East Midlands Gateway
Phase 2 (EMG2)

Document DCO 7.26

PRTM 2023

Consolidated Note

August 2026

The East Midlands Gateway Phase 2
and Highway Order 202X and The East Midlands Gateway
Rail Freight and Highway (Amendment) Order 202X

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The East Midlands Gateway Phase 2 and Highway Order 202X and The East Midlands Gateway Rail Freight and Highway (Amendment) Order 202X

PRTM 2023 CONSOLIDATED NOTE (DOCUMENT DCO 7.26)

Version	Date	Status of Version
0	August 2026	Deadline 6A

CONTENTS

1 Introduction

1.1 This document has been prepared in response to the letter from the ExP dated 10 August 2026 [PD-032] requesting a technical note consolidating the PRTM 2023 general traffic modelling (REP1-058 and REP6-045D) and the VISSIM Additional Mezzanine Sensitivity Test Modelling Report (REP6-046D) and addressing any cumulative effect of these updates on the conclusions in the ES.

1.2 Section 2 of this document sets out the relevant documentation and identifies its status. Any documents not already submitted into the Examination are appended.

1.3 Section 3 then summarises the position and what can be concluded from those documents in respect of the issues raised by the ExP.

1.4 For the avoidance of doubt the updated technical note referred to in the letter from the ExP is contained in Appendix 1 to this note. It had been updated and submitted to LCC prior to receipt of the letter from the ExP.

2 Consolidated Information

2.1 The table below sets out the relevant documentation and its status.

Table

Doc No.	Title	Content and Status
REP1-058	PRTM 2023 Sensitivity Test Technical Note and Local Road Network Impact Assessment Note	Submitted at Deadline 1. This document comprises a sensitivity test of the VISSIM modelling utilising PRTM 2023 (the core modelling having been based on PRTM 2019) to confirm the suitability of the proposed mitigation on the local road network. This document was requested by LCC. National Highways were content with the outcomes of the PRTM 2019 in respect of the SRN.
REP4-041 and REP4-043	Air Quality and Noise Draft SoCG with NWLDC – Appendix 2	Submitted at Deadline 4. The note in Appendix 2 to both the Noise and Air Quality SoCG addressed whether there were any issues for the Air Quality and Noise assessments arising from the contents of REP1-058. The note was considered by the respective EHO's at NWLDC and verbal confirmation was received that they were content with the conclusions. However, since the note refers to PRTM 2023 NWLDC deferred to LCC with respect to the underlying traffic data.
REP6-045D	PRTM 2023 Sensitivity – Kegworth and Castle Donington	Submitted at Deadline 6. The note addressed two possible impacts arising from the PRTM 2023 sensitivity test that LCC considered had not been mitigated in Castle Donington and Kegworth.

Appendix A to Pop and Health Technical Note v 2	Vanguardia Project Note following additional traffic modelling – August 2026	This note is a supplement to the note included at Appendix 2 of the SoCG with NWLDC referred to above and updates the position having regard to the contents of REP6-045D. The note was submitted to NWLDC on 5 August 2026. It is included in Appendix A of the Population and Health Technical Note v 2 which is appended to this document.
Appendix 1 to this document	Population and Health Technical Note v 2 – August 2026	This will comprise Appendix 4 of the Population and Health SoCG and is a replacement of the Appendix 4 submitted with the SoCG at Deadline 4 (REP4-050). It was sent to LCC on 10 August 2026 and is attached as an appendix to this document. It addresses the position having regard to all of the above documents.

3 Summary and Conclusions

3.1 The core data for consideration of the impacts of the proposed development is based on PRTM 2019. Whilst a sensitivity test was carried out as required by LCC it was not the intention of any of the parties that such a sensitivity test would give rise to re-assessment of other impacts which were all adequately assessed pursuant to PRTM 2019 (See LCC email dated 11 September 2025 in Appendix 1 of PRTM 2023 Sensitivity Test Technical Note and Local Road Network Impact Assessment Note (REP1-058).

3.2 Nonetheless the Applicants, at the request of LCC, have undertaken reviews of any implications for Transport, Air Quality, Noise or Population and Health based on the PRTM 2023 sensitivity test modelling.

3.3 Section 5 of the PRTM 2023 note [REP1-058] considered the implications of the PRTM 2023 modelling on the Traffic and Transport chapter of the ES. It did so by comparing the base flows in PRTM 2023 against those in PRTM 2019 and concluded that base flows on the local road network were lower in PRTM 2023. It therefore concluded that there would be no implications on any of the conclusions of the ES on Traffic and Transport matters, which were based on higher flows in PRTM 2019.

3.4 The PRTM 2023 sensitivity test gave rise to two possible impacts which LCC has suggested require mitigation – High Street Castle Donington and Derby Road Kegworth.

3.5 These possible impacts were further addressed in REP6-045D which concluded:

- Improved signage at Castle Donington to direct drivers to the bypass would be proportionate and reasonable; and

- More detailed VISSIM modelling and journey time analysis demonstrated that no mitigation was justified in Kegworth.

3.6 As explained in Appendix 1 to this document these conclusions and the work upon which they were based has been considered by the Applicants' consultants in respect

of the assessment of impacts upon Air Quality, Noise and Population and Health and all consultants have concluded that their original assessments remain valid.

3.7 The letter from the ExP referred also to the VISSIM Additional Mezzanine Sensitivity Test Modelling Report (REP6-046D)[1]. That document concluded that the proposed mitigation remains the appropriate solution to ensure there would be no unacceptable impacts from the EMG2 development. Therefore, no changes were made to the proposed mitigation scheme from those presented in the Transport Assessment. Furthermore, there would continue to be a reduction in traffic flows on the local road network even with the additional mezzanine floorspace and therefore there was no impact on the conclusions of any chapter in the ES.

3.8 In conclusion there is nothing arising from the PRTM 2023 Sensitivity test or VISSIM mezzanine assessment that would change any of the conclusions of, or require any changes to be made to, the ES.

[1] Note: this has been amended for Deadline 6a in response to the letter from the ExP dated 10 August 2026 [PD-032] to clarify the wording. The substance and conclusions remain the same.

APPENDIX 1

East Midlands Gateway Phase 2

PRTM 2023 – Population and Health Technical Note v2

August 2026

savills

1 PRTM 2026 – Population and Health Technical Note v2

1.1 Introduction

1.1.1 Savills is commissioned by Segro to provide Population and Human Health advice on the East Midlands Gateway Phase 2 (EMG2) Project.

1.1.2 The core scenario for the Transport Assessment supporting the Development Consent Order was assessed using the 2019 version of the Pan Regional Transport Model (PRTM). As a sensitivity test, the transport impacts of the EMG2 project have however also been assessed using the 2023 version of PRTM.

1.1.3 The following health determinants assessed as part of the Environmental Statement (ES) are reliant on traffic modelling:

- transport, access and connections – with regards to severance, non-motorised user delay, non-motorised user amenity, fear and intimidation, and road user and pedestrian safety;
- diet and nutrition – where severance impacts occur and have the potential to influence access to food banks;
- noise and vibration – with regards to changes in transport nature and flow rate; and
- air quality – with regards to changes in transport nature and flow rate.

1.1.4 As requested by LCC, the purpose of this Technical Note is to review the PRTM 2023 traffic flow outputs as a sensitivity analysis to assess whether or not there would be any changes to the conclusions in the population and health, and equality assessments.

1.2 Potential health effects from transport, access and connections

Introduction

1.2.1 The PRTM 2023 Sensitivity Test Technical Note and Local Road Network Impact Assessment Note [REP1-058] identified two possible impacts that Leicestershire County Council (LCC) consider have not already been mitigated by the EMG2 Highway Works. These are along Derby Road in Kegworth and Castle Donington High Street.

1.2.2 The difference between the following scenarios are considered to assess the potential impacts:

- Scenario 1A: 2038 Without Development (WoD);
- Scenario 2A: 2038 With Development + Mitigation (WD + Mitigation); and
- Scenario 3: 2038 With Development + Mitigation + Mezzanine (WD + Mitigation + Mezzanine).

1.2.3 Two road links (Derby Road, Kegworth and Castle Donington High Street) are assessed in further detail due to the magnitude of change in traffic flows.

1.2.4 In the morning peak (0800 to 0900):

- Derby Road, Kegworth is expected to experience an increase of 163 vehicles (12.7%) for both the “WD + mitigation” and “WD + mitigation + mezzanine” scenarios.
- Castle Donington High Street is expected to experience an increase of 44 vehicles (10.3%) for the “WD + mitigation” scenario and 52 (12.2%) for the “WD + mitigation + mezzanine” scenario.

1.2.5 In the evening peak (1700 to 1800), these road links experience a decrease in traffic due to redistribution onto the A6 Kegworth Bypass.

1.2.6 As such, it can be concluded that the impacts are within the morning peak hour only, and therefore short-term in nature. Furthermore, there is no material difference between the “WD + mitigation” and “WD + mitigation + mezzanine” scenarios.

1.2.7 As a sensitivity test, the results in the peak hour indicate that there would be no material difference to the conclusions of Chapter 6: Traffic and Transportation [APP-079] for themes relevant to population and human health (i.e. severance, non-motorised user delay, non-motorised user amenity, fear and intimidation, and road user and pedestrian safety).

1.2.8 Despite this, the PRTM 2023 Sensitivity Test Technical Note and Local Road Network Impact Assessment Note [REP1-058] explores impacts on the risk of accident and injury and provides justification for the proposed mitigation approach, which are outlined in the sub-sections below.

Risk of accident and injury

1.2.9 A review of Personal Injury Collision (PIC) data is analysed for several locations on Derby Road, Kegworth and Castle Donington High Street in DCO 7.23 PRTM 2023 Sensitivity – Kegworth and Castle Donington [REP6-045D] . In conclusion, there are no on-going patterns or safety problems.

1.2.10 The risk of accident and injury are a direct impact on human health and therefore, the analysis provided in in DCO 7.23 PRTM 2023 Sensitivity – Kegworth and Castle Donington [REP6-045D] is directly transferrable to any consideration from a population and human health perspective.

1.2.11 As stated in in DCO 7.23 PRTM 2023 Sensitivity – Kegworth and Castle Donington [REP6-045D], whilst there have been a small number of isolated PICs, the evidence shows that there are not due to any deficiencies in the highway layout and for these reasons it is considered that there are no safety problems that should be exacerbated by the EMG2 Project. It is for this reason that no mitigation is considered necessary at either Derby Road, Kegworth and Castle Donington High Street.

Proposed mitigation approach

1.2.12 The proposed mitigation approach focusses on improved signage to deter traffic from using Castle Donington High Street, and instead use the bypass. This is considered reasonable and proportionate in the context of the potential worst-case impacts on the local road network.

1.2.13 No mitigation is proposed for Derby Road, Kegworth on the basis that there would be no increase in vehicle movements in the evening peak, and the increase of 163 vehicles in the morning peak will not occur in reality, and instead this traffic would route via the A6 and A453 northbound (based on more accurate VISSIM modelling).

Conclusion

1.2.14 Overall, the potential worst case impacts outlined above (i.e. without the proposed mitigation) would not result in a more than negligible effect on themes relevant to population and human health. Furthermore, the proposed mitigation approach seeks to deter traffic from using Castle Donington High Street and limit additional traffic using this road link and any perceived risk to health and wellbeing associated with this.

1.3 Potential health effects from changes diet/nutrition

1.3.1 As outlined in Appendix A Informal Scoping Exercise with LCC [APP-181], and agreed with LCC, the assessment of changes in diet and nutrition relates to the impacts from changes in severance on accessing food banks.

1.3.2 Where there are no significant effects on severance reported, there would be no material impacts on access to food banks, or associated secondary impacts on human health from changes in diet/nutrition as a result.

1.3.3 As stated in paragraph 1.2.7, as a sensitivity test, the results in the peak hour indicate that there would be no material difference to the conclusions of Chapter 6: Traffic and Transportation [APP-079] for themes relevant to population and human health, including severance. This is considering the worst-case scenario where no signage is installed to deter the use of Castle Donington High Street.

1.3.4 On this basis, there is no potential for secondary impacts on access to food banks and diet/nutrition. Therefore, the conclusions relating to access to food banks and associated impacts diet/nutrition outlined in the ES remain valid and no further update of ES Chapter 17: Population and Human Health is considered necessary.

1.4 Potential health effects from changes in noise exposure

Castle Donington High Street

1.4.1 As stated in the Vanguardia Project Note following additional traffic modelling – August 2026 (see Appendix A of this note), Chapter 7: Noise and Vibration considered two residential receptors on Castle Donington High Street (R27 and R28).

1.4.2 While the assessment of noise levels in the “do something” scenario in Appendix 7C [REP3-030] are above the Significant Observed Adverse Effect Level (SOAEL) at both of these receptors, the maximum absolute change in noise level is 0.3 dB, which is considered negligible in noise terms.

1.4.3 The proposed mitigation described in paragraph 1.2.12 (i.e. signage) seeks to deter traffic using Castle Donington High Street. Therefore, assuming all other factors remain consistent, this would further reduce the already negligible noise impact and associated secondary health impacts.

Derby Road, Kegworth

1.4.4 Chapter 7: Noise and Vibration considered two residential receptors on Derby Road, Kegworth (R20 and R21). Similar to the above, while the assessment of noise levels in the “do something” scenario in Appendix 7C [REP3-030] are above the SOAEL at both of these receptors, the maximum absolute change in noise level is 0.2 dB, which is considered negligible in noise terms.

1.4.5 As stated in paragraph 1.2.13 of this technical note, there would be no increase in traffic flows during the evening peak, and the forecasted increase of 163 vehicles in the morning peak on Derby Road, Kegworth will not occur in reality, and instead this traffic would route via the A6 and A453 northbound (based on more accurate VISSIM modelling). On this basis, there would be no change to the impacts presented in Chapter 7: Noise and Vibration (negligible and not significant) or the secondary impacts on human health.

Conclusion

1.4.6 On this basis, the population and health and equality assessment conclusions outlined in the ES remain valid and no further update of ES Chapter 17: Population and Human Health is considered necessary.

1.5 Potential health effects from changes in air quality

Castle Donington High Street

1.5.1 As stated in the Vanguardia Project Note following additional traffic modelling – August 2026 (see Appendix A of this note), Chapter 8: Air Quality considered a number of receptors along Castle Donington High Street. At all receptors, it was concluded that there would be no significant effects in air quality terms.

1.5.2 The proposed mitigation described in paragraph 1.2.12 (i.e. signage) seeks to deter traffic using Castle Donington High Street. As stated in the Vanguardia Project Note following additional traffic modelling – August 2026 (see Appendix A of this note), this would reduce potential air quality impacts from the EMG2 Project at receptors on Castle Donington High Street, and where existing traffic would re-route, would have a beneficial impact on air quality (and human health) as Castle Donington is an Air Quality Management Area (AQMA).

1.5.3 The impacts of the redistribution of this traffic along the Relief Road has also been considered; as receptors along the Relief Road are offset by > 20m and no receptors are within 10m, receptors are not considered to be “roadside” in nature and the redistribution of traffic would have an insignificant impact in air quality terms. Therefore, the secondary impact on human health would also be insignificant.

Derby Road, Kegworth

1.5.4 Chapter 8: Air Quality also considered several receptors along Derby Road, Kegworth. As stated in paragraph 1.2.13 of this technical note, there would be no increase in traffic flows during the evening peak, and the forecasted increase of 163 vehicles in the morning peak on Derby Road, Kegworth will not occur in reality, and instead this traffic would route via the A6 and A453 northbound (based on more accurate VISSIM modelling). On this basis, there would be no change to the impacts presented in Chapter 8: Air Quality (negligible and not significant) or the secondary impacts on human health.

Conclusion

1.5.5 On this basis, the population and health and equality assessment conclusions outlined in the ES remain valid and no further update of ES Chapter 17: Population and Human Health is considered necessary.

1.6 Conclusion

1.6.1 Overall, it is clear that the while there may be some minor differences in traffic flows and associated air quality and noise impacts between the EMFM 2019 and PRTM models, the impacts and effects reported in the ES remain valid across all relevant health determinants assessed (transport, access and connections; diet/nutrition; noise; and air quality).

Appendix A: Vanguardia Project Note following additional traffic modelling – August 2026

VANGUARDIA

A BURO HAPPOLD COMPANY

Project Note

Project	East Midlands Gateway Phase 2
Subject	NWLDC Relevant Representation: PRTM 2023 Traffic Modelling and Noise & Air Quality Assessments – Part 2
Project no	0062108-0820
Date	5 August 2026

Revision	Description	Issued by	Date	Approved
01	First issue	AT/MP	05/08/2026	AT/MP

1 Introduction and Background

Previously, North West Leicestershire District Council (NWLDC), in its Relevant Representations, RR-003 raised concerns regarding whether any updates would be required to the noise and vibration assessment, and air quality assessments, as a result of the further transport modelling and associated sensitivity tests being undertaken against the Pan Regional Transport Model (PRTM) 2023.

However, it was previously agreed with Leicestershire County Council (LCC) in September 2025 that the PRTM 2023 data would be used, only to inform a sensitivity test of the original VISSIM transport modelling, and would not be applied retrospectively to associated assessment workstreams, that had been based on the PRTM 2019 data. At the time the supporting DCO documentation and associated assessment work was produced, the relevant version of PRTM was the East Midlands Freeport Model (EMFM) (hereafter 'EMFM 2019').

Despite the above agreement, the initial concerns regarding the noise and air quality assessments were addressed in the project note produced by Vanguardia and included as an Appendix to the SOCG '*NWLDC Relevant representation: PRTM 2023 Traffic Modelling and Noise and Air Quality Assessments' dated 23rd April 2026* [REP4-043]. That note set out the reasons why a full quantitative assessment of this data could not be undertaken and concluded that while there may be some minor differences between the predicted road traffic noise levels and the predicted air pollutant concentrations, calculated using data produced by the EMFM 2019 (which is a cordoned part of the larger 2019 PRTM). These minor differences are not considered likely to alter the conclusions presented in Chapter 7 Noise or Chapter 8 Air Quality of the ES at the key receptor locations, and therefore no updates to the assessment were required.

Whilst the PRTM 2023 transport sensitivity test has been concluded and agreed, there is currently an outstanding issue with LCC regarding perceived transport impacts in Castle Donington and Kegworth, which appears to be preventing NWLDC from signing off the Noise and Vibration and the Air Quality Statements of Common Ground (SoCGs).

This note provides qualitative analysis of the potential changes to the noise and air quality assessments in Castle Donington and Kegworth that might occur when comparing the PRTM 2023 data to the EMFM 2019 data. It has been produced on the basis of *Document 7.23 PRTM 2023 sensitivity: Kegworth & Castle Donington EMG2 highway works dated 22.07.2026* .[REP6-045D]

2 Castle Donington

2.1 Introduction

Section 4 of Document 7.23 indicates that under the PRTM 2023 modelling, on Castle Donington High Street, there would be a slight increase in the morning peak hour and a slight reduction in the evening peak hour, between Scenario 1A and Scenario 2A. However, this is considered unlikely to occur in practice for various reasons which are outlined in Document 7.23. The Applicant's Transport Consultant (BWB) conclude that there is no residual transport impact along Castle Donington High Street.

Despite this, given the concerns of LCC, the Applicant propose mitigation in the form of changing the current signage on the approach and exit of the roundabout with the Castle Donington Relief Road. At present, the time difference between travelling along the Castle Donington Relief Road or Castle Donington High Street is minimal. Therefore, it is hoped that this signage encourages greater use of the relief road, discouraging traffic from travelling along Castle Donington High Street.

2.2 Noise

The noise assessment [REP3-010] considered two receptors on Castle Donington High Street; receptors R27 and R28 [REP3-032]. The assessment of road traffic noise presented in DCO 6.7C Appendix 7C [REP3-030] indicates that the noise levels at these receptors are above the Significant Observed Adverse Effect Level (SOAEL), and the maximum magnitude of change is 0.3 dB. This is classified as a negligible impact which is not significant.

Assuming all other factors remain consistent, a reduction in traffic flows along Castle Donington High Street is only likely to further reduce the magnitude of change at receptors R27 and R28. Therefore, the assessment presented in the ES remains valid and no further assessment work is required.

Regarding the potential impact of diverted trips along the Castle Donington Relief Road, the noise assessment did not consider impacts at receptors along this road. However, given the small increases in traffic noise predicted on Castle Donington High Street based on the 2019 EMFM, together with the only marginal changes in peak-hour traffic flows identified in the 2023 PRTM, it is considered unlikely that the additional traffic using the Relief Road would give rise to any significant noise effects at receptors in its vicinity.

2.3 Air Quality

The air quality assessment [] considered a number of receptors along Castle Donington High Street; its designation as an AQMA meant this was a key area for the assessment. The receptors within the AQMA are set out in Table 8c.1 and illustrated in Figure 8c18 in Appendix 8C [REP3-035], with further receptors in Castle Donington also illustrated in Figure 8c.19 and Figure 8c.20 in Appendix 8C.

The discussion over the impacts of operational phase traffic on receptors adjacent to Castle Donington High Street, within the AQMA, was extensive, and concluded that the impacts could be described as negligible to moderate (adverse) at all receptors, and was concluded to be not significant. Crucially, the only non-negligible impacts experienced across the wider study area were within the Castle Donington AQMA. The signage and diversion of vehicle trips away from Castle Donington High Street, and by extension the AQMA, would reduce these impacts and improve air quality in the AQMA, and hence is seen as a beneficial effect.

Despite this, consideration should be given to the diverted trips which will use the Castle Donington Relief Road. The majority of receptors are offset by > 20 m from the Relief Road and no receptors are within 10 m. Therefore, no receptors relevant to the Castle Donington Relief Road can truly be classed as 'roadside'. As such, the impacts at receptors adjacent to the Castle Donington Relief Road are deemed to be insignificant and would not require detailed assessment.

In conclusion, the diversion of vehicle trips away from Castle Donington High Street and onto the Castle Donington Relief Road would be beneficial from an air quality perspective. As such, no further assessment is required and the conclusions of Chapter 8: Air Quality of the ES, remain valid.

3 Derby Road, Kegworth

3.1 Introduction

The PRTM 2023 modelling forecasted an increase in the morning peak hour along Derby Road in Kegworth and a slight reduction in the evening peak hour. This is entirely due to the reassignment of background traffic through Kegworth towards M1 J24, rather than traffic associated with EMG2 routing via the Kegworth Bypass and then through Kegworth.

PRTM is a strategic transport model, which accounts for traffic reassignment where congestion is expected, but it is not as detailed as VISSIM transport modelling, which more accurately represents future network performance (i.e. includes dynamic signal timings, journey times, queues and delays). The more accurate VISSIM modelling indicates that journey times would be improved along the A6 Kegworth Bypass and A453 northbound route. Therefore, in practice, traffic travelling northbound on the A6 towards Kegworth, is far more likely to route this way rather than via Kegworth, however this is not being accurately reflected in the PRTM 2023 model. As the increase along Derby Road would not occur in practice, there is no need for additional mitigation or to assess this any further from a noise or air quality perspective. The conclusions of the Noise and Vibration and Air Quality ES chapters remain valid and are summarised below in relation to receptors on Derby Road.

3.2 Noise

The noise assessment considered two receptors on Derby Road, Kegworth (R20 and R21) as set out in Appendix 7.D Receptor Plans [REP3-032], the highest magnitude of change at these receptors was 0.2 dB [REP3-030]. This is classified as negligible and not significant.

3.3 Air Quality

The air quality assessment considered several receptors along Derby Road, Kegworth, as set out in Table 8c.1 and illustrated in Figure 8c.5 in Appendix 8C [REP3-035]. The impacts at the receptors are classified as negligible and not significant.