

APPENDIX 5.17 Prediction of Maximum Allowable SWLs of Ventilation Fans for the PTIs

Maximum Allowable SWL of Site for the Proposed Public Transport InterchangesBack Calculations from Existing Receivers (Daytime)

Noise Source (NS)	Description	Noise Source (x)	Noise Source (y)	Nearest NSR	NSR (x)	NSR (y)	Noise Criteria ^[1] , dB(A)	Shortest Distance to NAP, m	Distance Correction	Façade Correction	Tonality Correction	Screening Correction	Directivity [2]	Cumulative Impacts [3]	Maximum Allowable SWL, dB(A)
PFS-01	PTI-01	815075.8	830997.6	E19_FN01	815085.0	830843.0	44.4	155	52	-3	-6	0	0	-3	84
PFS-02	PTI-01	815157.7	831050.8	E18_FN01	815261.0	830951.9	44.4	143	51	-3	-6	0	0	-3	83
PFS-03	PTI-02	815770.6	830817.9	E16_FN01	815718.1	830728.4	48.0	104	48	-3	-6	0	0	-3	84
PFS-04	PTI-02	815837.6	830797.0	E16_FN01	815718.1	830728.4	48.0	138	51	-3	-6	0	0	-3	86

Back Calculations from Existing Receivers (Night time)

Noise Source (NS)	Description	Noise Source (x)	Noise Source (y)	Nearest NSR	NSR (x)	NSR (y)	Noise Criteria ^[1] , dB(A)	Shortest Distance to NAP, m	Distance Correction	Façade Correction	Tonality Correction	Screening Correction	Directivity [2]	Cumulative Impacts [3]	Maximum Allowable SWL, dB(A)
PFS-01	PTI-01	815075.8	830997.6	E19_FN01	815085.0	830843.0	37.8	155	52	-3	-6	0	0	-3	77
PFS-02	PTI-01	815157.7	831050.8	E18_FN01	815261.0	830951.9	37.8	143	51	-3	-6	0	0	-3	76
PFS-03	PTI-02	815770.6	830817.9	E16_FN01	815718.1	830728.4	41.2	104	48	-3	-6	0	0	-3	77
PFS-04	PTI-02	815837.6	830797.0	E16_FN01	815718.1	830728.4	41.2	138	51	-3	-6	0	0	-3	79

Note:

[1] Noise Criterion are proposed based on free-field measured background noise +3 dB(A) façade correction.

[2] A directivity correction of -10dB(A) would be applied if NSR is facing 180° away from noise sources.

[3] Cumulative impacts from nearby fixed noise sources. PFS-01 and PFS-02 at Hong Po Road Site may have potential cumulative impact, thus each source should apply a correction of -3 dB(A). PFS-03 and PFS-04 at San Hing Road Site may have potential cumulative impact, thus PFS-03 and PFS-04 should apply a correction of -3 dB(A).