The London Resort Development Consent Order

BC080001

Environmental Statement
Volume 2: Appendices

Appendix 15.1 – Baseline noise monitoring

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December 2020

Planning Act 2008
The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009
Regulation 5(2)(a)
The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017
Regulation 12(1)

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Appendix 15.1 Baseline Noise Monitoring Details

INTRODUCTION

15.1.1 This section outlines the survey data that has been collected and used within the London Resort Environmental Statement noise impact assessments. The following noise monitoring results are detailed:

- Kent Project Site noise survey data and baseline noise model;
- Essex Project Site noise survey data and baseline noise model;
- Local trainline and HS1 single event level (SEL) survey data;
- Thames Clipper boat measurements;
- CEMEX dredger noise survey; and
- Ride and attraction noise SEL and L_{Amax} data from a survey of the rides and attractions at Europa Park, Germany.

NOISE SURVEYS

Summary

Diagram 15.1.1 Noise survey monitoring locations around the London Resort.

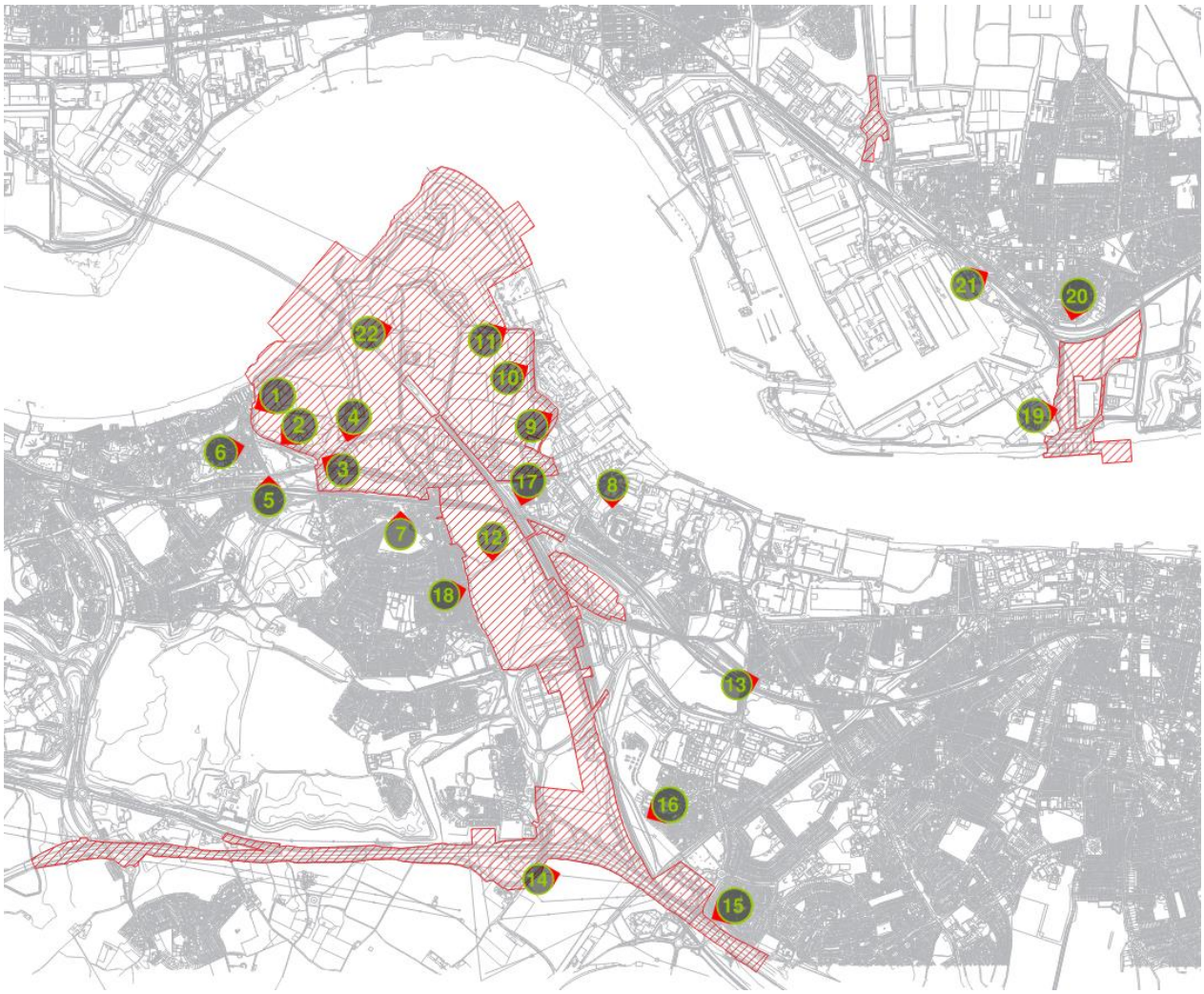


Table 15.1.1: Summary of the short-term daytime noise data collected around the Project Site between 2014 and 2020 (07:00-23:00)

ID	Monitoring Location	$L_{Aeq,15mins}$ dB	$L_{A90,15mins}$ dB	$L_{A10,15mins}$ dB
1	Stonely Crescent, Greenhithe; (51°27'16.9"N 0°17'40.8"E)	53	48	55
2	Tiltman Avenue, Greenhithe; (51°27'09.3"N 0°17'47.2"E)	62	49	62
3	Manor Way (Roundabout), Swanscombe; (51°27'06.2"N 0°18'00.9"E)	61	56	64
4	Manor Way (Whitecliff Park), Swanscombe; (51°27'09.8"N 0°18'11.5"E)	69	51	72
5	London Road (Lover's Lane), Greenhithe; (51°27'03.0"N 0°17'44.2"E)	71	59	74
6	24 Duncannon Place, Greenhithe; (51°27'10.8"N 0°17'38.3"E)	50	47	51
7	71 Pentstemon Drive, Swanscombe; (51°26'56.2"N 0°18'22.3"E)	53	49	55
8	79 Wallis Park Northfleet, Gravesend; (51°26'55.1"N 0°19'30.2"E)	54	50	55
9	Manor Way Northfleet, Gravesend; (51°27'13.7"N 0°19'13.4"E)	50	45	53
10	Manor Way Northfleet, Gravesend; (51°27'22.9"N 0°19'06.6"E)	50	43	52
11	Manor Way Northfleet, Gravesend; (51°27'30.3"N 0°19'00.4"E)	53	42	53
12	Located off the footpath adjacent to 98 Stanhope Road, Swanscombe; (51°26'44.7"N 0°18'51.6"E)	50	42	50
13	54 York Road, Gravesend; (51°26'25.2"N 0°20'17.3"E)	57	51	59
14	Farmland adjacent to the A2 motorway. Unpaved road off Foxhounds Lane, Gravesend; (51°25'34.8"N 0°19'18.6"E)	62	59	62
15	36 Roman Road, Gravesend; (51°25'33.0"N 0°20'00.9"E)	71	69	73
16	Marlowe Close, Gravesend; (51°25'56.0"N 0°19'36.7"E)	59	58	60
17	Robinson Way, Gravesend; (51°26'55.8"N 0°19'01.5"E)	56	45	56
18	Stanhope Road, Swanscombe; (51°26'40.3"N 0°18'44.1"E)	66	41	71
19	Tilbury; (51°27'11.1"N 0°21'48.8"E)	60	50	64
20	Hume Avenue, Tilbury; (51°27'28.1"N 0°21'53.8"E)	56	47	60
21	Nairn Court, Tilbury; (51°27'37.9"N 0°21'28.5"E)	61	50	64

Table 15.1.2: Summary of the long-term noise data collected at noise monitoring location ID 22 on the 6th March 2015 (shown in Diagram 15.1.1)

ID	Monitoring Location	Monitoring Period	$L_{Aeq,t}$ dB	$L_{Amax,t}$ dB	$L_{A90,t}$ dB
22	Swanscombe Marshes, Swanscombe; (51°27'45.6"N 0°18'40.6"E)	Weekday Day (07:00-23:00)	48	88	40
		Weekday Night (23:00-07:00)	44	79	36
		Weekend Day (07:00-23:00)	45	71	38
		Weekend Night (23:00-07:00)	44	65	35

Detailed Survey Results

Methodology

15.1.2 Noise monitoring surveys were undertaken progressively between December 2014 and October 2020 as proposals for the London Resort developed, in order to best determine the prevailing baseline noise levels surrounding the Resort and to identify noise sensitive receptors (NSRs).

15.1.3 The measurements were conducted between 0900- and 1700-hours on weekdays during school term-time using Class A sound level meters, which were calibrated before and after the measurements. No significant drift was observed.

15.1.4 The short-term surveys were conducted with the microphone positioned on a tripod and located approximately 1.5m above ground level.

15.1.5 The weather conditions during the noise surveys were within the limits of the environmental noise survey standard BS 7445-1:2003 Description and measurement of environmental noise. Guide to quantities and procedures. Measurements were taken during dry conditions with moderate temperatures between 10-26˚C and wind speeds up to 6m/s (occasional gust). Through the use of appropriate windshields and selection of monitoring positions, precautions were taken against weather and environmental factors affecting measurements and it is not considered that rain, wind or environmental electrical interference (e.g. overhead power lines) influenced readings.

Noise survey equipment

15.1.6 The following instrumentation was used during the London Resort noise surveys, in accordance with BS EN 61672-1:2013, BS EN 61672-2:2013+A1:2017, and BS 7445:2003.

Table 15.1.3 Summary of acoustic instrumentation used for the noise surveys

Instrumentation	Model No.	Serial Number
Sound Level Meter	Bruel & Kjaer 2250	3008216
	NL52EX	01265411

Instrumentation	Model No.	Serial Number
	BLUE SOLO 01dB	61193
	BLACK SOLO 01dB	60672
Preamplifier	Bruel & Kjaer ZC-0032	22669
	NH-25	65413
Acoustic Calibrator	CEL-284/2	3/01818662
	Bruel & Kjaer 4231	2438725

Measurement indices

15.1.7 The definition of the measurement indices shown within this appendix are as follows:

- **$L_{Aeq,T}$** – the average A-weighted sound pressure level within a measurement period (typically 5, or 15 minutes in this case). Typically thought of as the average ambient noise level at a particular time and likely to be due to a combination of various noise sources, near and far;

- **$L_{A90,T}$** – the A-weighted sound pressure level exceeded for 90% of the measurement period. i.e. a level which would be perceived as a constant, background noise level. Typically, this measurement parameter is largely unaffected by local traffic pass-bys or transient events. It is more usually attributable to constantly running building services plant or distant road traffic (e.g. what you would hear when there is no local traffic pass-bys present) or other readily-identifiable noise sources;

- **$L_{A10,T}$** – the A-weighted sound pressure level exceeded for 10% of the measurement period, i.e. a level which would be perceived as a higher portion of the levels at any particular time, typically determined by local traffic pass-bys or transient events. An example may be an emergency vehicle siren;

- **$L_{AF,max}$** – the maximum instantaneous A-weighted sound pressure level measured typically during a 15 minute time period. Typically corresponding to a short-duration event with a very high sound pressure level (SPL), for example, motorbike passing by, car horn etc.; and

- **SEL -** – the single event level is the sound level over one second which would have the same energy content as the whole event. The SEL can be used to calculate representative ambient ($L_{Aeq,T}$ dB(A)) noise levels over a time period, based on the number of events during that time.

Short-Term attended Kent and Essex Project Site measurements

Table 15.1.4 Summary of the short-term noise level data collected at noise monitoring locations.

Position	Date and Start Time	Duration (min)	L_{Amax} (dB)	L_{Aeq} (dB)	L_{A90} (dB)	Notes
1	10/03/20 12:10:52	10	65.2	52.0	47.9	• Local road traffic and occasional bus passes from Tiltman Avenue. • London Road audible as low-level background noise.
	10/03/20 14:00:29	10	73.9	52.8	48.3	
	10/03/20 15:44:43	10	69.2	54.6	47.6	
2	10/03/20 12:41:26	10	87.5	64.0	50.4	• London Road audible as background noise in this location. • Light audible construction work, data still considered representative of the residual environment with Tiltman avenue and London road traffic dominating noise measurement
	10/03/20 14:15:57	10	84.5	60.9	48.8	
	10/03/20 16:01:05	10	78.1	60.0	49.1	
3	10/03/20 13:00:34	10	76.6	61.8	55.4	• Lorry travelling along Manor Road consider to be the dominant LAmax noise source. • London Road provided the background noise at this location. • Audible construction noise considered to be representative of the environment and not the dominant noise source.
	10/03/20 14:56:27	10	71.9	59.3	55.6	
	10/03/20 16:13:36	10	74.4	61.8	56.2	
4	10/03/20 13:16:51	10	90.2	69.5	49.8	• Irregular, short and high decibel traffic noise. • Lorries traveling at high speeds along rough Manor Way road

Position	Date and Start Time	Duration (min)	L_{Amax} (dB)	L_{Aeq} (dB)	L_{A90} (dB)	Notes
	10/03/20 15:14:08	10	88.0	68.5	49.6	surface.
	10/03/20 16:26:42	10	91.4	69.0	52.8	
5	10/03/20 13:35:45	10	107.7	81.9	58.9	• London road traffic noise dominating measurement • Train noise only slightly audible
	10/03/20 15:30:43	10	85.3	71.3	60.6	
	10/03/20 16:40:53	10	81.7	69.5	59.0	
6	09/12/14 14:02:15	15	71.7	48.9	46.8	• Local road traffic noise from Duncannon Place. • Lightly audible building works noise.
	09/12/14 16:35:24	15	66.3	50.6	48.4	
	09/12/14 18:23:44	15	72.0	50.1	47.4	
7	09/12/14 14:27:26	15	70.2	53.1	50.9	• Local road traffic noise from Swanscombe High Street and A226. • Audible noise from Galley Hill Industrial Estate • Railway movement noise.
	09/12/14 16:59:23	15	68.4	52.5	49.6	
	09/12/14 18:48:51	15	69.9	52.9	48.5	
8	09/12/14 14:44:11	15	68.3	54.9	52.7	

Position	Date and Start Time	Duration (min)	L_{Amax} (dB)	L_{Aeq} (dB)	L_{A90} (dB)	Notes
	09/12/14 17:23:19	15	77.3	54.6	51.4	• Local road traffic noise from Wallis Park estate and A226 and Stonebridge Road. • Noise from residents.
	09/12/14 19:19:35	15	76.1	53.6	49.4	
9	23/07/15 13:59:30	15	73.0	51.6	47.1	• Activity from Britannia Metals site audible in the distance. • Noise from idling trucks nearby. • No noticeable noise from loading or unloading vehicles.
	23/07/15 15:10:02	15	66.1	50.2	43.3	
	23/07/15 15:27:05	15	61.9	47.9	43.4	
10	23/07/15 14:19:02	15	80.6	55.3	43.4	• Noise from passing vehicles is most obvious feature in the noise climate. • HS1 train noise audible.
	23/07/15 14:47:25	15	73.8	50.9	42.5	
	23/07/15 15:46:14	15	71.2	49.4	41.6	
11	23/07/15 16:07:13	15	80.8	52.5	44.0	• Noise of loading / unloading from the nearby builders' merchants is the most noticeable feature of the noise climate. • HS1 train noise audible.
	23/07/15 16:22:33	15	70.5	48.5	43.3	
	23/07/15 16:37:55	15	68.8	50.9	43.9	
12	05/03/15 14:17:51	15	69.3	52.4	41.7	• Rail noise from Ebbsfleet station trains. • Pedestrian noise on footpath.

Position	Date and Start Time	Duration (min)	L_{Amax} (dB)	L_{Aeq} (dB)	L_{A90} (dB)	Notes
	05/03/15 17:06:45	15	69.1	48.3	46.0	• Low level road traffic noise from Stanhope Road.
13	09/12/14 14:59:48	15	94.1	66.4	54.2	• Local road traffic noise from York Road and Springhead Road. • Noise from idle cars and children playing in street.
	09/12/14 17:44:33	15	76.1	57.4	52.2	
	09/12/14 19:39:47	15	79.6	57.9	50.5	
14	05/03/15 14:56	15	71.7	61.1	59.3	• Noise dominated exclusively by A2(T).
	05/03/15 15:11	15	62.9	61.7	61.1	
15	09/12/14 18:07	15	75.5	72.3	70.7	• Noise dominated exclusively by A2(T)
	09/12/14 20:02	15	80.9	70.9	68.7	
16	01/10/20 16:48	15	69.1	59.9	58.2	• Background noise dominated exclusively by A2(T) • No operation of vehicles in car park during measurements
	01/10/20 17:04	15	59.7	58.5	57.8	
17	01/10/20 15:54	15	71.3	53.5	45.3	• Background noise created from London Road • Up to 3 train passes per 15minute measurement ranging from local train passing over nearby bridge, to the HS1 train movements.
	01/10/20 16:12	15	77.9	57.8	46.1	

Position	Date and Start Time	Duration (min)	L_{Amax} (dB)	L_{Aeq} (dB)	L_{A90} (dB)	Notes
18	01/10/20 14:58	15	95.3	68.9	47.8	• Stanhope road is subjectively the main source of audible noise • Children walking from school in groups created high L_{AMax} value in first measurement. • Measurements taken 2.5m from the centre of the road • Neither trains nor London Road are audible from this position
	01/10/20 15:14	15	79.5	65.6	43.5	
	01/10/20 15:29	15	76.6	64.6	40.5	
19	01/10/20 11:02	15	73.2	58.1	49.8	• Noise climate dictated by the industrial noise in the nearby port. (Beeping and banging sounds present in the port activities). • Route for lorries moving goods to and from port
	01/10/20 11:18	15	78.1	60.5	50.7	
	01/10/20 14:03	15	76.3	61.0	49.8	
20	01/10/20 12:57	15	72.4	57.5	48.1	• Noise climate contributions from the A1089 (route for lorries travelling to and from port) and shipping container industrial work in the port (very high noise levels) • Approximately 2 local train passes every 30 minutes (and route for freight train). • Traffic on dock road not noticeably audible from this location
	01/10/20 13:21	15	72.6	54.7	46.5	
	01/10/20 13:52	15	79.9	56.7	48.3	
21	01/10/20 11:48	15	79.9	63.3	54.5	• Local businesses involve construction / scrap yard work, creating additional industrial noise sources. • Background noise climate largely set from port activities. • Minimal traffic movements along dock road contributing to sound pressure level measurements in this location
	01/10/20 12:03	15	74.4	59.3	50.1	
	01/10/20 12:22	15	77.7	60.5	51.5	

Baseline CadnaA acoustic noise models

15.1.8 The following diagrams illustrate the calibrated Kent and Essex Project Site baseline noise models. These were calibrated using road traffic prediction data from the Projects transport consultant and the measured survey data in Table 15.1.4.

Diagram 15.1.2: Baseline CadnaA acoustic noise model, illustrating the existing L_{A10} noise climate around the Kent Project Site

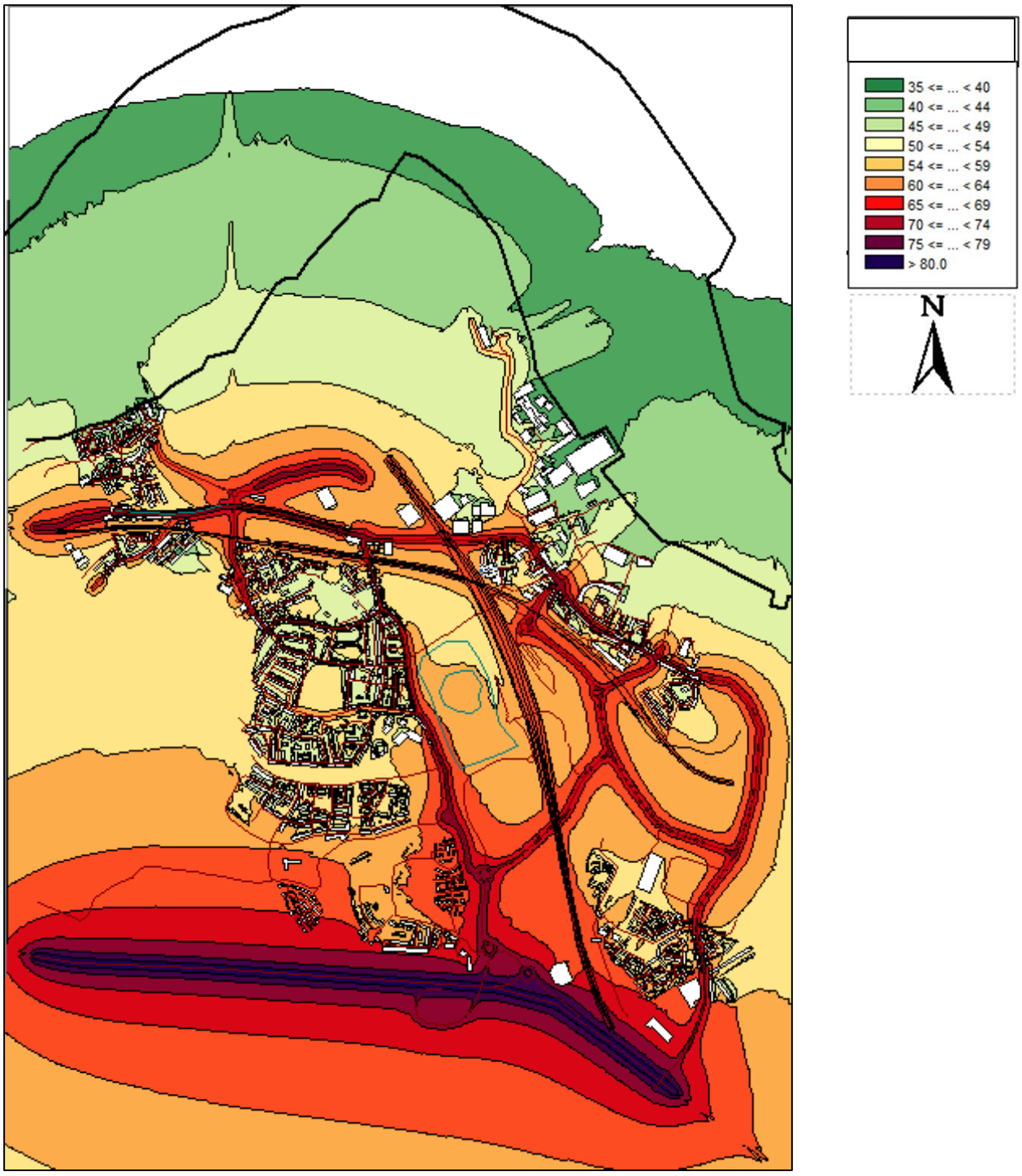
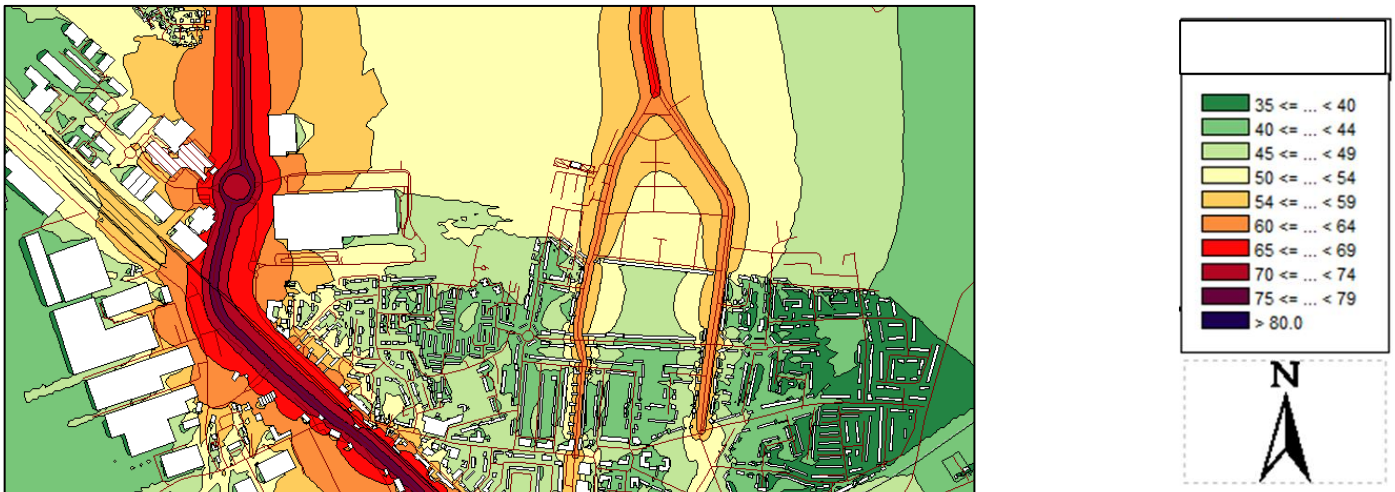


Diagram 15.1.3: Baseline CadnaA acoustic noise model, illustrating the existing L_{A10} noise climate around the Essex Project Site



Local and HS1 train measurements

15.1.9 Single event level (SEL) measurements were taken for local and HS1 trains operating around the Kent and Essex Project Sites. The recorded data used to calibrate the acoustic CadnaA models is provided below.

Diagram 15.1.4: Kent Project Site rail SEL noise survey location, 25 metres from nearside Ebbsfleet Station trainline. Noise surveys conducted 5th June 2015 and 1st October 2020.
[Google Maps image source reference: ©2020 Google; Imagery ©2020 Bluesky; Getmapping plc; Infoterra Ltd & Bluesky; Maxar Technologies, The Geoinformation Group, Mapdata ©2020]

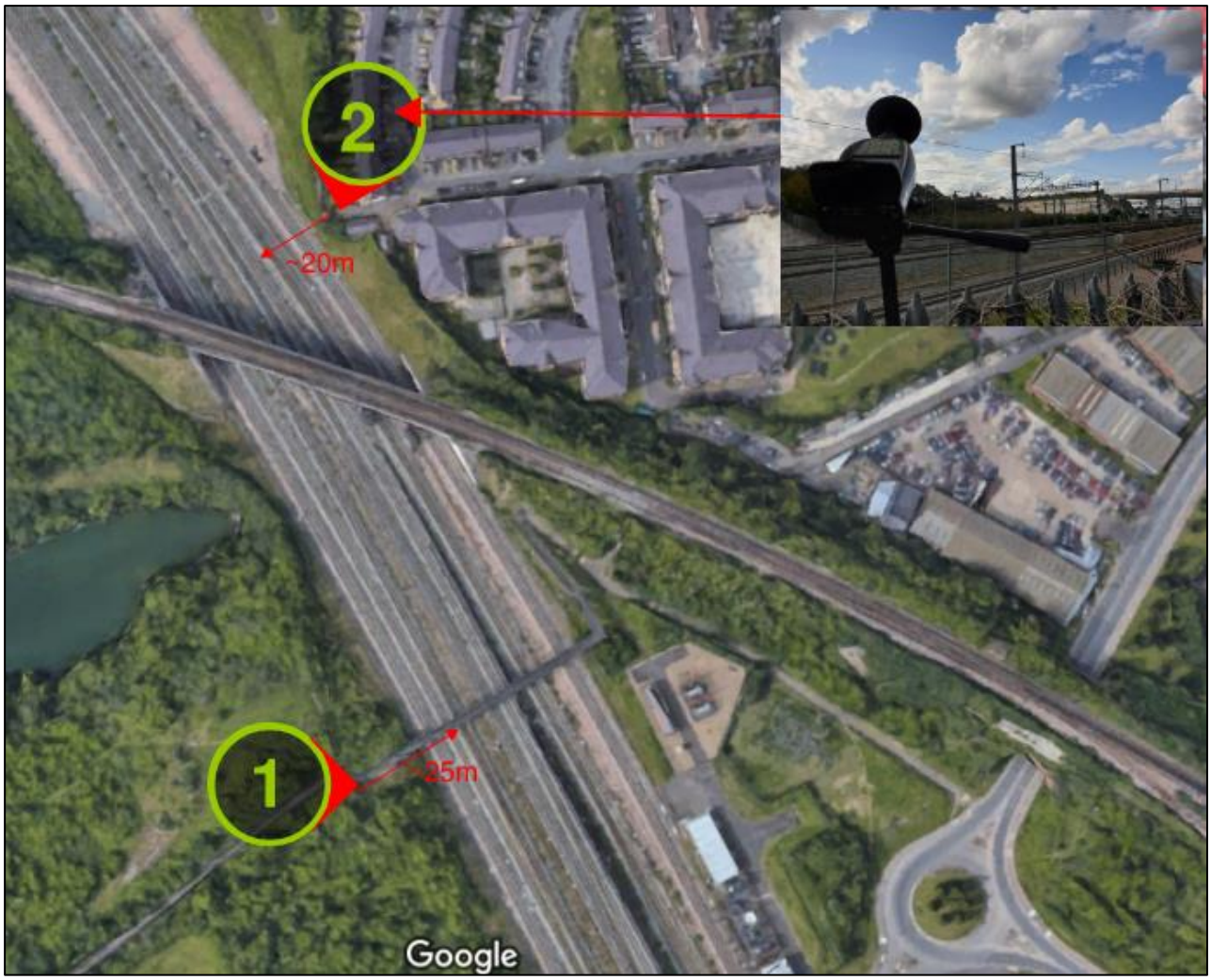


Diagram 15.1.5: Essex Project Site rail SEL noise survey location, 15 metres from the local Tilbury Town trainline services. Noise survey conducted 1st October 2020.
[Google Maps image source reference: ©2020 Google; Imagery ©2020 Bluesky; Getmapping plc; Infoterra Ltd & Bluesky; Maxar Technologies, The Geoinformation Group, Mapdata ©2020]

Table 15.1.5 Summary of SEL measurements collected in the Kent and Essex Project Sites

Monitoring Location	Train Movement Scenario	Measurement Distance from trainline - m	SEL – dB(A)
Kent Project Site (Location 1 Diagram 15.1.2.); Collected 05/03/2015	HS1 train stopping at Ebbsfleet International station.	25	70
			68
	HS1 train bypassing the Ebbsfleet International station stop.		79
			82
Kent Project Site (Location 2 Diagram 15.1.2.); Collected 01/10/2020	HS1 train bypassing the Ebbsfleet International station stop.	20	77
Essex Project Site	Local Tilbury Town Train Service	10	82

(Location 3 Diagram 15.1.3.); Collected 01/10/2020		10	84
		10	83

Thames Clipper Boat measurements

15.1.10 A noise survey was conducted on the 24th June in Central London with the purpose of identifying the noise emissions associated with a Thames Clipper boat, arriving, docking and departing at an existing pier.

15.1.11 The measured noise emission levels have been superimposed onto the London Resort CadnaA noise model. The purpose is to evaluate the potential noise impact due to the London Resort boat transport link between the Kent and Essex Project Sites.

Diagram 15.1.6: Photograph of the Thames Clipper boat measurement location

15.1.12 The noise measurements captured various acoustic parameters to assess the different noise sources / events associated with the operation of these kinds of vessels. The following key noise sources were noted on-site during the survey:

- Boat arrival – subjectively quiet;
- Boat docking – subjectively quiet;
- Ramp operation – metal ramp hitting hard surface;
- Horn before departure; and,
- Boat departure – engine noise.

15.1.13 The noise levels associated with the boat arrival were noted to be significantly lower than those associated with its departure. On this basis, these measurements have been discounted for the purpose of assessing the worst-case.

Table 15.1.6 Boat departure SEL – measured approximately 70m from the source

Measurement Description	Sound level (dB) at octave-band centre frequencies (Hz)								Broadband – dB(A)
	63	125	250	500	1000	2000	4000	8000	
SEL	81	83	74	70	66	62	57	50	73

Table 15.1.7 Boat passing (non-stop) SEL – measured approximately 80-90m from the source

Measurement Description	Sound level (dB) at octave-band centre frequencies (Hz)								Broadband – dB(A)
	63	125	250	500	1000	2000	4000	8000	
SEL	78	77	75	72	67	58	49	39	73

Table 15.1.8 Ramp operation – $L_{AF,max}$ noise event

Measurement Description	Sound level (dB) at octave-band centre frequencies (Hz)								Broadband – dB(A)
	63	125	250	500	1000	2000	4000	8000	
$L_{AF,max}$	66	63	58	59	59	59	55	45	64

Table 15.1.9 Boat horn prior to departure – $L_{AF,max}$ noise event

Measurement Description	Sound level (dB) at octave-band centre frequencies (Hz)								Broadband – dB(A)
	63	125	250	500	1000	2000	4000	8000	
$L_{AF,max}$	64	57	50	73	68	55	45	34	72

15.1.14 The noise survey of the Thames Clipper boat identified the loudest noise event to be the passing of the boats (opposed to stopping events around the pier with lower power engine noise levels). At the pier, maximum noise events from ramp operation and boat horn noise, were also not considered to be significant against the noise from boat passing the site.

CEMEX dredger noise survey

15.1.15 A noise survey was conducted on the 20th March 2020 with the purpose of identifying the noise emissions associated with the arrival and unloading activity of a dredger on the Thames.

15.1.16 The dredger was measured at an approximate distance of 580 metres.

15.1.17 It was noted that the period in which the highest noise levels were emitted by the dredger was during the arrival of the vessel. After this event, noise levels associated with

the unloading of the dredger were lower as the diesel engine, considered to be the primary noise source, powers down. The highest, arrival noise levels have therefore been adopted in the modelling for the purposes of assessing the potential noise impact of the existing CEMEX dredgers at the Kent Project Site. The measured dredger noise spectrum is provided in Table 15.1.10.

Table 15.1.10 Measurement results of dredger noise

Measurement Description	Sound level (dB) at octave-band centre frequencies (Hz)							Broadband – dB(A)
	63	125	250	500	1000	2000	4000	
$L_{eq,25mins(08:25-08:50)}$	75	67	64	62	58	56	53	64
$L_{max,f}$	90	84	82	79	78	74	69	82

Europa Park, noise survey of theme park rides

15.1.18 As there is little published noise source data applicable to the Proposed Development, a noise survey was undertaken at a European theme park taken to be representative of the London Resort. The purpose of the survey was to use noise data measured around key visitor attractions to construct an acoustic model for London Resort proposals.

15.1.19 The noise survey at Europa Park was undertaken by two Buro Happold staff on Saturday 18th and Sunday 19th October 2014.

15.1.20 SEL and $L_{Af,max}$ noise indices were collected to capture the worst-case noise levels produced by the passing of roller-coaster cars, mechanical clanking noise as the cars are pulled to a rides apex and the shouts and screams of visitors on the rides.

15.1.21 Noise levels were measured at the following locations (zones of the Europa Park) shown in Diagram 15.1.5:

- Location 1: Wodan – Timbercoaster (Iceland)
- Location 2: Blue Fire Megacoaster (Iceland)
- Location 3: Family Rollercoaster Pegasus (Greece)
- Location 4: Water Roller Coaster Poseidon (Greece)
- Location 5: Silver Star (France)
- Location 6: Euro-Mir (Russia)
- Location 7: Atlantica SuperSplash (Portugal)
- Location 8: Vindjammer

- Location 9: Western site boundary
- Location 10: Eastern site boundary

Diagram 15.1.7: Noise Survey Locations (Source: Europa Park Website, 2014).

Diagram 15.1.8: Location 1 Noise monitoring positions and measurement results (Source: Europa Park Website, 2014).

Measurement position	L_{Amax} dB(A)	SEL dB(A)
1.1	105.3	102.9
1.2	89.1	91.3
1.3	93.3	92.6
1.4	98.8	98.4
1.5	89.3	92.0
1.6	90.4	84.6

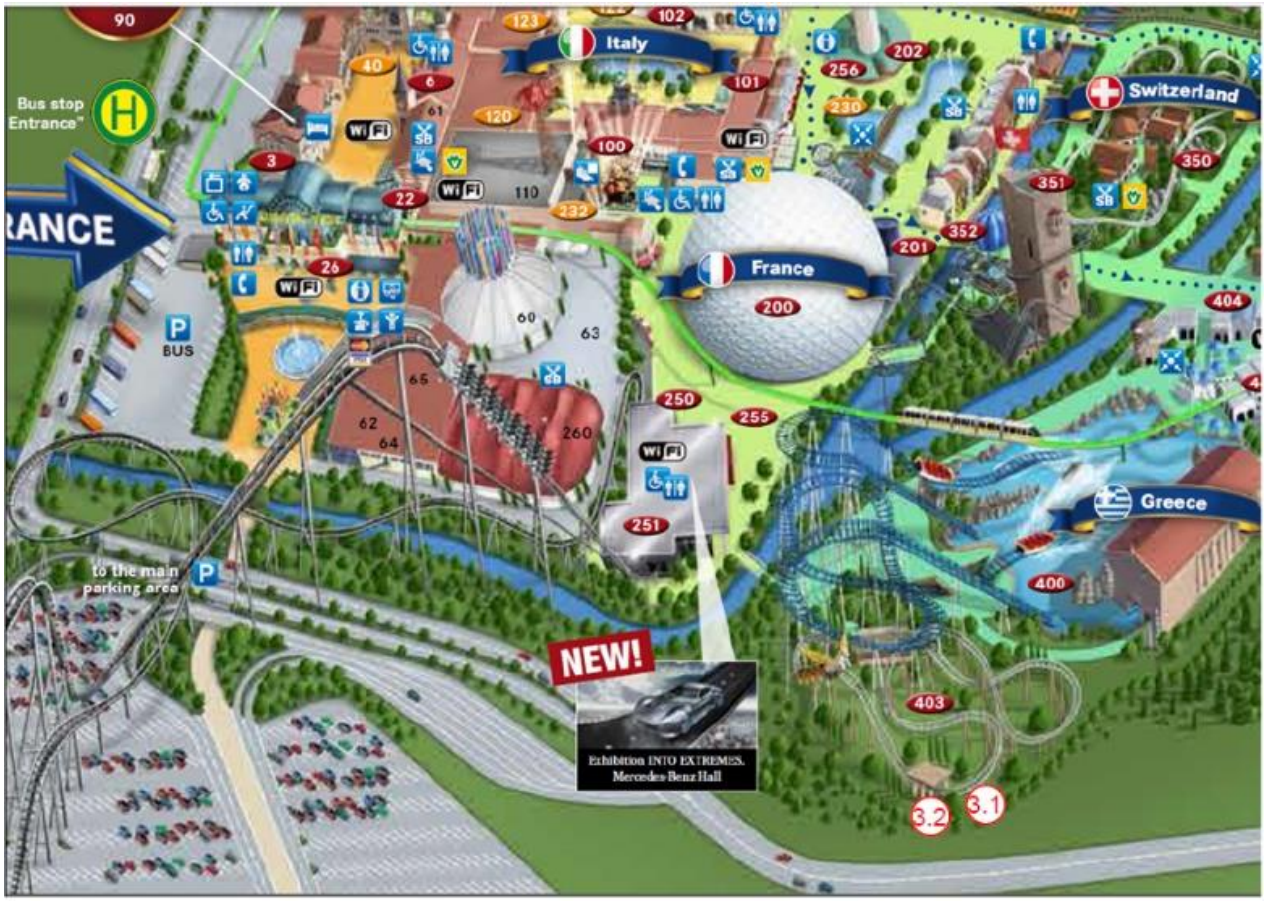
Location 2 Ride Noise Measurements

Diagram 15.1.9: Location 2 Noise monitoring positions and measurement results (Source: Europa Park Website, 2014).

Measurement position	L_{Amax} dB(A)	SEL dB(A)
2.1	83.7	88.1
2.2	84.7	86.6
2.3	88.7	90.0
2.4	99.5	96.0

Location 3 Ride Noise Measurements

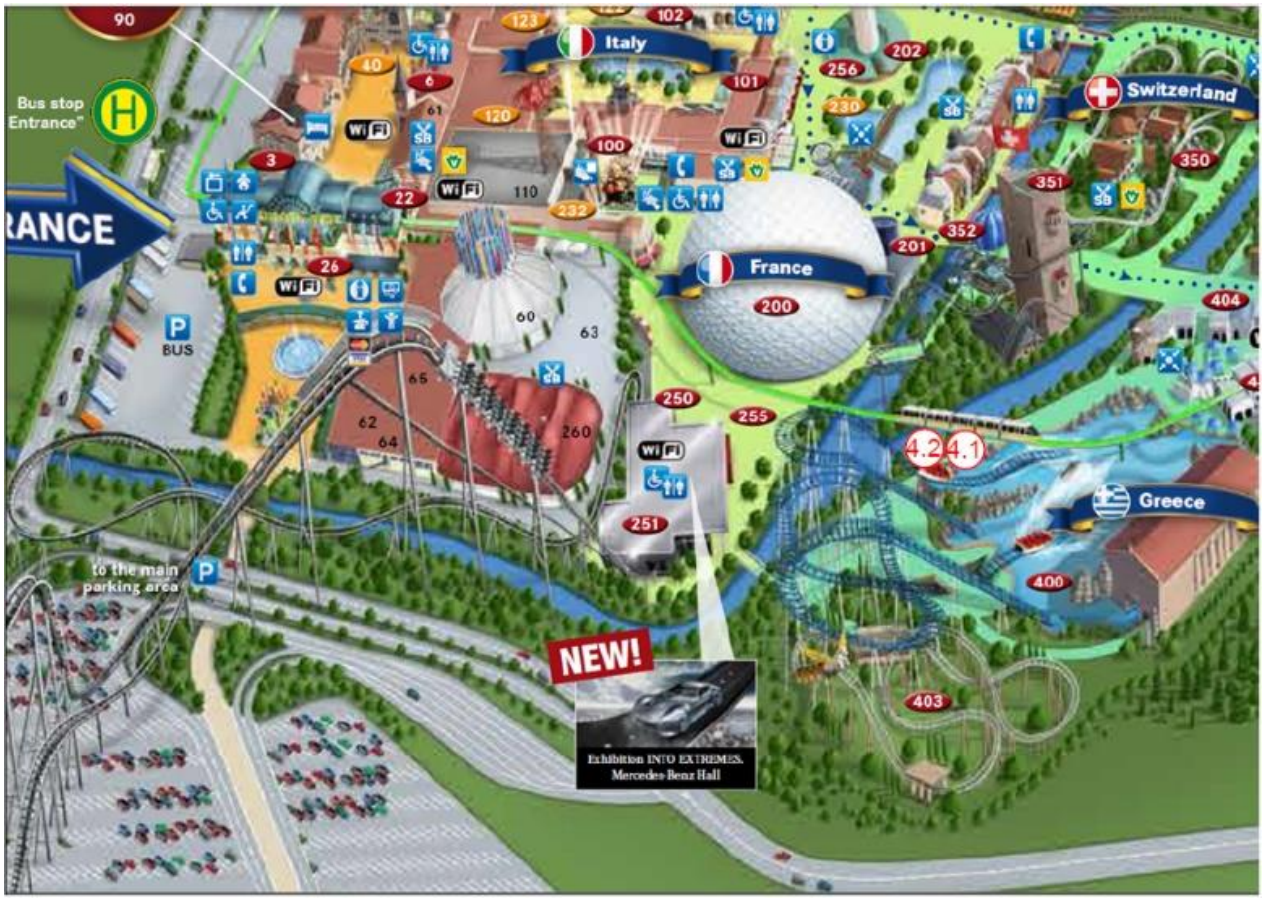
Diagram 15.1.10: Location 3 Noise monitoring positions and measurement results (Source: Europa Park Website, 2014).



Measurement position	L_{Amax} dB(A)	SEL dB(A)
3.1	87.5	89.4
3.2	98.1	93.6

Location 4 Ride Noise Measurements

Diagram 15.1.11: Location 4 Noise monitoring positions and measurement results (Source: Europa Park Website, 2014).



Measurement position	L_{Amax} dB(A)	SEL dB(A)
4.1	92.0	89.6
4.2	95.4	92.5

Location 5 Ride Noise Measurements

Diagram 15.1.12: Location 5 Noise monitoring positions and measurement results (Source: Europa Park Website, 2014).

Measurement position	L_{Amax} dB(A)	SEL dB(A)
5.1	92.8	92.9
5.2	79.4	85.3
5.3	79.3	81.5
5.4	91.3	92.0

Location 6 Ride Noise Measurements

Diagram 15.1.13: Location 6 Noise monitoring positions and measurement results (Source: Europa Park Website, 2014).

Measurement position	L_{Amax} dB(A)	SEL dB(A)
6.1	85.1	87.7
6.2	90.3	95.1

Location 7 Ride Noise Measurements

Diagram 15.1.14: Location 7 Noise monitoring positions and measurement results (Source: Europa Park Website, 2014).

Measurement position	L_{Amax} dB(A)	SEL dB(A)
7.1	86.7	87.2
7.2	90.5	89.7
7.3	94.5	94.3

Location 8 Ride Noise Measurements

Table 15.1.11: Location 8 Noise measurement

Measurement position	L_{Amax} dB(A)	SEL dB(A)
8	95.6	104.8

Location 9 Ride Noise Measurements

Diagram 15.1.15: Location 9 Noise monitoring positions and measurement results (Source: Europa Park Website, 2014).

Measurement position	L_{Amax} dB(A)	SEL dB(A)
9.1	81.9	N/A
9.2	80.8	N/A
9.3	78.1	N/A

Location 10 Ride Noise Measurements

Table 15.1.12: Location 10 Noise measurement

Measurement position	L_{Amax} dB(A)	SEL dB(A)
10	78.1	N/A