

# Appendix 17.2

## Baseline Noise Survey

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# 1 Baseline Noise Survey Report

## 1.1 Introduction

- 1.1.1 This Appendix reports the measured baseline noise levels along the section of the A9 between Glen Garry and Kincaig prior to the commencement of any physical works in relation to the proposed dualling of the existing trunk road.
- 1.1.2 The survey has been carried out in accordance with guidance within the Department of Transport document ‘*Calculation of Road Traffic Noise*’, together with BS 7445-1: 2003 ‘*Description and measurement of environmental noise Part 1 Guide to quantities and procedures*’.
- 1.1.3 This report presents the results of the ambient noise survey.

## 1.2 Baseline Survey Equipment

- 1.2.1 The long-term noise surveys, undertaken for periods of 24 hours or more, were undertaken using a 01dB Blue Solo Sound Level Meter with a 01dB Pre 21S Pre-amplifier and a 01dB MCE212 ½” microphone (serial number 142693). The meter was calibrated using a Castle GA607 Sound Level Calibrator.
- 1.2.2 The equipment used was calibrated in a National Physical Laboratory (NPL) accredited laboratory within 12 months prior to the survey and the details are shown in **Table 1-1** below.

Table 1-1: *Sound Level Meter Details and Calibration Details – Long Term Measurements*

Equipment	Serial Number	NPL Calibration Certificate Number	UKAS/NPL Calibration Certificate Reference	Last Calibration Date
01dB Blue Solo Sound Level Meter	61046	01655/4	0801	24/01/2014
Castle GA607 Acoustic Calibrator	035748	035748/61288	S6312/07428	09/05/2014

- 1.2.3 The shortened period noise surveys were undertaken using a Castle Pro-DX Vocis GA131M Sound Level Meter with a Castle MKDXP Pre-amplifier (serial number 1026) and a Castle ½” microphone (serial number 5035). The meter was calibrated using a Castle GA607 Sound Level Calibrator.
- 1.2.4 The equipment used was calibrated in an NPL accredited laboratory within 12 months prior to the survey and the details are shown in **Table 1-2** below.

Table 1-2: *Sound Level Meter Details and Calibration Details – Short Term Measurements*

Equipment	Serial Number	NPL Calibration Certificate Number	UKAS/NPL Calibration Certificate Reference	Last Calibration Date
01dB Blue Solo Sound Level Meter	0062925	0062925/61288	S6312	09/09/2014
Castle GA607 Acoustic Calibrator	035748	035748/61288	S6312/07428	09/05/2014

- 1.2.5 It should be noted that the Sound Level Meter was calibrated before and after each measurement to check for ‘drift’ in the accuracy of the meter. No drift in the calibration level was found at any time.

- 1.2.6 Noise measurements were taken in accordance with the methodology in British Standard 7445-1: 2003 '*Description and measurement of environmental noise Part 1 Guide to quantities and procedures*', with the microphone between 1.2 and 1.5m above local ground level. All measurement locations were also at least 3.5m away from any reflecting surface, and as a result it can be considered that all measurement locations were 'free-field'.

### 1.3 Baseline Measurement Locations

- 1.3.1 Prior to the commencement of the baseline noise measurement works, consultation took place with Mr R Murdoch, Environmental Health Officer for The Highland Council for this area.
- 1.3.2 The locations proposed to be used were identified beforehand and were in the main agreed, or relocated slightly to accommodate the discussions. In the main the measurement locations remained the same, and although a couple have been relocated to reflect access or security issues, it is considered that the baseline in the vicinity of the A9 within this section of its route has been appropriately captured. The locations of the measurements are presented below in **Table 1-3** and are shown in **Figure 1-1**.
- 1.3.3 The A9 was considered to be freely flowing during all attended (i.e. 3 hour) surveys. For the unattended surveys this cannot be verified, but on setup and collection it was noted that the A9 was freely flowing.
- 1.3.4 Also, on most days when the unattended measurements were being undertaken the surveyor was in the area performing the attended measurements.
- 1.3.5 It should be noted that during all measurements the Average Speed Cameras (ASC) on the A9 were installed but were not yet operational, as such the measurement results represent typical road traffic noise conditions.

Table 1-3: Baseline Noise Measurement Locations

Location	Measurement Duration	GPS Location of Measurement
Station House, Dalnaspidal, Pitlochry	3 Hr	NN64450 BNG73353
Balsporran Cottages, Dalwhinnie	24 Hr	NN62711 BNG79196
Drumochter Lodge, Dalwhinnie	3 Hr	NN63065 BNG79591
Loch Ericht Hotel, Dalwhinnie	3 Hr	NN63812 BNG84953
2, Truim View, Dalwhinnie	24 Hr	NN63693 BNG84335
Willet Cottage, Cuaich, Dalwhinnie	24 Hr	NN65573 BNG87071
Crubenmore Lodge, Newtonmore	3 Hr	NN67513 BNG91014
Invernahavon Caravan Park, Glentruim	3 Hr	NN68851 BNG94972
Ptarmigan Lodge, West Ralia	3 Hr	NN70467 BNG97075
Upper Nuide, Newtonmore	3 Hr	NN72837 BNG98471
Ruthven Farm House, Kingussie	3 Hr	NH75924 BNG00628
The Spinney, Spey Street, Kingussie	24 Hr	NH75948 BNG00558
Craig-An-Darach, Kingussie	24 Hr	NH76415 BNG00997
Three Bridges, Kingussie	3 Hr	NH77045 BNG01207
Kerrow Cottage, Kingussie	3 Hr	NH76635 BNG01227
Croila Road, Kingussie	3 Hr	NH76321 BNG01156
Ard Dalle, Lynchat, Kingussie	24 Hr	NH78148 BNG01832
Mains of Balavil, Kingussie	24 Hr	NH79025 BNG02279
Balavil House, Kingussie	3 Hr	NH79087 BNG02609
Dunachton Lodge, Kingussie	3 Hr	NH82237 BNG04734
Silverwood, Dunachton Road, Kincaig	24 Hr	NH82824 BNG05536
17, Suidhe Crescent, Kincaig	3 Hr	NH83251 BNG06015
The Old Manse, Alvie Estate, Kincaig	24 Hr	NH83485 BNG06506

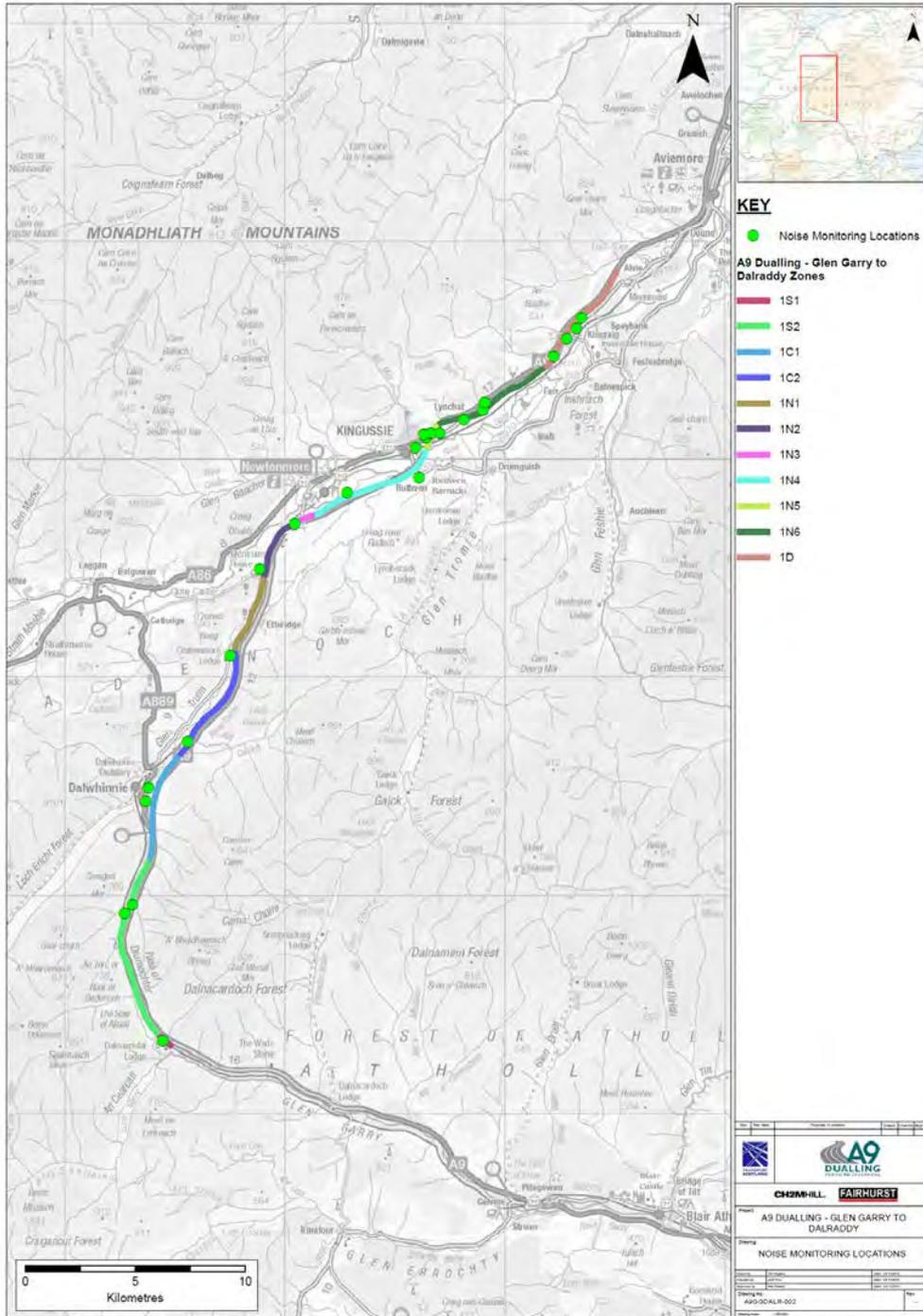


Figure 1-1: Noise Measurement Locations

## 1.4 Baseline Noise Survey Results

1.4.1 A summary of the results of the baseline survey are recorded in **Table 1-4** below; full measurement record sheets are provided in **section 1.6** at the end of this Appendix.

Table 1-4: Summary of Measured Baseline Noise Measurements

Location	Measurement Duration	L <sub>Aeq,T</sub> dB	L <sub>A10,T</sub> dB
Station House, Dalnaspidal, Pitlochry	3 Hr	57.5	61.3
Balsporran Cottages, Dalwhinnie	06:00 – 00:00	57.4	59.6
	00:00 – 06:00	51.0	55.5
Drumochter Lodge, Dalwhinnie	3 Hr	58.8	63.6
Loch Ericht Hotel, Dalwhinnie	3 Hr	50.6	52.8
2, Truim View, Dalwhinnie	06:00 – 00:00	46.0	47.9
	00:00 – 06:00	38.6	42.3
Willet Cottage, Cuaich, Dalwhinnie	06:00 – 00:00	55.5	57.7
	00:00 – 06:00	49.2	53.3
Crubenmore Lodge, Newtonmore	3 Hr	50.3	53.4
Invernahavon Caravan Park, Glentruim	3 Hr	44.7	47.0
Ptarmigan Lodge, West Ralia	3 Hr	61.3	60.4
Upper Nuide, Newtonmore	3 Hr	49.4	54.3
Ruthven Farm House, Kingussie	3 Hr	50.9	55.3
The Spinney, Spey Street, Kingussie	06:00 – 00:00	50.3	47.8
	00:00 – 06:00	39.2	42.7
Craig-An-Darach, Kingussie	06:00 – 00:00	52.0	54.6
	00:00 – 06:00	45.9	50.2
Three Bridges, Kingussie	3 Hr	53.2	57.3
Kerrow Cottage, Kingussie	3 Hr	52.8	57.6
Croila Road, Kingussie	3 Hr	45.9	42.1
Ard Dalle, Lynchat, Kingussie	06:00 – 00:00	52.0	54.2
	00:00 – 06:00	49.7	50.2
Mains of Balavil, Kingussie	06:00 – 00:00	61.6	65.8
	00:00 – 06:00	56.7	60.0
Balavil House, Kingussie	3 Hr	54.7	59.0
Dunachton Lodge, Kingussie	3 Hr	55.1	59.4
Silverwood, Dunachton Road, Kincaig	06:00 – 00:00	55.5	58.9
	00:00 – 06:00	49.1	53.1
17 Suidhe Crescent, Kincaig	3 Hr	54.3	58.7
The Old Manse, Alvie Estate, Kincaig	06:00 – 00:00	55.3	57.4
	00:00 – 06:00	52.5	54.6

- 1.4.2 Given the above measured noise levels, together with the guidance provided on the correction of shortened measurements contained within 'Calculation of Road Traffic Noise', **Table 1-5** reports the measured and subsequently corrected L<sub>A10,18hr</sub> noise levels for each of the measurement locations.
- 1.4.3 It should be noted however, that the 3-hour measurements taken are just that; an individual measurement with a statistical average of the 3 measurements. Therefore, the analysis procedure described in CRTN was not strictly followed.

- 1.4.4 However, from observations made by the surveyor it is not considered likely that this will have resulted in any significant difference in the reported noise levels due to there being very little fluctuation in noise level over the 3-hour survey period. Therefore, if required the shortened measurement procedure could be relied upon to provide an approximation to the 18-hour value.

Table 1-5: Full Measured 18-hour periods and Those Calculated From 3-hour Measurements

Location	L <sub>A10,18h</sub> dB
Station House, Dalnaspidal, Pitlochry	60.3
Balsporran Cottages, Dalwhinnie	59.6
Drumochter Lodge, Dalwhinnie	62.6
Loch Ericht Hotel, Dalwhinnie	51.8
2, Truim View, Dalwhinnie	47.9
Willet Cottage, Cuaich, Dalwhinnie	57.7
Crubenmore Lodge, Newtonmore	52.4
Invernahavon Caravan Park, Glentruim	46.0
Ptarmigan Lodge, West Ralia	59.4
Upper Nuide, Newtonmore	53.3
Ruthven Farm House, Kingussie	54.3
The Spinney, Spey Street, Kingussie	47.8
Craig-An-Darach, Kingussie	54.6
Three Bridges, Kingussie	56.3
Kerrow Cottage, Kingussie	56.6
Croila Road, Kingussie	41.1
Ard Dalle, Lynchat, Kingussie	54.2
Mains of Balavil, Kingussie	65.8
Balavil House, Kingussie	58.0
Dunachton Lodge, Kingussie	58.4
Silverwood, Dunachton Road, Kincaig	58.9
17 Suidhe Crescent, Kincaig	57.7
The Old Manse, Alvie Estate, Kincaig	57.4

## 1.5 Discussion

- 1.5.1 A detailed baseline noise survey has been carried out along the route of the proposed dualling of the A9 Trunk Road between Glen Garry and Kincaig. This has revealed a relatively stable noise environment in the vicinity of the A9, punctuated by other sources. Examples of this, which are not reflected in the measured results, could be found in Dalwhinnie, adjacent to the Loch Ericht Hotel measurement location.
- 1.5.2 In this vicinity a construction contractor's compound was operational, connected to the upgrade of high tension power lines in the area. Noise levels associated with these activities were apparent, but other activities from this site, which involved the use of a helicopter, did not occur in the vicinity whilst the measurements were being taken, although they were observed as taking place during other survey periods.

- 1.5.3 This is a clear indication that noise levels can be cyclical and can vary from hour to hour or day to day. Another example is the overflight by military aircraft, which is a regular but not necessarily daily occurrence in this vicinity.
- 1.5.4 Nonetheless it is considered that the data presented in this report forms a representation of the typical ambient noise levels in the vicinity of the proposed A9 works, taken at locations which are considered to be representative of a number of areas along the section of the route between Glen Garry and Kincaig.
- 1.5.5 Given the above it is considered that the data contained within this report forms a suitable basis for the consideration of potential construction noise impacts of the proposed dualling operations, and is also suitable to be used for the verification of modelled noise levels for the dual carriageway once it is constructed and operational.

## 1.6 Noise Measurement Record Sheets

- 1.6.1 This section presents the measurement record sheets for each measurement location, including photographs of each location.



Noise Measurement Record

Reference: 495298.AA.02.02

Project	A9 Baseline Noise Assessment - Lot 1			Date	16-Sep-2014			
Measurement Location	Dalnaspidal Station			By	I Stanworth			
Source(s) Description	Road Traffic on A9 and noise from passage of trains on Highland Main Line							
<b>Equipment</b>								
Sound Level Meter	Castle Pro-DX Vocis M GA131	Serial No.	0062925	Cal. Date	9-May-2014			
Microphone	Castle ½"	Serial No.	1026	Cal. Date	9-May-2014			
Preamplifier	Castle MKDXP	Serial No.	5035	Cal. Date	9-May-2014			
Field Calibrator	Castle GA607	Serial No.	035748	Cal. Date	9-May-2014			
Initial Calibration Level	94.0dB @1000Hz	Correction	0.2dB	Date	16-Sep-2014			
Final Calibration Level	94.0dB @1000Hz	Correction	0.2dB	Date	16-Sep-2014			
				Time	13:12			
<b>Measurement Location(s)</b>								
Description	To A9 side of residential location at former station site			Height above ground	1.25 m			
GPS Coordinates	NN64450 BNG73353	Bearing to source	North East	Distance to source	50.00 m			
Vertical Refl. Surface(s)	None			Distance to surface	- m			
Sketch/ Photographs								
<b>Weather</b>								
Measured	0 - 1 m/s	Equipment Details: Silva Windwatch						
Estimated (Beaufort Scale)	Select:	Force	m/s	Description	Conditions			
	<input type="checkbox"/>	0	<0.3	Calm	Calm. Smoke rises vertically.			
	<input checked="" type="checkbox"/>	1	0.3-1.5	Light air	Wind motion visible in smoke.			
	<input type="checkbox"/>	2	1.5-3.3	Light breeze	Wind felt on exposed skin. Leaves rustle.			
	<input type="checkbox"/>	3	3.3-5.5	Gentle breeze	Leaves and smaller twigs in constant motion.			
	<input type="checkbox"/>	4	5.5-8.0	Moderate breeze	Dust and loose paper raised. Small branches begin to move.			
	<input type="checkbox"/>	5	8.0-10.8	Fresh breeze	Branches of a moderate size move. Small trees begin to sway.			
Wind Direction	Westerly	Conditions:	<input type="checkbox"/> Fog	<input type="checkbox"/> Frost	<input checked="" type="checkbox"/> Other: Cloud			
Temperature	10-16 °C		<input type="checkbox"/> Rain / Snow	<input type="checkbox"/> Sun				
<b>Measured Noise Levels</b>								
Location	Date	Time & Duration	L <sub>Aeq</sub>	L <sub>AMax</sub>	L <sub>AMin</sub>	L <sub>A90</sub>	L <sub>A10</sub>	Notes
Dalnaspidal Station	16/09/2014	10:10 - 3 hours	57.5	78.2	36.6	78.2	61.3	See Below
<b>General Observations</b>								
Road Traffic Noise on the A9, passage of passenger trains on the Highland Main Line, overflights by aircraft including low flying military aircraft and activities associated with the nearby estate.								



Noise Measurement Record

Reference: 495298.AA.02.02

Project		A9 Baseline Noise Assessment - Lot 1			Date	16-Sep-2014		
Measurement Location		Balsporran Cottage B&B			By	I Stanworth		
Source(s) Description		Road Traffic on A9 and noise from passage of trains on Highland Main Line						
<b>Equipment</b>								
Sound Level Meter	01dB Blue Solo	Serial No.	61046		Cal. Date	24-Jan-2014		
Microphone	01dB MCE212	Serial No.	142693		Cal. Date	24-Jan-2014		
Preamplifier	01dB Pre 21 S	Serial No.	16016		Cal. Date	24-Jan-2014		
Field Calibrator	Castle GA607	Serial No.	035748		Cal. Date	9-May-2014		
Initial Calibration Level	94.0dB @1000Hz	Correction	0.2dB		Date	16-Sep-2014	Time 09:50	
Final Calibration Level	94.0dB @1000Hz	Correction	0.2dB		Date	18-Sep-2014	Time 10:00	
<b>Measurement Location(s)</b>								
Description	B&B/Residential Location Near Drumochter Summit between A9 & Railway			Height above ground	1.25 m			
GPS Coordinates	NN62711 BNG79196		Bearing to source	East		Distance to source	130.00 m	
Vertical Refl. Surface(s)	None			Distance to surface	- m			
Sketch/ Photographs								
<b>Weather</b>								
<input type="checkbox"/> Measured	Equipment Details: Silva Windwatch							
<input type="checkbox"/> Estimated	Select:	Force	m/s	Description	Conditions			
(Beaufort Scale)	[ ]	0	<0.3	Calm	Calm. Smoke rises vertically.			
	[ ]	1	0.3-1.5	Light air	Wind motion visible in smoke.			
Based on observation of local weather reports and comments from resident	[X]	2	1.5-3.3	Light breeze	Wind felt on exposed skin. Leaves rustle.			
	[ ]	3	3.3-5.5	Gentle breeze	Leaves and smaller twigs in constant motion.			
	[ ]	4	5.5-8.0	Moderate breeze	Dust and loose paper raised. Small branches begin to move.			
	[ ]	5	8.0-10.8	Fresh breeze	Branches of a moderate size move. Small trees begin to sway.			
Wind Direction	Westerly		Conditions:	[ ] Fog	[ ] Frost	[X] Other:	Cloud	
Temperature	10.16 °C			[ ] Rain / Snow	[ ] Sun	Dazzle in last hour of measurement		
<b>Measured Noise Levels</b>								
Location	Date	Time & Duration	L <sub>Aeq</sub>	L <sub>AMax</sub>	L <sub>AMin</sub>	L <sub>A90</sub>	L <sub>A10</sub>	Notes
Balsporran B&B	16/09/2014	Daytime 0600 - 0000	57.4	87.6	27.4	43.1	59.6	See Below
	18/09/2014	Night-time 0000 - 0600	51.0	69.0	25.0	30.4	55.5	
<b>General Observations</b>								
Road Traffic Noise on the A9, passage of passenger and freight trains on the Highland Main Line, overflights by aircraft including low flying military aircraft and activities at the property. Last hour of measurements affected by light rain/dazzle which resulted in a damp road surface on the A9.								



Noise Measurement Record

Reference: 495298.AA.02.02

Project	A9 Baseline Noise Assessment - Lot 1			Date	16-Sep-2014			
Measurement Location	Drumochter Lodge			By	I Stanworth			
Source(s) Description	Road Traffic on A9 and noise from passage of trains on Highland Main Line							
<b>Equipment</b>								
Sound Level Meter	Castle Pro-DX Vocis M GA131		Serial No.	0062925	Cal. Date	9-May-2014		
Microphone	Castle 1/2"		Serial No.	1026	Cal. Date	9-May-2014		
Preamplifier	Castle MKDXP		Serial No.	5035	Cal. Date	9-May-2014		
Field Calibrator	Castle GA607		Serial No.	035748	Cal. Date	9-May-2014		
Initial Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	16-Sep-2014		
Final Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	16-Sep-2014		
<b>Measurement Location(s)</b>								
Description	To A9 side of building			Height above ground	1.25 m			
GPS Coordinates	NN63065 BNG79591	Bearing to source	West	Distance to source	55.00 m			
Vertical Refl. Surface(s)	None			Distance to surface	- m			
Sketch/ Photographs								
<b>Weather</b>								
<input type="checkbox"/> Measured	0 - 1 m/s	Equipment Details: Silva Windwatch						
<input type="checkbox"/> Estimated	(Beaufort Scale)	Select:	Force	m/s	Description	Conditions		
		<input type="checkbox"/>	0	<0.3	Calm	Calm. Smoke rises vertically.		
		<input checked="" type="checkbox"/>	1	0.3-1.5	Light air	Wind motion visible in smoke.		
		<input type="checkbox"/>	2	1.5-3.3	Light breeze	Wind felt on exposed skin. Leaves rustle.		
		<input type="checkbox"/>	3	3.3-5.5	Gentle breeze	Leaves and smaller twigs in constant motion.		
		<input type="checkbox"/>	4	5.5-8.0	Moderate breeze	Dust and loose paper raised. Small branches begin to move.		
		<input type="checkbox"/>	5	8.0-10.8	Fresh breeze	Branches of a moderate size move. Small trees begin to sway.		
Wind Direction	Westerly	Conditions:	<input type="checkbox"/> Fog	<input type="checkbox"/> Frost	<input checked="" type="checkbox"/> Other: Cloud			
Temperature	13.5-16°C		<input type="checkbox"/> Rain / Snow	<input type="checkbox"/> Sun				
<b>Measured Noise Levels</b>								
Location	Date	Time & Duration	L <sub>Aeq</sub>	L <sub>AMax</sub>	L <sub>AMin</sub>	L <sub>A90</sub>	L <sub>A10</sub>	Notes
Drumochter Lodge	16/09/2014	13:20 - 3 hours	58.8	81.4	37.8	44.8	63.6	See Below
<b>General Observations</b>								
Road Traffic Noise on the A9, passage of passenger and freight trains on the Highland Main Line, overflights by aircraft and activities associated with the measurement location, including the barking of dogs and the movement of vehicles within the car parking area..								



Noise Measurement Record

Reference: 495298.AA.03.02

Project	A9 Baseline Noise Assessment - Lot 1				Date	18-Sep-2014		
Measurement Location	Car Park of Former Loch Ericht Hotel				By	I Stanworth		
Source(s) Description	Road Traffic on A9 and local road as well as noise from passage of trains on Highland Main Line							
<b>Equipment</b>								
Sound Level Meter	Castle Pro-DX Vocis M GA131		Serial No.	0062925	Cal. Date	9-May-2014		
Microphone	Castle 1/2"		Serial No.	1026	Cal. Date	9-May-2014		
Preamplifier	Castle MKDXP		Serial No.	5035	Cal. Date	9-May-2014		
Field Calibrator	Castle GA607		Serial No.	035748	Cal. Date	9-May-2014		
Initial Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	18-Sep-2014		
Final Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	18-Sep-2014		
					Time	09:55		
					Time	16:20		
<b>Measurement Location(s)</b>								
Description	To A9 side of building on southern side of Dalwhinnie				Height above ground	1.25 m		
GPS Coordinates	NN63693 BNG84335	Bearing to source	East		Distance to source	380.00 m		
Vertical Refl. Surface(s)	None				Distance to surface	- m		
Sketch/ Photographs								
<b>Weather</b>								
<input type="checkbox"/> Measured	0 - 2.5 m/s	Equipment Details: Silva Windwatch						
<input type="checkbox"/> Estimated	(Beaufort Scale)	Select:	Force	m/s	Description	Conditions		
		<input type="checkbox"/>	0	<0.3	Calm	Calm. Smoke rises vertically.		
		<input type="checkbox"/>	1	0.3-1.5	Light air	Wind motion visible in smoke.		
		<input checked="" type="checkbox"/>	2	1.5-3.3	Light breeze	Wind felt on exposed skin. Leaves rustle.		
		<input type="checkbox"/>	3	3.3-5.5	Gentle breeze	Leaves and smaller twigs in constant motion.		
		<input type="checkbox"/>	4	5.5-8.0	Moderate breeze	Dust and loose paper raised. Small branches begin to move.		
		<input type="checkbox"/>	5	8.0-10.8	Fresh breeze	Branches of a moderate size move. Small trees begin to sway.		
Wind Direction	Southerly		Conditions:	<input type="checkbox"/> Fog	<input type="checkbox"/> Frost	<input checked="" type="checkbox"/> Other: Cloud		
Temperature	13.5-16°C			<input type="checkbox"/> Rain / Snow	<input type="checkbox"/> Sun	Occasional Light Drizzle		
<b>Measured Noise Levels</b>								
Location	Date	Time & Duration	L <sub>Aeq</sub>	L <sub>AMax</sub>	L <sub>AMin</sub>	L <sub>A90</sub>	L <sub>A10</sub>	Notes
Loch Ericht Hotel Car Park	18/09/2014	10:00 - 3 hours	50.6	73.3	43.4	45.0	52.8	See Below
<b>General Observations</b>								
Road Traffic Noise on the A9 and on the A889 running through Dalwhinnie, including traffic to and from the cafe that is operating in the former hotel. In addition sources include the passage of passenger trains on the Highland Main Line, overflights by aircraft and activities associated with the construction compound associated with the Beaully-Denny power line works which has been in place for several years.								



Noise Measurement Record

Reference: 495298.AA.03.02

Project	A9 Baseline Noise Assessment - Lot 1				Date	18-Sep-2014		
Measurement Location	2, Truim View, Dalwhinnie				By	I Stanworth		
Source(s) Description	Road Traffic on A9 and local road through Dalwhinnie together with noise from passage of trains on Highland Main Line							
<b>Equipment</b>								
Sound Level Meter	01dB Blue Solo	Serial No.	61046	Cal. Date	24-Jan-2014			
Microphone	01dB MCE212	Serial No.	142693	Cal. Date	24-Jan-2014			
Preamplifier	01dB Pre 21 S	Serial No.	16016	Cal. Date	24-Jan-2014			
Field Calibrator	Castle GA607	Serial No.	035748	Cal. Date	9-May-2014			
Initial Calibration Level	94.0dB @1000Hz	Correction	0.2dB	Date	18-Sep-2014	Time	10:10	
Final Calibration Level	94.0dB @1000Hz	Correction	0.2dB	Date	19-Sep-2014	Time	10:15	
<b>Measurement Location(s)</b>								
Description	Front garden of unoccupied holiday home with clear distant view of A9			Height above ground	1.25 m			
GPS Coordinates	NN63812 BNG84953	Bearing to source	East	Distance to source	420.00 m			
Vertical Refl. Surface(s)	None			Distance to surface	- m			
Sketch/ Photographs								
<b>Weather</b>								
<input type="checkbox"/> Measured	Equipment Details: Silva Windwatch							
<input type="checkbox"/> Estimated	<b>Select:</b>	<b>Force</b>	<b>m/s</b>	<b>Description</b>	<b>Conditions</b>			
(Beaufort Scale)	<input type="checkbox"/>	0	<0.3	Calm	Calm. Smoke rises vertically.			
	<input type="checkbox"/>	1	0.3-1.5	Light air	Wind motion visible in smoke.			
Based on observation of local weather reports	<input checked="" type="checkbox"/>	2	1.5-3.3	Light breeze	Wind felt on exposed skin. Leaves rustle.			
	<input type="checkbox"/>	3	3.3-5.5	Gentle breeze	Leaves and smaller twigs in constant motion.			
	<input type="checkbox"/>	4	5.5-8.0	Moderate breeze	Dust and loose paper raised. Small branches begin to move.			
	<input type="checkbox"/>	5	8.0-10.8	Fresh breeze	Branches of a moderate size move. Small trees begin to sway.			
Wind Direction	Westerly		Conditions:	<input type="checkbox"/> Fog	<input type="checkbox"/> Frost	<input checked="" type="checkbox"/> Other: Cloud		
Temperature	10-16 °C			<input type="checkbox"/> Rain / Snow	<input type="checkbox"/> Sun			
<b>Measured Noise Levels</b>								
<b>Location</b>	<b>Date</b>	<b>Time &amp; Duration</b>	<b>L<sub>Aeq</sub></b>	<b>L<sub>AMax</sub></b>	<b>L<sub>AMin</sub></b>	<b>L<sub>A90</sub></b>	<b>L<sub>A10</sub></b>	<b>Notes</b>
No 2, Truim View, Dalwhinnie	18/09/2014 - 19/09/2014	Daytime 0600 - 0000	46.0	72.3	23.1	35.0	47.9	See Below
		Night-time 0000 - 0600	38.6	59.0	23.4	27.1	42.3	
<b>General Observations</b>								
Conditions damp at the time of meter set-up through low cloud base, but road surfaces dry. Noise environment affected by road traffic noise from the A9 in the distance, the local road through Dalwhinnie (A889), together with noise from trains on the Highland Main Line and birdsong.								



Noise Measurement Record

Reference: 495298.AA.03.02

Project	A9 Baseline Noise Assessment - Lot 1			Date	19-Sep-2014			
Measurement Location	Willet Cottage, Cuaich, Dalwhinnie			By	I Stanworth			
Source(s) Description	Road Traffic on A9 and local activity together with noise from passage of trains on Highland Main Line							
<b>Equipment</b>								
Sound Level Meter	01dB Blue Solo	Serial No.	61046	Cal. Date	24-Jan-2014			
Microphone	01dB MCE212	Serial No.	142693	Cal. Date	24-Jan-2014			
Preamplifier	01dB Pre 21 S	Serial No.	16016	Cal. Date	24-Jan-2014			
Field Calibrator	Castle GA607	Serial No.	035748	Cal. Date	9-May-2014			
Initial Calibration Level	94.0dB @1000Hz	Correction	0.2dB	Date	19-Sep-2014			
Final Calibration Level	94.0dB @1000Hz	Correction	0.2dB	Date	20-Sep-2014			
				Time	10:20			
				Time	10:25			
<b>Measurement Location(s)</b>								
Description	Front fence line of estate workers cottage with clear view of elevated A9			Height above ground	1.25 m			
GPS Coordinates	NN65573, BNG87071	Bearing to source	East	Distance to source	98.00 m			
Vertical Refl. Surface(s)	None			Distance to surface	- m			
Sketch/ Photographs								
<b>Weather</b>								
<input type="checkbox"/> Measured	0 - 1 m/s	Equipment Details: Silva Windwatch						
<input type="checkbox"/> Estimated	(Beaufort Scale)	Select	Force	m/s	Description			
		<input type="checkbox"/>	0	<0.3	Calm			
		<input checked="" type="checkbox"/>	1	0.3-1.5	Light air			
		<input type="checkbox"/>	2	1.5-3.3	Light breeze			
		<input type="checkbox"/>	3	3.3-5.5	Gentle breeze			
		<input type="checkbox"/>	4	5.5-8.0	Moderate breeze			
		<input type="checkbox"/>	5	8.0-10.8	Fresh breeze			
Based on observation of local weather reports					Conditions			
					Calm. Smoke rises vertically.			
					Wind motion visible in smoke.			
					Wind felt on exposed skin. Leaves rustle.			
					Leaves and smaller twigs in constant motion.			
					Dust and loose paper raised. Small branches begin to move.			
					Branches of a moderate size move. Small trees begin to sway.			
Wind Direction	Westerly	Conditions:	<input type="checkbox"/> Fog	<input type="checkbox"/> Frost	<input checked="" type="checkbox"/> Other: Cloud			
Temperature	10-16 °C		<input type="checkbox"/> Rain / Snow	<input type="checkbox"/> Sun				
<b>Measured Noise Levels</b>								
Location	Date	Time & Duration	L <sub>Aeq</sub>	L <sub>AMax</sub>	L <sub>AMin</sub>	L <sub>A90</sub>	L <sub>A10</sub>	Notes
Willet Cottage, Cuaich, Dalwhinnie	19/09/2014 - 20/09/2014	Daytime 0600 - 0000	55.5	97.0	22.0	40.1	57.7	See Below
		Night-time 0000 - 0600	49.2	68.8	20.0	25.8	53.3	
<b>General Observations</b>								
Location affected by activities around residential location which are all tied to the local estate, including the keeping of working dogs and the dealing with game shot on estate, but A9 remains the dominant noise source at this location.								



Noise Measurement Record

Reference: 495298.AA.03.02

Project	A9 Baseline Noise Assessment - Lot 1					Date	18-Sep-2014		
Measurement Location	Crubenmore Lodge					By	I Stanworth		
Source(s) Description	Road Traffic on A9 and General Wade's Military Road as well as noise from passage of trains on Highland Main Line								
<b>Equipment</b>									
Sound Level Meter	Castle Pro-DX Vocis M GA131				Serial No.	0062925		Cal. Date	9-May-2014
Microphone	Castle 1/2"				Serial No.	1026		Cal. Date	9-May-2014
Preamplifier	Castle MKDXP				Serial No.	5035		Cal. Date	9-May-2014
Field Calibrator	Castle GA607				Serial No.	035748		Cal. Date	9-May-2014
Initial Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	18-Sep-2014		Time	09:55
Final Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	18-Sep-2014		Time	16:20
<b>Measurement Location(s)</b>									
Description	To A9 side of building on opposite side of Truim Valley					Height above ground	1.25 m		
GPS Coordinates	NN67513 BNG91014			Bearing to source	East		Distance to source	245.00 m	
Vertical Refl. Surface(s)	None					Distance to surface	- m		
Sketch/ Photographs									
<b>Weather</b>									
<input type="checkbox"/> Measured	0 - 1.8 m/s		<b>Equipment Details:</b> Silva Windwatch						
<input type="checkbox"/> Estimated (Beaufort Scale)	<b>Select:</b>	<b>Force</b>	<b>m/s</b>	<b>Description</b>	<b>Conditions</b>				
	<input type="checkbox"/>	0	<0.3	Calm	Calm. Smoke rises vertically.				
	<input type="checkbox"/>	1	0.3-1.5	Light air	Wind motion visible in smoke.				
	<input checked="" type="checkbox"/>	2	1.5-3.3	Light breeze	Wind felt on exposed skin. Leaves rustle.				
	<input type="checkbox"/>	3	3.3-5.5	Gentle breeze	Leaves and smaller twigs in constant motion.				
	<input type="checkbox"/>	4	5.5-8.0	Moderate breeze	Dust and loose paper raised. Small branches begin to move.				
	<input type="checkbox"/>	5	8.0-10.8	Fresh breeze	Branches of a moderate size move. Small trees begin to sway.				
Wind Direction	Westerly			Conditions:	<input type="checkbox"/> Fog	<input type="checkbox"/> Frost	<input checked="" type="checkbox"/> Other:	Cloud	
Temperature	13.5-16°C				<input type="checkbox"/> Rain / Snow	<input type="checkbox"/> Sun			
<b>Measured Noise Levels</b>									
<b>Location</b>	<b>Date</b>	<b>Time &amp; Duration</b>	<b>L<sub>Aeq</sub></b>	<b>L<sub>AMax</sub></b>	<b>L<sub>AMin</sub></b>	<b>L<sub>A90</sub></b>	<b>L<sub>A10</sub></b>	<b>Notes</b>	
Crubenmore Lodge	18/09/2014	13:15 - 3 hours	50.3	68.7	37.0	43.7	53.4	See Below	
<b>General Observations</b>									
Road Traffic Noise on the A9 and on General Wade's Military Road which runs past the measurement location. In addition sources include the passage of passenger and freight trains on the Highland Main Line, overflights by helicopters and activities associated occasional traffic movements to and from the measurement location.									



Noise Measurement Record

Reference: 495298.AA.04.02

Project	A9 Baseline Noise Assessment - Lot 1			Date	19-Sep-2014			
Measurement Location	Invernahavon Caravan Park			By	I Stanworth			
Source(s) Description	Local Road traffic and activities on site - very little noise from A9 audible							
<b>Equipment</b>								
Sound Level Meter	Castle Pro-DX Vocis M GA131	Serial No.	0062925	Cal. Date	9-May-2014			
Microphone	Castle 1/2"	Serial No.	1026	Cal. Date	9-May-2014			
Preamplifier	Castle MKDXP	Serial No.	5035	Cal. Date	9-May-2014			
Field Calibrator	Castle GA607	Serial No.	035748	Cal. Date	9-May-2014			
Initial Calibration Level	94.0dB @1000Hz	Correction	0.2dB	Date	19-Sep-2014			
Final Calibration Level	94.0dB @1000Hz	Correction	0.2dB	Date	19-Sep-2014			
				Time	10:00			
				Time	16:20			
<b>Measurement Location(s)</b>								
Description	Adjacent to Caravan Park Site Office			Height above ground	1.25 m			
GPS Coordinates	NN68851 BNG94972	Bearing to source	East	Distance to source	310.00 m			
Vertical Refl. Surface(s)	None			Distance to surface	- m			
Sketch/ Photographs								
<b>Weather</b>								
<input type="checkbox"/> Measured	0 - 1 m/s	Equipment Details: Silva Windwatch						
<input type="checkbox"/> Estimated (Beaufort Scale)	Select:	Force	m/s	Description	Conditions			
	<input type="checkbox"/>	0	<0.3	Calm	Calm. Smoke rises vertically.			
	<input checked="" type="checkbox"/>	1	0.3-1.5	Light air	Wind motion visible in smoke.			
	<input type="checkbox"/>	2	1.5-3.3	Light breeze	Wind felt on exposed skin. Leaves rustle.			
	<input type="checkbox"/>	3	3.3-5.5	Gentle breeze	Leaves and smaller twigs in constant motion.			
	<input type="checkbox"/>	4	5.5-8.0	Moderate breeze	Dust and loose paper raised. Small branches begin to move.			
	<input type="checkbox"/>	5	8.0-10.8	Fresh breeze	Branches of a moderate size move. Small trees begin to sway.			
Wind Direction	Westerly	Conditions: <input type="checkbox"/> Fog <input type="checkbox"/> Frost <input checked="" type="checkbox"/> Other: Cloud						
Temperature	14-16 °C	<input type="checkbox"/> Rain / Snow <input checked="" type="checkbox"/> Sun						
<b>Measured Noise Levels</b>								
Location	Date	Time & Duration	L <sub>Aeq</sub>	L <sub>AMax</sub>	L <sub>AMin</sub>	L <sub>A90</sub>	L <sub>A10</sub>	Notes
Invernahavon Caravan Park	19/09/2014	10:00 - 3 hours	44.7	78.5	39.3	40.5	47.0	See Below
<b>General Observations</b>								
Very Little noise from the A9 as the site is somewhat distant, and most of the major sources noted during the survey emanated from site activity such as the movement of cars and caravans on and off site, waste collection and grounds maintenance contractors. Other sources include the passage of trains on the Highland Main Line and overflying aircraft.								



Noise Measurement Record

Reference: 495298.AA.04.02

Project	A9 Baseline Noise Assessment - Lot 1					Date	23-Sep-2014		
Measurement Location	Griogchan / Ptamigan Lodge, Ralia					By	I Stanworth		
Source(s) Description	Road traffic on A9 and local road, movements on the Highland Main Line and overflight of military aircraft								
<b>Equipment</b>									
Sound Level Meter	Castle Pro-DX Vocis M GA131			Serial No.	0062925		Cal. Date	9-May-2014	
Microphone	Castle 1/2"			Serial No.	1026		Cal. Date	9-May-2014	
Preamplifier	Castle MKDXP			Serial No.	5035		Cal. Date	9-May-2014	
Field Calibrator	Castle GA607			Serial No.	035748		Cal. Date	9-May-2014	
Initial Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	23-Sep-2014		Time	09:55
Final Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	23-Sep-2014		Time	16:25
<b>Measurement Location(s)</b>									
Description	In parking area of residential lodge at Ralia/ Newtonmore junction					Height above ground	1.25 m		
GPS Coordinates	NN70467 BNG97075			Bearing to source	South		Distance to source	20.00 m	
Vertical Refl. Surface(s)	None					Distance to surface	- m		
Sketch/ Photographs									
<b>Weather</b>									
<input type="checkbox"/> Measured	0 - 2 m/s		Equipment Details: Silva Windwatch						
<input type="checkbox"/> Estimated (Beaufort Scale)	<b>Select:</b>	<b>Force</b>	<b>m/s</b>	<b>Description</b>	<b>Conditions</b>				
	<input type="checkbox"/>	0	<0.3	Calm	Calm. Smoke rises vertically.				
	<input type="checkbox"/>	1	0.3-1.5	Light air	Wind motion visible in smoke.				
	<input checked="" type="checkbox"/>	2	1.5-3.3	Light breeze	Wind felt on exposed skin. Leaves rustle.				
	<input type="checkbox"/>	3	3.3-5.5	Gentle breeze	Leaves and smaller twigs in constant motion.				
	<input type="checkbox"/>	4	5.5-8.0	Moderate breeze	Dust and loose paper raised. Small branches begin to move.				
	<input type="checkbox"/>	5	8.0-10.8	Fresh breeze	Branches of a moderate size move. Small trees begin to sway.				
Wind Direction	Westerly		Conditions: <input type="checkbox"/> Fog <input type="checkbox"/> Frost <input checked="" type="checkbox"/> Other: Cloud						
Temperature	9-12°C		<input type="checkbox"/> Rain / Snow <input type="checkbox"/> Sun						
<b>Measured Noise Levels</b>									
<b>Location</b>	<b>Date</b>	<b>Time &amp; Duration</b>	<b>L<sub>Aeq</sub></b>	<b>L<sub>AMax</sub></b>	<b>L<sub>AMin</sub></b>	<b>L<sub>A90</sub></b>	<b>L<sub>A10</sub></b>	<b>Notes</b>	
Ptamigan Lodge	23/09/2014	10:00 - 3 hours	61.3	99.3	32.4	39.8	60.4	See Below	
<b>General Observations</b>									
Noise from the A9 and the Newtonmore Road (B9150) junction predominates at this location, together with the passage of trains on the Highland Main Line, the overflight of aircraft at the location, collection of waste from the measurement location and some limited residential activity.									



Noise Measurement Record

Reference: 495298.AA.04.02

Project	A9 Baseline Noise Assessment - Lot 1			Date	19-Sep-2014			
Measurement Location	Upper Nuide			By	I Stanworth			
Source(s) Description	Road traffic on A9 and local road, domestic activity including grounds maintenance, shooting activities on nearby estate							
<b>Equipment</b>								
Sound Level Meter	Castle Pro-DX Vocis M GA131		Serial No.	0062925	Cal. Date	9-May-2014		
Microphone	Castle 1/2"		Serial No.	1026	Cal. Date	9-May-2014		
Preamplifier	Castle MKDXP		Serial No.	5035	Cal. Date	9-May-2014		
Field Calibrator	Castle GA607		Serial No.	035748	Cal. Date	9-May-2014		
Initial Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	19-Sep-2014		
Final Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	19-Sep-2014		
<b>Measurement Location(s)</b>								
Description	In garden of remote residential property			Height above ground	1.25 m			
GPS Coordinates	NN72837 BNG98471	Bearing to source	South	Distance to source	200.00 m			
Vertical Refl. Surface(s)	None			Distance to surface	- m			
Sketch/ Photographs								
<b>Weather</b>								
<input type="checkbox"/> Measured	0 - 1 m/s	Equipment Details: Silva Windwatch						
<input type="checkbox"/> Estimated	(Beaufort Scale)	Select:	Force	m/s	Description	Conditions		
		<input type="checkbox"/>	0	<0.3	Calm	Calm. Smoke rises vertically.		
		<input checked="" type="checkbox"/>	1	0.3-1.5	Light air	Wind motion visible in smoke.		
		<input type="checkbox"/>	2	1.5-3.3	Light breeze	Wind felt on exposed skin. Leaves rustle.		
		<input type="checkbox"/>	3	3.3-5.5	Gentle breeze	Leaves and smaller twigs in constant motion.		
		<input type="checkbox"/>	4	5.5-8.0	Moderate breeze	Dust and loose paper raised. Small branches begin to move.		
		<input type="checkbox"/>	5	8.0-10.8	Fresh breeze	Branches of a moderate size move. Small trees begin to sway.		
Wind Direction	Westerly		Conditions:			<input type="checkbox"/> Fog <input type="checkbox"/> Frost <input checked="" type="checkbox"/> Other: Cloud		
Temperature	16-20 °C		<input type="checkbox"/> Rain / Snow <input checked="" type="checkbox"/> Sun					
<b>Measured Noise Levels</b>								
Location	Date	Time & Duration	L <sub>Aeq</sub>	L <sub>AMax</sub>	L <sub>AMin</sub>	L <sub>A90</sub>	L <sub>A10</sub>	Notes
Upper Nuide	19/09/2014	13:20 - 3 hours	49.4	64.3	33.5	35.5	54.3	See Below
<b>General Observations</b>								
Noise from the A9 which is elevated at this location together with occasional traffic on the local road (unclassified with no name) and some domestic activity including gardening works. Large peak emanated part way through measurement for about 20 minutes from shooting activity from game estate on opposite site of A9.								



Noise Measurement Record

Reference: 495298.AA.04.02

Project	A9 Baseline Noise Assessment - Lot 1			Date	22-Sep-2014			
Measurement Location	The Spinney, Spey Street, Kingussie			By	I Stanworth			
Source(s) Description	Road Traffic on A9 and local activity and noise from passage of trains on Highland Main Line at the end of the garden							
<b>Equipment</b>								
Sound Level Meter	01dB Blue Solo	Serial No.	61046	Cal. Date	24-Jan-2014			
Microphone	01dB MCE212	Serial No.	142693	Cal. Date	24-Jan-2014			
Preamplifier	01dB Pre 21 S	Serial No.	16016	Cal. Date	24-Jan-2014			
Field Calibrator	Castle GA607	Serial No.	035748	Cal. Date	9-May-2014			
Initial Calibration Level	94.0dB @1000Hz	Correction	0.2dB	Date	22-Sep-2014			
Final Calibration Level	94.0dB @1000Hz	Correction	0.2dB	Date	23-Sep-2014			
<b>Measurement Location(s)</b>								
Description	Residential garden facing A9 with Highland Main Line at end of garden			Height above ground	1.25 m			
GPS Coordinates	NH75948, BNG00558	Bearing to source	South	Distance to source	500.00 m			
Vertical Refl. Surface(s)	None			Distance to surface	- m			
Sketch/ Photographs								
<b>Weather</b>								
<input type="checkbox"/> Measured	Equipment Details: Silva Windwatch							
<input type="checkbox"/> Estimated (Beaufort Scale)	<b>Select:</b>	<b>Force</b>	<b>m/s</b>	<b>Description</b>	<b>Conditions</b>			
	<input type="checkbox"/>	0	<0.3	Calm	Calm. Smoke rises vertically.			
	<input type="checkbox"/>	1	0.3-1.5	Light air	Wind motion visible in smoke.			
Based on observation of local weather reports	<input checked="" type="checkbox"/>	2	1.5-3.3	Light breeze	Wind felt on exposed skin. Leaves rustle.			
	<input type="checkbox"/>	3	3.3-5.5	Gentle breeze	Leaves and smaller twigs in constant motion.			
	<input type="checkbox"/>	4	5.5-8.0	Moderate breeze	Dust and loose paper raised. Small branches begin to move.			
	<input type="checkbox"/>	5	8.0-10.8	Fresh breeze	Branches of a moderate size move. Small trees begin to sway.			
Wind Direction	Westerly		Conditions:	<input type="checkbox"/> Fog	<input type="checkbox"/> Frost			
Temperature	10-16 °C			<input type="checkbox"/> Rain / Snow	<input type="checkbox"/> Sun			
[X] Other: Cloud Some light drizzle overnight								
<b>Measured Noise Levels</b>								
<b>Location</b>	<b>Date</b>	<b>Time &amp; Duration</b>	<b>L<sub>Aeq</sub></b>	<b>L<sub>AMax</sub></b>	<b>L<sub>AMin</sub></b>	<b>L<sub>A90</sub></b>	<b>L<sub>A10</sub></b>	<b>Notes</b>
The Spinney, Spey Street, Kingussie	22/09/2014 -	Daytime 0600 - 0000	50.3	82.0	24.9	36.8	47.8	See Below
	23/09/2014	Night-time 0000 - 0600	39.2	61.4	23.3	28.1	42.7	
<b>General Observations</b>								
Misty/hazy at the start of the measurement and light overnight rain - main sources appear to be from local traffic in Kingussie together with railwa traffic on the Highland Main Line, which adjoins the garden to the South. Some noise from the A9 was however apparent.								



Noise Measurement Record

Reference: 495298.AA.04.02

Project	A9 Baseline Noise Assessment - Lot 1			Date	22-Sep-2014			
Measurement Location	Ruthven Farmhouse			By	I Stanworth			
Source(s) Description	Road traffic on A9 and local road, agricultural activity and overflight of military aircraft							
<b>Equipment</b>								
Sound Level Meter	Castle Pro-DX Vocis M GA131	Serial No.	0062925	Cal. Date	9-May-2014			
Microphone	Castle 1/2"	Serial No.	1026	Cal. Date	9-May-2014			
Preamplifier	Castle MKDXP	Serial No.	5035	Cal. Date	9-May-2014			
Field Calibrator	Castle GA607	Serial No.	035748	Cal. Date	9-May-2014			
Initial Calibration Level	94.0dB @1000Hz	Correction	0.2dB	Date	22-Sep-2014			
Final Calibration Level	94.0dB @1000Hz	Correction	0.2dB	Date	22-Sep-2014			
				Time	09:55			
				Time	13:05			
<b>Measurement Location(s)</b>								
Description	In garden of residential property representative of group to South of A9			Height above ground	1.25 m			
GPS Coordinates	NH75924 BNG00628	Bearing to source	North	Distance to source	240.00 m			
Vertical Refl. Surface(s)	None			Distance to surface	- m			
Sketch/ Photographs								
<b>Weather</b>								
<input type="checkbox"/> Measured	0 - 1.9 m/s	Equipment Details: Silva Windwatch						
<input type="checkbox"/> Estimated	(Beaufort Scale)	Select:	Force	m/s	Description			
		<input type="checkbox"/>	0	<0.3	Calm			
		<input type="checkbox"/>	1	0.3-1.5	Light air			
		<input checked="" type="checkbox"/>	2	1.5-3.3	Light breeze			
		<input type="checkbox"/>	3	3.3-5.5	Gentle breeze			
		<input type="checkbox"/>	4	5.5-8.0	Moderate breeze			
		<input type="checkbox"/>	5	8.0-10.8	Fresh breeze			
Wind Direction	Westerly	Conditions:	<input type="checkbox"/> Fog	<input type="checkbox"/> Frost	<input checked="" type="checkbox"/> Other: Cloud			
Temperature	7-15 °C		<input type="checkbox"/> Rain / Snow	<input type="checkbox"/> Sun	Clearing to Sunshine			
<b>Measured Noise Levels</b>								
Location	Date	Time & Duration	L <sub>Aeq</sub>	L <sub>AMax</sub>	L <sub>AMin</sub>	L <sub>A90</sub>	L <sub>A10</sub>	Notes
Ruthven Farmhouse	22/09/2014	10:00 - 3 hours	50.9	75.1	36.1	41.8	55.3	See Below
<b>General Observations</b>								
Noise from the A9 which is at grade or in a slight cutting at this location together with occasional traffic on the local roads (B970 and an unclassified road with no name) and some agricultural activity including the use of bird-scarers or shotguns. Measurement also affected by overflight of military aircraft, which is a common occurrence.								



Noise Measurement Record

Reference: 495298.AA.04.02

Project	A9 Baseline Noise Assessment - Lot 1			Date	23-Sep-2014			
Measurement Location	Craig-An-Darach, Kingussie			By	I Stanworth			
Source(s) Description	Road Traffic on A9 and local traffic on A86 Kingussie to Spean Bridge road, together with noise from domestic activity							
<b>Equipment</b>								
Sound Level Meter	01dB Blue Solo	Serial No.	61046	Cal. Date	24-Jan-2014			
Microphone	01dB MCE212	Serial No.	142693	Cal. Date	24-Jan-2014			
Preamplifier	01dB Pre 21 S	Serial No.	16016	Cal. Date	24-Jan-2014			
Field Calibrator	Castle GA607	Serial No.	035748	Cal. Date	9-May-2014			
Initial Calibration Level	94.0dB @1000Hz	Correction	0.2dB	Date	23-Sep-2014			
Final Calibration Level	94.0dB @1000Hz	Correction	0.2dB	Date	24-Sep-2014			
<b>Measurement Location(s)</b>								
Description	Residential garden overlooking A9/A86 junction			Height above ground	1.25 m			
GPS Coordinates	NH76415, BNG00997	Bearing to source	South East	Distance to source	180.00 m			
Vertical Refl. Surface(s)	None			Distance to surface	- m			
Sketch/ Photographs								
<b>Weather</b>								
<input type="checkbox"/> Measured	Equipment Details: Silva Windwatch							
<input type="checkbox"/> Estimated	<b>Select:</b>	<b>Force</b>	<b>m/s</b>	<b>Description</b>	<b>Conditions</b>			
(Beaufort Scale)	[ ]	0	<0.3	Calm	Calm. Smoke rises vertically.			
	[ ]	1	0.3-1.5	Light air	Wind motion visible in smoke.			
Based on observation of local weather reports	[X]	2	1.5-3.3	Light breeze	Wind felt on exposed skin. Leaves rustle.			
	[ ]	3	3.3-5.5	Gentle breeze	Leaves and smaller twigs in constant motion.			
	[ ]	4	5.5-8.0	Moderate breeze	Dust and loose paper raised. Small branches begin to move.			
	[ ]	5	8.0-10.8	Fresh breeze	Branches of a moderate size move. Small trees begin to sway.			
Wind Direction	Westerly		Conditions:	[ ] Fog	[ ] Frost			
Temperature	10-16°C			[ ] Rain / Snow	[ ] Sun			
				[X] Other: Cloud	Some light drizzle overnight			
<b>Measured Noise Levels</b>								
Location	Date	Time & Duration	L <sub>Aeq</sub>	L <sub>AMax</sub>	L <sub>AMin</sub>	L <sub>A90</sub>	L <sub>A10</sub>	Notes
Craig-An-Darach, Kingussie	23/09/2014 - 24/09/2014	Daytime 0600 - 0000	52.0	79.3	18.7	40.4	54.6	See Below
		Night-time 0000 - 0600	45.9	64.4	18.7	25.9	50.2	
<b>General Observations</b>								
Location close to junction of A86 and A9 and road traffic dominates at this location, together with residential activity including chickens within smallholding and some DIY activity in shed building to rear of house and movements of residents car in and out of location. Some overnight rain but location largely dry throughout measurements.								



Noise Measurement Record

Reference: 495298.AA.04.02

Project	A9 Baseline Noise Assessment - Lot 1			Date	30-Sep-2014			
Measurement Location	Three Bridges, Lynchat, Kingussie			By	I Stanworth			
Source(s) Description	Road traffic on A9, movements on the Highland Main Line and activity around estate							
<b>Equipment</b>								
Sound Level Meter	Castle Pro-DX Vocis M GA131		Serial No.	0062925	Cal. Date	9-May-2014		
Microphone	Castle 1/2"		Serial No.	1026	Cal. Date	9-May-2014		
Preamplifier	Castle MKDXP		Serial No.	5035	Cal. Date	9-May-2014		
Field Calibrator	Castle GA607		Serial No.	035748	Cal. Date	9-May-2014		
Initial Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	30-Sep-2014		
Final Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	30-Sep-2014		
<b>Measurement Location(s)</b>								
Description	In garden between residential property and A9			Height above ground	1.25 m			
GPS Coordinates	NH77045 BNG01207	Bearing to source	North West	Distance to source	320.00 m			
Vertical Refl. Surface(s)	None			Distance to surface	- m			
Sketch/ Photographs								
<b>Weather</b>								
<input type="checkbox"/> Measured	0 - 3 m/s	Equipment Details: Silva Windwatch						
<input type="checkbox"/> Estimated (Beaufort Scale)	Select:	Force	m/s	Description	Conditions			
	[ ]	0	<0.3	Calm	Calm. Smoke rises vertically.			
	[ ]	1	0.3-1.5	Light air	Wind motion visible in smoke.			
	[X]	2	1.5-3.3	Light breeze	Wind felt on exposed skin. Leaves rustle.			
	[ ]	3	3.3-5.5	Gentle breeze	Leaves and smaller twigs in constant motion.			
	[ ]	4	5.5-8.0	Moderate breeze	Dust and loose paper raised. Small branches begin to move.			
	[ ]	5	8.0-10.8	Fresh breeze	Branches of a moderate size move. Small trees begin to sway.			
Wind Direction	Westerly	Conditions: [ ] Fog [ ] Frost [X] Other: Cloud						
Temperature	12-14 °C	[ ] Rain / Snow [X] Sun						
<b>Measured Noise Levels</b>								
Location	Date	Time & Duration	L <sub>Aeq</sub>	L <sub>AMax</sub>	L <sub>AMin</sub>	L <sub>A90</sub>	L <sub>A10</sub>	Notes
Three Bridges	30/09/2014	10:00 - 3 hours	53.2	76.3	41.7	47.5	57.3	See Below
<b>General Observations</b>								
Location elevated close to A9 junction at east end of Kingussie and affected by noise from elevated section that road together with local traffic on the B9152 Kingussie to Kincaig road. Also affected by passage of trains on Highland Main Line and overflight of aircraft in the area, together with residential activity at the beginning and end of the measurement period.								



Noise Measurement Record

Reference: 495298.AA.04.02

Project	A9 Baseline Noise Assessment - Lot 1			Date	30-Sep-2014																																	
Measurement Location	Kerrow Cottage, Kingussie			By	I Stanworth																																	
Source(s) Description	Road traffic on A9																																					
<b>Equipment</b>																																						
Sound Level Meter	Castle Pro-DX Vocis M GA131	Serial No.	0062925	Cal. Date	9-May-2014																																	
Microphone	Castle 1/2"	Serial No.	1026	Cal. Date	9-May-2014																																	
Preamplifier	Castle MKDXP	Serial No.	5035	Cal. Date	9-May-2014																																	
Field Calibrator	Castle GA607	Serial No.	035748	Cal. Date	9-May-2014																																	
Initial Calibration Level	94.0dB @1000Hz	Correction	0.2dB	Date	30-Sep-2014																																	
Final Calibration Level	94.0dB @1000Hz	Correction	0.2dB	Date	30-Sep-2014																																	
<b>Measurement Location(s)</b>																																						
Description	In open area between residential property and A9			Height above ground	1.25 m																																	
GPS Coordinates	NH76635 BNG01227	Bearing to source	East	Distance to source	55.00 m																																	
Vertical Refl. Surface(s)	None			Distance to surface	- m																																	
Sketch/ Photographs																																						
<b>Weather</b>																																						
<input type="checkbox"/> Measured	0 - 3 m/s	Equipment Details: Silva Windwatch																																				
<input type="checkbox"/> Estimated (Beaufort Scale)	<table border="1"> <thead> <tr> <th>Select:</th> <th>Force</th> <th>m/s</th> <th>Description</th> <th>Conditions</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/></td> <td>0</td> <td>&lt;0.3</td> <td>Calm</td> <td>Calm. Smoke rises vertically.</td> </tr> <tr> <td><input type="checkbox"/></td> <td>1</td> <td>0.3-1.5</td> <td>Light air</td> <td>Wind motion visible in smoke.</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>2</td> <td>1.5-3.3</td> <td>Light breeze</td> <td>Wind felt on exposed skin. Leaves rustle.</td> </tr> <tr> <td><input type="checkbox"/></td> <td>3</td> <td>3.3-5.5</td> <td>Gentle breeze</td> <td>Leaves and smaller twigs in constant motion.</td> </tr> <tr> <td><input type="checkbox"/></td> <td>4</td> <td>5.5-8.0</td> <td>Moderate breeze</td> <td>Dust and loose paper raised. Small branches begin to move.</td> </tr> <tr> <td><input type="checkbox"/></td> <td>5</td> <td>8.0-10.8</td> <td>Fresh breeze</td> <td>Branches of a moderate size move. Small trees begin to sway.</td> </tr> </tbody> </table>	Select:	Force	m/s	Description	Conditions	<input type="checkbox"/>	0	<0.3	Calm	Calm. Smoke rises vertically.	<input type="checkbox"/>	1	0.3-1.5	Light air	Wind motion visible in smoke.	<input checked="" type="checkbox"/>	2	1.5-3.3	Light breeze	Wind felt on exposed skin. Leaves rustle.	<input type="checkbox"/>	3	3.3-5.5	Gentle breeze	Leaves and smaller twigs in constant motion.	<input type="checkbox"/>	4	5.5-8.0	Moderate breeze	Dust and loose paper raised. Small branches begin to move.	<input type="checkbox"/>	5	8.0-10.8	Fresh breeze	Branches of a moderate size move. Small trees begin to sway.		
Select:	Force	m/s	Description	Conditions																																		
<input type="checkbox"/>	0	<0.3	Calm	Calm. Smoke rises vertically.																																		
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Wind Direction	Westerly	Conditions:	<input type="checkbox"/> Fog	<input type="checkbox"/> Frost	<input checked="" type="checkbox"/> Other: Cloud																																	
Temperature	12-14°C		<input type="checkbox"/> Rain / Snow	<input checked="" type="checkbox"/> Sun																																		
<b>Measured Noise Levels</b>																																						
Location	Date	Time & Duration	L <sub>Aeq</sub>	L <sub>AMax</sub>	L <sub>AMin</sub>	L <sub>A90</sub>	L <sub>A10</sub>	Notes																														
Kerrow Cottage	30/09/2014	13:15 - 3 hours	52.8	69.7	40.1	44.5	57.6	See Below																														
<b>General Observations</b>																																						
Isolated location on the eastern side of Kingussie. The main source was the A9, with occasional vehicle movements on the access road and in the immediate area, together with barking of working dogs in nearby pen.																																						



Noise Measurement Record

Reference: 495298.AA.04.02

Project	A9 Baseline Noise Assessment - Lot 1			Date	23-Sep-2014			
Measurement Location	End of Croila Road Kingussie			By	I Stanworth			
Source(s) Description	Road traffic on local road and A9 in distance, movements on the Highland Main Line and overflight of military aircraft							
<b>Equipment</b>								
Sound Level Meter	Castle Pro-DX Vocis M GA131	Serial No.	0062925	Cal. Date	9-May-2014			
Microphone	Castle 1/2"	Serial No.	1026	Cal. Date	9-May-2014			
Preamplifier	Castle MKDXP	Serial No.	5035	Cal. Date	9-May-2014			
Field Calibrator	Castle GA607	Serial No.	035748	Cal. Date	9-May-2014			
Initial Calibration Level	94.0dB @1000Hz	Correction	0.2dB	Date	23-Sep-2014			
Final Calibration Level	94.0dB @1000Hz	Correction	0.2dB	Date	23-Sep-2014			
<b>Measurement Location(s)</b>								
Description	In parkland area at the end of Croila Road overlooking A9			Height above ground	1.25 m			
GPS Coordinates	NH76321 BNG01156	Bearing to source	East	Distance to source	330.00 m			
Vertical Refl. Surface(s)	None			Distance to surface	m			
Sketch/ Photographs								
<b>Weather</b>								
<input type="checkbox"/> Measured	0 - 2 m/s	Equipment Details: Silva Windwatch						
<input type="checkbox"/> Estimated	(Beaufort Scale)	Select:	Force	m/s	Description			
		<input type="checkbox"/>	0	<0.3	Calm			
		<input type="checkbox"/>	1	0.3-1.5	Light air			
		<input checked="" type="checkbox"/>	2	1.5-3.3	Light breeze			
		<input type="checkbox"/>	3	3.3-5.5	Gentle breeze			
		<input type="checkbox"/>	4	5.5-8.0	Moderate breeze			
		<input type="checkbox"/>	5	8.0-10.8	Fresh breeze			
Conditions:	<input type="checkbox"/> Fog <input type="checkbox"/> Frost <input checked="" type="checkbox"/> Other: Cloud <input type="checkbox"/> Rain / Snow <input type="checkbox"/> Sun      Occasional light drizzle							
Wind Direction	Westerly		Conditions: <input type="checkbox"/> Fog <input type="checkbox"/> Frost <input checked="" type="checkbox"/> Other: Cloud					
Temperature	12-13°C		<input type="checkbox"/> Rain / Snow <input type="checkbox"/> Sun      Occasional light drizzle					
<b>Measured Noise Levels</b>								
Location	Date	Time & Duration	L <sub>Aeq</sub>	L <sub>AMax</sub>	L <sub>AMin</sub>	L <sub>A90</sub>	L <sub>A10</sub>	Notes
Croila Road	23/09/2014	13:20 - 3 hours	45.9	80.9	33.6	35.7	42.1	See Below
<b>General Observations</b>								
Location representative of a large number of properties on the Eastern side of Kingussie, elevated from the A9. Sources noted included local road traffic in the vicinity and distance traffic on the A9, together with the overflight of aircraft together with local residents using the open area used for the measurement to exercise their dogs.								



Noise Measurement Record

Reference: 495298.AA.04.02

Project	A9 Baseline Noise Assessment - Lot 1				Date	30-Sep-2014		
Measurement Location	Ard Dalle, Lynchat, Kingussie				By	I Stanworth		
Source(s) Description	Road Traffic on A9 and local traffic (B9152) through Lynchat, together with noise from domestic activity							
<b>Equipment</b>								
Sound Level Meter	01dB Blue Solo		Serial No.	61046	Cal. Date	24-Jan-2014		
Microphone	01dB MCE212		Serial No.	142693	Cal. Date	24-Jan-2014		
Preamplifier	01dB Pre 21 S		Serial No.	16016	Cal. Date	24-Jan-2014		
Field Calibrator	Castle GA607		Serial No.	035748	Cal. Date	9-May-2014		
Initial Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	30-Sep-2014	Time	09:45
Final Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	1-Oct-2014	Time	09:55
<b>Measurement Location(s)</b>								
Description	Bare development plot adjacent to 2 new properties close to A9				Height above ground	1.25 m		
GPS Coordinates	NH82237, BNG04734		Bearing to source	North	Distance to source	90.00 m		
Vertical Refl. Surface(s)	None				Distance to surface	- m		
Sketch/ Photographs								
<b>Weather</b>								
<input type="checkbox"/> Measured	Equipment Details: Silva Windwatch							
<input type="checkbox"/> Estimated (Beaufort Scale)	Select:	Force	m/s	Description	Conditions			
	<input type="checkbox"/>	0	<0.3	Calm	Calm. Smoke rises vertically.			
	<input checked="" type="checkbox"/>	1	0.3-1.5	Light air	Wind motion visible in smoke.			
Based on observation of local weather reports	<input checked="" type="checkbox"/>	2	1.5-3.3	Light breeze	Wind felt on exposed skin. Leaves rustle.			
	<input type="checkbox"/>	3	3.3-5.5	Gentle breeze	Leaves and smaller twigs in constant motion.			
	<input type="checkbox"/>	4	5.5-8.0	Moderate breeze	Dust and loose paper raised. Small branches begin to move.			
	<input type="checkbox"/>	5	8.0-10.8	Fresh breeze	Branches of a moderate size move. Small trees begin to sway.			
Wind Direction	Westerly		Conditions:	<input type="checkbox"/> Fog	<input type="checkbox"/> Frost	<input checked="" type="checkbox"/> Other: Cloud		
Temperature	6-16 °C			<input type="checkbox"/> Rain / Snow	<input type="checkbox"/> Sun			
<b>Measured Noise Levels</b>								
Location	Date	Time & Duration	L <sub>Aeq</sub>	L <sub>AMax</sub>	L <sub>AMin</sub>	L <sub>A90</sub>	L <sub>A10</sub>	Notes
Ard Dalle, Lynchat, Kingussie	30/09/2014 - 01/10/2014	Daytime 0600 - 0000	52.0	76.9	30.2	45.2	54.2	See Below
		Night-time 0000 - 0600	49.7	63.9	27.4	38.0	50.2	
<b>General Observations</b>								
Location close to A9 at new residential development area on the Western side of Lynchat. Road traffic dominates at this location, together with limited residential activity particularly from children after school periods.								



Noise Measurement Record

Reference: 495298.AA.04.02

Project	A9 Baseline Noise Assessment - Lot 1				Date	1-Oct-2014		
Measurement Location	Mains of Balavil, Kingussie				By	I Stanworth		
Source(s) Description	Road Traffic on A9 together with noise from Highland Main Line in distance and B9152							
<b>Equipment</b>								
Sound Level Meter	01dB Blue Solo	Serial No.	61046	Cal. Date	24-Jan-2014			
Microphone	01dB MCE212	Serial No.	142693	Cal. Date	24-Jan-2014			
Preamplifier	01dB Pre 21 S	Serial No.	16016	Cal. Date	24-Jan-2014			
Field Calibrator	Castle GA607	Serial No.	035748	Cal. Date	9-May-2014			
Initial Calibration Level	94.0dB @1000Hz	Correction	0.2dB	Date	1-Oct-2014	Time	10:05	
Final Calibration Level	94.0dB @1000Hz	Correction	0.2dB	Date	2-Oct-2014	Time	10:35	
<b>Measurement Location(s)</b>								
Description	Residential Property in old estate steading on Balavil Estate - close to A9			Height above ground	1.25 m			
GPS Coordinates	NH79025, BNG02279	Bearing to source	South	Distance to source	50.00 m			
Vertical Refl. Surface(s)	None			Distance to surface	- m			
Sketch/ Photographs								
<b>Weather</b>								
<input type="checkbox"/> Measured	Equipment Details: Silva Windwatch							
<input type="checkbox"/> Estimated	<b>Select:</b>	<b>Force</b>	<b>m/s</b>	<b>Description</b>	<b>Conditions</b>			
(Beaufort Scale)	<input type="checkbox"/>	0	<0.3	Calm	Calm. Smoke rises vertically.			
	<input checked="" type="checkbox"/>	1	0.3-1.5	Light air	Wind motion visible in smoke.			
Based on observation of local weather reports	<input type="checkbox"/>	2	1.5-3.3	Light breeze	Wind felt on exposed skin. Leaves rustle.			
	<input type="checkbox"/>	3	3.3-5.5	Gentle breeze	Leaves and smaller twigs in constant motion.			
	<input type="checkbox"/>	4	5.5-8.0	Moderate breeze	Dust and loose paper raised. Small branches begin to move.			
	<input type="checkbox"/>	5	8.0-10.8	Fresh breeze	Branches of a moderate size move. Small trees begin to sway.			
Wind Direction	Westerly		Conditions:	<input type="checkbox"/> Fog	<input type="checkbox"/> Frost	<input checked="" type="checkbox"/> Other: Cloud		
Temperature	10-14°C			<input type="checkbox"/> Rain / Snow	<input type="checkbox"/> Sun			
<b>Measured Noise Levels</b>								
<b>Location</b>	<b>Date</b>	<b>Time &amp; Duration</b>	<b>L<sub>Aeq</sub></b>	<b>L<sub>AMax</sub></b>	<b>L<sub>AMin</sub></b>	<b>L<sub>A90</sub></b>	<b>L<sub>A10</sub></b>	<b>Notes</b>
Mains of Balavil, Kingussie	02/10/2014 - 03/10/2014	Daytime 0600 - 0000	61.6	83.5	29.8	45.3	65.8	See Below
		Night-time 0000 - 0600	56.7	73.3	29.4	33.4	60.0	
<b>General Observations</b>								
Location close to A9 at old but occupied residential location in the estate steading for the Balavil Estate. This location is predominantly affected by road traffic noise on the A9, together with some contribution from the Highland Main Line and the B9152 Kingussie to Kincaig road.								





Noise Measurement Record

Reference: 495298.AA.04.02

Project	A9 Baseline Noise Assessment - Lot 1			Date	29-Sep-2014			
Measurement Location	Daunachton Lodge, Kincaig			By	I Stanworth			
Source(s) Description	Road traffic on A9, movements on the Highland Main Line and activity around estate							
<b>Equipment</b>								
Sound Level Meter	Castle Pro-DX Vocis M GA131		Serial No.	0062925	Cal. Date	9-May-2014		
Microphone	Castle 1/2"		Serial No.	1026	Cal. Date	9-May-2014		
Preamplifier	Castle MKDXP		Serial No.	5035	Cal. Date	9-May-2014		
Field Calibrator	Castle GA607		Serial No.	035748	Cal. Date	9-May-2014		
Initial Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	29-Sep-2014		
Final Calibration Level	94.0dB	@1000Hz	Correction	0.2dB	Date	29-Sep-2014		
<b>Measurement Location(s)</b>								
Description	On large garden between Dunachton Lodge house and A9			Height above ground	1.25 m			
GPS Coordinates	NH82237 BNG04734	Bearing to source	South East	Distance to source	110.00 m			
Vertical Refl. Surface(s)	None			Distance to surface	- m			
Sketch/ Photographs								
<b>Weather</b>								
<input type="checkbox"/> Measured	0 - 3 m/s	Equipment Details: Silva Windwatch						
<input type="checkbox"/> Estimated	(Beaufort Scale)	Select:	Force	m/s	Description	Conditions		
		<input type="checkbox"/>	0	<0.3	Calm	Calm. Smoke rises vertically.		
		<input type="checkbox"/>	1	0.3-1.5	Light air	Wind motion visible in smoke.		
		<input checked="" type="checkbox"/>	2	1.5-3.3	Light breeze	Wind felt on exposed skin. Leaves rustle.		
		<input type="checkbox"/>	3	3.3-5.5	Gentle breeze	Leaves and smaller twigs in constant motion.		
		<input type="checkbox"/>	4	5.5-8.0	Moderate breeze	Dust and loose paper raised. Small branches begin to move.		
		<input type="checkbox"/>	5	8.0-10.8	Fresh breeze	Branches of a moderate size move. Small trees begin to sway.		
Wind Direction	Westerly	Conditions: <input type="checkbox"/> Fog <input type="checkbox"/> Frost <input type="checkbox"/> Other:						
Temperature	15-18°C	<input type="checkbox"/> Rain / Snow <input checked="" type="checkbox"/> Sun						
<b>Measured Noise Levels</b>								
Location	Date	Time & Duration	L <sub>Aeq</sub>	L <sub>AMax</sub>	L <sub>AMin</sub>	L <sub>A90</sub>	L <sub>A10</sub>	Notes
Dunachton Lodge	29/09/2014	13:15 - 3 hours	55.1	67.2	37.1	45.5	59.4	See Below
<b>General Observations</b>								
Isolated location elevated from the A9 and with a clear line of sight to the road. The major noise source is the A9 throughout the measurement, with some activities around the measurement location including residents taking phone calls and the movement of vehicles on the gravel drive. In addition noise could be heard from the Highland Main Line and overflying aircraft.								



Noise Measurement Record

Reference: 495298.AA.04.02

Project	A9 Baseline Noise Assessment - Lot 1			Date	29-Sep-2014			
Measurement Location	Silverwood, Dunachton Road, Kincaig			By	I Stanworth			
Source(s) Description	Road Traffic on local road (B9152) and A9 which is more distant							
<b>Equipment</b>								
Sound Level Meter	01dB Blue Solo	Serial No.	61046	Cal. Date	24-Jan-2014			
Microphone	01dB MCE212	Serial No.	142693	Cal. Date	24-Jan-2014			
Preamplifier	01dB Pre 21 S	Serial No.	16016	Cal. Date	24-Jan-2014			
Field Calibrator	Castle GA607	Serial No.	035748	Cal. Date	9-May-2014			
Initial Calibration Level	94.0dB @1000Hz	Correction	0.2dB	Date	29-Sep-2014			
Final Calibration Level	94.0dB @1000Hz	Correction	0.2dB	Date	30-Sep-2014			
<b>Measurement Location(s)</b>								
Description	Residential garden overlooking B9152 and A9 which is somewhat more distant			Height above ground	1.25 m			
GPS Coordinates	NH82824, BNG05536	Bearing to source	North West	Distance to source	155.00 m			
Vertical Refl. Surface(s)	None			Distance to surface	- m			
Sketch/ Photographs								
<b>Weather</b>								
<input type="checkbox"/> Measured	Equipment Details: Silva Windwatch							
<input type="checkbox"/> Estimated	<b>Select:</b>	<b>Force</b>	<b>m/s</b>	<b>Description</b>	<b>Conditions</b>			
(Beaufort Scale)	[ ]	0	<0.3	Calm	Calm. Smoke rises vertically.			
	[ ]	1	0.3-1.5	Light air	Wind motion visible in smoke.			
Based on observation of local weather reports	[X]	2	1.5-3.3	Light breeze	Wind felt on exposed skin. Leaves rustle.			
	[ ]	3	3.3-5.5	Gentle breeze	Leaves and smaller twigs in constant motion.			
	[ ]	4	5.5-8.0	Moderate breeze	Dust and loose paper raised. Small branches begin to move.			
	[ ]	5	8.0-10.8	Fresh breeze	Branches of a moderate size move. Small trees begin to sway.			
Wind Direction	Westerly	Conditions:	[ ] Fog	[ ] Frost	[X] Other: Cloud			
Temperature	5-16 °C		[ ] Rain / Snow	[ ] Sun				
<b>Measured Noise Levels</b>								
Location	Date	Time & Duration	L <sub>Aeq</sub>	L <sub>AMax</sub>	L <sub>AMin</sub>	L <sub>A90</sub>	L <sub>A10</sub>	Notes
Silverwood, Dunachton Road, Kincaig	29/09/2014 - 30/09/2014	Daytime 0600 - 0000	55.5	78.0	21.7	42.8	58.9	See Below
		Night-time 0000 - 0600	49.1	68.2	21.1	25.3	53.1	
<b>General Observations</b>								
Location close to B9152 and road traffic dominates at this location, together with noise from a slightly more distant A9 which is slightly sheltered from the residential location by the intervening topography.								



Noise Measurement Record

Reference: 495298.AA.04.02

Project	A9 Baseline Noise Assessment - Lot 1			Date	23-Sep-2014
Measurement Location	Adjacent to property on Suidhe Crescent, Kincaig			By	I Stanworth
Source(s) Description	Road traffic on local road and A9 in distance, movements on the Highland Main Line and grounds maintenance work				
<b>Equipment</b>					
Sound Level Meter	Castle Pro-DX Vocis M GA131	Serial No.	0062925	Cal. Date	9-May-2014
Microphone	Castle 1/2"	Serial No.	1026	Cal. Date	9-May-2014
Preamplifier	Castle MKDXP	Serial No.	5035	Cal. Date	9-May-2014
Field Calibrator	Castle GA607	Serial No.	035748	Cal. Date	9-May-2014
Initial Calibration Level	94.0dB @1000Hz	Correction	0.2dB	Date	23-Sep-2014
Final Calibration Level	94.0dB @1000Hz	Correction	0.2dB	Date	23-Sep-2014
<b>Measurement Location(s)</b>					
Description	In parkland area adjacent to property on Suidhe Crescent, Kincaig			Height above ground	1.25 m
GPS Coordinates	NH83251 BNG06015	Bearing to source	North West	Distance to source	235.00 m
Vertical Refl. Surface(s)	None			Distance to surface	- m
Sketch/ Photographs					



<b>Weather</b>					
<input type="checkbox"/> Measured	0 - 2 m/s	Equipment Details: Silva Windwatch			
<input type="checkbox"/> Estimated	(Beaufort Scale)	Select:	Force	m/s	Description
		[ ]	0	<0.3	Calm
		[ ]	1	0.3-1.5	Light air
		[X]	2	1.5-3.3	Light breeze
		[ ]	3	3.3-5.5	Gentle breeze
		[ ]	4	5.5-8.0	Moderate breeze
		[ ]	5	8.0-10.8	Fresh breeze
Wind Direction	Westerly	Conditions:	[ ] Fog	[ ] Frost	[ ] Other:
Temperature	8-15°C		[ ] Rain / Snow	[X] Sun	

<b>Measured Noise Levels</b>								
Location	Date	Time & Duration	L <sub>Aeq</sub>	L <sub>AMax</sub>	L <sub>AMin</sub>	L <sub>A90</sub>	L <sub>A10</sub>	Notes
Suidhe Crescent	29/09/2014	10:00 - 3 hours	54.3	75.0	38.8	46.4	58.7	See Below

**General Observations**

Location representative of a large number of properties in the centre of Kincaig somewhat set down from the A9 and partially protected from it by intervening topography. Sources noted included local road traffic in the vicinity and distance traffic on the A9, together with the overflight of aircraft, passage of trains on the Highland Main Line and some grounds maintenance works on residential locations in the vicinity.



Noise Measurement Record

Reference: 495298.AA.04.02

Project	A9 Baseline Noise Assessment - Lot 1				Date	24-Sep-2014		
Measurement Location	The Old Manse, Kincaig				By	I Stanworth		
Source(s) Description	Road Traffic on A9 and local traffic (B9152), together with noise from domestic activity							
<b>Equipment</b>								
Sound Level Meter	01dB Blue Solo	Serial No.	61046	Cal. Date	24-Jan-2014			
Microphone	01dB MCE212	Serial No.	142693	Cal. Date	24-Jan-2014			
Preamplifier	01dB Pre 21 S	Serial No.	16016	Cal. Date	24-Jan-2014			
Field Calibrator	Castle GA607	Serial No.	035748	Cal. Date	9-May-2014			
Initial Calibration Level	94.0dB @1000Hz	Correction	0.2dB	Date	24-Sep-2014	Time	09:55	
Final Calibration Level	94.0dB @1000Hz	Correction	0.2dB	Date	26-Sep-2014	Time	10:30	
<b>Measurement Location(s)</b>								
Description	Residential garden overlooking A9 and sheltered from local road (B9152)			Height above ground	1.25 m			
GPS Coordinates	NH82237, BNG04734	Bearing to source	South East	Distance to source	90.00 m			
Vertical Refl. Surface(s)	None			Distance to surface	- m			
Sketch/ Photographs								
<b>Weather</b>								
<input type="checkbox"/> Measured	Equipment Details: Silva Windwatch							
<input type="checkbox"/> Estimated	<b>Select:</b>	<b>Force</b>	<b>m/s</b>	<b>Description</b>	<b>Conditions</b>			
(Beaufort Scale)	<input type="checkbox"/> 0	0	<0.3	Calm	Calm. Smoke rises vertically.			
	<input checked="" type="checkbox"/> 1	1	0.3-1.5	Light air	Wind motion visible in smoke.			
Based on observation of local weather reports	<input checked="" type="checkbox"/> 2	2	1.5-3.3	Light breeze	Wind felt on exposed skin. Leaves rustle.			
	<input checked="" type="checkbox"/> 3	3	3.3-5.5	Gentle breeze	Leaves and smaller twigs in constant motion.			
	<input type="checkbox"/> 4	4	5.5-8.0	Moderate breeze	Dust and loose paper raised. Small branches begin to move.			
	<input type="checkbox"/> 5	5	8.0-10.8	Fresh breeze	Branches of a moderate size move. Small trees begin to sway.			
Wind Direction	Westerly		Conditions:	<input type="checkbox"/> Fog	<input type="checkbox"/> Frost	<input checked="" type="checkbox"/> Other: Cloud		
Temperature	10-16 °C			<input type="checkbox"/> Rain / Snow	<input type="checkbox"/> Sun			
<b>Measured Noise Levels</b>								
<b>Location</b>	<b>Date</b>	<b>Time &amp; Duration</b>	<b>L<sub>Aeq</sub></b>	<b>L<sub>AMax</sub></b>	<b>L<sub>AMin</sub></b>	<b>L<sub>A90</sub></b>	<b>L<sub>A10</sub></b>	<b>Notes</b>
The Old Manse, Kincaig	24/09/2014 - 26/09/2014	Daytime 0600 - 0000	55.3	85.4	26.2	47.2	57.4	See Below
		Night-time 0000 - 0600	52.5	69.5	27.7	40.3	54.6	
<b>General Observations</b>								
Location close to A9 and road traffic dominates at this location, together with limited residential activity as part of the location is an unoccupied holiday home. A9 is in a slight cutting at this location, and there are some impacts from a nearby Primary School at various times of the day.								