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20170038.1/1007A/R0/TA

10/07/2017

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ATTN: ANGUS MORTEN

Western Sydney Stadium - SoundPLAN Noise Emission Modelling

This letter presents the supplementary SoundPLAN noise emission modelling to address comments raised by the EPA in their letter dated 27 June 2017.

EPA Comments are as follows:

EPA Comment (2.1)

(a) provide a more detailed noise model of operational noise from the stadium, or other quantitative assessment, demonstrating that openings between seating tiers will not result in event noise being higher than predicted at sensitive receivers

ALC Response

The openings between the seating tiers have been modelled and are presented as an isolated noise model in Appendix One. The predicted noise level contribution from the openings between the seating tiers is 64dB(A) at the nearest residential receivers in concert mode, 15dB(A) below the originally predicted noise level from the stadium as a whole, 78dB(A). As the contribution from the openings between the seating tiers is more than 10dB(A) below the predicted noise contribution of 78dB(A) from the main stadium, there is no increase in overall predicted noise level.

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EPA Comment

The response to submissions did not demonstrate that all feasible and reasonable noise mitigation measures were included in modelling concert noise (for example, relocating the stage to face south, not north).

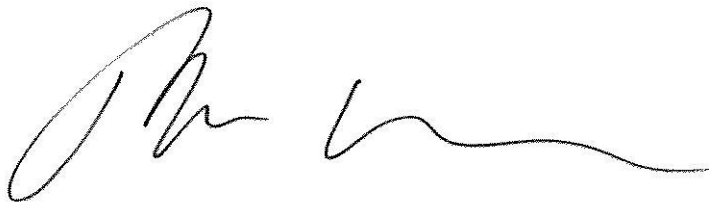
ALC Response

The stage has been relocated to the northern end (facing south). The results of this modelling are presented in Appendix Two. Modelling results indicate noise levels of 70dB(A) L_{eq} (including the contribution from the gaps between the seating tiers) for noise emissions during concert mode to receivers to the north. Previously these noise levels were predicted to be 78dB(A) L_{eq} with the Stage facing north.

The stage is now proposed to remain in this location, facing south, reducing noise emissions to the nearest residential receivers situated on O'Connell Street.

We trust this information is satisfactory. Please contact us should you have any further queries.

Yours faithfully,

A handwritten signature in black ink, appearing to read 'Thomas Aubusson', with a long horizontal flourish extending to the right.

Acoustic Logic Consultancy Pty Ltd
Thomas Aubusson MAAS

APPENDIX ONE – CONTRIBUTION FROM OPENINGS BETWEEN SEATING TIERS

Western Sydney Stadium

Operational Noise Prediction

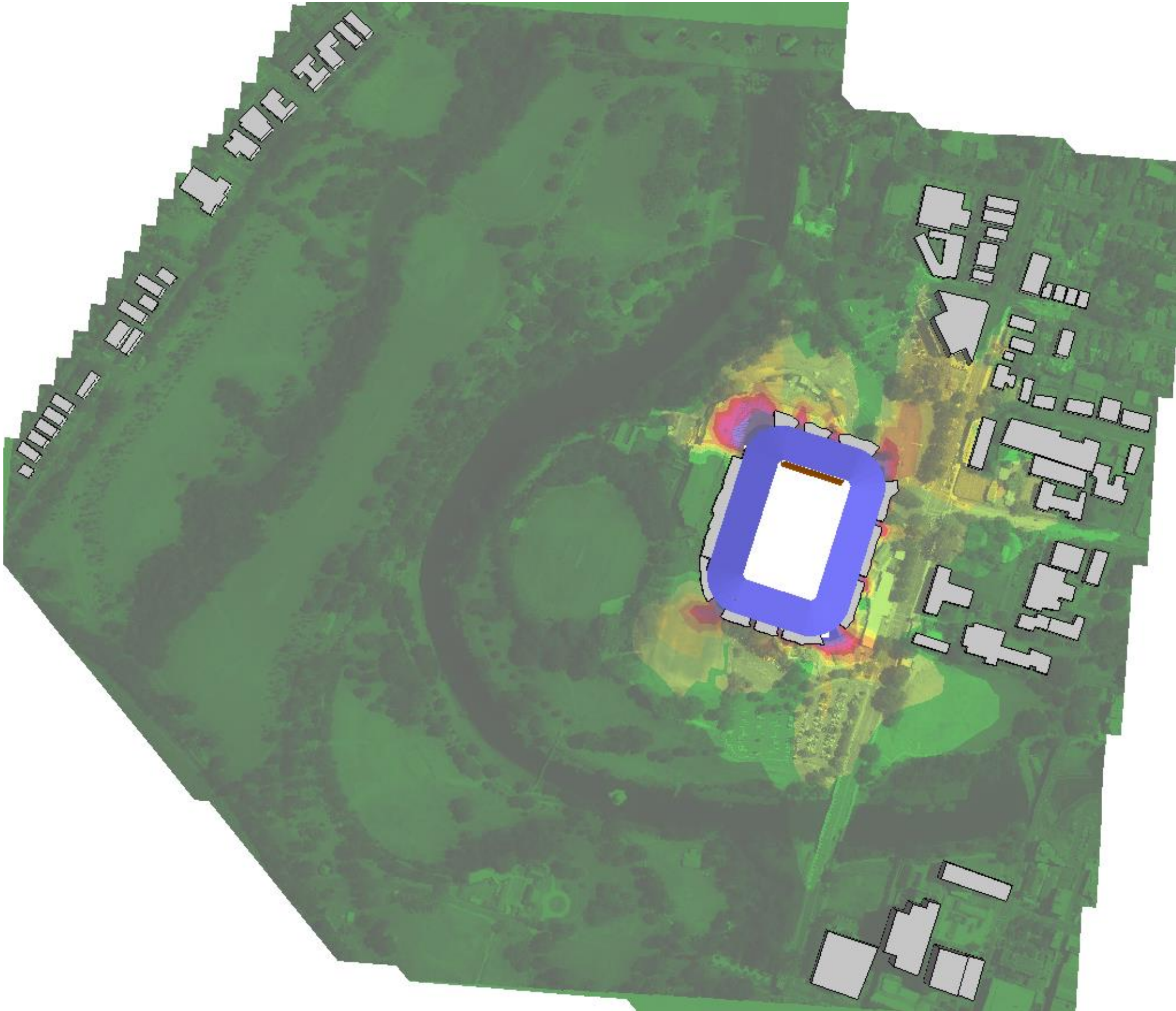
Music Concert

Contribution from Concourse
Openings

Noise Level

L_{eq} 15min
in dB(A)

- < 61
- 61 - 64
- 64 - 67
- 67 - 70
- 70 - 73
- 73 - 76
- 76 - 79
- 79 - 82
- 82 - 85
- 85 - 88
- 88 - 91
- >= 91

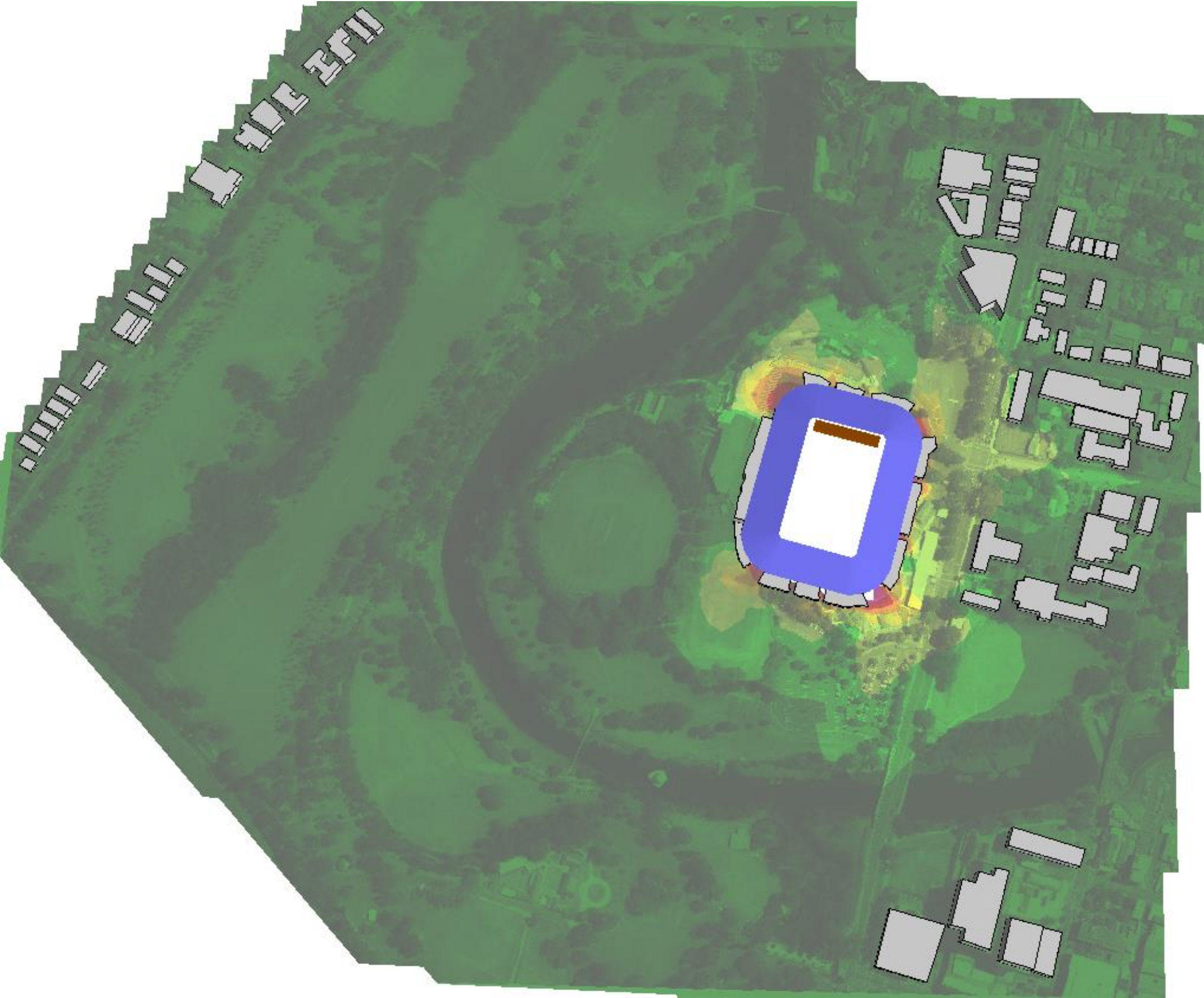


Western Sydney Stadium

Operational Noise Prediction

Music Concert

Contribution from Concourse Openings



Noise Level

L_{eq} 15min
in dB(C)

< 80
80 - 83
83 - 86
86 - 89
89 - 92
92 - 95
95 - 98
98 - 10
10 - 10
10 - 10
10 - 11
>= 11



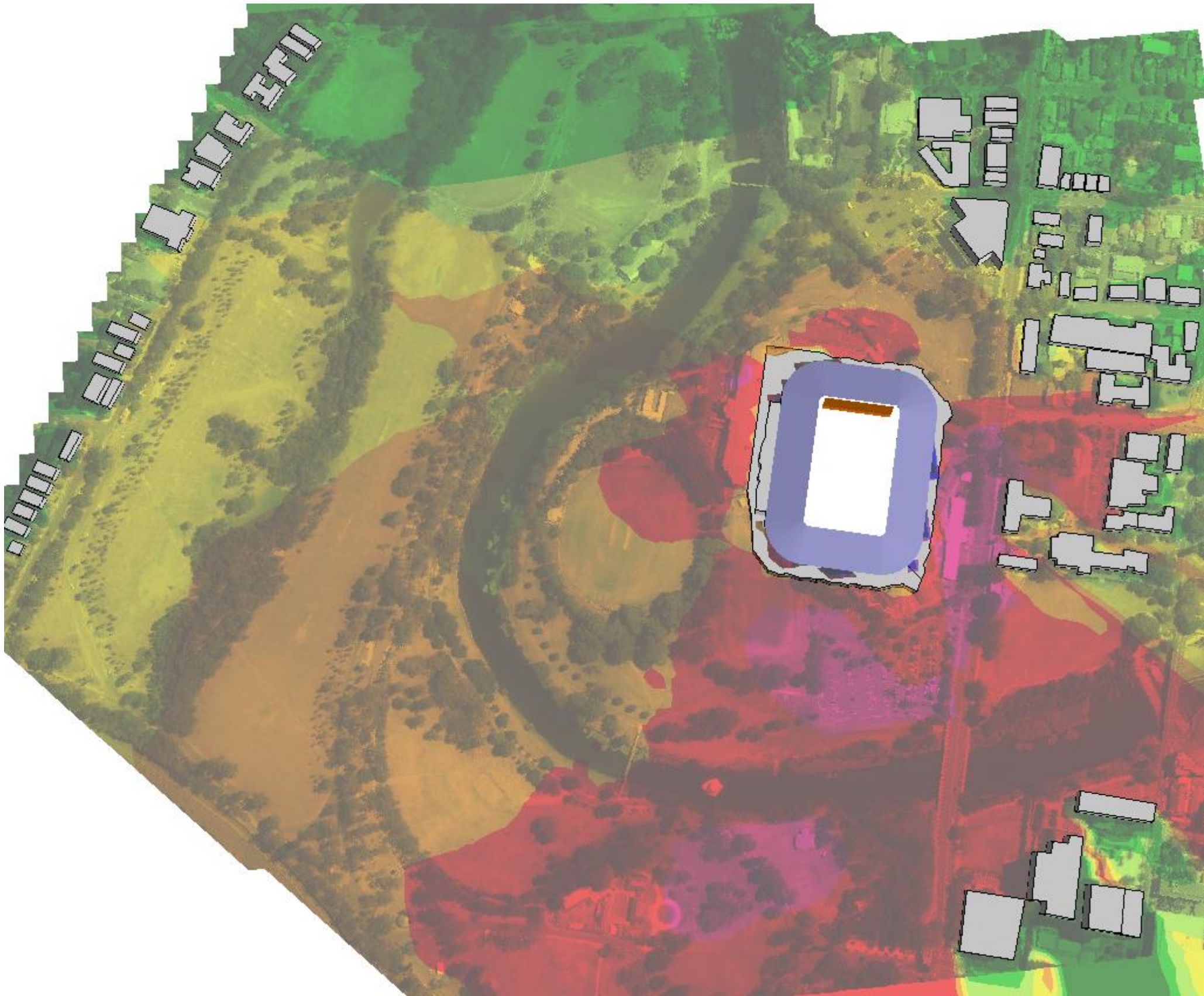
**APPENDIX TWO –
CONCERT MODE – STAGE FACING SOUTH**

Western Sydney Stadium

Operational Noise Prediction

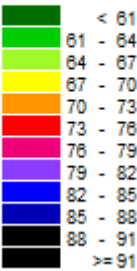
Rock Music Noise

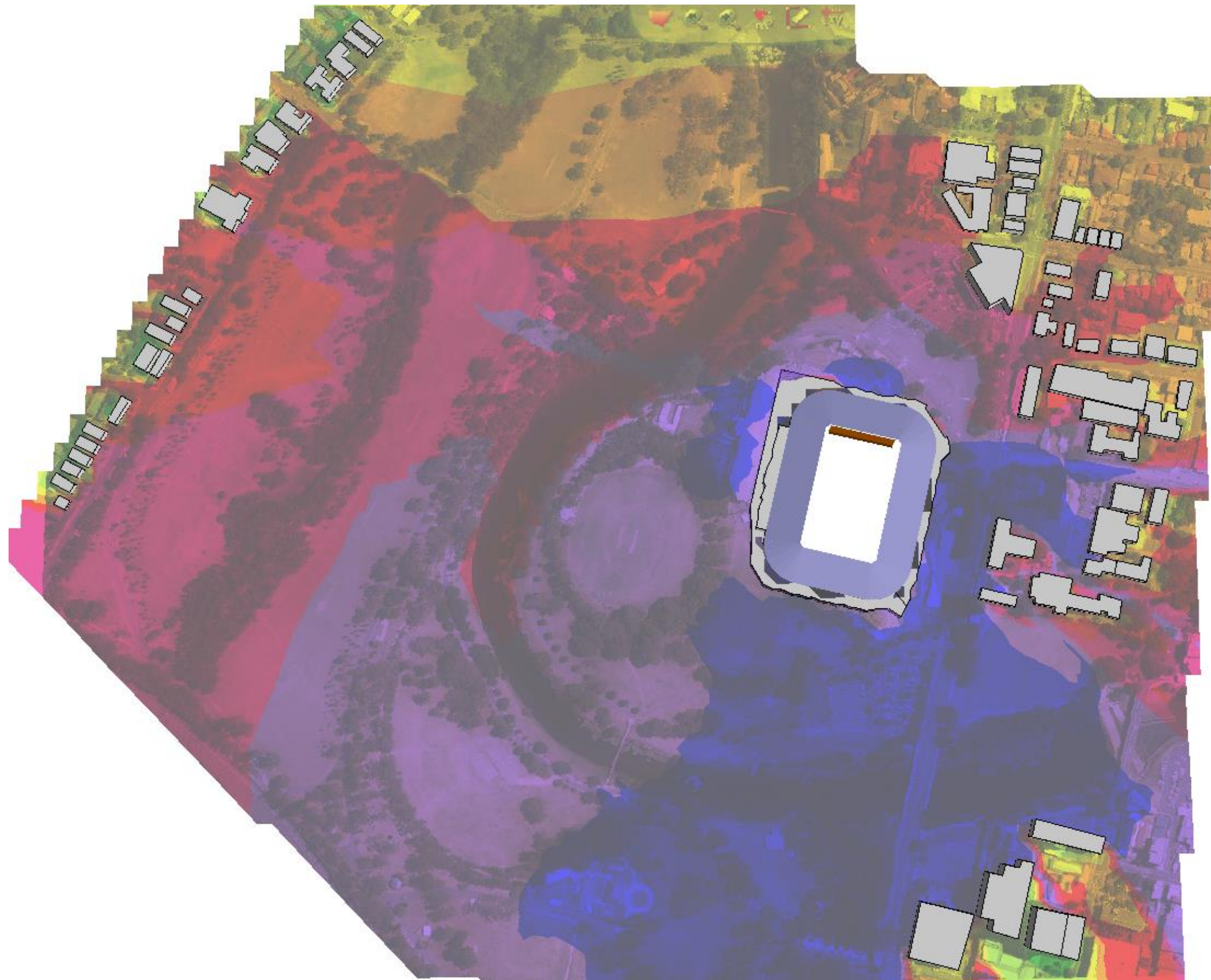
South Facing Stage



Noise Level

$L_{eq\ 15min}$
in dB(A)





Western Sydney Stadium

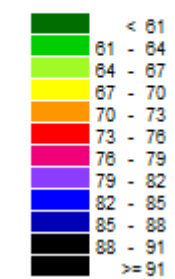
Operational Noise Prediction

Rock Music Noise

South Facing Stage

Noise Level

L_{max}
in dB(A)



Western Sydney Stadium

Operational Noise Prediction

Rock Music Noise

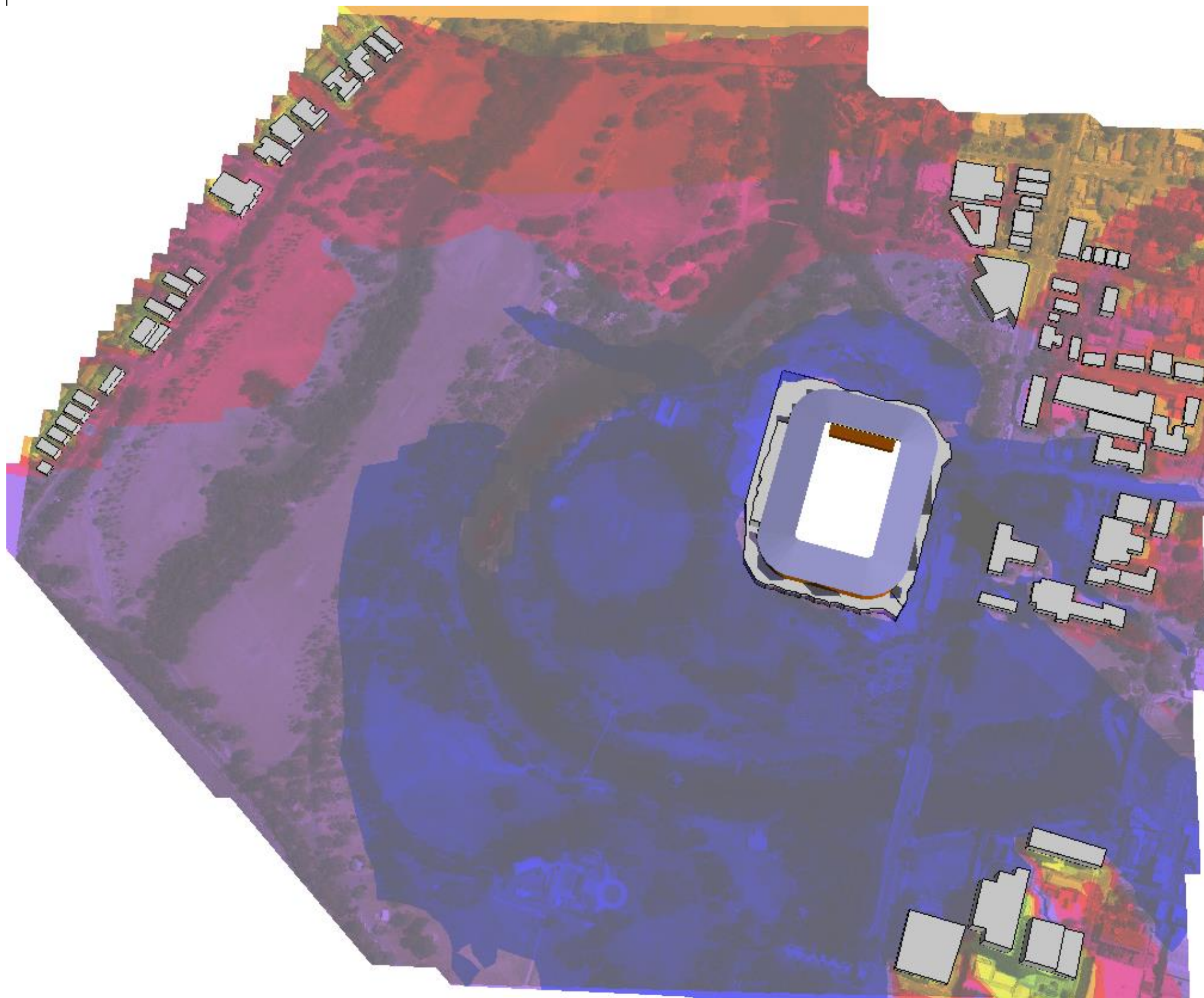
South Facing Stage

Noise Level

$L_{eq\ 15min}$
in dB(C)

	<	80
	80 -	83
	83 -	86
	86 -	89
	89 -	92
	92 -	95
	95 -	98
	98 -	101
	101 -	104
	104 -	107
	107 -	110
	>	110





Western Sydney Stadium

Operational Noise Prediction

Rock Music Noise

South Facing Stage

Noise Level

L_{max}
in dB(C)

< 80
80 - 83
83 - 86
86 - 89
89 - 92
92 - 95
95 - 98
98 - 101
101 - 104
104 - 107
107 - 110
≥ 110