

APPENDIX G

23a Hampstead Hill Gardens, London

BS5228 CALCULATIONS OF ACTIVITY NOISE

Source: Demolition/Construction Site Receiver: Nearest Noise Sensitive façade	Frequency, Hz								dB(A)
	63	125	250	500	1k	2k	4k	8k	
Site set-up									
Building hoarding - cutting timber									
Handheld circular skill saw: Makita HS7601 110V (Sound Pressure Level at 10m)	69	75	77	74	71	70	74	69	
Distance correction from rear yard area (min. 6m)	4	4	4	4	4	4	4	4	
Correction due to on- time on (40%)	-4	-4	-4	-4	-4	-4	-4	-4	
Attenuation provided by the building envelope	-2	-5	-8	-9	-12	-13	-14	-14	
Total	67	70	69	65	59	57	60	55	68
Predicted Daily Airborne Noise Level, dB L_{Aeq,10h} at the nearest sensitive façade	68	71	70	66	60	58	61	56	68
Soft strip									
Removal of fixtures and fittings, diconnecting services rovoval floor and wall finishes									
Handheld crowbar (Sound Pressure Level at 10m)	66	66	68	68	63	67	55	51	
Distance correction (min. 4m fom 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	-10	-12	-15	-18	-18	-20	
Total	63	61	62	60	52	53	41	35	61
Skip Lorry delivery and collection									
Delivery vehicles (Sound Pressure Level at 10m)	73	78	78	78	74	73	68	66	
Distance correction (min. 5m)	6	6	6	6	6	6	6	6	
Correction due to on- time (4%)	-14	-14	-14	-14	-14	-14	-14	-14	
Total	65	70	70	70	66	65	60	58	72
Predicted Daily Airborne Noise Level, dB L_{Aeq,10h} at the nearest sensitive façade	67	71	71	71	66	65	60	58	73
Drainage									
Rear yard area - Hand-held pneumatic breaker (Sound Pressure Level at 10m)	83	83	81	74	73	76	78	77	
Distance correction (min. 6m)	4	4	4	4	4	4	4	4	
Correction due to on- time (20%)	-7	-7	-7	-7	-7	-7	-7	-7	
Attenuation provided by the building envelope	-2	-5	-8	-9	-12	-13	-14	-14	
Total	78	75	70	62	58	60	61	60	69
Predicted Daily Airborne Noise Level, dB L_{Aeq,10h} at the nearest sensitive façade	78	75	70	62	58	60	61	60	69
Construction of new house,demolition									
Exavating and Extending Raft Foundation, Concreting, Building new walls									
Rear yard area - Hand-held pneumatic breaker (Sound Pressure Level at 10m)	83	83	81	74	73	76	78	77	
Distance correction (min. 6m)	4	4	4	4	4	4	4	4	
Correction due to on- time (20%)	-7	-7	-7	-7	-7	-7	-7	-7	
Attenuation provided by the building envelope	-2	-5	-8	-9	-12	-13	-14	-14	
Total	78	75	70	62	58	60	61	60	69
Rear yard area - Concrete Mixer BELLE mini mix 150 (Sound Pressure Level at 10m)	61	65	58	58	57	53	51	49	
Distance correction (min. 6m)	4	4	4	4	4	4	4	4	
Correction due to time on (25%)	-6	-6	-6	-6	-6	-6	-6	-6	
Attenuation provided by the building envelope	-2	-5	-8	-9	-12	-13	-14	-14	
Total	57	58	48	47	43	38	35	33	50
Cordless Drill (Sound Pressure Level at 10m)	63	65	65	66	65	69	64	61	
Distance correction (min. 4m)	8	8	8	8	8	8	8	8	
Correction due to time on (20%)	-7	-7	-7	-7	-7	-7	-7	-7	
Attenuation provided by portable acoustic barrier system	-7	-7	-7	-7	-7	-7	-7	-7	
Total	57	59	59	60	59	63	58	55	67
Delivery Vehicle with lifting arm (Sound Pressure Level at 10m)	81	78	76	74	72	69	64	56	
Distance correction (min. 4m)	8	8	8	8	8	8	8	8	
Correction due to on- time (3%)	-15	-15	-15	-15	-15	-15	-15	-15	
Total	74	71	69	67	65	62	57	49	70

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Attenuation provided by the building envelope	-7	-9	-10	-12	-15	-18	-18	-20	
Total	66	70	71	66	60	56	60	53	68
Cordless Drill Hilti SFH 22-A (Sound Pressure Level at 10m)	63	65	65	66	65	69	64	61	
Distance correction (min. 4m)	8	8	8	8	8	8	8	8	
Correction due to time on (40%)	-4	-4	-4	-4	-4	-4	-4	-4	
Attenuation provided by the building envelope	-7	-9	-10	-12	-15	-18	-18	-20	
Total	60	60	59	58	54	55	50	45	61
Predicted Daily Airborne Noise Level, dB L_{Aeq,10h} at the nearest sensitive façade	67	70	71	67	61	59	60	54	69
Stairs installation									
Installing prefabricated stairs									
Handheld circular skill saw: Makita HS7601 110V (Sound Pressure Level at 10m)	69	75	77	74	71	70	74	69	
Distance correction (min. 4m)	8	8	8	8	8	8	8	8	
Correction due to on- time on (50%)	-3	-3	-3	-3	-3	-3	-3	-3	
Attenuation provided by the building envelope	-7	-9	-10	-12	-15	-18	-18	-20	
Total	67	71	72	67	61	57	61	54	69
Cordless Drill Hilti SFH 22-A (Sound Pressure Level at 10m)	63	65	65	66	65	69	64	61	
Distance correction (min. 4m)	8	8	8	8	8	8	8	8	
Correction due to time on (50%)	-3	-3	-3	-3	-3	-3	-3	-3	
Attenuation provided by the building envelope	-7	-9	-10	-12	-15	-18	-18	-20	
Total	61	61	60	59	55	56	51	46	62
Delivery Vehicle with lifting arm (Sound Pressure Level at 10m)	81	78	76	74	72	69	64	56	
Distance correction (min. 4m)	8	8	8	8	8	8	8	8	
Correction due to on- time (7%)	-12	-12	-12	-12	-12	-12	-12	-12	
Total	77	74	72	70	68	65	60	52	73
Predicted Daily Airborne Noise Level, dB L_{Aeq,10h} at the nearest sensitive façade	78	76	75	72	69	66	64	57	75
Wall and floor finishes									
Handheld circular skill saw: Makita HS7601 110V (Sound Pressure Level at 10m)	69	75	77	74	71	70	74	69	
Distance correction (min. 4m)	8	8	8	8	8	8	8	8	
Correction due to on- time on (25%)	-6	-6	-6	-6	-6	-6	-6	-6	
Attenuation provided by the building envelope	-7	-9	-10	-12	-15	-18	-18	-20	
Total	64	68	69	64	58	54	58	51	66
Cordless Drill Hilti SFH 22-A (Sound Pressure Level at 10m)	63	65	65	66	65	69	64	61	
Distance correction (min. 4m)	8	8	8	8	8	8	8	8	
Correction due to time on (25%)	-6	-6	-6	-6	-6	-6	-6	-6	
Attenuation provided by the building envelope	-7	-9	-10	-12	-15	-18	-18	-20	
Total	58	58	57	56	52	53	48	43	59
Predicted Daily Airborne Noise Level, dB L_{Aeq,10h} at the nearest sensitive façade	65	68	69	65	59	57	58	52	67
External - hard landscaping									
Laying concrete slabs and decking									
Handheld circular skill saw: Makita HS7601 110V (Sound Pressure Level at 10m)	69	75	77	74	71	70	74	69	
Distance correction (min. 4m)	8	8	8	8	8	8	8	8	
Correction due to on- time on (20%)	-7	-7	-7	-7	-7	-7	-7	-7	
Attenuation provided by portable acoustic barrier system	-7	-7	-7	-7	-7	-7	-7	-7	
Total	63	69	71	68	65	64	68	63	73
Cordless Drill Hilti SFH 22-A (Sound Pressure Level at 10m)	63	65	65	66	65	69	64	61	
Distance correction (min. 4m)	8	8	8	8	8	8	8	8	
Correction due to time on (20%)	-7	-7	-7	-7	-7	-7	-7	-7	
Attenuation provided by portable acoustic barrier system	-7	-7	-7	-7	-7	-7	-7	-7	
Total	57	59	59	60	59	63	58	55	67
Predicted Daily Airborne Noise Level, dB L_{Aeq,10h} at the nearest sensitive façade	64	69	71	69	66	67	68	64	74

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Furniture fitting									
Handheld circular skill saw: Makita HS7601 110V (Sound Pressure Level at 10m)	69	75	77	74	71	70	74	69	
Distance correction (min. 4m)	8	8	8	8	8	8	8	8	
Correction due to on- time on (20%)	-7	-7	-7	-7	-7	-7	-7	-7	
Attenuation provided by the building envelope	-7	-9	-10	-12	-15	-18	-18	-20	
Total	63	67	68	63	57	53	57	50	65
Cordless Drill Hilti SFH 22-A (Sound Pressure Level at 10m)	63	65	65	66	65	69	64	61	
Distance correction (min. 4m)	8	8	8	8	8	8	8	8	
Correction due to time on (20%)	-7	-7	-7	-7	-7	-7	-7	-7	
Attenuation provided by the building envelope	-7	-9	-10	-12	-15	-18	-18	-20	
Total	57	57	56	55	51	52	47	42	58
Delivery vehicles (Sound Pressure Level)	73	78	78	78	74	73	68	66	
Distance correction (min. 5m)	6	6	6	6	6	6	6	6	
Correction due to time on (7%)	-12	-12	-12	-12	-12	-12	-12	-12	
Total	67	72	72	72	68	67	62	60	75
Predicted Daily Airborne Noise Level, dB L_{Aeq,10h} at the nearest sensitive façade	68	73	73	73	69	68	63	61	75
Decoration									
handheld sanders Makita BO 4556 (Sound Pressure Level at 10m)	57	51	52	60	70	77	73	73	
Distance correction (min. 4m)	8	8	8	8	8	8	8	8	
Correction due to on- time on (20%)	-7	-7	-7	-7	-7	-7	-7	-7	
Attenuation provided by the building envelope	-7	-9	-10	-12	-15	-18	-18	-20	
Total	51	43	43	49	56	60	56	54	64
Predicted Daily Airborne Noise Level, dB L_{Aeq,10h} at the nearest sensitive façade	51	43	43	49	56	60	56	54	64
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. 4m)	8	8	8	8	8	8	8	8	
Correction due to time on (40%)	-4	-4	-4	-4	-4	-4	-4	-4	
Attenuation provided by the building envelope	-7	-9	-10	-12	-15	-18	-18	-20	
Total	60	60	59	58	54	55	50	45	61
Dust Hoover Makita 4461(Sound Pressure Level at 10m)	65	65	67	67	63	57	55	51	
Distance correction (min. 4m)	8	8	8	8	8	8	8	8	
Correction due to time on (40%)	-4	-4	-4	-4	-4	-4	-4	-4	
Attenuation provided by the building envelope	-7	-9	-10	-12	-15	-18	-18	-20	
Total	62	60	61	59	52	43	41	35	59
Predicted Daily Airborne Noise Level, dB L_{Aeq,10h} at the nearest sensitive façade	64	63	63	62	56	55	51	45	63