

APPENDIX B1

20-21 King's Mews, Holborn, London

BS5228 CALCULATIONS OF ACTIVITY NOISE

Source: Demolition/Construction Site Receiver: Nearest Noise Sensitive façade at No. 13-14 King Mews	Frequency, Hz								dB(A)
	63	125	250	500	1k	2k	4k	8k	
Site set-up									
Soft strip									
Removal of fixtures and fittings, disconnecting services removal floor and wall finishes									
Handheld crowbar (Sound Pressure Level at 10m)	66	66	68	68	63	67	55	51	
Distance correction (min. 4m from front elevation)	8	8	8	8	8	8	8	8	
Correction due to on- time on (45%)	-3	-3	-3	-3	-3	-3	-3	-3	
Attenuation provided by the building envelope	-7	-9	-12	-14	-17	-20	-20	-20	
Total	63	61	60	58	50	51	39	35	59
Skip Lorry delivery and collection									
Delivery vehicles (Sound Pressure Level at 10m)	73	78	78	78	74	73	68	66	
Distance correction (min. 4m)	8	8	8	8	8	8	8	8	
Correction due to on- time (4%)	-14	-14	-14	-14	-14	-14	-14	-14	
Total	67	72	72	72	68	67	62	60	74
Predicted Daily Airborne Noise Level, dB L_{Aeq,10h} at the nearest sensitive façade	69	72	72	72	68	67	62	60	74
Demolition phase									
Hand-held pneumatic breaker (Sound Pressure Level at 10m)	83	83	81	74	73	76	78	77	
Distance correction (min. 12m)	-2	-2	-2	-2	-2	-2	-2	-2	
Correction due to on- time (50%)	-3	-3	-3	-3	-3	-3	-3	-3	
Attenuation provided by the building envelope	-7	-9	-12	-14	-17	-20	-20	-20	
Total	71	69	64	55	51	51	53	52	62
Skip Lorry delivery and collection									
Delivery vehicles (Sound Pressure Level at 10m)	73	78	78	78	74	73	68	66	
Distance correction (min. 4m)	8	8	8	8	8	8	8	8	
Correction due to on- time (5%)	-14	-14	-14	-14	-14	-14	-14	-14	
Total	67	72	72	72	68	67	62	60	74
Predicted Daily Airborne Noise Level, dB L_{Aeq,10h} at the nearest sensitive façade	73	74	73	72	68	67	63	61	74
Construction of new house, demolition									
<i>Excavating Basement Foundation, Concreting, Building new walls</i>									
Hand-held pneumatic breaker (Sound Pressure Level at 10m)	83	83	81	74	73	76	78	77	
Distance correction (min. 12m)	-2	-2	-2	-2	-2	-2	-2	-2	
Correction due to on- time (40%)	-4	-4	-4	-4	-4	-4	-4	-4	
Attenuation provided by the building envelope	-7	-9	-12	-14	-17	-20	-20	-20	
Total	70	68	63	54	50	50	52	51	61
Cordless Drill (Sound Pressure Level at 10m)	63	65	65	66	65	69	64	61	
Distance correction (min. 12m)	-2	-2	-2	-2	-2	-2	-2	-2	
Correction due to time on (20%)	-7	-7	-7	-7	-7	-7	-7	-7	
Attenuation provided by the building envelope	-7	-9	-12	-14	-17	-20	-20	-20	
Total	47	47	44	43	39	40	35	32	47
8 wheel ready mix concrete truck - Volvo FMX420 8x4 Concrete Mixer (Sound Pressure Level at 10m)	81	71	63	63	67	75	60	55	
Distance correction (min. 12m)	-2	-2	-2	-2	-2	-2	-2	-2	
Attenuation provided by portable acoustic barrier system	-5	-5	-5	-5	-5	-5	-5	-5	
Correction due to on- time on (2.5%)	-16	-16	-16	-16	-16	-16	-16	-16	
Total	58	48	40	40	44	52	37	32	54
Pumping concrete									
Towed concrete pump - Schwing BP 550HD-18 (Sound Pressure Level at 10m)	84	76	70	71	73	73	66	58	
Distance correction (min. 4m)	8	8	8	8	8	8	8	8	
Attenuation provided by portable acoustic barrier system	-5	-5	-5	-5	-5	-5	-5	-5	
Correction due to on- time on (2.5%)	-16	-16	-16	-16	-16	-16	-16	-16	
Total	71	63	57	58	60	60	53	45	65

APPENDIX B1 (Cont.)

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Correction due to time on (3%)	-15	-15	-15	-15	-15	-15	-15	-15	
Total	66	71	71	71	67	66	61	59	73
Predicted Daily Airborne Noise Level, dB L_{Aeq,10h} at the nearest sensitive façade	66	71	71	71	67	66	61	59	73
Decoration									
handheld sanders Makita BO 4556 (Sound Pressure Level at 10m)	57	51	52	60	70	77	73	73	
Distance correction (min. 12m)	-2	-2	-2	-2	-2	-2	-2	-2	
Correction due to on- time on (20%)	-7	-7	-7	-7	-7	-7	-7	-7	
Attenuation provided by the building envelope	-7	-9	-12	-14	-17	-20	-20	-20	
Total	41	33	31	37	44	48	44	44	53
Predicted Daily Airborne Noise Level, dB L_{Aeq,10h} at the nearest sensitive façade	41	33	31	37	44	48	44	44	53
Site clearance and cleaning									
Desmounting hoardind , general builders cleaning									
Cordless Drill Hilti SFH 22-A (Sound Pressure Level at 10m)	63	65	65	66	65	69	64	61	
Distance correction (min. 12m)	-2	-2	-2	-2	-2	-2	-2	-2	
Correction due to time on (40%)	-4	-4	-4	-4	-4	-4	-4	-4	
Attenuation provided by the building envelope	-7	-9	-12	-14	-17	-20	-20	-20	
Total	50	50	47	46	42	43	38	35	50
Dust Hoover Makita 4461(Sound Pressure Level at 10m)	65	65	67	67	63	57	55	51	
Distance correction (min. 12m)	-2	-2	-2	-2	-2	-2	-2	-2	
Correction due to time on (40%)	-4	-4	-4	-4	-4	-4	-4	-4	
Attenuation provided by the building envelope	-7	-9	-12	-14	-17	-20	-20	-20	
Total	52	50	49	47	40	31	29	25	48
Predicted Daily Airborne Noise Level, dB L_{Aeq,10h} at the nearest sensitive façade	55	53	52	50	45	44	39	36	52