+0.6)	71.7 (0)
M6 between Junction 10 and 10a (northbound)	82.0	84.6 (+2.6)	84.7 (+0.1)
M6 between Junction 10 and 10a (southbound)	82.1	84.5 (+2.4)	84.6 (+0.1)
M6 between Junction 12 and 13 (northbound)	81.1	82.9 (+1.8)	83.0 (+0.1)
M6 between Junction 12 and 13 (southbound)	81.2	83.3 (+2.1)	83.4 (+0.1)
M6 between Junction 11a and 12 (northbound)	81.9	82.8 (+0.9)	83.2 (+0.4)
M6 between Junction 11a and 12 (southbound)	81.9	83.1 (+1.2)	83.4 (+0.3)
M6 between Junction 10a and 11 (northbound)	81.0	82.6 (+1.6)	82.8 (+0.2)
M6 between Junction 10a and 11 (southbound)	81.1	82.4 (+1.3)	82.7 (+0.3)
A5 between A34 and B4154	74.7	75.5 (+0.8)	75.5 (0)
Notes: [1] the bracketed value is the change in noise level between the 2016 baseline and 2021 No Development scenario [2] the bracketed value is the change in noise level between the 2021 No Development scenario and the 2021 With Development scenario [3] Traffic flow below validity of CRTN			

Table 13.5.7: Calculated changes in night-time road traffic noise, 2021, free-field $L_{A10,8hrs}$ dB

Location	2016 baseline	2021 No development[1]	2021 With development[2]
M6 between Junction 13 and 14 (northbound)	80.0	80.2 (+0.2)	80.3 (+0.1)
M6 between Junction 13 and 14 (southbound)	80.2	80.4 (+0.2)	80.5 (+0.1)
A449 between M6 J13 and Pinfold Lane	66.2	68.7 (+2.5)	69.7 (+1.0)
Teddesley Road between Marsh Lane and Penkridge Road	Unreliable	Unreliable	Unreliable
Cannock Road between Wolgarston Way and A34	59.3	63 (+3.7)	64.1 (+1.1)
A5 between M6 Junction 12 and Proposed Site Access	71.0	70.2 (-0.8)	74.0 (+3.8)
A5 between Vicarage Road and M6 J12	73.2	72.4 (-0.8)	73.6 (+1.2)
M6 between Junction 9 and 10 (northbound)	80.5	80.7 (+0.2)	80.9 (+0.2)
M6 between Junction 9 and 10 (southbound)	80.9	82.0 (+1.1)	82.2 (+0.2)
A5 between Vicarage Road and A4061 Wolverhampton Road	70.8	70.8 (0)	71.7 (+0.9)
A5 between A449 and Proposed Site Access	73.6	71.6 (-2)	72.4 (+0.8)
A5 between A449 and A41	66.0	67.9 (+1.9)	69.3 (+1.4)
A5 between A41 and A4640 Redhill Way	62.6	66.2 (+3.6)	67.3 (+1.1)
A449 between A5 and Gravelly Way (northbound)	Unreliable	69.7	71.2 (+1.5)
A449 between A5 and Gravelly Way (southbound)	Unreliable	66.6	69.0 (+2.4)
A449 between Gravelly Way and Station Drive (northbound)	66.9	65.9 (-1.0)	70.0 (+4.1)
A449 between Gravelly Way and Station Drive (southbound)	69.7	68.8 (-0.9)	72.1 (+3.3)
Vicarage Road between Site Access and A5	60.8	61 (+0.2)	68.8 (+7.8)
Straight Mile between Vicarage Road and Oak Lane	Unreliable	Unreliable	Unreliable
Station Road / Vicarage Road between Enterprise Drive and Proposed Site Access	61.3	60.4 (-0.9)	63.3 (+2.9)
Station Drive between A449 and Enterprise Drive	59.3	61.7 (+2.4)	63.3 (+1.6)
Four Ashes Road between A449 and Claygates Road	Unreliable	Unreliable	Unreliable

Location	2016 baseline	2021 No development[1]	2021 With development[2]
A449 between Station Drive and Brewood Road (northbound)	67.8	67.5 (-0.3)	70.4 (+2.9)
A449 between Station Drive and Brewood Road (southbound)	70.4	70.7 (+0.3)	73.1 (+2.4)
Old Stafford Road between A449 and New Road	Unreliable	Unreliable	Unreliable
Coven Road / Brewood Road / Poplars Farm Way between Lawn Lane and Tinkers lane	Unreliable	Unreliable	Unreliable
Poplars Farm Way between A449 and Lawn Lane	55.2	55.0 (-0.2)	56.0 (+1.0)
Lawn Lane between Brewood Road and Wobaston Road	Unreliable	Unreliable	Unreliable
A449 Stafford Road M54 J2 to Brewood Road (northbound)	70.5	68.4 (-2.1)	70.7 (+2.3)
A449 Stafford Road M54 J2 to Brewood Road (southbound)	69.4	68.2 (-1.2)	70.9 (+2.7)
A449 Stafford Road M54 J2 to Station Road/ Wobaston Road junction (northbound)	67.6	65.7 (-1.9)	67.3 (+1.6)
A449 Stafford Road M54 J2 to Station Road/ Wobaston Road junction (southbound)	66.5	65.0 (-1.5)	66.7 (+1.7)
Wobaston Road between Stafford Road and The Droveway	64.8	64.1 (-0.7)	64.1 (0)
A449 Stafford Road between Wobaston Road and A460	69.2	67.5 (-1.7)	69.3 (+1.8)
Church Road between A449 Stafford Road and Three Tuns Lane	Unreliable	Unreliable	Unreliable
Bargate Street, Brewood	Unreliable	Unreliable	Unreliable
Sandy Lane / The Pavement, Brewood	Unreliable	Unreliable	Unreliable
Coven Road, Brewood between The Pavement and Tinkers Lane	Unreliable	Unreliable	Unreliable
B5012 Wolgarston Way between Cannock Road and A449	55.4	61.5 (+6.1)	62.3 (+0.8)
A449 between B5012 Boscomoor Lane and Pinfold Lane	63.8	59.9 (-3.9)	62.5 (+2.6)
A449 between B5012 Boscomoor Lane and A5	63.5	64.9 (+1.4)	66.8 (+1.9)
Camp Road between Penkridge Bank Road and A34	Unreliable	Unreliable	Unreliable
Penkridge Bank Road between Broadhurst Green Road and Marquis Drive	Unreliable	Unreliable	Unreliable
A5 between A4601 Wolverhampton Road and M6 Toll	69	70.3 (+1.3)	70.8 (+0.5)
A4601 Wolverhampton Road between A5 and M6 Toll	63.6	69.4 (+5.8)	69.5 (+0.1)
A4601 Wolverhampton Road between A5 and Longford Road	62.4	65.7 (+3.3)	66.0 (+0.3)
Bursnips Road	66.2	66.5 (+0.3)	66.5 (0)
M6 between Junction 10 and 10a (northbound)	79.2	78.6 (-0.6)	78.9 (+0.3)
M6 between Junction 10 and 10a (southbound)	79.4	78.4 (-1)	78.8 (+0.4)
M6 between Junction 12 and 13 (northbound)	78.2	79.5 (+1.3)	79.6 (+0.1)
M6 between Junction 12 and 13 (southbound)	78.5	80.1 (+1.6)	80.2 (+0.1)
M6 between Junction 11a and 12 (northbound)	79.1	79.4 (+0.3)	79.9 (+0.5)
M6 between Junction 11a and 12 (southbound)	79.3	79.9 (+0.6)	80.3 (+0.4)
M6 between Junction 10a and 11 (northbound)	78.4	79.5 (+1.1)	79.8 (+0.3)
M6 between Junction 10a and 11 (southbound)	78.6	79.4 (+0.8)	79.8 (+0.4)
A5 between A34 and B4154	70.4	72.9 (+2.5)	72.9 (0)

Notes:
[1] the bracketed value is the change in noise level between the 2016 baseline and 2021 No Development scenario
[2] the bracketed value is the change in noise level between the 2021 No Development scenario and the 2021 With Development scenario

Location	2016 baseline	2021 No development[1]	2021 With development[2]
[3] Traffic flow below validity of CRTN			

Table 13.5.8: Calculated changes in night-time road traffic noise, 2036, free-field $L_{A10,8hrs}$ dB

Location	2016 baseline	2036 No development[1]	2036 With development[2]
M6 between Junction 13 and 14 (northbound)	80.0	80.7 (+0.7)	80.8 (+0.1)
M6 between Junction 13 and 14 (southbound)	80.2	80.9 (+0.7)	81.0 (+0.1)
A449 between M6 J13 and Pinfold Lane	66.2	69.1 (+2.9)	70.0 (+0.9)
Teddesley Road between Marsh Lane and Penkridge Road	Unreliable	Unreliable	Unreliable
Cannock Road between Wolgarston Way and A34	59.3	63.4 (+4.1)	64.5 (+1.1)
A5 between M6 Junction 12 and Proposed Site Access	71.0	70.6 (-0.4)	74.2 (+3.6)
A5 between Vicarage Road and M6 J12	73.2	72.8 (-0.4)	74.0 (+1.2)
M6 between Junction 9 and 10 (northbound)	80.5	81.2 (+0.7)	81.4 (+0.2)
M6 between Junction 9 and 10 (southbound)	80.9	82.5 (+1.6)	82.6 (+0.1)
A5 between Vicarage Road and A4061 Wolverhampton Road	70.8	71.2 (+0.4)	72.1 (+0.9)
A5 between A449 and Proposed Site Access	73.6	71.9 (-1.7)	72.7 (+0.8)
A5 between A449 and A41	66.0	68.2 (+2.2)	69.6 (+1.4)
A5 between A41 and A4640 Redhill Way	62.6	66.6 (+4)	67.6 (+1.0)
A449 between A5 and Gravelly Way (northbound)	Unreliable	70.1	71.5 (+1.4)
A449 between A5 and Gravelly Way (southbound)	Unreliable	67.0	69.3 (+2.3)
A449 between Gravelly Way and Station Drive (northbound)	66.9	66.3 (-0.6)	70.3 (+4.0)
A449 between Gravelly Way and Station Drive (southbound)	69.7	69.2 (-0.5)	72.4 (+3.2)
Vicarage Road between Site Access and A5	60.8	61.6 (+0.8)	68.8 (+7.2)
Straight Mile between Vicarage Road and Oak Lane	Unreliable	Unreliable	Unreliable
Station Road / Vicarage Road between Enterprise Drive and Proposed Site Access	61.3	61.0 (-0.3)	63.5 (+2.5)
Station Drive between A449 and Enterprise Drive	59.3	62.2 (+2.9)	63.5 (+1.3)
Four Ashes Road between A449 and Claygates Road	Unreliable	Unreliable	Unreliable
A449 between Station Drive and Brewood Road (northbound)	67.8	67.9 (+0.1)	70.6 (+2.7)
A449 between Station Drive and Brewood Road (southbound)	70.4	71.1 (+0.7)	73.4 (+2.3)
Old Stafford Road between A449 and New Road	Unreliable	Unreliable	Unreliable
Coven Road / Brewood Road / Poplars Farm Way between Lawn Lane and Tinkers lane	Unreliable	Unreliable	Unreliable
Poplars Farm Way between A449 and Lawn Lane	55.2	55.6 (+0.4)	56.5 (+0.9)
Lawn Lane between Brewood Road and Wobaston Road	Unreliable	Unreliable	Unreliable
A449 Stafford Road M54 J2 to Brewood Road (northbound)	70.5	68.7 (-1.8)	71.0 (+2.3)
A449 Stafford Road M54 J2 to Brewood Road (southbound)	69.4	68.5 (-0.9)	71.1 (+2.6)
A449 Stafford Road M54 J2 to Station Road/ Wobaston Road junction (northbound)	67.6	66.1 (-1.5)	67.6 (+1.5)
A449 Stafford Road M54 J2 to Station Road/ Wobaston Road junction (southbound)	66.5	65.3 (-1.2)	66.9 (+1.6)

Location	2016 baseline	2036 No development[1]	2036 With development[2]
Wobaston Road between Stafford Road and The Droveway	64.8	64.5 (-0.3)	64.6 (+0.1)
A449 Stafford Road between Wobaston Road and A460	69.2	67.9 (-1.3)	69.6 (+1.7)
Church Road between A449 Stafford Road and Three Tuns Lane	Unreliable	Unreliable	Unreliable
Bargate Street, Brewood	Unreliable	Unreliable	Unreliable
Sandy Lane / The Pavement, Brewood	Unreliable	Unreliable	Unreliable
Coven Road, Brewood between The Pavement and Tinkers Lane	Unreliable	Unreliable	Unreliable
B5012 Wolgarston Way between Cannock Road and A449	55.4	62 (+6.6)	62.7 (+0.7)
A449 between B5012 Boscomoor Lane and Pinfold Lane	63.8	60.5 (-3.3)	62.8 (+2.3)
A449 between B5012 Boscomoor Lane and A5	63.5	65.3 (+1.8)	67.0 (+1.7)
Camp Road between Penkridge Bank Road and A34	Unreliable	Unreliable	Unreliable
Penkridge Bank Road between Broadhurst Green Road and Marquis Drive	Unreliable	Unreliable	Unreliable
A5 between A4601 Wolverhampton Road and M6 Toll	69.0	70.6 (+1.6)	71.1 (+0.5)
A4601 Wolverhampton Road between A5 and M6 Toll	63.6	69.8 (+6.2)	69.8 (0)
A4601 Wolverhampton Road between A5 and Longford Road	62.4	66.1 (+3.7)	66.4 (+0.3)
Bursnips Road	66.2	66.9 (+0.7)	66.9 (0)
M6 between Junction 10 and 10a (northbound)	79.2	79.1 (-0.1)	79.4 (+0.3)
M6 between Junction 10 and 10a (southbound)	79.4	78.9 (-0.5)	79.3 (+0.4)
M6 between Junction 12 and 13 (northbound)	78.2	80 (+1.8)	80.1 (+0.1)
M6 between Junction 12 and 13 (southbound)	78.5	80.6 (+2.1)	80.7 (+0.1)
M6 between Junction 11a and 12 (northbound)	79.1	79.9 (+0.8)	80.4 (+0.5)
M6 between Junction 11a and 12 (southbound)	79.3	80.4 (+1.1)	80.8 (+0.4)
M6 between Junction 10a and 11 (northbound)	78.4	80.0 (+1.6)	80.2 (+0.2)
M6 between Junction 10a and 11 (southbound)	78.6	79.9 (+1.3)	80.3 (+0.4)
A5 between A34 and B4154	70.4	73.3 (+2.9)	73.3 (0)

Notes:
[1] the bracketed value is the change in noise level between the 2016 baseline and 2021 No Development scenario
[2] the bracketed value is the change in noise level between the 2021 No Development scenario and the 2021 With Development scenario
[3] Traffic flow below validity of CRTN

Table A13.5.9: Noise Insulation Regulations Assessment – Road

ID	Receptor[1]	Prevailing Noise Level	Relevant Noise Level	Contribution from New or Altered Roads	Contribution from Unaltered Roads	>68dB?	>1dB Change?	>1dB Contribution?	Qualify?
1	1 Croft Lane	50.8	51.7	50.3	46.1	No	No	YES	
2	2 Croft Lane	50.4	51.6	50.3	45.7	No	YES	YES	
3	3 Croft Lane	50.3	51.6	50.4	45.4	No	YES	YES	
4	4 Croft Lane	50.7	51.8	50.7	45.3	No	YES	YES	
5	5 Croft Lane	49.7	50.5	49.6	43.2	No	No	YES	
6	180 Station Drive	67.7	69.4	49.4	69.4	YES	YES	No	
7	181 Station Drive	73.6	75.4	36.7	75.4	YES	YES	No	
8	182 Station Drive	68.2	69.7	31.9	69.7	YES	YES	No	
9	183 Station Drive	68.1	69.6	31.8	69.6	YES	YES	No	
10	219 Gatesford Lane	56.7	58.6	55.6	55.6	No	YES	YES	
11	221 Gatesford Lane	57.6	59.3	56.3	56.3	No	YES	YES	
12	221a Gatesford Lane	57.6	58.9	56.3	55.4	No	YES	YES	
13	221b Gatesford Lane	55.4	56.6	52.7	54.3	No	YES	YES	
14	221c Gatesford Lane	54.3	55.8	52.4	53.1	No	YES	YES	
15	221d Gatesford Lane	55.0	56.3	52.7	53.8	No	YES	YES	
16	221e Gatesford Lane	54.3	55.4	51.7	53.0	No	YES	YES	
17	221f Gatesford Lane	55.5	56.7	53.8	53.6	No	YES	YES	
18	221g Gatesford Lane	56.3	58.1	55.3	54.9	No	YES	YES	
19	221h Gatesford Lane	59.6	61.1	58.4	57.8	No	YES	YES	
20	221i Gatesford Lane	57.8	59.2	56.6	55.7	No	YES	YES	
21	Allendalle	54.4	53.6	50.3	50.9	No	No	YES	
22	Anberlea	67.1	68.5	38.6	68.5	YES	YES	No	
23	Angalla	53.8	53.0	50.6	49.3	No	No	YES	
24	Avenue Cottages	63.5	66.2	56.0	65.8	No	YES	No	

ID	Receptor[1]	Prevailing Noise Level	Relevant Noise Level	Contribution from New or Altered Roads	Contribution from Unaltered Roads	>68dB?	>1dB Change?	>1dB Contribution?	Qualify?
25	Comox	54.3	57.5	55.5	53.2	No	YES	YES	
26	Eastfield	67.6	70.4	55.9	70.2	YES	YES	No	
27	Edelweiss	67.2	68.6	38.6	68.6	YES	YES	No	
28	Evergreen	71.3	71.8	62.8	71.2	YES	No	No	
29	Gailey House	52.3	52.7	48.1	50.9	No	No	YES	
30	Goldthorne	67.2	68.7	30.6	68.7	YES	YES	No	
31	Hamerton House	75.7	75.6	49.2	75.6	YES	No	No	
32	Hollybyre	74.6	75.0	62.6	74.7	YES	No	No	
33	Homestead	71.5	72.3	67.5	70.6	YES	No	YES	
34	Inglewood	74.1	76.0	41.9	76.0	YES	YES	No	
35	Little Kinvaston	68.3	71.0	52.7	70.9	YES	YES	No	
36	Plough Farm	73.7	73.7	60.4	73.5	YES	No	No	
37	Longacre	67.7	70.5	55.5	70.4	YES	YES	No	
38	Marsh Farm	64.3	64.7	59.1	63.3	No	No	YES	
39	Menkani	66.5	68.0	30.7	68.0	YES	YES	No	
40	Oak View	53.1	53.2	51.2	48.9	No	No	YES	
41	Perrinthorpe	55.3	54.7	51.4	52.0	No	No	YES	
42	Pool House	78.0	80.8	55.1	80.8	YES	YES	No	
43	Roma	71.9	71.7	47.3	71.7	YES	No	No	
44	Stafford Road	78.0	78.4	61.5	78.3	YES	No	No	
45	Salwyn Green	52.8	53.4	51.8	48.3	No	No	YES	
46	Silverthorne	67.3	68.8	30.6	68.8	YES	YES	No	
47	Sunnyside	60.5	62.8	60.3	59.2	No	YES	YES	
48	The Bunglalow	51.5	52.2	50.1	48.0	No	No	YES	
49	The Cottage (Croft Lane)	55.9	54.8	52.2	51.3	No	No	YES	

ID	Receptor[1]	Prevailing Noise Level	Relevant Noise Level	Contribution from New or Altered Roads	Contribution from Unaltered Roads	>68dB?	>1dB Change?	>1dB Contribution?	Qualify?
50	The Poplars	57.0	59.6	53.0	58.5	No	YES	YES	
51	The Poultry Farm House 1	60.3	62.6	58.7	60.3	No	YES	YES	
52	The Poultry Farm House 2	55.7	57.7	57.2	48.1	No	YES	YES	
53	The Villa	72.4	74.8	73.6	68.6	YES	YES	YES	YES
54	The Woodlands	74.1	76.1	34.9	76.1	YES	YES	No	
55	Trewern	72.0	71.9	46.7	71.9	YES	No	No	
56	Wharf Cottage	78.4	78.3	66.1	78.0	YES	No	No	
57	Wharf House	65.6	65.0	55.2	64.5	No	No	No	
58	Wheatcroft	72.0	71.9	46.9	71.9	YES	No	No	
59	Heath Farm	72.1	75.7	63.1	75.5	YES	YES	No	
60	Heath Farm 2	69.4	73.0	39.5	73.0	YES	YES	No	
61	Heath Farm 3	56.5	60.6	39.0	60.6	No	YES	No	
Note: [1] – For receptor locations, see Figure 13.4									

Table A13.5.10: Noise Insulation Regulations Assessment – Railways Daytime

ID	Receptor[1]	Prevailing Noise Level	Relevant Noise Level	Contribution from New or Altered Railways	Contribution from Unaltered Railways	>68dB?	>1dB Change?	>1dB Contribution?	Qualify?
1	4 Station Drive	59.7	59.9	26.4	59.9	No	No	No	
2	182 Station Drive	52.2	49.9	25.6	49.9	No	No	No	
3	183 Station Drive	50.7	46.4	25.6	46.4	No	No	No	
4	Amadora	63.8	64.1	26.4	64.1	No	No	No	
5	Anberlea	58.8	58.9	25.7	58.9	No	No	No	
6	Chase View (Bungalow)	56.7	57.0	15.1	57.0	No	No	No	
7	Chase View (House)	53.8	54.1	17.4	54.1	No	No	No	

ID	Receptor[1]	Prevailing Noise Level	Relevant Noise Level	Contribution from New or Altered Railways	Contribution from Unaltered Railways	>68dB?	>1dB Change?	>1dB Contribution?	Qualify?
8	Christchurch Cottage 1	47.8	48.1	14.1	48.1	No	No	No	
9	Christchurch Cottage 2	43.8	44.1	14.8	44.1	No	No	No	
10	Craigmore (Bungalow)	65.4	65.5	20.8	65.5	No	No	No	
11	Denson House	48.6	48.7	25.0	48.7	No	No	No	
12	Dunrobin	69.7	70.0	22.2	70.0	YES	No	No	
13	Edelweiss	59.5	59.7	25.9	59.7	No	No	No	
14	Gailey House	40.1	37.0	24.1	36.8	No	No	No	
15	Goldthorne	56.4	55.9	25.7	55.9	No	No	No	
16	Holy Thorn Cottage	44.0	44.3	17.6	44.3	No	No	No	
17	Leacroft	66.4	66.6	18.2	66.6	No	No	No	
18	Longfield	39.0	38.7	22.4	38.6	No	No	No	
19	Menkani	55.5	54.8	25.8	54.8	No	No	No	
20	Oakleigh	70.5	70.7	13.5	70.7	YES	No	No	
21	Roundabout Cottage	41.8	42.1	20.8	42.1	No	No	No	
22	Scholers Gate	43.0	43.3	17.7	43.3	No	No	No	
23	Silverthorne	56.9	56.7	25.6	56.7	No	No	No	
24	St Clare (Bungalow)	59.6	59.9	24.5	59.9	No	No	No	
25	The Cottage (A5)	47.7	47.9	18.7	47.9	No	No	No	
26	The Elms	62.6	62.9	29.1	62.9	No	No	No	
27	Thurja	40.3	40.2	22.8	40.1	No	No	No	
28	Wheslynn	50	50.2	19.0	50.2	No	No	No	
29	Yonda	39.3	39.0	22.7	38.9	No	No	No	

Note: [1] – For receptor locations, see Figure 13.5

Table A13.5.11: Noise Insulation Regulations Assessment – Railways Night-time

ID	Receptor[1]	Prevailing Noise Level	Relevant Noise Level	Contribution from New or Altered Railways	Contribution from Unaltered Railways	>63dB?	>1dB Change?	>1dB Contribution ?	Qualify?
1	4 Station Drive	59.1	59.5	27.5	59.5	No	No	No	
2	182 Station Drive	51.7	49.5	26.7	49.5	No	No	No	
3	183 Station Drive	50.1	46	26.7	45.9	No	No	No	
4	Amadora	63.3	63.6	27.5	63.6	YES	No	No	
5	Anberlea	58.3	58.4	26.8	58.4	No	No	No	
6	Chase View (Bungalow)	56.2	56.6	16.2	56.6	No	No	No	
7	Chase View (House)	53.3	53.8	18.5	53.8	No	No	No	
8	Christchurch Cottage 1	47.3	47.7	15.2	47.7	No	No	No	
9	Christchurch Cottage 2	43.3	43.7	15.9	43.7	No	No	No	
10	Craigmore (Bungalow)	64.8	65.1	21.9	65.1	YES	No	No	
11	Denson House	48	48.2	26.1	48.2	No	No	No	
12	Dunrobin	69.2	69.5	23.3	69.5	YES	No	No	
13	Edelweiss	59	59.3	27	59.3	No	No	No	
14	Gailey House	39.5	36.7	25.2	36.4	No	No	No	
15	Goldthorne	55.9	55.5	26.8	55.5	No	No	No	
16	Holy Thorn Cottage	43.5	43.9	18.7	43.9	No	No	No	
17	Leacroft	65.9	66.2	19.3	66.2	YES	No	No	
18	Longfield	38.5	38.3	23.5	38.2	No	No	No	
19	Menkani	55	54.3	26.9	54.3	No	No	No	
20	Oakleigh	69.9	70.3	14.6	70.3	YES	No	No	
21	Roundabout Cottage	41.2	41.8	21.9	41.8	No	No	No	
22	Scholers Gate	42.5	42.9	18.8	42.9	No	No	No	
23	Silverthorne	56.4	56.3	26.7	56.3	No	No	No	
24	St Clare (Bungalow)	59.1	59.4	25.6	59.4	No	No	No	

ID	Receptor[1]	Prevailing Noise Level	Relevant Noise Level	Contribution from New or Altered Railways	Contribution from Unaltered Railways	>63dB?	>1dB Change?	>1dB Contribution ?	Qualify?
25	The Cottage (A5)	47.2	47.5	19.8	47.5	No	No	No	
26	The Elms	62.1	62.5	30.2	62.5	YES	No	No	
27	Thurja	39.8	39.8	23.9	39.7	No	No	No	
28	Wheslynn	49.6	49.9	20.1	49.9	No	No	No	
29	Yonda	38.7	38.6	23.8	38.5	No	No	No	
Note: [1] – For receptor locations, see Figure 13.5									

Appendix 7:

Aerial photographs of the settlements along the A449 to the south of Station Road and north of J2 – M54.

Deadline 8

Photographs:

Photograph 1: Coven Heath.

Photograph 2: Coven and the Brewood Road Junction.

Photograph 3: Standeford (Coven).