

# 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]

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

Regulation Number:	Regulation 5(2)(a)
Planning Inspectorate Scheme	TR010039
Reference	
Application Document Reference	TR010039/APP/6.3
BIM Document Reference	HE551494-GTY-ENV-000-RP-LA-30007
Author:	A47 Wansford to Sutton Project Team, Highways England

Version	Date	Status of Version
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)
PRE-WORKS: Site clearance	General	P1 Site clearance (1st month)
	Heavy Woodland	P2 Site clearance (1st month)
	Allowance for stats	P1 Site clearance P6 Utility works
Compound Construction	Site Set-up	P3 Compound Construction
Compound and welfare areas constructed for main works. Hardstanding areas will be constructed no topsoil will stripped but laid over with geotextile and subbase installed. Areas for car parking will be surfaced as required.	All Compounds – set-up	P1 Site clearance P8 Placing Subbase P5 Drainage P6 Utility diversion P7 Boundary Fencing
Minimal clearance of vegetation undertaken as required to enable the works.	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
Phase 1: Offline enabling earthworks for stats diversions	Site clearance	P1 Site clearance - General
Offline earthworks, including site clearance, topsoil	Earthworks	E1 Earthworks AI off slip / merge / diverge / West offline / South Schedule Monument
strip, cut / fill earthworks,	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
Phase 2: Earthworks [Offline]	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
Phase 3: Earthworks [Online]	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
Phase 4: Earthworks [side roads]	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)
Phase 5: A1 alternative access to	Site clearance	P1 Site clearance - General
properties	Utility Works	P6 Utility Works
Including site clearance, topsoil strip, cut / fill earthworks, drainage installation, utility diversions, carriageway construction including capping, subbase, kerbs, and the bitumen bound layers	Carriageway construction	P2 Site clearance - Heavy Woodland E4 Earthworks P8 Placing Subbases P5 Drainage P9 Install kerbs & gullies P10 Pavement E5 Topsoil works
Phase 2: Drainage [Offline]	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
Phase 3: Drainage [Online]	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
Phase 4: Drainage [side roads]	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)
Phase 2: Placing Subbase [Offline]	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
Phase 3: Placing Subbase [Online]	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
Phase 4: Placing Subbase [side roads]	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
Phase 2: kerbs & gullies [Offline]	A1 SB Off Slip - Free flow link to A47	P9 Install kerbs & gullies
Thase 2. Kerbs & guilles [Offline]	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
Phase 3: kerbs & gullies [Online]	Ch 0 - 350 [Online]	P9 Install kerbs & gullies
rnase 3. kerbs & guines [Onnie]	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
Phase 4: kerbs & gullies [Offline]	East R/A to Sutton Heath Rd Link	P9 Install kerbs & gullies
That the season and the season is the season in the season	East R/A to Existing A47 Link	P9 Install kerbs & gullies
	Existing A47 - Peterborough Rd Link	P9 Install kerbs & gullies
Phase 2: Pavements [Offline]	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
Phase 3: Pavements [Online]	Ch 0 - 350 [Online]	P10 Pavements
in the second comments	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)
Phase 4: Pavements [Side Roads]	East R/A to Sutton Heath Rd Link	P10 Pavements
The state of the	East R/A to Existing A47 Link	P10 Pavements
	Existing A47 - Peterborough Rd Link	P10 Pavements
Phase 2: Finishing Works [Offline]	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
Phase 3: Finishing Works [Online]	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)
Phase 4: Finishing Works [Side Roads]	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
Phase 2: Structures	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
Phase 3: Structures	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
Phase 4: Structures	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

## A47 WANSFORD TO SUTTON DUALLING Appendix 11.5 Construction noise assessment



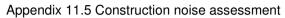
ES CHAPTER 2: Construction Phasing & Activities	Construction Stage	Indicative Main Construction Activities & Other Notes (Reference to Table 11-5-2 for individual plant items)
Phase 3: Demolition	Station House [Optional works]	P1 Site clearance - General P6 Utility Works P4 Demolition E4 De-trunking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



#### **Construction plant assumptions**

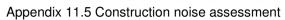
Table 11-5.2: Construction plant assumptions

3 2 8 8 2	80% 80% 20% 20% 80%	C.2.14 C.4.10 C.2.32 C.2.33	112 98 107
2 8 8 2	80% 20% 20%	C.4.10 C.2.32	98
2 8 8 2	80% 20% 20%	C.4.10 C.2.32	98
8 8 2	20%	C.2.32	107
8 2	20%		
2		C.2.33	114
	80%		' ' '
+	3070	C.2.11	110
1	60%	C.2.11	106
4	80%	C5.20	109
2	80%	C.5.15	94
2	80%	C.2.37	112
	1		
3	80%	C.2.11	116
2	80%	C.2.14	111
3	60%	C.5.20	107
2	80%	C.4.87	97
1	1	1	1
2	90	C2.21	101
2	50	C4.8	114
	4 2 2 3 2 3 2	4     80%       2     80%       2     80%       3     80%       2     80%       3     60%       2     80%       2     90	4 80% C5.20 2 80% C.5.15 2 80% C.2.37  3 80% C.2.11 2 80% C.2.14 3 60% C.5.20 2 80% C.4.87



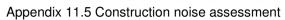


Plant and equipment	No. of Plant	% On time	BS 5228 Ref.	SWL (dB(A))		
Excavator 20T	1	50	C2.21	96		
Chainsaw	2	90	D2.14	117		
Volvo A25 - 25tne Articulated Dump Truck	1	50	C4.8	111		
P3 Construction Compound			•			
Excavator 20T	2	50	C2.21	99		
Volvo A25 - 25tne Articulated Dump Truck	2	50	C4.8	114		
Vibratory Roller	2	90	C5.26	108		
P4 Demolition						
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		
P5 Drainage	P5 Drainage					
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		



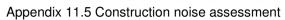


Plant and equipment	No. of Plant	% On time	BS 5228 Ref.	SWL (dB(A))
Compressor (250cfm)	1	50	C5.5	91
Small breaking tool	2	90	C1.6	114
P6 Utility Diversion				
Wheeled excavator (18t)	2	80	C.4.10	98
Self-Propelled Roller	1	90	C2.37	107
Stihl Saw	1	90	C3.34	96
Road saw	1	90	C3.34	96
JCB3c	1	90	C2.8	96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



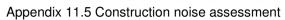


Plant and equipment	No. of Plant	% On time	BS 5228 Ref.	SWL (dB(A))
Road breaker	1	10	C5.3	100
P10 Lay Blacktop				
Blaw Knox Paver	1	90	C5.30	103
Road sweeper	1	90	C4.90	103
Vibratory Roller	2	90	C5.26	108
Dead weight roller	1	90	C5.19	107
Stihl saw	1	90	C3.34	96
Road saw	1	90	C3.34	96
JCB3c	1	90	C2.8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



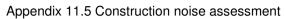


Plant and equipment	No. of Plant	No. of Plant % On time	BS 5228 Ref.	SWL (dB(A))
Line marking vehicle	1	15	T8702	104
S1 Sacrewell Underpass				•
Mobile crane 500T	1	90	C3.29	98
Concrete pump	1	5	C3.25	93
Compressor (250cfm)	1	50	C5.5	91
Air/diesel poker	2	10	C4.34	90
Generator	1	25	C4.85	88
Stihl Saw	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
S2 Old Railway – New RC Structure Works				
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
S3 Reinforced Structures Backfill	<u>,</u>			•
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
S4 - New RC Structure Works Bridge Deck Assembly	1			
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
S5 Culvert				
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





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
E2 Earthworks West R/A link to Petrol filling station	•			
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
E3 Earthworks East offline / from East of the Railway S	tructure & Ch 2500 – 2750	online		
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	
E4 De-trunking Reinstatement Earthwork		•			
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	
E5 Topsoil works					
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	
Ancillary Plant to Above Teams					
Fuel Bowser	2	100	C6.36	120	
Fuel Bowser	1	20	C6.36	110	
Water Bowser	2	100	C6.36	120	
Construction Compound Operation					
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<sub>Aeq,T</sub>, 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).