

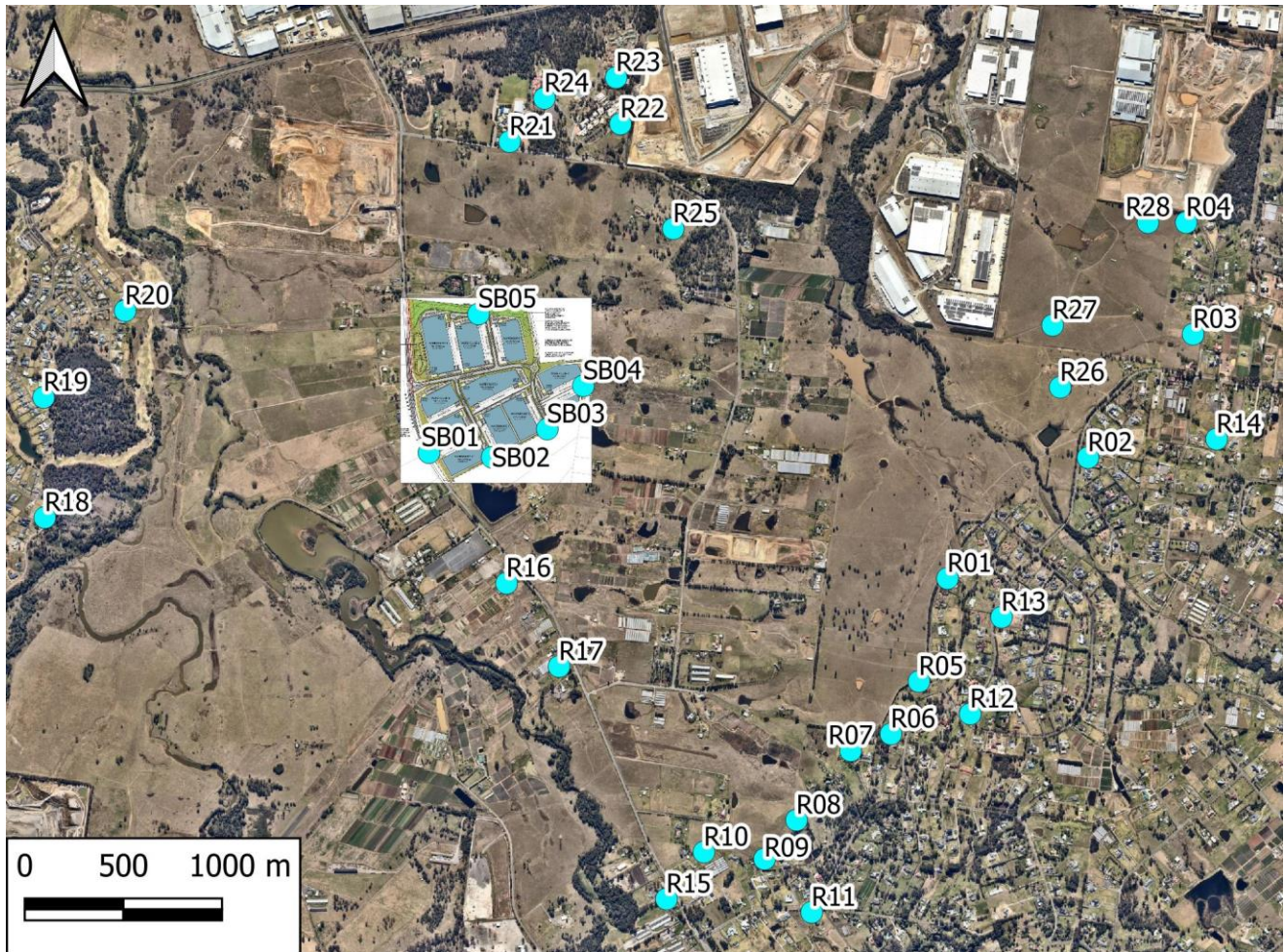


**Table 1 Receiver Details**

Receiver ID	Coordinates	Direction from Site
R01	-33.852352, 150.810442	Southeast
R02	-33.846976, 150.818277	East
R03	-33.841444, 150.824180	East
R04	-33.836337, 150.823928	East
R05	-33.857030, 150.808758	Southeast
R06	-33.859400, 150.807159	Southeast
R07	-33.860122, 150.804938	Southeast
R08	-33.863238, 150.801886	Southeast
R09	-33.864984, 150.800089	Southeast
R10	-33.864609, 150.796779	Southeast
R11	-33.867462, 150.802610	Southeast
R12	-33.858562, 150.811526	Southeast
R13	-33.854177, 150.813355	Southeast
R14	-33.846255, 150.825344	East
R15	-33.866712, 150.794671	Southeast
R16	-33.852140, 150.786278	South
R17	-33.855995, 150.789059	South
R18	-33.848685, 150.761068	West
R19	-33.843199, 150.761143	West
R20	-33.839325, 150.765713	West
R21	-33.831984, 150.786967	North
R22	-33.831286, 150.793061	North
R23	-33.829165, 150.792879	North
R24	-33.830045, 150.788925	North
R25	-33.836221, 150.795958	Northeast
R26	-33.843740, 150.816836	East
R27	-33.840898, 150.816493	East
R28	-33.836299, 150.821836	East
SB01	Refer to <b>Figure 1</b>	Western site boundary
SB02	Refer to <b>Figure 1</b>	South-western site boundary
SB03	Refer to <b>Figure 1</b>	South-eastern site boundary
SB04	Refer to <b>Figure 1</b>	Eastern site boundary
SB05	Refer to <b>Figure 1</b>	Northern site boundary



**Figure 2 Receiver Locations**



### 3 Operational Criteria

The noise emission trigger levels for operational noise generated by the site are shown in **Table 2**. The Project Noise Trigger Level (PNTL) is the lowest value of the intrusiveness or amenity noise level for each period and are shown below in bold. The Noise Catchment Area (NCA) boundaries are shown in **Figure 3**.

**Table 2 Project Trigger Noise Levels**

NCA	Receiver Type	Period	Recommended Amenity Noise Level LAeq(period) (dBA)	Measured Noise Level (dBA)		Project Noise Trigger Levels LAeq(15minute) (dBA)	
				RBL <sup>1</sup>	LAeq(period)	Intrusiveness	Amenity
NCA01	Residential	Day	50	39	50	<b>44</b>	48
		Evening	45	39	49	44	<b>43</b>
		Night	40	32	50	<b>37</b>	38
NCA02	Residential	Day	50	35	43	<b>40</b>	48
		Evening	45	33	42	<b>38</b>	43
		Night	40	32	43	<b>37</b>	38

NCA	Receiver Type	Period	Recommended Amenity Noise Level $L_{Aeq}(\text{period})$ (dBA)	Measured Noise Level (dBA)		Project Noise Trigger Levels $L_{Aeq}(15\text{minute})$ (dBA)	
				RBL <sup>1</sup>	$L_{Aeq}(\text{period})$	Intrusiveness	Amenity
NCA03	Residential	Day	50	35	44	<b>40</b>	48
		Evening	45	33	41	<b>38</b>	43
		Night	40	30	41	<b>35</b>	38
NCA04	Residential	Day	50	39	52	<b>44</b>	48
		Evening	45	39	53	44	<b>43</b>
		Night	40	32	54	<b>37</b>	38
NCA02	Childcare	When in use	50	n/a	n/a	n/a	<b>48</b>
NCA02	Educational	When in use	45	n/a	n/a	n/a	<b>43</b>
All	Commercial	When in use	65	n/a	n/a	n/a	<b>63</b>

Note 1: RBL = Rating Background Level.

The night-time sleep disturbance  $L_{Amax}$  screening noise levels for the residential areas in the vicinity of the site are presented in **Table 3**.

**Table 3 Night-time Sleep Disturbance Screening Noise Levels**

Residential Receiver Area	Noise Level (dBA)	
	Measured Night-time RBL	Sleep Disturbance Screening Noise Level ( $L_{Amax}$ )
NCA01	32	52
NCA02	32	52
NCA03	29	52
NCA04	32	52

## 4 Predicted Operational Noise Levels

The operational noise model for the Aspect Industrial Estate was updated with the requested receiver points. Predicted operational noise levels for the Masterplan Development and the Stage 1 Development are provided in **Table 4** and **Table 5**, respectively.

It is noted that the project is in the early planning stages and the future tenants are currently unknown. Several assumptions have been made regarding the likely future tenants, uses, traffic volumes and sources of noise on the site. As such, the noise predictions in this memo should be regarded as indicative for planning purposes only and are required to be confirmed at a later stage when detailed information is available regarding the future uses.

As with any modelling there is inherent uncertainty and limitations in the accuracy of the predictions. Given the early stage of the project, and the assumptions that have been necessary to make, the uncertainty of the predictions is considered to be higher than if the project were at detailed design. The uncertainty of predictions should be evaluated and reduced to an acceptable level before they are used for purposes such as verification or compliance checks.

**Table 4 Predicted Operational Noise Levels – Masterplan Development**

Receiver ID	Predicted LAeq(15minute) Noise Level (dBA)			Predicted LAmax Noise Level (dBA)	
	Daytime/Evening (standard weather)	Night-time (standard weather)	Night-time (noise-enhancing weather)	Night-time (standard weather)	Night-time (noise-enhancing weather)
R01	21	19	26	33	40
R02	20	18	25	32	39
R03	20	17	24	28	35
R04	21	17	24	28	35
R05	21	19	26	34	41
R06	23	21	28	35	42
R07	25	23	30	35	43
R08	11	8	15	16	23
R09	12	9	16	17	25
R10	26	23	30	34	41
R11	18	15	22	26	33
R12	21	19	26	33	41
R13	22	20	27	33	41
R14	17	16	22	31	38
R15	23	20	27	32	39
R16	33	32	37	43	49
R17	28	26	33	37	44
R18	29	26	33	36	43
R19	28	24	31	33	41
R20	31	27	34	38	45
R21	29	27	34	39	46
R22	26	24	31	38	45
R23	21	20	27	37	44
R24	29	28	35	41	48
R25	36	34	41	45	52
R26	18	17	24	33	40
R27	23	19	26	29	36
R28	21	17	24	27	34
SB01	50	47	50	63	64
SB02	62	60	62	79	80
SB03	64	61	62	79	80
SB04	65	62	64	82	82
SB05	66	64	65	82	83

**Table 5 Predicted Operational Noise Levels – Stage 1 Development**

Receiver ID	Predicted LAeq(15minute) Noise Level (dBA)			Predicted L <sub>A</sub> max Noise Level (dBA)	
	Daytime/Evening (standard weather)	Night-time (standard weather)	Night-time (noise-enhancing weather)	Night-time (standard weather)	Night-time (noise-enhancing weather)
R01	23	20	27	33	40
R02	22	19	26	32	39
R03	19	17	24	28	35
R04	19	17	24	29	36
R05	22	19	26	32	39
R06	23	20	27	33	40
R07	24	22	29	34	41
R08	6	4	11	16	23
R09	8	6	13	19	26
R10	24	21	28	36	43
R11	16	13	20	29	36
R12	22	20	27	33	40
R13	23	21	28	33	41
R14	19	16	23	29	36
R15	21	19	26	31	38
R16	32	29	36	40	47
R17	26	24	31	39	46
R18	24	22	29	34	41
R19	25	22	29	35	42
R20	29	27	34	41	47
R21	22	20	26	30	37
R22	21	19	26	32	39
R23	16	14	21	26	33
R24	21	19	26	31	38
R25	33	31	38	42	49
R26	19	17	24	30	37
R27	21	18	25	30	37
R28	18	15	22	27	34
SB01	36	34	39	44	49
SB02	49	46	52	58	63
SB03	48	46	51	58	63
SB04	46	44	50	56	62
SB05	65	61	63	82	83



Figure 3 Site Location and NCAs

