

East Midlands Gateway Phase 2 (EMG2)

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ENVIRONMENTAL STATEMENT

Volume 2 Technical Appendices

Appendix 7C

Operational Data

July 2025

07

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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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 |
| 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 |

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 |
| IPkt018 | R04 Radisson Blu 7.5m | 64.3 | 66.3 | ≥SOAEL | 2 | Minor Adverse | YES |
| IPkt070 | R04 Radisson Blu 10.5m | 64.9 | 66.8 | ≥SOAEL | 1.9 | Minor Adverse | YES |
| IPkt071 | R04 Radisson Blu 13.5m | 65.3 | 67.2 | ≥SOAEL | 1.9 | Minor Adverse | YES |
| 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 |

Table 3 Assessment of predicted road traffic noise – 2028 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 | 55.2 | 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 |
| 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 |

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 |
| IPkt018 | R04 Radisson Blu 7.5m | 64 | 66 | ≥SOAEL | 2 | Minor Adverse | YES |
| IPkt070 | R04 Radisson Blu 10.5m | 64.6 | 66.6 | ≥SOAEL | 2 | Minor Adverse | YES |
| IPkt071 | R04 Radisson Blu 13.5m | 65 | 67 | ≥SOAEL | 2 | Minor Adverse | YES |
| 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 |
| 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 |

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 |
| 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 |

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 |
| IPkt018 | R04 Radisson Blu 7.5m | 64.5 | 66.3 | ≥SOAEL | 1.8 | Minor Adverse | YES |
| IPkt070 | R04 Radisson Blu 10.5m | 65.2 | 66.9 | ≥SOAEL | 1.7 | Minor Adverse | YES |
| IPkt071 | R04 Radisson Blu 13.5m | 65.5 | 67.2 | ≥SOAEL | 1.7 | Minor Adverse | YES |
| 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 |

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 |
| 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 |

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 |
| IPkt018 | R04 Radisson Blu 7.5m | 64.6 | 66.3 | ≥SOAEL | 1.7 | Minor Adverse | YES |
| IPkt070 | R04 Radisson Blu 10.5m | 65.2 | 66.9 | ≥SOAEL | 1.7 | Minor Adverse | YES |
| IPkt071 | R04 Radisson Blu 13.5m | 65.6 | 67.2 | ≥SOAEL | 1.6 | Minor Adverse | YES |
| 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 |

