

Agreement No. CE 10/2014 (CE)
 Development of Anderson Road Quarry Site - Investigation, Design and Construction
 EIA Report for Rock Cavern Developments
 Predicted Maximum Sound Power Level for Ventilation Shaft for Rock Cavern at +200mPD

NSR ID	Description	ASR	Affected by IF?	Noise Criteria, dB(A)			Noise Sources	Maximum Allowable SWL, dB(A)	Approximated Dist., m	Distance Attenuation, dB(A)	Tonality Correction, dB(A)	Façade Correction, dB(A)	SPL, dB(A)		
				ANL-5	Background Noise Measurement ⁽¹⁾	Noise Criteria							Day and Evening		
				Day and Evening				Day and Evening					Compliance? (Y/N)		
R2-1-R006	Private Housing, ARQ Site R2-1	B	Not Affected	60	56	56	Rock Cavern at +200mPD	93	80	-46	3	3	53	54	Y
							Proposed Pumping Station ⁽²⁾	97	220	-55	3	3	48		
Maximum Allowable SWL (Day and Evening) of Ventilation Shaft of Proposed Rock Cavern at +200mPD, dB(A)														93	

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				ANL-5	Background Noise Measurement ⁽¹⁾	Noise Criteria							Night		
				Night				Night					Compliance? (Y/N)		
R2-1-R006	Private Housing, ARQ Site R2-1	B	Not Affected	50	49	49	Rock Cavern at +200mPD	86	80	-46	3	3	46	49	Y
							Proposed Pumping Station ⁽²⁾	94	220	-55	3	3	45		
Maximum Allowable SWL (Night-time) of Ventilation Shaft of Proposed Rock Cavern at +200mPD, dB(A)														86	

Note:

- (1) Background Noise Measurement is adopted from the approved EIA report for Development of Anderson Road Quarry (EIA-222/2014).
- (2) Maximum Allowable SWL of the Proposed Pumping Station is adopted from the approved EIA report for Development of Anderson Road Quarry (EIA-222/2014).
- (3) If the noise exhibits any tonality, intermittency or impulsiveness characteristics during the operation of the plant, the noise design limit (Maximum Allowable SWL) should be reduced to absorb these corrections in accordance with the recommendation given in IND-TM.
- (4) Maximum Allowable SWL (Day and Evening / Night) of Ventilation Shaft of Proposed Rock Cavern at +200mPD might subject to change if the exact location of the Ventilation Shaft is confirmed.

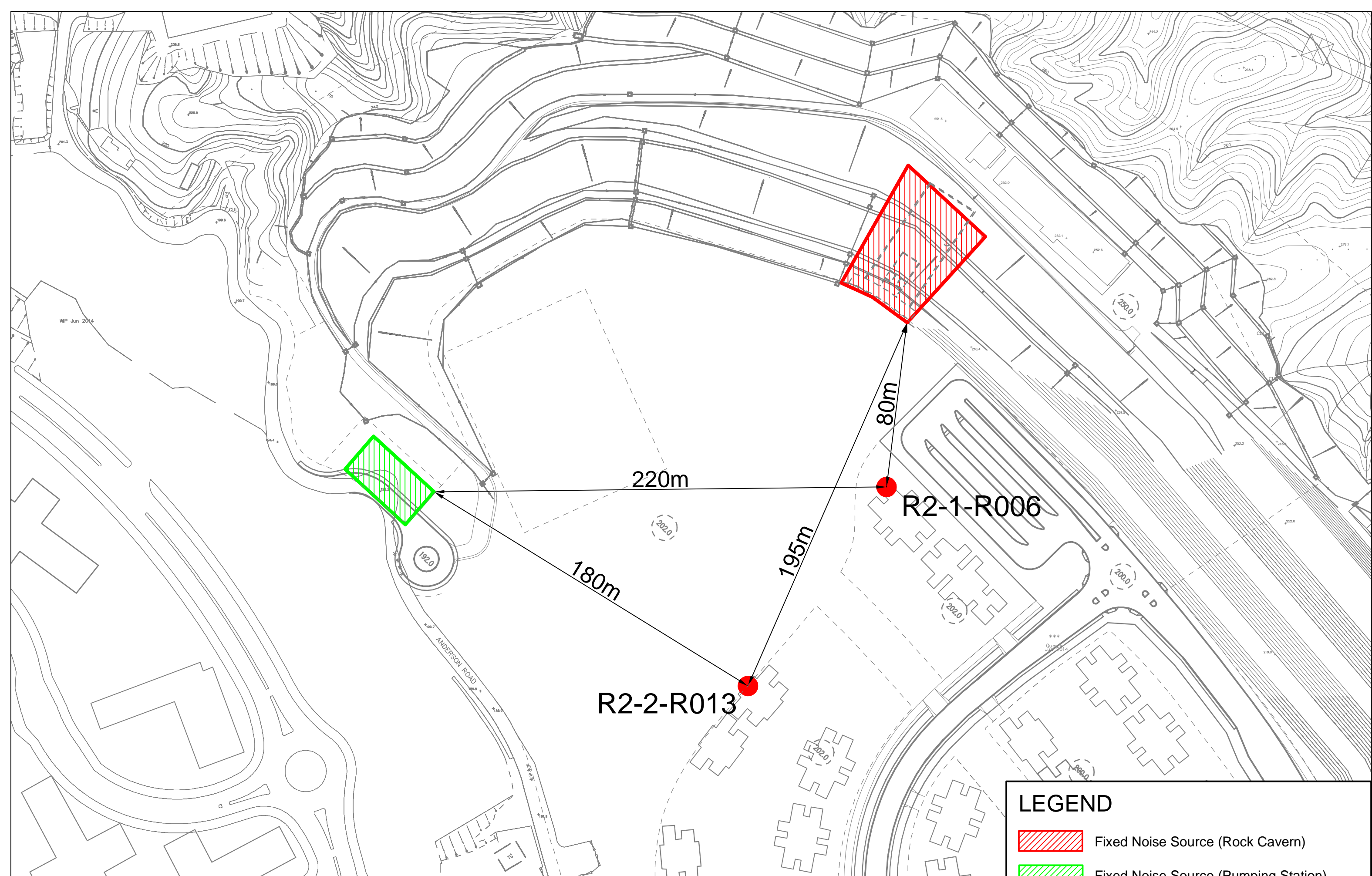
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				ANL-5	Background Noise Measurement ⁽¹⁾	Noise Criteria							Day and Evening		
				Day and Evening				Day and Evening					Compliance? (Y/N)		
R2-2-R013	Private Housing, ARQ Site R2-2	B	Not Affected	60	56	56	Rock Cavern at +200mPD	93	195	-54	3	3	45	51	Y
							Proposed Pumping Station ⁽²⁾	97	180	-53	3	3	50		
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				ANL-5	Background Noise Measurement ⁽¹⁾	Noise Criteria							Night		
				Night				Night					Compliance? (Y/N)		
R2-2-R013	Private Housing, ARQ Site R2-2	B	Not Affected	50	49	49	Rock Cavern at +200mPD	86	195	-54	3	3	38	47	Y
							Proposed Pumping Station ⁽²⁾	94	180	-53	3	3	47		
Maximum Allowable SWL (Night-time) of Ventilation Shaft of Proposed Rock Cavern at +200mPD, dB(A)														86	

Note:




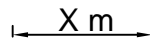
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Horizontal Distances of NSR for Fixed Plant Noise Assessment

(Note: Building block layouts are assumed for assessment purpose)

LEGEND

-  Fixed Noise Source (Rock Cavern)
-  Fixed Noise Source (Pumping Station)
-  Representative NSR
-  Distance (X in meter)