

East Midlands Gateway Phase 2 (EMG2)

Document DCO 6.7C/MCO 6.7C

ENVIRONMENTAL STATEMENT

Technical Appendices

Appendix 7C

Operational Data

August 2025

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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

[SEGRO.COM/SLPEMG2](https://segro.com/slpemg2)

SEGRO

Appendix 7C

Operational data

Operational noise: HGV activities

The primary source of operational noise at the EMG2 Main Site and EMG1 Plot 16 is from HGV activities. This can be summarised as:

- HGVs manoeuvring and loading/unloading within the Unit service yards;
- HGV chiller units operating when the vehicles are within the Unit service yards;
- HGVs travelling on the internal access roads both outside of and within the Units; and
- Individual noise events from HGVs coupling with trailers.

The number of HGVs assumed to be active within the peak 1 hour of the day and peak 15 minutes of the night, i.e., the numbers used for the assessment of operational noise, is based on an hourly traffic profile provided by the project transport consultant. This profile has been used to derive the number of HGV sources for the two periods, as follows.

Source type	Number of sources			
	EMG2 Main Site		EMG1 Plot 16	
	Day: peak 1hr	Night: peak 15mins	Day: peak 1hr	Night: peak 15mins
HGV reversing	109	21	9	2
HGV loading/unloading	109	38	9	4
HGV pulling away	109	21	9	2

10% of the HGV sources are assumed to be fitted with chiller units. While HGVs are reversing and pulling away, the chillers are assumed to be powered by a diesel engine; while they are being loaded/unloaded, the chillers are assumed to be powered by an electrical hookup from the Unit, eliminating the engine noise.

In terms of how the HGV sources are positioned across the different Unit service yards for modelling purposes, they are distributed as point sources based on the floor area of each Unit as a proportion of the total floor area. In terms of them travelling on the internal access roads, they are modelled as line sources in the appropriate locations.

The noise levels used to represent the HGV point sources together with their assumed activity/use (in terms of time) within each assessment period and source heights are defined as follows.

Source type	dB LwA*	Use (time)		Height
		D (60 min)	N (15 min)	
HGV reversing	99	1 min	1 min	1.5 m
HGV loading/unloading	91	30 min	15 min	1 m
HGV reversing	101	1 min	1 min	1.5 m
HGV chiller diesel powered	97	1 min	1 min	3 m
HGV chiller electrically powered	88	30 min	15 min	3 m

** Source levels quoted are uncorrected for duration of use within assessment periods.*

The access road line sources are modelled at a height of 0.5 m with a pass-by source sound power level of 104 dB(A) for the main access roads and 96 dB(A) for the roads within each Unit.

In terms of individual noise events, HGV coupling point sources are modelled at a number of worst-case locations with respect to the nearby receptors. The source height is 1 m, and the source sound power level is 113 dB(A).

Operational noise: Gantry cranes

It is proposed that the maximum permitted height of gantry cranes at the EMG1 rail terminal is increased from the currently permitted 20 m to 24 m, although it should be noted that gantry cranes have never been installed or used since the facility began operating. Two gantry cranes are permitted.

Use of a gantry crane typically has several associated sources of noise, summarised as follows:

- Crane movement, including drive motors;
- Interface of the spreader with the containers;
- Placement of containers;
- Broadband movement alarms (two units per crane); and
- Individual noise events from spreader interface with containers.

Based on discussions with the project team and other similar schemes, the two gantry cranes have been assumed to be 85% active within the peak 1 hour of the day and 100% active during the peak 15 minutes of the night. For non-continuous sources, i.e., spreader impact and container placement, this is based on one loading/unloading cycle taking two minutes.

In terms of how the gantry crane sources are positioned within the rail terminal for modelling purposes, they have been distributed as point sources at several locations (with appropriate corrections) to represent their likely movement.

The noise levels used to represent the gantry crane point sources together with the source heights are defined as follows. These are based on electrically powered gantry cranes.

Source type	dB L_{WA}¹	No. per crane	Height
Gantry crane moving	99	1	22.5 m*
Gantry crane spreader interface ²	93	1	15 m^
Gantry crane container placement ¹	84	1	12 m>
Gantry crane drive motors	95	1	5.5 m
Gantry crane broadband movement alarms	95	2	2.5 m
¹ Source levels quoted represent 100% use during assessment periods. ² Source levels quoted are based on maximum number of cycles during a given period. * Height 1.5 m below the full height of the crane to represent trolley/hoist motors as a worst-case.			

^ Height represents top of 5-high container stack.

> Height represents top of 4-high container stack, i.e., the point at which the 5th high container would interface with the 4th high.

In terms of individual noise events, gantry crane spreader interface point sources are modelled at a number of worst-case locations with respect to the nearby receptors. The source height is 15 m, and the source sound power level is 116 dB(A).

Modelling overview

- The model takes into account topography, ground type, screening (including from development buildings) and distance;
- Ground Factor: 0.0 for areas of hardstanding within development, 0.5 elsewhere;
- Building reflectivity: enabled for development buildings with -2 dB reflection loss.

Operational Noise Impact

Table 1 Assessment of predicted road traffic noise – 2028 with allocated development: daytime

Receptor ID	Receptor	Predicted road traffic noise level, DAY, dB		DS effect level	Change (DM to DS)	Magnitude of impact	Significant effect indicated?
		L _{Aeq,16hr}					
		DM scenario	DS scenario				
IPkt005	R01 The Birches 1.5m	55.4	55	Between LOAEL and SOAEL	-0.4	Negligible	NO
IPkt057	R02 Leonardo Hotel 1.5m	59.6	59.8	Between LOAEL and SOAEL	0.2	Negligible	NO
IPkt006	R03 Premier Inn 1.5m	63	63.5	≥SOAEL	0.5	Negligible	NO
IPkt016	R04 Radisson Blu 1.5m	62.5	64.5	≥SOAEL	2	Minor Adverse	YES ¹
IPkt007	R05 Travelodge 1.5m	48.4	45.9	<LOAEL	-2.5	-	NO
IPkt001	R06 Woodnock Farm 1.5m	60.8	60.9	Between LOAEL and SOAEL	0.1	Negligible	NO
IPkt002	R07 4 Langley Close 1.5m	52	50.9	Between LOAEL and SOAEL	-1.1	Negligible	NO
IPkt003	R08 17 Clements Gate 1.5m	49.7	48.7	<LOAEL	-1	-	NO
IPkt004	R09 2 Old Hall Court 1.5m	49.1	47.7	<LOAEL	-1.4	-	NO
IPkt060	R10 18 Grimes Gate 1.5m	48.9	48.2	<LOAEL	-0.7	-	NO
IPkt062	R11 14 Grimes Gate 1.5m	58.2	57.8	Between LOAEL and SOAEL	-0.4	Negligible	NO
IPkt127	Kegworth 1 GF	66.4	66.6	≥SOAEL	0.2	Negligible	NO
IPkt129	Kegworth 2 GF	63.4	63.6	≥SOAEL	0.2	Negligible	NO
IPkt137	R12 Lockington 1 GF	65.1	65	≥SOAEL	-0.1	Negligible	NO
IPkt145	R13 Lockington 2 GF	64.6	64.6	≥SOAEL	0	No Change	NO
IPkt149	Hemmington 1 GF	59.6	59.3	Between LOAEL and SOAEL	-0.3	Negligible	NO
IPkt151	Hemmington 2 GF	65.4	65	≥SOAEL	-0.4	Negligible	NO
IPkt153	Isley Walton 1 GF	69.9	70	≥SOAEL	0.1	Negligible	NO
IPkt159	Isley Walton Dev 1 GF	61.2	61.5	Between LOAEL and SOAEL	0.3	Negligible	NO
IPkt161	Castle Donnington 1 GF	71.7	71.8	≥SOAEL	0.1	Negligible	NO
IPkt163	Castle Donnington 2 GF	63.5	63.8	≥SOAEL	0.3	Negligible	NO
IPkt165	Long Whatton 1 GF	68	68.1	≥SOAEL	0.1	Negligible	NO
IPkt169	Long Whatton 2 GF	67.9	68.1	≥SOAEL	0.2	Negligible	NO

¹ Operational road traffic has the potential to cause significant effects. However, when the site considering the specific context of those receptors site is taken into consideration, the overall impact is reduced to a level that is not considered significant.

Table 2 Assessment of predicted road traffic noise – 2028 with allocated development: night-time

Receptor ID	Receptor	Predicted road traffic noise level, NIGHT, dB L _{Aeq,8hr}		DS effect level	Change (DM to DS)	Magnitude of impact	Significant effect indicated?
		DM scenario	DS scenario				
IPkt015	R01 The Birches 4.5m	55.5	55.4	≥SOAEL	-0.1	Negligible	NO
IPkt058	R02 Leonardo Hotel 4.5m	58.5	58.8	≥SOAEL	0.3	Negligible	NO
IPkt008	R03 Premier Inn 4.5m	62.4	63	≥SOAEL	0.6	Negligible	NO
IPkt009	R03 Premier Inn 7.5m	63.2	63.8	≥SOAEL	0.6	Negligible	NO
IPkt017	R04 Radisson Blu 4.5m	63.1	65.1	≥SOAEL	2	Minor Adverse	YES ¹
IPkt018	R04 Radisson Blu 7.5m	64.3	66.3	≥SOAEL	2	Minor Adverse	YES ¹
IPkt070	R04 Radisson Blu 10.5m	64.9	66.8	≥SOAEL	1.9	Minor Adverse	YES ¹
IPkt071	R04 Radisson Blu 13.5m	65.3	67.2	≥SOAEL	1.9	Minor Adverse	YES ¹
IPkt010	R05 Travelodge 4.5m	49.5	47.1	Between LOAEL and SOAEL	-2.4	Minor Beneficial	NO
IPkt011	R05 Travelodge 7.5m	51.6	50.4	Between LOAEL and SOAEL	-1.2	Minor Beneficial	NO
IPkt019	R06 Woodnock Farm 4.5m	60.7	60.8	≥SOAEL	0.1	Negligible	NO
IPkt012	R07 4 Langley Close 4.5m	52	51.3	Between LOAEL and SOAEL	-0.7	Negligible	NO
IPkt013	R08 17 Clements Gate 4.5m	50.5	49.8	Between LOAEL and SOAEL	-0.7	Negligible	NO
IPkt014	R09 2 Old Hall Court 4.5m	49.5	48.9	Between LOAEL and SOAEL	-0.6	Negligible	NO
IPkt061	R10 18 Grimes Gate 4.5m	50.8	51	Between LOAEL and SOAEL	0.2	Negligible	NO
IPkt063	R11 14 Grimes Gate 4.5m	58.2	59.1	≥SOAEL	0.9	Negligible	NO
IPkt128	Kegworth 1 FF	63.9	64	≥SOAEL	0.1	Negligible	NO
IPkt130	Kegworth 1 FF	61.3	61.5	≥SOAEL	0.2	Negligible	NO
IPkt138	R12 Lockington 1 FF	62.5	62.5	≥SOAEL	0	No Change	NO
IPkt146	R13 Lockington 2 FF	61.9	61.8	≥SOAEL	-0.1	Negligible	NO
IPkt150	Hemmington 1 FF	59.1	59	≥SOAEL	-0.1	Negligible	NO
IPkt152	Hemmington 2 FF	62.2	61.9	≥SOAEL	-0.3	Negligible	NO
IPkt154	Isley Walton 1 FF	67.9	68	≥SOAEL	0.1	Negligible	NO
IPkt160	Isley Walton Dev 1 FF	60.5	60.8	≥SOAEL	0.3	Negligible	NO
IPkt162	Castle Donnington 1 FF	68.9	69	≥SOAEL	0.1	Negligible	NO
IPkt164	Castle Donnington 2 FF	61.6	61.8	≥SOAEL	0.2	Negligible	NO
IPkt166	Long Whatton 1 FF	68.7	68.9	≥SOAEL	0.2	Negligible	NO
IPkt170	Long Whatton 2 FF	68.1	68.2	≥SOAEL	0.1	Negligible	NO

¹ Operational road traffic has the potential to cause significant effects. However, when the site considering the specific context of those receptors site is taken into consideration, the overall impact is reduced to a level that is not considered significant.

Table 3 Assessment of predicted road traffic noise – 2028 no allocated development: daytime

Receptor ID	Receptor	Predicted road traffic noise level, DAY, dB L _{Aeq,16hr}		DS effect level	Change (DM to DS)	Magnitude of impact	Significant effect indicated?
		DM scenario	DS scenario				
IPkt005	R01 The Birches 1.5m	55.2	54.8	Between LOAEL and SOAEL	-0.4	Negligible	NO
IPkt057	R02 Leonardo Hotel 1.5m	59.3	59.6	Between LOAEL and SOAEL	0.3	Negligible	NO
IPkt006	R03 Premier Inn 1.5m	62.6	63.3	≥ SOAEL	0.7	Negligible	NO
IPkt016	R04 Radisson Blu 1.5m	62.3	64.4	≥ SOAEL	2.1	Minor Adverse	YES ¹
IPkt007	R05 Travelodge 1.5m	48.1	45.7	< LOAEL	-2.4	-	NO
IPkt001	R06 Woodnock Farm 1.5m	60.5	60.7	Between LOAEL and SOAEL	0.2	Negligible	NO
IPkt002	R07 4 Langley Close 1.5m	51.8	50.7	Between LOAEL and SOAEL	-1.1	Negligible	NO
IPkt003	R08 17 Clements Gate 1.5m	49.5	48.5	< LOAEL	-1	-	NO
IPkt004	R09 2 Old Hall Court 1.5m	48.9	47.4	< LOAEL	-1.5	-	NO
IPkt060	R10 18 Grimes Gate 1.5m	48.6	47.7	< LOAEL	-0.9	-	NO
IPkt062	R11 14 Grimes Gate 1.5m	57.4	57.7	Between LOAEL and SOAEL	0.3	Negligible	NO
IPkt127	Kegworth 1 GF	66.7	66.9	≥ SOAEL	0.2	Negligible	NO
IPkt129	Kegworth 2 GF	63.7	63.9	≥ SOAEL	0.2	Negligible	NO
IPkt137	R12 Lockington 1 GF	64.4	64	≥ SOAEL	-0.4	Negligible	NO
IPkt145	R13 Lockington 2 GF	63.8	63.4	≥ SOAEL	-0.4	Negligible	NO
IPkt149	Hemmington 1 GF	58.8	58	Between LOAEL and SOAEL	-0.8	Negligible	NO
IPkt151	Hemmington 2 GF	63.9	61.8	Between LOAEL and SOAEL	-2.1	Negligible	NO
IPkt153	Isley Walton 1 GF	69.8	69.7	≥ SOAEL	-0.1	Negligible	NO
IPkt159	Isley Walton Dev 1 GF	61.3	61.2	Between LOAEL and SOAEL	-0.1	Negligible	NO
IPkt161	Castle Donnington 1 GF	71.6	71.9	≥ SOAEL	0.3	Negligible	NO
IPkt163	Castle Donnington 2 GF	63.3	63.6	≥ SOAEL	0.3	Negligible	NO
IPkt165	Long Whatton 1 GF	67.9	68	≥ SOAEL	0.1	Negligible	NO
IPkt169	Long Whatton 2 GF	67.8	67.9	≥ SOAEL	0.1	Negligible	NO

¹ Operational road traffic has the potential to cause significant effects. However, when the site considering the specific context of those receptors site is taken into consideration, the overall impact is reduced to a level that is not considered significant.

Table 4 Assessment of predicted road traffic noise – 2028 no allocated development: night-time

Receptor ID	Receptor	Predicted road traffic noise level, NIGHT, dB		DS effect level	Change (DM to DS)	Magnitude of impact	Significant effect indicated?
		L _{Aeq,8hr}					
		DM scenario	DS scenario				
IPkt015	R01 The Birches 4.5m	55.3	55.2	≥SOAEL	-0.1	Negligible	NO
IPkt058	R02 Leonardo Hotel 4.5m	58.2	58.4	≥SOAEL	0.2	Negligible	NO
IPkt008	R03 Premier Inn 4.5m	62.1	62.7	≥SOAEL	0.6	Negligible	NO
IPkt009	R03 Premier Inn 7.5m	62.9	63.4	≥SOAEL	0.5	Negligible	NO
IPkt017	R04 Radisson Blu 4.5m	62.9	64.9	≥SOAEL	2	Minor Adverse	YES ¹
IPkt018	R04 Radisson Blu 7.5m	64	66	≥SOAEL	2	Minor Adverse	YES ¹
IPkt070	R04 Radisson Blu 10.5m	64.6	66.6	≥SOAEL	2	Minor Adverse	YES ¹
IPkt071	R04 Radisson Blu 13.5m	65	67	≥SOAEL	2	Minor Adverse	YES ¹
IPkt010	R05 Travelodge 4.5m	49.2	46.9	Between LOAEL and SOAEL	-2.3	Minor Beneficial	NO
IPkt011	R05 Travelodge 7.5m	51.4	50.2	Between LOAEL and SOAEL	-1.2	Minor Beneficial	NO
IPkt019	R06 Woodnock Farm 4.5m	60.4	60.6	≥SOAEL	0.2	Negligible	NO
IPkt012	R07 4 Langley Close 4.5m	51.8	51.1	Between LOAEL and SOAEL	-0.7	Negligible	NO
IPkt013	R08 17 Clements Gate 4.5m	50.3	49.6	Between LOAEL and SOAEL	-0.7	Negligible	NO
IPkt014	R09 2 Old Hall Court 4.5m	49.3	48.6	Between LOAEL and SOAEL	-0.7	Negligible	NO
IPkt061	R10 18 Grimes Gate 4.5m	50.4	50.9	Between LOAEL and SOAEL	0.5	Negligible	NO
IPkt063	R11 14 Grimes Gate 4.5m	57.7	59.1	≥SOAEL	1.4	Minor Adverse	YES ¹
IPkt128	Kegworth 1 FF	64.1	64.3	≥SOAEL	0.2	Negligible	NO
IPkt130	Kegworth 1 FF	61.6	61.7	≥SOAEL	0.1	Negligible	NO
IPkt138	R12 Lockington 1 FF	62.1	61.9	≥SOAEL	-0.2	Negligible	NO
IPkt146	R13 Lockington 2 FF	61.4	61.2	≥SOAEL	-0.2	Negligible	NO
IPkt150	Hemmington 1 FF	58.6	58.1	≥SOAEL	-0.5	Negligible	NO
IPkt152	Hemmington 2 FF	61.1	59.6	≥SOAEL	-1.5	Minor Beneficial	NO
IPkt154	Isley Walton 1 FF	67.8	67.8	≥SOAEL	0	No Change	NO
IPkt160	Isley Walton Dev 1 FF	60.6	60.6	≥SOAEL	0	No Change	NO
IPkt162	Castle Donnington 1 FF	68.8	69.1	≥SOAEL	0.3	Negligible	NO
IPkt164	Castle Donnington 2 FF	61.4	61.7	≥SOAEL	0.3	Negligible	NO
IPkt166	Long Whatton 1 FF	68.6	68.8	≥SOAEL	0.2	Negligible	NO
IPkt170	Long Whatton 2 FF	68	68.1	≥SOAEL	0.1	Negligible	NO

¹ Operational road traffic has the potential to cause significant effects. However, when the site considering the specific context of those receptors site is taken into consideration, the overall impact is reduced to a level that is not considered significant.

Table 5 Assessment of predicted road traffic noise – 2038 with allocated development: daytime

Receptor ID	Receptor	Predicted road traffic noise level, DAY, dB L _{Aeq,16hr}		DS effect level	Change (DM to DS)	Magnitude of impact	Significant effect indicated?
		DM scenario	DS scenario				
IPkt005	R01 The Birches 1.5m	55.9	55.4	Between LOAEL and SOAEL	-0.5	Negligible	NO
IPkt057	R02 Leonardo Hotel 1.5m	60.1	60.2	Between LOAEL and SOAEL	0.1	Negligible	NO
IPkt006	R03 Premier Inn 1.5m	63.4	63.8	≥ SOAEL	0.4	Negligible	NO
IPkt016	R04 Radisson Blu 1.5m	62.8	64.6	≥ SOAEL	1.8	Minor Adverse	YES ¹
IPkt007	R05 Travelodge 1.5m	48.9	46.2	< LOAEL	-2.7	-	NO
IPkt001	R06 Woodnock Farm 1.5m	61.4	61.5	Between LOAEL and SOAEL	0.1	Negligible	NO
IPkt002	R07 4 Langley Close 1.5m	52.3	51.2	Between LOAEL and SOAEL	-1.1	Negligible	NO
IPkt003	R08 17 Clements Gate 1.5m	50	49	< LOAEL	-1	-	NO
IPkt004	R09 2 Old Hall Court 1.5m	49.5	48	< LOAEL	-1.5	-	NO
IPkt060	R10 18 Grimes Gate 1.5m	49.5	48.5	< LOAEL	-1	-	NO
IPkt062	R11 14 Grimes Gate 1.5m	58.4	59.8	Between LOAEL and SOAEL	1.4	Negligible	NO
IPkt127	Kegworth 1 GF	66.1	66.3	≥ SOAEL	0.2	Negligible	NO
IPkt129	Kegworth 2 GF	63.1	63.2	≥ SOAEL	0.1	Negligible	NO
IPkt137	R12 Lockington 1 GF	66.1	66.4	≥ SOAEL	0.3	Negligible	NO
IPkt145	R13 Lockington 2 GF	65.8	66.1	≥ SOAEL	0.3	Negligible	NO
IPkt149	Hemmington 1 GF	61.2	61.1	Between LOAEL and SOAEL	-0.1	Negligible	NO
IPkt151	Hemmington 2 GF	67.1	66.8	≥ SOAEL	-0.3	Negligible	NO
IPkt153	Isley Walton 1 GF	71.7	71.8	≥ SOAEL	0.1	Negligible	NO
IPkt159	Isley Walton Dev 1 GF	62	61.9	Between LOAEL and SOAEL	-0.1	Negligible	NO
IPkt161	Castle Donnington 1 GF	71.9	72	≥ SOAEL	0.1	Negligible	NO
IPkt163	Castle Donnington 2 GF	65	65.1	≥ SOAEL	0.1	Negligible	NO
IPkt165	Long Whatton 1 GF	68.3	68.4	≥ SOAEL	0.1	Negligible	NO
IPkt169	Long Whatton 2 GF	68.3	68.4	≥ SOAEL	0.1	Negligible	NO

¹ Operational road traffic has the potential to cause significant effects. However, when the site considering the specific context of those receptors site is taken into consideration, the overall impact is reduced to a level that is not considered significant.

Table 6 Assessment of predicted road traffic noise – 2038 with allocated development: night-time

Receptor ID	Receptor	Predicted road traffic noise level, NIGHT, dB L _{Aeq,8hr}		DS effect level	Change (DM to DS)	Magnitude of impact	Significant effect indicated?
		DM scenario	DS scenario				
IPkt015	R01 The Birches 4.5m	56	55.9	≥SOAEL	-0.1	Negligible	NO
IPkt058	R02 Leonardo Hotel 4.5m	58.9	59.2	≥SOAEL	0.3	Negligible	NO
IPkt008	R03 Premier Inn 4.5m	62.8	63.3	≥SOAEL	0.5	Negligible	NO
IPkt009	R03 Premier Inn 7.5m	63.6	64.1	≥SOAEL	0.5	Negligible	NO
IPkt017	R04 Radisson Blu 4.5m	63.4	65.1	≥SOAEL	1.7	Minor Adverse	YES ¹
IPkt018	R04 Radisson Blu 7.5m	64.5	66.3	≥SOAEL	1.8	Minor Adverse	YES ¹
IPkt070	R04 Radisson Blu 10.5m	65.2	66.9	≥SOAEL	1.7	Minor Adverse	YES ¹
IPkt071	R04 Radisson Blu 13.5m	65.5	67.2	≥SOAEL	1.7	Minor Adverse	YES ¹
IPkt010	R05 Travelodge 4.5m	50	47.4	Between LOAEL and SOAEL	-2.6	Minor Beneficial	NO
IPkt011	R05 Travelodge 7.5m	52	50.6	Between LOAEL and SOAEL	-1.4	Minor Beneficial	NO
IPkt019	R06 Woodnock Farm 4.5m	61.3	61.3	≥SOAEL	0	No Change	NO
IPkt012	R07 4 Langley Close 4.5m	52.4	51.7	Between LOAEL and SOAEL	-0.7	Negligible	NO
IPkt013	R08 17 Clements Gate 4.5m	50.9	50.2	Between LOAEL and SOAEL	-0.7	Negligible	NO
IPkt014	R09 2 Old Hall Court 4.5m	50	49.3	Between LOAEL and SOAEL	-0.7	Negligible	NO
IPkt061	R10 18 Grimes Gate 4.5m	51.5	51.5	Between LOAEL and SOAEL	0	No Change	NO
IPkt063	R11 14 Grimes Gate 4.5m	59.2	58.8	≥SOAEL	-0.4	Negligible	NO
IPkt128	Kegworth 1 FF	63.6	63.7	≥SOAEL	0.1	Negligible	NO
IPkt130	Kegworth 1 FF	61.1	61.2	≥SOAEL	0.1	Negligible	NO
IPkt138	R12 Lockington 1 FF	63.1	63.2	≥SOAEL	0.1	Negligible	NO
IPkt146	R13 Lockington 2 FF	62.5	62.7	≥SOAEL	0.2	Negligible	NO
IPkt150	Hemmington 1 FF	60.1	60	≥SOAEL	-0.1	Negligible	NO
IPkt152	Hemmington 2 FF	63.3	63.1	≥SOAEL	-0.2	Negligible	NO
IPkt154	Isley Walton 1 FF	69.6	69.7	≥SOAEL	0.1	Negligible	NO
IPkt160	Isley Walton Dev 1 FF	61.2	61.2	≥SOAEL	0	No Change	NO
IPkt162	Castle Donnington 1 FF	69.1	69.2	≥SOAEL	0.1	Negligible	NO
IPkt164	Castle Donnington 2 FF	63	63.1	≥SOAEL	0.1	Negligible	NO
IPkt166	Long Whatton 1 FF	69	69.1	≥SOAEL	0.1	Negligible	NO
IPkt170	Long Whatton 2 FF	68.4	68.5	≥SOAEL	0.1	Negligible	NO

¹ Operational road traffic has the potential to cause significant effects. However, when the site considering the specific context of those receptors site is taken into consideration, the overall impact is reduced to a level that is not considered significant.

Table 7 Assessment of predicted road traffic noise – 2038 no allocated development: daytime

Receptor ID	Receptor	Predicted road traffic noise level, DAY, dB		DS effect level	Change (DM to DS)	Magnitude of impact	Significant effect indicated?
		L _{Aeq,16hr}					
		DM scenario	DS scenario				
IPkt005	R01 The Birches 1.5m	55.7	55.2	Between LOAEL and SOAEL	-0.5	Negligible	NO
IPkt057	R02 Leonardo Hotel 1.5m	59.8	60	Between LOAEL and SOAEL	0.2	Negligible	NO
IPkt006	R03 Premier Inn 1.5m	63.2	63.6	≥SOAEL	0.4	Negligible	NO
IPkt016	R04 Radisson Blu 1.5m	62.9	64.6	≥SOAEL	1.7	Minor Adverse	YES ¹
IPkt007	R05 Travelodge 1.5m	48.7	46.1	<LOAEL	-2.6	-	NO
IPkt001	R06 Woodnock Farm 1.5m	61	61.1	Between LOAEL and SOAEL	0.1	Negligible	NO
IPkt002	R07 4 Langley Close 1.5m	52.2	51.1	Between LOAEL and SOAEL	-1.1	Negligible	NO
IPkt003	R08 17 Clements Gate 1.5m	49.9	48.8	<LOAEL	-1.1	-	NO
IPkt004	R09 2 Old Hall Court 1.5m	49.4	47.8	<LOAEL	-1.6	-	NO
IPkt060	R10 18 Grimes Gate 1.5m	49.2	48.4	<LOAEL	-0.8	-	NO
IPkt062	R11 14 Grimes Gate 1.5m	56.1	59.5	Between LOAEL and SOAEL	3.4	Minor Adverse	NO
IPkt127	Kegworth 1 GF	66.6	66.7	≥SOAEL	0.1	Negligible	NO
IPkt129	Kegworth 2 GF	63.6	63.7	≥SOAEL	0.1	Negligible	NO
IPkt137	R12 Lockington 1 GF	66.2	66.1	≥SOAEL	-0.1	Negligible	NO
IPkt145	R13 Lockington 2 GF	65.9	65.8	≥SOAEL	-0.1	Negligible	NO
IPkt149	Hemmington 1 GF	60.6	60.4	Between LOAEL and SOAEL	-0.2	Negligible	NO
IPkt151	Hemmington 2 GF	66.3	65.5	≥SOAEL	-0.8	Negligible	NO
IPkt153	Isley Walton 1 GF	70	70.1	≥SOAEL	0.1	Negligible	NO
IPkt159	Isley Walton Dev 1 GF	61.5	61.5	Between LOAEL and SOAEL	0	No Change	NO
IPkt161	Castle Donnington 1 GF	71.8	71.8	≥SOAEL	0	No Change	NO
IPkt163	Castle Donnington 2 GF	64.3	64.3	≥SOAEL	0	No Change	NO
IPkt165	Long Whatton 1 GF	68.1	68.2	≥SOAEL	0.1	Negligible	NO
IPkt169	Long Whatton 2 GF	68	68.1	≥SOAEL	0.1	Negligible	NO

¹ Operational road traffic has the potential to cause significant effects. However, when the site considering the specific context of those receptors site is taken into consideration, the overall impact is reduced to a level that is not considered significant.

Table 8 Assessment of predicted road traffic noise – 2038 no allocated development: night-time

Receptor ID	Receptor	Predicted road traffic noise level, NIGHT, dB L _{Aeq,8hr}		DS effect level	Change (DM to DS)	Magnitude of impact	Significant effect indicated?
		DM scenario	DS scenario				
IPkt015	R01 The Birches 4.5m	55.8	55.6	≥SOAEL	-0.2	Negligible	NO
IPkt058	R02 Leonardo Hotel 4.5m	58.7	58.9	≥SOAEL	0.2	Negligible	NO
IPkt008	R03 Premier Inn 4.5m	62.6	63.1	≥SOAEL	0.5	Negligible	NO
IPkt009	R03 Premier Inn 7.5m	63.4	63.9	≥SOAEL	0.5	Negligible	NO
IPkt017	R04 Radisson Blu 4.5m	63.4	65.1	≥SOAEL	1.7	Minor Adverse	YES ¹
IPkt018	R04 Radisson Blu 7.5m	64.6	66.3	≥SOAEL	1.7	Minor Adverse	YES ¹
IPkt070	R04 Radisson Blu 10.5m	65.2	66.9	≥SOAEL	1.7	Minor Adverse	YES ¹
IPkt071	R04 Radisson Blu 13.5m	65.6	67.2	≥SOAEL	1.6	Minor Adverse	YES ¹
IPkt010	R05 Travelodge 4.5m	49.7	47.2	Between LOAEL and SOAEL	-2.5	Minor Beneficial	NO
IPkt011	R05 Travelodge 7.5m	51.8	50.5	Between LOAEL and SOAEL	-1.3	Minor Beneficial	NO
IPkt019	R06 Woodnock Farm 4.5m	60.8	61	≥SOAEL	0.2	Negligible	NO
IPkt012	R07 4 Langley Close 4.5m	52.2	51.5	Between LOAEL and SOAEL	-0.7	Negligible	NO
IPkt013	R08 17 Clements Gate 4.5m	50.6	49.9	Between LOAEL and SOAEL	-0.7	Negligible	NO
IPkt014	R09 2 Old Hall Court 4.5m	49.7	49	Between LOAEL and SOAEL	-0.7	Negligible	NO
IPkt061	R10 18 Grimes Gate 4.5m	51	51.4	Between LOAEL and SOAEL	0.4	Negligible	NO
IPkt063	R11 14 Grimes Gate 4.5m	58.4	58.7	≥SOAEL	0.3	Negligible	NO
IPkt128	Kegworth 1 FF	64	64.1	≥SOAEL	0.1	Negligible	NO
IPkt130	Kegworth 1 FF	61.5	61.6	≥SOAEL	0.1	Negligible	NO
IPkt138	R12 Lockington 1 FF	63.1	63.1	≥SOAEL	0	No Change	NO
IPkt146	R13 Lockington 2 FF	62.6	62.5	≥SOAEL	-0.1	Negligible	NO
IPkt150	Hemmington 1 FF	59.8	59.6	≥SOAEL	-0.2	Negligible	NO
IPkt152	Hemmington 2 FF	62.8	62.3	≥SOAEL	-0.5	Negligible	NO
IPkt154	Isley Walton 1 FF	68	68.1	≥SOAEL	0.1	Negligible	NO
IPkt160	Isley Walton Dev 1 FF	60.7	60.8	≥SOAEL	0.1	Negligible	NO
IPkt162	Castle Donnington 1 FF	69	69	≥SOAEL	0	No Change	NO
IPkt164	Castle Donnington 2 FF	62.3	62.4	≥SOAEL	0.1	Negligible	NO
IPkt166	Long Whatton 1 FF	68.8	69	≥SOAEL	0.2	Negligible	NO
IPkt170	Long Whatton 2 FF	68.2	68.3	≥SOAEL	0.1	Negligible	NO

¹ Operational road traffic has the potential to cause significant effects. However, when the site considering the specific context of those receptors site is taken into consideration, the overall impact is reduced to a level that is not considered significant.

