

Construction Plant Inventory for the Proposed Project (Unmitigated Scenario)

PME	TM or Other Reference	SWL, dB(A)	No. of PME	% on Time	On-Time % Correction, dB(A)	Total SWL, dB(A)	Highest SWL of Each Construction Activity, dB(A)	
<b>Activity 1 - Site Formation, Excavation and Filling</b>								
Excavation and Filling	Air compressor, air flow > 10 m <sup>3</sup> /min and <= 30 m <sup>3</sup> /min	CNP 002	1	100%	0	102	114	
	Excavator / loader, wheeled / tracked	CNP 081	1	75%	-1.2	111		
	Generator, Standard	CNP 101	1	100%	0	108		
	Dump truck, 5.5 tonne < gross vehicle weight =< 38 tonne	Other <sup>[1]</sup>	105	2	50%	-3.0		105
Breaking excavated hard/oversize materials	Breaker, hand-held, mass >= 20 kg and <= 35 kg	CNP 025	1	50%	-3.0	108	115	
	Excavator / loader, wheeled / tracked	CNP 081	112	2	75%	-1.2		114
Ground Compression	Bulldozer	CNP 030	115	2	100%	0	119	
	Roller, vibratory	CNP 186	108	2	100%	0		111
<b>Activity 2 - Foundation</b>								
General Foundation Construction	Air compressor, air flow > 30 m <sup>3</sup> /min	CNP 003	1	75%	-1.2	103	118	
	Bar bender and cutter (electric)	CNP 021	90	3	75%	-1.2		94
	Generator	CNP 101	108	2	100%	0		111
	Drill / grinder, hand-held (electric)	CNP 065	98	2	50%	-3.0		98
	Saw, circular, wood	CNP 201	108	2	75%	-1.2		110
	Water pump, submersible (electric)	CNP 283	85	3	75%	-1.2		89
	Excavator / loader, wheeled / tracked	CNP 081	112	1	75%	-1.2		111
	Dump truck, 5.5 tonne < gross vehicle weight =< 38 tonne	Other <sup>[1]</sup>	105	1	50%	-3.0		102
	Lorry	CNP 141	112	1	50%	-3.0		109
	Crane, mobile / barge mounted (diesel)	CNP 048	112	1	75%	-1.2		111
Piling Works	Generator	CNP 101	108	1	100%	0	116	
	Piling, vibrating hammer	CNP 172	115	1	100%	0		115
Concreting Works	Concrete lorry mixer	CNP 044	109	1	75%	-1.2	119	
	Concrete pump, stationary / lorry mounted	CNP 047	109	1	75%	-1.2		108
	Generator	CNP 101	108	1	100%	0		108
	Poker, vibratory, hand-held	CNP 170	113	3	100%	0.0		118
	Dump truck, 5.5 tonne < gross vehicle weight =< 38 tonne	Other <sup>[1]</sup>	105	1	50%	-3.0		102
	Lorry, gross vehicle weight > 38 tonne	Other <sup>[1]</sup>	112	1	50%	-3.0		109
<b>Activity 3 - Main Building Construction</b>								
General construction works	Air compressor, air flow > 10 m <sup>3</sup> /min and <= 30 m <sup>3</sup> /min	CNP 002	1	75%	-1.2	101	117	
	Bar bender and cutter (electric)	CNP 021	90	3	100%	0.0		95
	Crane, mobile / barge mounted (diesel)	CNP 048	112	1	75%	-1.2		111
	Crane, tower (electric)	CNP 049	95	1	100%	0.0		95
	Drill / grinder, hand-held (electric)	CNP 065	98	1	75%	-1.2		97
	Generator	CNP 101	108	1	100%	0		108
	Breaker, hand-held, mass >= 20 kg and <= 35 kg	CNP 025	111	2	50%	-3.0		111
	Dump truck, 5.5 tonne < gross vehicle weight =< 38 tonne	Other <sup>[1]</sup>	105	1	50%	-3.0		102
	Saw, circular, wood	CNP 201	108	3	70%	-1.5		111
	Concreting works	Concrete lorry mixer	CNP 044	109	1	75%		-1.2
Concrete pump, stationary / lorry mounted		CNP 047	109	1	75%	-1.2	108	
Generator		CNP 101	108	1	100%	0	108	
Poker, vibratory, hand-held		CNP 170	113	3	100%	0.0	118	
Dump truck, 5.5 tonne < gross vehicle weight =< 38 tonne		Other <sup>[1]</sup>	105	1	50%	-3.0	102	
Lorry, gross vehicle weight > 38 tonne		Other <sup>[1]</sup>	112	1	50%	-3.0	109	
Finishing	Drill, percussive, hand-held (electric)	CNP 064	103	3	50%	-3.0	118	
	Jig-saw, hand-held wood (electric)	Other <sup>[1]</sup>	99	1	50%	-3.0		96
	Concrete corer	CNP 042	117	2	50%	-3.0		117
	Lorry, with crane / grab, 5.5 tonne < gross vehicle weight < 38 tonne	Other <sup>[1]</sup>	105	2	50%	-3.0		105

Note :  
 [1] Reference to "Sound Power Levels of other commonly used PME"

Construction Plant Inventory for THEI New Campus Development

PME	TM or Other Reference	SWL, dB(A)	No. of PME	% on Time	On-Time % Correction, dB(A)	Total SWL, dB(A)	Highest SWL of Each Construction Activity, dB(A)	
<b>Activity 3 - Main Building Construction</b>								
Interior Fitting Out and Users Moving-in	Drill, percussive, hand-held (electric)	CNP 064	103	3	50%	-3.0	118	
	Jig-saw, hand-held wood (electric)	Other <sup>[1]</sup>	99	1	50%	-3.0		96
	Concrete Corer	CNP 294	117	2	50%	-3.0		117
	Lorry, with crane, 5.5 tonne < gross vehicle weight < 38 tonne	Other <sup>[1]</sup>	105	2	50%	-3.0		105
	Dump truck, 5.5 tonne < gross vehicle weight =< 38 tonne	Other <sup>[1]</sup>	105	1	50%	-3.0		102

Note :  
 [1] Reference to "Sound Power Levels of other commonly used PME"

Calculation of Construction Noise Level due to the proposed Project (Unmitigated Scenario)

NAP	Construction Activity	Total SWL, dB(A)	Dist. (NSR to Site Boundary) (A), m	Dist. (Site Boundary to Notional Point) (B), m	Horz. Dist. (=A+B), m	Dist. Corr., dB(A)	Façade Corr., dB(A)	Barrier Corr., dB(A) [1]	CNL, dB(A)
NAP 101	Site Formation, Excavation and Filling	119	300	36	336	-59	3	0	63
NAP 201	Site Formation, Excavation and Filling	119	145	19	164	-52	3	0	70
NAP 202	Site Formation, Excavation and Filling	119	248	2	250	-56	3	-10	56
NAP 301	Site Formation, Excavation and Filling	119	160	19	179	-53	3	-10	59
NAP 401	Site Formation, Excavation and Filling	119	345	17	362	-59	3	0	63
NAP 501	Site Formation, Excavation and Filling	119	340	19	359	-59	3	0	63
NAP 601	Site Formation, Excavation and Filling	119	375	17	392	-60	3	0	62
NAP 701	Site Formation, Excavation and Filling	119	380	17	397	-60	3	0	62
NAP 801	Site Formation, Excavation and Filling	119	200	17	217	-55	3	0	67
NAP 802	Site Formation, Excavation and Filling	119	260	17	277	-57	3	-10	55
NAP 101	Foundation	119	300	36	336	-59	3	0	63
NAP 201	Foundation	119	145	19	164	-52	3	0	70
NAP 202	Foundation	119	248	19	267	-57	3	-10	55
NAP 301	Foundation	119	160	19	179	-53	3	-10	59
NAP 401	Foundation	119	345	17	362	-59	3	0	63
NAP 501	Foundation	119	340	19	359	-59	3	0	63
NAP 601	Foundation	119	375	17	392	-60	3	0	62
NAP 701	Foundation	119	380	17	397	-60	3	0	62
NAP 801	Foundation	119	200	17	217	-55	3	0	67
NAP 802	Foundation	119	260	17	277	-57	3	-10	55
NAP 101	Main Building Construction	119	300	36	336	-59	3	0	63
NAP 201	Main Building Construction	119	145	19	164	-52	3	0	70
NAP 202	Main Building Construction	119	248	19	267	-57	3	-10	55
NAP 301	Main Building Construction	119	160	19	179	-53	3	-10	59
NAP 401	Main Building Construction	119	345	17	362	-59	3	0	63
NAP 501	Main Building Construction	119	340	19	359	-59	3	0	63
NAP 601	Main Building Construction	119	375	17	392	-60	3	0	62
NAP 701	Main Building Construction	119	380	17	397	-60	3	0	62
NAP 801	Main Building Construction	119	200	17	217	-55	3	0	67
NAP 802	Main Building Construction	119	260	17	277	-57	3	-10	55

[1] Attenuation of -10 dB(A) is applied to the NSR(s) that does not have a direct line of sight of the Project site.

Calculation of Construction Noise Level due to Concurrent Project - THEI New Campus Development (Unmitigated Scenario)

NAP	Construction Activity	Total SWL, dB(A)	Dist. (NSR to Site Boundary) (A), m	Dist. (Site Boundary to Notional Point) (B), m	Horz. Dist. (=A+B), m	Dist. Corr., dB(A)	Façade Corr., dB(A)	Barrier Corr., dB(A) [1]	CNL, dB(A)
NAP 101	Interior Fitting Out and Users Moving-in	118	505	23	528	-62	3	0	59
NAP 201	Interior Fitting Out and Users Moving-in	118	179	14	193	-54	3	0	67
NAP 202	Interior Fitting Out and Users Moving-in	118	213	8	221	-55	3	-10	56
NAP 301	Interior Fitting Out and Users Moving-in	118	240	14	254	-56	3	0	65
NAP 401	Interior Fitting Out and Users Moving-in	118	104	9	113	-49	3	0	72
NAP 501	Interior Fitting Out and Users Moving-in	118	121	9	130	-50	3	0	71
NAP 601	Interior Fitting Out and Users Moving-in	118	210	8	218	-55	3	0	66
NAP 701	Interior Fitting Out and Users Moving-in	118	86	15	101	-48	3	0	73

[1] Attenuation of -10 dB(A) is applied to the NSR(s) that does not have a direct line of sight of the Project site.

