

# A47 Wansford to Sutton Dualling

**Scheme Number: TR010039**

**Volume 6**

## **6.3 Environmental Statement Appendices**

### **Appendix 11.5 – Construction noise assessment**

APFP Regulation 5(2)(a)

Planning Act 2008

Infrastructure Planning (Applications: Prescribed  
Forms and Procedure) Regulations 2009

July 2021

Infrastructure Planning

Planning Act 2008

**The Infrastructure Planning  
(Applications: Prescribed Forms and  
Procedure) Regulations 2009**

A47 Wansford to Sutton  
Development Consent Order 202[x]

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**ENVIRONMENTAL STATEMENT APPENDICES**  
**Appendix 11.5 – Construction noise assessment**

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<b>Regulation Number:</b>	Regulation 5(2)(a)
<b>Planning Inspectorate Scheme Reference</b>	TR010039
<b>Application Document Reference</b>	TR010039/APP/6.3
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<b>Author:</b>	A47 Wansford to Sutton Project Team, Highways England

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Rev 0	July 2021	Application Issue

## Appendix 11.5

### Construction noise assessment

## Construction phases used to inform the assessment

11.5.1. Typical construction plant used for each construction activity have been provided by the Principal Contractor. These are based on the construction phases that are shown in Volume 2, Figure 2.1 (**TR010039/APP/6.2**). The most relevant activities in terms of potential noise impact during each phase are presented in Table 11-5.1 and construction plant assumptions are presented in Table 11-5.2.

Table 11-5.1: Outline Construction Phases

ES CHAPTER 2: Construction Phasing & Activities	Construction Stage	Indicative Main Construction Activities & Other Notes (Reference to Table 11-5-2 for individual plant items)
<b>PRE-WORKS: Site clearance</b>	General	P1 Site clearance (1 <sup>st</sup> month)
	Heavy Woodland	P2 Site clearance (1 <sup>st</sup> month)
	Allowance for stats	P1 Site clearance P6 Utility works
<b>Compound Construction</b>  Compound and welfare areas constructed for main works. Hardstanding areas will be constructed no topsoil will be stripped but laid over with geotextile and subbase installed. Areas for car parking will be surfaced as required.  Minimal clearance of vegetation undertaken as required to enable the works.	Site Set-up	P3 Compound Construction
	All Compounds – set-up	P1 Site clearance P8 Placing Subbase P5 Drainage P6 Utility diversion P7 Boundary Fencing
	All Compounds – 16 months operational use	A1 Ancillary Plant to Above Teams A2 Construction Compound Also need to allow for noise from daily vehicle movements, plant movements and materials handling
<b>Phase 1: Offline enabling earthworks for stats diversions</b>  Offline earthworks, including site clearance, topsoil strip, cut / fill earthworks,	Site clearance	P1 Site clearance - General
	Earthworks	E1 Earthworks A1 off slip / merge / diverge / West offline / South Schedule Monument
	Earthworks	E2 Earthworks West R/A link to Petrol filling station

ES CHAPTER 2: Construction Phasing & Activities	Construction Stage	Indicative Main Construction Activities & Other Notes (Reference to Table 11-5-2 for individual plant items)
	Earthworks	E2 Earthworks East offline / from East of the Railway Structure
<b>Phase 2: Earthworks [Offline]</b>	A1 SB Off Slip - Free flow link to A47	E1 Earthworks AI off slip / merge / diverge / West offline / South Schedule Monument
	A1 SB Merge/Diverge link to A47 West R/A	E1 Earthworks AI off slip / merge / diverge / West offline / South Schedule Monument
	West R/A Link to Fuel Station	E2 Earthworks West R/A link to Petrol filling station
	Sacrewell Farm Link Road [Offline section only until A47 transferred onto new alignment]	E2 Earthworks West R/A link to Petrol filling station
	A1 NB Diverge - Segregated lane	E4 Earthworks <b>De</b> -trunking Reinstatement Earthwork
	Ch 350 - 700 [Offline]	E1 Earthworks AI off slip / merge / diverge / West offline / South Schedule Monument
	Ch 1250 - 2500 inc. East Roundabout [Offline]	E3 Earthworks East offline / from East of the Railway Structure & Ch 2500 - 2750
<b>Phase 3: Earthworks [Online]</b>	Ch 0 - 350 [Online]	E1 Earthworks AI off slip / merge / diverge / West offline / South Schedule Monument
	Ch 700 - 1250 [Online]	E1 Earthworks AI off slip / merge / diverge / West offline / South Schedule Monument
	Sacrewell Farm Link Road Existing A47 following diversion onto new alignment	E2 Earthworks West R/A link to Petrol filling station
	Ch 2500 – 2750 [Online]	E3 Earthworks East offline / from East of the Railway Structure & Ch 2500 - 2750
<b>Phase 4: Earthworks [side roads]</b>	East R/A to Sutton Heath Rd Link	E3 Earthworks East offline / from East of the Railway Structure
	East R/A to Existing A47 Link	E3 Earthworks East offline / from East of the Railway Structure
	Existing A47 - Peterborough Rd Link	E3 Earthworks East offline / from East of the Railway Structure

ES CHAPTER 2: Construction Phasing & Activities	Construction Stage	Indicative Main Construction Activities & Other Notes (Reference to Table 11-5-2 for individual plant items)
<b>Phase 5: A1 alternative access to properties</b>  Including site clearance, topsoil strip, cut / fill earthworks, drainage installation, utility diversions, carriageway construction including capping, subbase, kerbs, and the bitumen bound layers	Site clearance	P1 Site clearance - General
	Utility Works	P6 Utility Works
	Carriageway construction	P2 Site clearance - Heavy Woodland E4 Earthworks P8 Placing Subbases P5 Drainage P9 Install kerbs & gullies P10 Pavement E5 Topsoil works
<b>Phase 2: Drainage [Offline]</b>	A1 SB Off Slip - Free flow link to A47	P5 Drainage
	A1 SB Merge/Diverge link to A47 West R/A	P5 Drainage
	West R/A Link to Fuel Station	P5 Drainage
	Sacrewell Farm Link Road [Offline section only until A47 transferred onto new alignment]	P5 Drainage
	A1 NB Diverge - Segregated lane	P5 Drainage
	Ch 350 - 700 [Offline]	P5 Drainage
	Ch 1250 - 2500 inc. East Roundabout [Offline]	P5 Drainage
<b>Phase 3: Drainage [Online]</b>	Ch 0 - 350 [Online]	P5 Drainage
	Ch 700 - 1250 [Online]	P5 Drainage
	Sacrewell Farm Link Road Existing A47 following diversion onto new alignment	P5 Drainage
	Ch 2500 – 2750 [Online]	E3 Earthworks East offline / from East of the Railway Structure & Ch 2500 - 2750
<b>Phase 4: Drainage [side roads]</b>	East R/A to Sutton Heath Rd Link	P5 Drainage
	East R/A to Existing A47 Link	P5 Drainage
	Existing A47 - Peterborough Rd Link	P5 Drainage

ES CHAPTER 2: Construction Phasing & Activities	Construction Stage	Indicative Main Construction Activities & Other Notes (Reference to Table 11-5-2 for individual plant items)
<b>Phase 2: Placing Subbase [Offline]</b>	A1 SB Off Slip - Free flow link to A47	P8 Placing Subbases
	A1 SB Merge/Diverge link to A47 West R/A	P8 Placing Subbases
	West R/A Link to Fuel Station	P8 Placing Subbases
	Sacrewell Farm Link Road [Offline section only until A47 transferred onto new alignment]	P8 Placing Subbases
	A1 NB Diverge - Segregated lane	P8 Placing Subbases
	Ch 350 - 700 [Offline]	P8 Placing Subbases
	Ch 1250 - 2500 inc. East Roundabout [Offline]	P8 Placing Subbases
<b>Phase 3: Placing Subbase [Online]</b>	Ch 0 - 350 [Online]	P8 Placing Subbases
	Ch 700 - 1250 [Online]	P8 Placing Subbases
	Sacrewell Farm Link Road Existing A47 following diversion onto new alignment	P8 Placing Subbases
	Ch 2500 – 2750 [Online]	E3 Earthworks East offline / from East of the Railway Structure & Ch 2500 - 2750
<b>Phase 4: Placing Subbase [side roads]</b>	East R/A to Sutton Heath Rd Link	P8 Placing Subbases
	East R/A to Existing A47 Link	P8 Placing Subbases
	Existing A47 - Peterborough Rd Link	P8 Placing Subbases
<b>Phase 2: kerbs &amp; gullies [Offline]</b>	A1 SB Off Slip - Free flow link to A47	P9 Install kerbs & gullies
	A1 SB Merge/Diverge link to A47 West R/A	P9 Install kerbs & gullies
	West R/A Link to Fuel Station	P9 Install kerbs & gullies
	Sacrewell Farm Link Road [Offline section only until A47 transferred onto new alignment]	P9 Install kerbs & gullies
	A1 NB Diverge - Segregated lane	P9 Install kerbs & gullies

ES CHAPTER 2: Construction Phasing & Activities	Construction Stage	Indicative Main Construction Activities & Other Notes (Reference to Table 11-5-2 for individual plant items)
	Ch 350 - 700 [Offline]	P9 Install kerbs & gullies
	Ch 1250 - 2500 inc. East Roundabout [Offline]	P9 Install kerbs & gullies
<b>Phase 3: kerbs &amp; gullies [Online]</b>	Ch 0 - 350 [Online]	P9 Install kerbs & gullies
	Ch 700 - 1250 [Online]	P9 Install kerbs & gullies
	Sacrewell Farm Link Road Existing A47 following diversion onto new alignment	P9 Install kerbs & gullies
	Ch 2500 – 2750 [Online]	E3 Earthworks East offline / from East of the Railway Structure & Ch 2500 - 2750
<b>Phase 4: kerbs &amp; gullies [Offline]</b>	East R/A to Sutton Heath Rd Link	P9 Install kerbs & gullies
	East R/A to Existing A47 Link	P9 Install kerbs & gullies
	Existing A47 - Peterborough Rd Link	P9 Install kerbs & gullies
<b>Phase 2: Pavements [Offline]</b>	A1 SB Off Slip - Free flow link to A47	P10 Pavements
	A1 SB Merge/Diverge link to A47 West R/A	P10 Pavements
	West R/A Link to Fuel Station	P10 Pavements
	Sacrewell Farm Link Road [Offline section only until A47 transferred onto new alignment]	P10 Pavements
	A1 NB Diverge - Segregated lane	P10 Pavements
	Ch 350 - 700 [Offline]	P10 Pavements
	Ch 1250 - 2500 inc. East Roundabout [Offline]	P10 Pavements
<b>Phase 3: Pavements [Online]</b>	Ch 0 - 350 [Online]	P10 Pavements
	Ch 700 - 1250 [Online]	P10 Pavements
	Sacrewell Farm Link Road Existing A47 following diversion onto new alignment	P10 Pavements
	Ch 2500 – 2750 [Online]	E3 Earthworks East offline / from East of the Railway Structure & Ch 2500 - 2750



ES CHAPTER 2: Construction Phasing & Activities	Construction Stage	Indicative Main Construction Activities & Other Notes (Reference to Table 11-5-2 for individual plant items)
<b>Phase 4: Pavements [Side Roads]</b>	East R/A to Sutton Heath Rd Link	P10 Pavements
	East R/A to Existing A47 Link	P10 Pavements
	Existing A47 - Peterborough Rd Link	P10 Pavements
<b>Phase 2: Finishing Works [Offline]</b>	A1 SB Off Slip - Free flow link to A47	P11 install lamp columns P12 Road restraint systems P13 Signs E4 De-trunking / reinstatement earthworks E5 Topsoiling P14 Line Markings
	A1 SB Merge/Diverge link to A47 West R/A	P11 install lamp columns P12 Road restraint systems P13 Signs E4 De-trunking / reinstatement earthworks E5 Topsoiling P14 Line Markings
	West R/A Link to Fuel Station	P11 install lamp columns P12 Road restraint systems P13 Signs E4 De-trunking / reinstatement earthworks E5 Topsoiling P14 Line Markings
	Sacrewell Farm Link Road [Offline section only until A47 transferred onto new alignment]	P11 install lamp columns P12 Road restraint systems P13 Signs E4 De-trunking / reinstatement earthworks E5 Topsoiling P14 Line Markings
	A1 NB Diverge - Segregated lane	P11 install lamp columns P12 Road restraint systems P13 Signs E4 De-trunking / reinstatement earthworks E5 Topsoiling P14 Line Markings
	Ch 350 - 700 [Offline]	P11 install lamp columns

ES CHAPTER 2: Construction Phasing & Activities	Construction Stage	Indicative Main Construction Activities & Other Notes (Reference to Table 11-5-2 for individual plant items)
		P12 Road restraint systems P13 Signs E4 De-trunking / reinstatement earthworks E5 Topsoiling P14 Line Markings
	Ch 1250 - 2500 inc. East Roundabout [Offline]	P11 install lamp columns P12 Road restraint systems P13 Signs E4 De-trunking / reinstatement earthworks E5 Topsoiling P14 Line Markings
<b>Phase 3: Finishing Works [Online]</b>	Ch 0 - 350 [Online]	P11 install lamp columns P12 Road restraint systems P13 Signs E4 De-trunking / reinstatement earthworks E5 Topsoiling P14 Line Markings
	Ch 700 - 1250 [Online]	P11 install lamp columns P12 Road restraint systems P13 Signs E4 De-trunking / reinstatement earthworks E5 Topsoiling P14 Line Markings
	Sacrewell Farm Link Road Existing A47 following diversion onto new alignment	P11 install lamp columns P12 Road restraint systems P13 Signs E4 De-trunking / reinstatement earthworks E5 Topsoiling P14 Line Markings
	Ch 2500 – 2750 [Online]	P11 install lamp columns P12 Road restraint systems P13 Signs E4 De-trunking / reinstatement earthworks E5 Topsoiling P14 Line Markings

ES CHAPTER 2: Construction Phasing & Activities	Construction Stage	Indicative Main Construction Activities & Other Notes (Reference to Table 11-5-2 for individual plant items)
<b>Phase 4: Finishing Works [Side Roads]</b>	East R/A to Sutton Heath Rd Link	P11 install lamp columns P12 Road restraint systems P13 Signs E4 De-trunking / reinstatement earthworks E5 Topsoiling P14 Line Markings
	East R/A to Existing A47 Link	P11 install lamp columns P12 Road restraint systems P13 Signs E4 De-trunking reinstatement earthworks E5 Topsoiling P14 Line Markings
	Existing A47 - Peterborough Rd Link	P11 install lamp columns P12 Road restraint systems P13 Signs E4 De-trunking reinstatement earthworks E5 Topsoiling P14 Line Markings
<b>Phase 2: Structures</b>	Sacrewell Farm Underbridge	P1 Site clearance - General E1 Earthworks AI off slip / merge / diverge / West offline / South Schedule Monument S1 Sacrewell Underpass S3 Reinforced Structures Backfill E4 De-trunking / reinstatement earthworks E5 Topsoiling
<b>Phase 3: Structures</b>	Wansford Sluice	P1 Site clearance - General E1 Earthworks AI off slip / merge / diverge / West offline / South Schedule Monument S5 Culvert S3 Reinforced Structures Backfill E4 De-trunking / reinstatement earthworks E5 Topsoiling
<b>Phase 4: Structures</b>	Wansford Railway (New)	P1 Site clearance - General E1 Earthworks AI off slip / merge / diverge / West offline / South Schedule Monument S2 Old Railway – New RC Structure works S2 Old Railway – New RC Structure works – Bridge Deck Assembly S3 Reinforced Structures Backfill E4 De-trunking / reinstatement earthworks E5 Topsoiling

ES CHAPTER 2: Construction Phasing & Activities	Construction Stage	Indicative Main Construction Activities & Other Notes (Reference to Table 11-5-2 for individual plant items)
<b>Phase 3: Demolition</b>	Station House [Optional works]	P1 Site clearance - General P6 Utility Works P4 Demolition E4 De-trunking / reinstatement earthworks E5 Topsoiling
	Deep Springs [Optional works]	P1 Site clearance - General P6 Utility Works P4 Demolition E4 De-trunking / reinstatement earthworks E5 Topsoiling
<b>Upton Resurfacing</b>	Passing places and resurfacing	P1 Site clearance - General P8 Placing Subbases P10 Pavements

## Construction plant assumptions

Table 11-5.2: Construction plant assumptions

Plant and equipment	No. of Plant	% On time	BS 5228 Ref.	SWL (dB(A))
<b>Earthworks</b>				
Tracked excavator (40t)	3	80%	C.2.14	112
Wheeled excavator (18t)	2	80%	C.4.10	98
Articulated dump truck tipping fill (23t)	8	20%	C.2.32	107
Articulated dump truck drive by (23t)	8	20%	C.2.33	114
Dozer D6	2	80%	C.2.11	110
Dozer D4	1	60%	C.2.11	106
Vibrating roller (8.9t)	4	80%	C5.20	109
463 Towed scraper	2	80%	C.5.15	94
CS 76 Self Propelled Roller	2	80%	C.2.37	112
<b>Road Formation</b>				
Dozer (28t)	3	80%	C.2.11	116
Tracked excavator (40t)	2	80%	C.2.14	111
Vibrating roller (8.9t)	3	60%	C.5.20	107
Diesel generator (7.5kW)	2	80%	C.4.87	97
<b>P1 Site clearance – general</b>				
Excavator 20T	2	90	C2.21	101
Volvo A25 - 25tne Articulated Dump Truck	2	50	C4.8	114
<b>P2 Site Clearance Heavy Woodland</b>				

Plant and equipment	No. of Plant	% On time	BS 5228 Ref.	SWL (dB(A))
Excavator 20T	1	50	C2.21	96
Chainsaw	2	90	D2.14	117
Volvo A25 - 25tne Articulated Dump Truck	1	50	C4.8	111
<b>P3 Construction Compound</b>				
Excavator 20T	2	50	C2.21	99
Volvo A25 - 25tne Articulated Dump Truck	2	50	C4.8	114
Vibratory Roller	2	90	C5.26	108
<b>P4 Demolition</b>				
Excavator 40T	1	90	C2.14	107
Hydraulic crusher	1	90	C1.14	110
Hydraulic breaker	1	25	C5.3	110
Volvo A25 - 25tne Articulated Dump Truck	1	50	C4.8	111
<b>P5 Drainage</b>				
Excavator 20T	2	90	C2.21	102
Sump pump	2	100	C4.88	100
Generator	2	100	C4.85	97
Volvo A25 - 25tne Articulated Dump Truck	2	50	C4.8	114
Stihl Saw	1	90	C3.34	96
Self-Propelled Roller	1	90	C2.37	107
Road saw	1	90	C3.34	96
JCB3c	1	90	C2.8	96

Plant and equipment	No. of Plant	% On time	BS 5228 Ref.	SWL (dB(A))
Compressor (250cfm)	1	50	C5.5	91
Small breaking tool	2	90	C1.6	114
<b>P6 Utility Diversion</b>				
Wheeled excavator (18t)	2	80	C.4.10	98
Self-Propelled Roller	1	90	C2.37	107
Stihl Saw	1	90	C3.34	96
Road saw	1	90	C3.34	96
JCB3c	1	90	C2.8	96
Compressor (250cfm)	1	50	C5.5	91
Small breaking tool	2	90	C1.6	114
Agricultural tractor/trailer	1	90	C4.75	107
<b>P7 Compound Boundary Fencing</b>				
Agricultural tractor/trailer with auger	1	90	C4.75	107
<b>P8 Placing Subbase</b>				
Cat D6LGP Tracked Dozer	2	90	C2.12	109
Vibratory roller (8.9t)	4	90	C.5.20	107
Lorry	12	90	C.2.34	109
<b>P9 Install Kerbs &amp; Gullies</b>				
JCB3cX	2	90	C2.8	99
Bobcat	2	90	T8702	107
Compressor (250cfm)	1	10	C5.5	84

Plant and equipment	No. of Plant	% On time	BS 5228 Ref.	SWL (dB(A))
Road breaker	1	10	C5.3	100
<b>P10 Lay Blacktop</b>				
Blaw Knox Paver	1	90	C5.30	103
Road sweeper	1	90	C4.90	103
Vibratory Roller	2	90	C5.26	108
Dead weight roller	1	90	C5.19	107
Stihl saw	1	90	C3.34	96
Road saw	1	90	C3.34	96
JCB3c	1	90	C2.8	96
Lorry	8	90	C.2.34	109
<b>P11 Install Lamp Columns</b>				
MEWP	1	90	C4.57	95
Bobcat and Auger	1	90	C3.16	107
Hiab Lorry	1	90	C4.53	105
<b>P12 Road Restraint System</b>				
Hiab Lorry	1	90	C4.53	105
Bobcat and Auger	1	90	C3.16	107
<b>P13 Signs</b>				
Hiab Lorry	1	90	C4.53	105
Bobcat and Auger	1	90	C3.16	107
<b>P14 Line Marking</b>				



Plant and equipment	No. of Plant	% On time	BS 5228 Ref.	SWL (dB(A))
Line marking vehicle	1	15	T8702	104
<b>S1 Sacrewell Underpass</b>				
Mobile crane 500T	1	90	C3.29	98
Concrete pump	1	5	C3.25	93
Compressor (250cfm)	1	50	C5.5	91
Air/diesel poker	2	10	C4.34	90
Generator	1	25	C4.85	88
Stihl Saw	1	10	C3.34	86
Concrete Mixer Lorry	4	5	C.4.28	97
Excavator 20T	1	90	C2.21	99
Vibratory roller (8.9t)	1	90	C.5.20	105
<b>S2 Old Railway – New RC Structure Works</b>				
Mobile crane 100T	1	90	C3.29	98
Concrete pump	1	25	C3.25	100
Compressor (250cfm)	1	50	C5.5	91
Air/diesel poker	2	25	C4.34	94
Generator	1	50	C4.85	92
Jet wash	1	10	C3.13	82
Stihl Saw	1	90	C3.34	96
Concrete Mixer Lorry	4	25	C.4.28	105
Excavator 20T	1	90	C2.21	99

Plant and equipment	No. of Plant	% On time	BS 5228 Ref.	SWL (dB(A))
Vibratory roller (8.9t)	1	90	C.5.20	108
<b>S3 Reinforced Structures Backfill</b>				
Excavator 20T	2	90	C2.21	102
Vibrating plate	2	75	C2.41	110
Self-Propelled Roller	1	90	C2.37	107
Lorry	12	90	C.2.34	109
<b>S4 - New RC Structure Works Bridge Deck Assembly</b>				
Mobile crane 100T	1	90	C3.29	98
Articulated delivery vehicle	2	50	C4.8	111
MEWP	1	90	C4.58	91
Compressor (250cfm)	1	75	C5.5	93
Air gun	2	25	CP77622	101
<b>S5 Culvert</b>				
Articulated delivery vehicle	2	50	C4.8	111
Sump pump	2	100	C4.88	100
Generator	2	100	C4.85	97
Excavator 40T	1	90	C2.14	107
Excavator 20T	1	90	C2.21	99
Volvo A25 - 25tne Articulated Dump Truck	1	50	C4.8	108
Road breaker	1	10	C5.3	100
<b>E1 Earthworks AI off slip / merge / diverge / West offline / South Schedule Monument</b>				

Plant and equipment	No. of Plant	% On time	BS 5228 Ref.	SWL (dB(A))
40tne Tracked Excavator	2	90	C2.15	107
Volvo A25 - 25tne Articulated Dump Truck	6	40	C4.8	115
Cat D6LGP Tracked Dozer	2	90	C2.12	111
Vibrating Roller 8.9t	2	80	C.5.20	109
CS 76 Self Propelled Roller	1	90	C2.37	107
Wheeled Excavator 18t	1	90	C.4.10	95
<b>E2 Earthworks West R/A link to Petrol filling station</b>				
40tne Tracked Excavator	1	90	C2.15	104
Volvo A25 - 25tne Articulated Dump Truck	2	40	C4.8	110
Cat D4 Tracked Dozer	1	90	C2.12	108
Vibrating Roller 8.9t	1	80	C.5.20	106
CS 76 Self Propelled Roller	1	90	C2.37	107
Wheeled Excavator 18t	1	90	C.4.10	95
Road breaker	1	10	C5.3	100
Road saw	1	90	C3.34	96
<b>E3 Earthworks East offline / from East of the Railway Structure &amp; Ch 2500 – 2750 online</b>				
40tne Tracked Excavator	2	90	C2.15	107
Volvo A25 - 25tne Articulated Dump Truck	6	40	C4.8	115
Cat D6LGP Tracked Dozer	2	80	C2.12	111
Vibrating Roller 8.9t	2	80	C.5.20	109
CS 76 Self Propelled Roller	1	40	C2.37	104

Plant and equipment	No. of Plant	% On time	BS 5228 Ref.	SWL (dB(A))
Wheeled Excavator 18t	1	60	C.4.10	92
<b>E4 De-trunking Reinstatement Earthwork</b>				
Volvo A25 - 25tne Articulated Dump Truck	4	40	C4.8	102
Excavator 20T	2	50	C2.21	99
Wheeled Excavator 18t	1	60	C.4.10	92
<b>E5 Topsoil works</b>				
Komatsu 350 - 35tne Tracked Excavator	2	90	C2.15	107
Volvo A25 - 25tne ADT	2	90	C4.8	114
Cat D4 Tracked Dozer	1	90	C2.12	108
<b>Ancillary Plant to Above Teams</b>				
Fuel Bowser	2	100	C6.36	120
Fuel Bowser	1	20	C6.36	110
Water Bowser	2	100	C6.36	120
<b>Construction Compound Operation</b>				
Power generator	2	40	C4.84	101

## Predicted construction noise impact magnitudes

11.5.2. The above construction activity assumptions has allowed for construction noise level, dB  $L_{Aeq,T}$ , to be predicted for relevant times of day. The magnitude of the construction noise impact can then be determined through a comparison of the predicted construction noise level with the LOAEL and SOAEL values within each part of the study area.

- 11.5.3. The construction noise impact magnitude at different parts of the study area is presented in Figures 11.9 to 11.27 (**TR010039/APP/6.2**).
- 11.5.4. BS 5228-1 states that as a working approximation, a barrier between the source and the receiving provides an approximate attenuation of 5dB when the top of the plant is just visible to the receiver over the noise barrier, and of 10dB when the noise barrier completely hides the sources from the receiver. It also adds that specifically designed and positioned noise barriers could provide greater attenuation.
- 11.5.5. In order to mitigate potential moderate or major construction noise impacts at the receptors identified above, temporary noise barriers shall be erected where construction activity in the vicinity of the receptor will exceed 10 days or nights in any 15 consecutive days or nights; or for a total number of days exceeding 40 in any six consecutive months.
- 11.5.6. Well-designed noise barriers would provide a 10dB reduction at the receptor as commented above.
- 11.5.7. Once temporary mitigation in the form of noise barriers are considered, the updated construction noise impact magnitudes are presented in Figures 11.28 to 11.30 (**TR010039/APP/6.2**).