INFORMATION REQUEST RESPONSE

NOISE IMPACT ASSESSMENT

PROPOSED CHILDCARE CENTRE

2-6 LANCEWOOD STREET

PARK RIDGE

LOGAN CITY COUNCIL

APPROVED DOCUMENT

This is an approved document for Development Application

MCUI/56/2023

Prepared For:
Onefin Ops Pty Ltd

Prepared By:
MWA Environmental

26 February 2024

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DOCUMENT CONTROL SHEET

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Title:	Information Request - Noise Impact Assessment – Proposed Childcare Centre – 2-6 Lancewood Street, Park Ridge
Principal Author:	Mr Elton Singh
Client:	Onefin Ops Pty Ltd
Client Contact:	Mr Nick Weller

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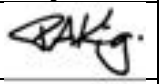
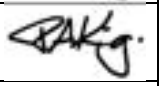
1 DA Report	08.09.2023	ES		PAK	
2 FIR Report	26.02.2024	ES		PAK	
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1.0 INTRODUCTION

1.1 STUDY BRIEF

MWA Environmental has been engaged to prepare a Noise Impact Assessment in response to an Information Request issued by Logan City Council for a proposed childcare centre development at 2-6 Lancewood Street, Park Ridge.

The information request was issued on 2 November 2023 (Ref: 17088124) with Items 4.9 to 4.12 relating to acoustic matters as follows:

Acoustic Information

4.9. Confirm that all the noise data affected by inclement weather have been removed in the calculation of background noise levels.

Advice Note

BOM website indicates that rainfall was recorded at Logan City and Greenbank (Defence) weather stations on 18th and 19th July 2023.

4.10. Confirm that car door closure and car start noises with appropriate correction factors have been included in the noise model.

4.11. Provide the L_{Aeq} and L_{Amax} noise levels of all the noise sources including the following noise sources:

4.11.1. noise emissions from outdoor play areas; and

4.11.2. car parking activities (Car Door Closure and Car Start, etc).

4.12. Demonstrate that the predicted L_{Amax} noise levels due to noise emissions from outdoor play areas comply with the night-time L_{Amax} noise limit.

Further Advice:

If it is proposed to utilize the outdoor play area from 6:30am to 7:00am, then it is required to demonstrate that the predicted L_{Amax} noise levels at the boundaries of the adjoining premises do not exceed the night-time L_{Amax} noise limit.

Individual responses to the above requested items are provided in Section 1.4 of this report.

This assessment has considered the potential noise amenity impact of the proposed childcare centre upon nearby sensitive receptors. The assessment is based on ambient noise monitoring conducted on site, noise measurements previously conducted on typical sources associated with the proposed uses and detailed noise propagation modelling.

1.2 SITE DESCIRPTION

The subject site is located at 2-6 Lancewood Street, Park Ridge and has a real property description of Lot 3 on RP227158.

The site and adjacent land to the south and west are zoned Low Density Residential under the Logan Planning Scheme. The land to north across Crest Road is zoned Low-medium Density Residential with land to the east being Park Ridge State High School, is zoned Community Facilities. Mount Lindesay Highway is located further east of the site.

The site location and surrounding land uses are shown on **Figure 1**, with the Logan Planning Scheme zoning shown on **Figure 2**.

1.3 PROPOSED DEVELOPMENT

The proposed development is for a 90 place childcare centre with associated outdoor play areas and carparking. The development provides a total of 24 carparking spaces on the southern part of the site. Access to the childcare centre is via Lancewood Street. Outdoor play areas are proposed on the northern side of the childcare building.

The proposed operating hours for the childcare centre are 6:30am to 6:30pm Monday to Friday with the proposed outdoor play area limited to use between 7am and 6pm.

The development plans are included as **Attachment 1**.

1.4 RESPONSE TO INFORMATION REQUEST

Responses to the individual items 4.9 to 4.12 are provided below.

> ***Item 4.9.***
> *Confirm that all the noise data affected by inclement weather have been removed in the calculation of background noise levels.*
>
> *Advice Note*
> *BOM website indicates that rainfall was recorded at Logan City and Greenbank (Defence) weather stations on 18th and 19th July 2023.*

Response
Review of the recorded rainfall from the Bureau of Meteorology for both weather stations at Logan City and Greenbank indicated that maximum of 3.4mm rainfall occurred on the 18th July and 0.2 to 0.4mm rainfall occurred on the 19th July.

The analysed noise data for the 18th July provided no indication that the recorded noise data was impacted by rainfall, however for this updated noise impact assessment, the noise data from the 18th July has been removed from the assessment.

For the recorded data on the 19th July, a 0.2 to 0.4mm rainfall is regarded as very minor rainfall and does not impact on the recorded noise levels. Thus no correction/ removal of the noise data was warranted.

When removing the noise data from the 18th July, there was no change to the assessed noise level and the relevant adopted criteria.

Item 4.10.
Confirm that car door closure and car start noises with appropriate correction factors have been included in the noise model.

Response
Noise from carparking activities was represented in SoundPlan noise model using the carparking noise module which is an area source that includes noise from car door closure, car starts, car idling etc as an overall sound power level for the allocated parking area. An Lmax sound power level of 90dB(A) was applied to the area source to represent the worst-case maximum noise source level.

The noise source levels applied by the SoundPlan car parking module has been tested against site specific noise measurements by MWA Environmental for previous projects. The test results concluded that the parking module applies a higher noise source level then what is emitted by current modern day vehicles during parking activities. Therefore, the parking module in SoundPlan is used as a conservative approach for noise predictions from carparking noise.

Item 4.11.
Provide the LAeq and LAmax noise levels of all the noise sources including the following noise sources:
4.11.1. noise emissions from outdoor play areas; and
4.11.2. car parking activities (Car Door Closure and Car Start, etc).

Response
The report has been amended to provide the LAeq and LAmax source levels for all noise sources used in the assessment. As mentioned in Item 4.10 response, for carparking noise, the carparking module from SoundPlan was created which is an area source that includes noise from car door closure, car starts, car idling etc as an overall sound power level within the noise source. Therefore, the source levels for car door closure and car start can't be provided separately.

Item 4.12.
4.12. Demonstrate that the predicted LAmax noise levels due to noise emissions from outdoor play areas comply with the night-time LAmax noise limit.

Further Advice:
If it is proposed to utilize the outdoor play area from 6:30am to 7:00am, then it is required to demonstrate that the predicted LAmax noise levels at the boundaries of the adjoining premises do not exceed the night-time LAmax noise limit.

Response

The noise assessment has been updated in consultation with the client to limit the use of outdoor play areas to between 7am and 6pm. Therefore, no night-time L_{Aeq} and L_{Amax} level assessment of outdoor play is required for this updated report.

2.0 EXISTING NOISE ENVIRONMENT

Site inspections reveal that the dominant noise influence at the subject site is road traffic and the nearby Park Ridge State High School.

To enable an assessment of the existing noise at the subject site, noise measurements have been undertaken using a noise datalogger placed at the site over an 8 day period from 12 to 21 July 2023. The noise datalogger location is shown on **Figure 3**.

The noise datalogger used was a Norsonic Nor139 with NATA calibration, programmed to provide statistical analysis results based on 15 minutes sampling periods. The datalogger was pre-calibrated to 94 dB at 1kHz using a Bruel & Kjaer Sound Level Calibrator, Type 4231, and displayed a deviation of less than ±0.5 dB from this level at post-calibration. Weather conditions during the monitoring period were generally fine with light to moderate winds.

The average noise levels recorded by the noise datalogger for the daytime, evening and night periods are provided in **Table 1.** The recorded noise levels are presented as statistical components, which are described as:

L_{max}: The maximum noise level recorded during the measurement period.

L_{10}: Noise level exceeded for 10 percent of the measurement period, referred to as the averaged maximum sound pressure level.

L_{90}: Noise level exceeded for 90 percent of the measurement period. AS1055-2018[1] notes that the L_{90} is described as the background sound pressure level.

L_{eq}: An “average” measurement, and as per AS1055–2018 defined as the value of the sound pressure level of a continuous steady sound state, that within a measurement period, has the same mean square sound pressure as a sound under consideration whose level varies with time.

[1] Australian Standard *AS 1055-2018 Acoustics – Description and measurement of environmental noise*

Table 1: **Average Recorded Noise Levels 12 to 21 July 2023 (Weekdays)**

PARAMETER	PERIOD	AVERAGE RECORDED NOISE LEVELS - dB(A)
L_{max}	Daytime (7am-6pm)	69.8
	Evening (6pm-10pm)	68.5
	Nighttime (10pm-7am)	61.4
L_{10}	Daytime (7am-6pm)	56.8
	Evening (6pm-10pm)	56.1
	Nighttime (10pm-7am)	49.6
L_{90}	Daytime (7am-6pm)	49.4
	Evening (6pm-10pm)	49.2
	Nighttime (10pm-7am)	41.2
L_{eq}	Daytime (7am-6pm)	54.7
	Evening (6pm-10pm)	54.0
	Nighttime (10pm-7am)	47.1

The datalogger recorded noise levels are included as graphical traces of noise level versus time for the statistical noise level descriptors L_{max}, L_{10}, L_{90} and L_{eq} as **Attachment 2**.

The key recorded statistical noise level parameters are presented below.

Average Weekday Background Level – 7am to 6pm = 49 dB(A)

Average Weekday L_{90} 1 hour– 6am to 7am = 51 dB(A)

Average Weekday L_{90} 1 hour– 6pm to 7pm = 52 dB(A)

3.0 NOISE CRITERIA

3.1 LOGAN CITY PLANNING SCHEME POLICY 3.2.1: NOISE EMISSION AND NOISE IMMISSION STANDARDS

Under the Logan City Council Planning Scheme 2015 (LPS 2015) the relevant surrounding land use zones adopted for the purpose of this noise assessment are as follows:

- Low Density and Low-Medium Density zoned land located to the north, west and south of the site (Residential amenity).
- Community Facilities zoned land located to the east (Residential amenity).

The relevant noise criteria for the protection of Residential Amenity apply as per Table 3.2.1.1 (below) of the *Logan Planning Scheme 2015 Planning Scheme Policy 3 – Environmental Management* at the surrounding zones.

Table 3.2.1.1—Noise emission standards for the protection of residential amenity

Noise level at the boundary of premises			
Noise type	Time period	Monday to Saturday	Sunday and public holidays
Non-steady sound*	Day 7:00am – 6:00pm	$L_{Aeq,adj,T} \leq L_{A90}$ plus 5 dB(A)	$L_{Aeq,adj,T} \leq L_{A90}$ plus 5 dB(A)
	Evening 6:00pm to 10:00pm	$L_{Aeq,adj,T} \leq L_{A90}$ plus 5 dB(A)	$L_{Aeq,adj,T} \leq L_{A90}$ plus 5 dB(A)
	Night 10:00 – 7:00am	$L_{Aeq,adj,T} \leq L_{A90}$ plus 0 dB(A) and $L_{Amax} \leq$ 60dB(A)	$L_{Aeq,adj,T} \leq L_{A90}$ plus 0 dB(A) and $L_{Amax} \leq$ 60dB(A)
Continuous noise*	Anytime	$L_{A90,T}$ plus 0dB(A)	$L_{A90,T}$ plus 0dB(A)

Editor's note—* as defined in AS1055.1-1997 Acoustics –Description and measurement of environmental noise

Note—Adjustments for tonality and impulsiveness to be included in accordance with AS1055.1-1997 Acoustics— Description and measurement of environmental noise.

3.2 APPLICABLE NOISE LIMITS

Based upon the measured ambient noise levels and applicable Logan Planning Scheme noise criteria, the following noise limits are adopted for this assessment:

Table 2: Relevant Noise Criteria at Surrounding Land Uses

Period	Early Morning (6am to 7am)	Day (7am to 6pm)	Early Evening (6pm to 7pm)
Continuous Noise L_{A90} – dB(A)	49	49	49
Non-steady Sound L_{Aeq} (1hr) – dB(A)	49	54	54
Non-steady Sound L_{Amax} – dB(A)	60	-	-

The daytime 49 dB(A) average background noise level has been adopted for the early morning period 6:00am to 7:00am and the early evening period 6:00pm to 7:00pm as a conservative approach.

4.0 NOISE IMPACT ASSESSMENT

4.1 NEAREST NOISE SENSITIVE RECEPTORS

The six (6) nearest sensitive boundaries that have been identified and considered as noise sensitive receptors for the purposes of this assessment are the following properties:

R1: Community Facilities zoned land to the east of the subject site.

R2: Low-medium Density Residential zoned land to the north of the subject site.

R3: Low-medium Density Residential zoned land to the northwest of the subject site.

R4: Low Density Residential zoned land to the west of the subject site.

R5: Low Density Residential zoned land to the south of the subject site.

The nominated receptors are shown on an aerial image base on **Figure 4**.

4.2 MECHANICAL PLANT NOISE

No detailed specification for external mechanical plant associated with the development is available at this stage. However, external mechanical plant is likely to include split system air-conditioning units and exhaust fans for the kitchen and amenities.

The appropriate noise criteria for the assessment of plant noise impact from any external plant and equipment is **49 dB(A)** for the proposed operating hours.

The relevant noise criteria apply to surrounding sensitive land uses. Any mechanical plant and equipment associated with the development should thus be selected, located and acoustically treated and/or shielded to achieve the relevant noise criteria.

The relevant noise criteria do not necessarily apply to a single item of plant, but rather should constitute the additive noise component levels of all plant and equipment in operation during the assessed period, measured at the nearest sensitive receptors.

Experience dictates that appropriate modern air conditioning and exhaust ventilation systems achieve noise emission levels capable of ensuring that residential amenity is not adversely impacted by the required plant and equipment.

Indicative air-conditioning plant has been considered in the overall noise modelling assessment presented in **Section 4.3** and is noted to readily comply with the identified noise criteria for mechanical plant noise.

More detailed assessment of acoustic treatments required for the plant and equipment installations should be undertaken at the detailed design stage of the development. Experience with many other similar developments and given the proximity to sensitive land uses dictates that appropriate noise controls are feasible to ensure that plant and equipment can achieve the noise limit. This is considered a matter for future detailed design and can be readily conditioned in a development approval.

4.3 OVERALL DEVELOPMENT NOISE

Overall noise emissions associated with the proposed childcare centre have been assessed using the SoundPLAN 9.0 computer noise model.

The source noise levels for the childcare outdoor play areas were determined using the *Association of Australian Acoustical Consultants Technical Guideline Child Care Centre Noise Assessment* (September 2020, Version 3).

As per the guideline, the noise levels of children playing can vary depending on the age of the children and the type of activity. Sound power levels of children are presented in the guideline as per **Table 3** below.

Table 3: Typical Range of Sound Power Level for Children Playing as per AAAC Technical Guideline

AGE GROUP	NUMBER OF CHILDREN	SOUND POWER LEVEL DB(A) ($L_{EQ\ 15MIN}$)
0 to 2 years	10	78
2 to 3 years	10	85
3 to 5 years	10	87

The outdoor play areas have been assessed as operating between 7am and 6pm. Assessment of noise emissions from outdoor play areas has been conservatively based upon an indicative 75% outdoor play area occupation coinciding with peak carparking activity during the daytime period.

The relevant sound power levels for the proposed outdoor play area for the development are calculated as follows:

Outdoor Play 1 (0-2 Years): L_{Aeq} – 81.8 dB(A)

Outdoor Play 2 (2-3 Years): L_{Aeq} – 88.4 dB(A)

Outdoor Play 3 (3+ Years): L_{Aeq} – 93.4 dB(A)

The noise from outdoor play was modelled as an area source representing the total SWL level of each proposed outdoor play space.

The modelled peak hour traffic volumes through the site have been based on updated traffic engineering advice provided by Lambert and Rehbein. The peak traffic through site is projected to be as follows:

- AM Peak: 72 vehicles per hour (in and out)
- PM Peak: 64 vehicles per hour (in and out)

For the purpose of the noise modelling, the childcare centre traffic has been conservatively assessed as a peak hour traffic of 72 vehicles per hour between 7am and 6pm. Additionally, 25% of the daytime peak has been considered for the early morning 6am to 7am period and early evening 6pm to 7pm period.

Servicing of the centre will generally be via vans which do not generate materially different noise to passenger vehicles. The modelled trip volumes adequately account for van deliveries of approximately 2 per day which are unlikely to coincide with peak drop off and pick up periods.

Refuse collections are not likely to coincide with peak hour traffic through the development. Typically, 2 to 3 refuse collections per week are likely to occur for childcare centres with the overall noise amenity impact negligible.

Vehicle movements were represented as a line source with the following sound power levels:

6am to 7am / 6pm to 7pm:	L_{Aeq} 61.6 dB(A)/m^2 SWL
7am to 6pm:	L_{Aeq} 67.6 dB(A)/m^3 SWL
All hours:	L_{Amax} 89 dB(A) SWL

For carparking noise the parking lot area source was represented in the model for the proposed car parking area with source noise levels based upon peak parking rates of 1.5 vehicle movements per hour per parking bay during the day and 0.4 vehicle movements per hour per parking bay during the early morning and early evening periods. These parking rates are consistent with the adopted carpark trips for each period of the day with the carparking source levels as follows:

6am to 7am / 6pm to 7pm:	L_{Aeq} 76.8 dB(A) SWL

[2] Based upon an instantaneous maximum level of 89 dB(A) and an average speed of 10 km/h extrapolated to represent 18 vehicles in and out between 6am to 7am / 6pm to 7pm.

[3] Based upon an instantaneous maximum level of 89 dB(A) and an average speed of 10 km/h extrapolated to represent 72 vehicles in and out per hour.

7am to 6pm: L_{Aeq} 82.6 dB(A) SWL

All hours: L_{Amax} 90 dB(A) SWL

The noise modelling has also considered the noise of people having conversations within the carpark area. Two groups of people having conversations in the carpark has been considered in the model with assigned sound power levels of L_{Aeq} of 75 dB(A) and L_{max} of 85 dB(A). It is noted that the activity rate for conversation is modelled at 20 minutes per hour which is considered to be conservative.

Noise emissions from external mechanical plant have been represented as point sources:

Packaged Air-Conditioning Units (x3): 72.7 dB(A) SWL

The noise modelling has included topographical representations based upon data obtained from Department of Natural Resource, Mines and Energy for the subject site and surrounding areas.

The assessment has determined whether overall noise levels from the vehicle movements through the site, car parking activities, site operations and outdoor play area noise will comply with the noise criteria as per **Section 3** at the nearest sensitive receptors.

The following acoustic barriers are recommended to satisfy the noise criteria at the surrounding sensitive receptor boundaries:

- **1.8 metre high acoustic barrier along the southern and eastern site boundary (specified to be height above top of retaining wall or driveway level, whichever is higher).**

The proposed acoustic barrier alignments are presented on **Figure 5.** The acoustic barriers should be gap free and constructed of materials achieving a minimum density of 12.5kg/m^2.

The predicted noise levels at the nearest surrounding residential land uses are summarised in **Table 4** below.

The results of the overall development noise modelling are also presented in **Attachment 4** as contours of the predicted L_{Aeq} and L_{Amax} noise levels across the model domain.

Table 4: Predicted Noise Levels – Overall Development Noise

RECEPTOR	LEVEL	PREDICTED NOISE LEVEL $L_{Aeq(1hr)}$ dB(A) 6AM-7AM	PREDICTED NOISE LEVEL $L_{Aeq(1hr)}$ dB(A) 7AM-6PM	PREDICTED NOISE LEVEL $L_{Aeq(1hr)}$ dB(A) 6PM-7PM	PREDICTED NOISE LEVEL L_{Amax} dB(A) 6AM-7AM
R1	Ground	38	53	38	59
R2	Ground	31	46	31	32
	Level 1	33	48	33	36
	Level 2	33	48	33	36
R3	Ground	31	42	31	36
	Level 1	33	43	33	38
	Level 2	33	44	33	38
R4	Ground	37	43	37	50
R5	Ground	40	46	40	58
CRITERIA		**49**	**54**	**54**	**60**

The predicted resultant noise levels satisfy the relevant noise criteria at the surrounding sensitive land use zone boundaries. All other surrounding sensitive uses are predicted to experience lower noise levels than the nearest receptors summarised in **Table 4**.

5.0 CONCLUSION

MWA Environmental has been engaged to prepare a Noise Impact Assessment in response to an Information Request (dated 2 November 2023 Ref:17088127) issued by Logan City Council for a proposed childcare centre development at 2-6 Lancewood Street, Park Ridge.

Individual responses to the Information Request items are provided in Section 1.4 of this report.

This assessment has considered the potential noise amenity impact of the proposed childcare centre upon nearby sensitive receptors. The assessment is based on ambient noise monitoring conducted on site, noise measurements previously conducted on typical sources associated with the proposed uses and detailed noise propagation modelling.

The noise assessment undertaken demonstrates that the proposed childcare centre development can comply with the relevant Logan Planning Scheme noise criteria with the following recommended acoustic barriers:

- **1.8 metre high acoustic barrier along the southern and eastern site boundary (specified to be height above top of retaining wall or driveway level, whichever is higher).**

The alignments of the acoustic barriers are presented in **Figure 5.**

The acoustic barriers should be gap free and constructed of materials achieving a minimum density of 12.5kg/m^2.

In summary the assessment undertaken demonstrates that the proposed childcare centre development can satisfy the relevant noise amenity criteria and is recommended for approval with reasonable and relevant conditions.

MWA Environmental
26 February 2024

FIGURES

LEGEND

SITE LOCATION

DRAWING REFERENCE

0 20 40 60 80m

CLIENT

ONEFIN PROPERTY PTY LTD

PROJECT

NOISE IMPACT ASSESSMENT

PROPOSED CHILDCARE CENTRE DEVELOPMENT 2-6 LANCEWOOD STREET PARK RIDGE QLD

TITLE

SITE LOCATION AND SURROUNDING LAND USES

JOB	PARK RIDGE	**FIGURE 1**
JOB NO.	23091	
DATE	26/02/24	DWG NUMBER
SCALE	1:2500 (A4)	**23091-1**
REV.		

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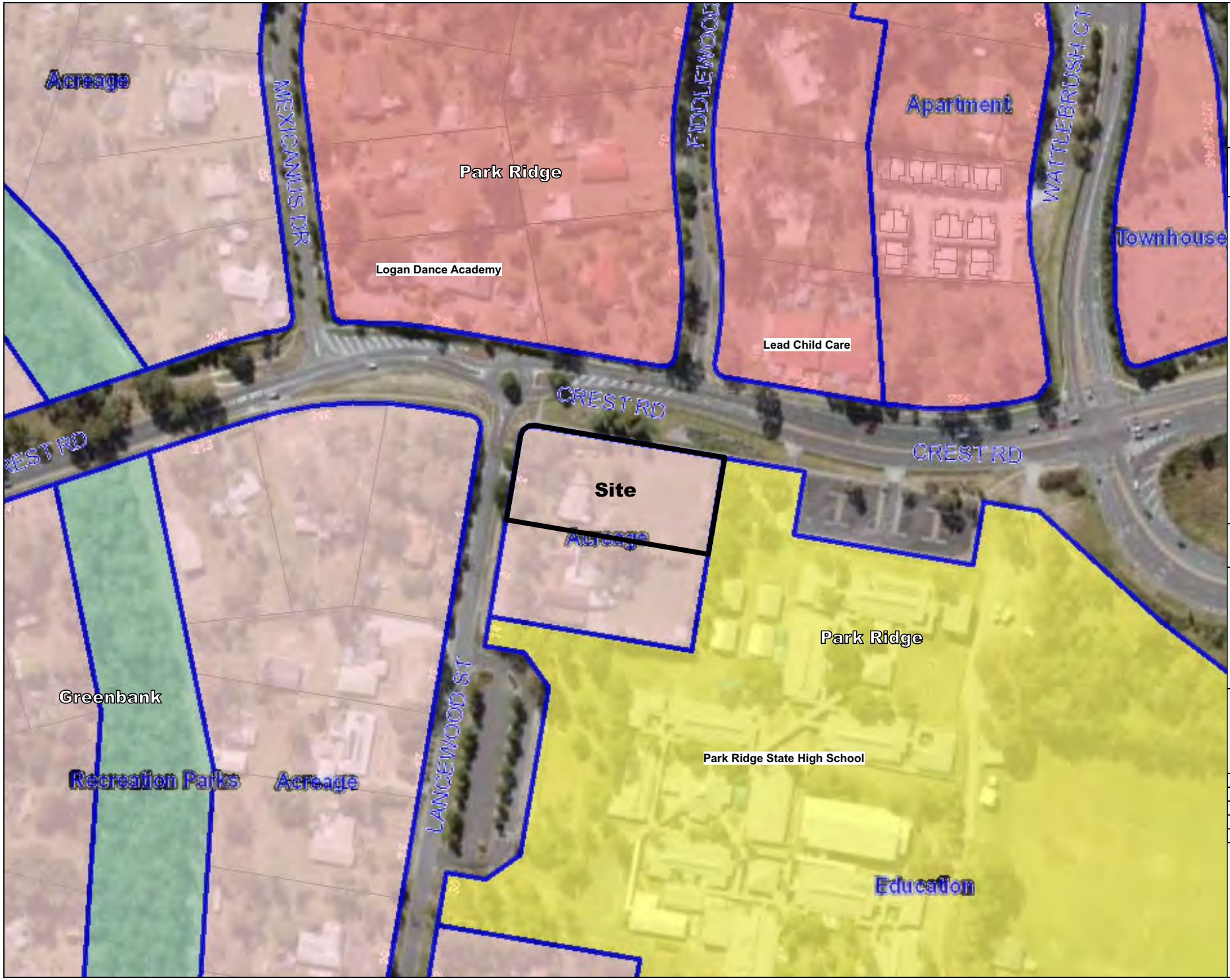

LEGEND

SITE LOCATION

Logan Planning Scheme 2015 Zones

- Low density residential
- Low-medium density residential
- Community facilities (Education)
- Recreation and open space

DRAWING REFERENCE

LOGAN CITY COUNCIL PLANNING SCHEME 2015, INTERACTIVE MAPPING, ZONING MAP.

0 20 40 60 80m

CLIENT

ONEFIN PROPERTY PTY LTD

PROJECT

NOISE IMPACT ASSESSMENT

PROPOSED CHILDCARE CENTRE DEVELOPMENT 2-6 LANCEWOOD STREET PARK RIDGE QLD

TITLE

ZONING MAP

JOB	PARK RIDGE	**FIGURE 2**
JOB NO.	23091	
DATE	26/02/24	DWG NUMBER
SCALE	1:2500 (A4)	**23091-2**
REV.		

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LEGEND

SITE LOCATION

NOISE DATALOGGER LOCATION

DRAWING REFERENCE

© THE STATE OF QUEENSLAND DNRM&E QLDGLOBE.

N

0 10 20 30 40 50m

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PROJECT

NOISE IMPACT ASSESSMENT

PROPOSED CHILDCARE CENTRE DEVELOPMENT 2-6 LANCEWOOD STREET PARK RIDGE QLD

TITLE

NOISE MONITORING LOCATION

JOB	PARK RIDGE	**FIGURE 3**
JOB NO.	23091	
DATE	26/02/24	DWG NUMBER
SCALE	1:1500 (A4)	**23091-3**
REV.		

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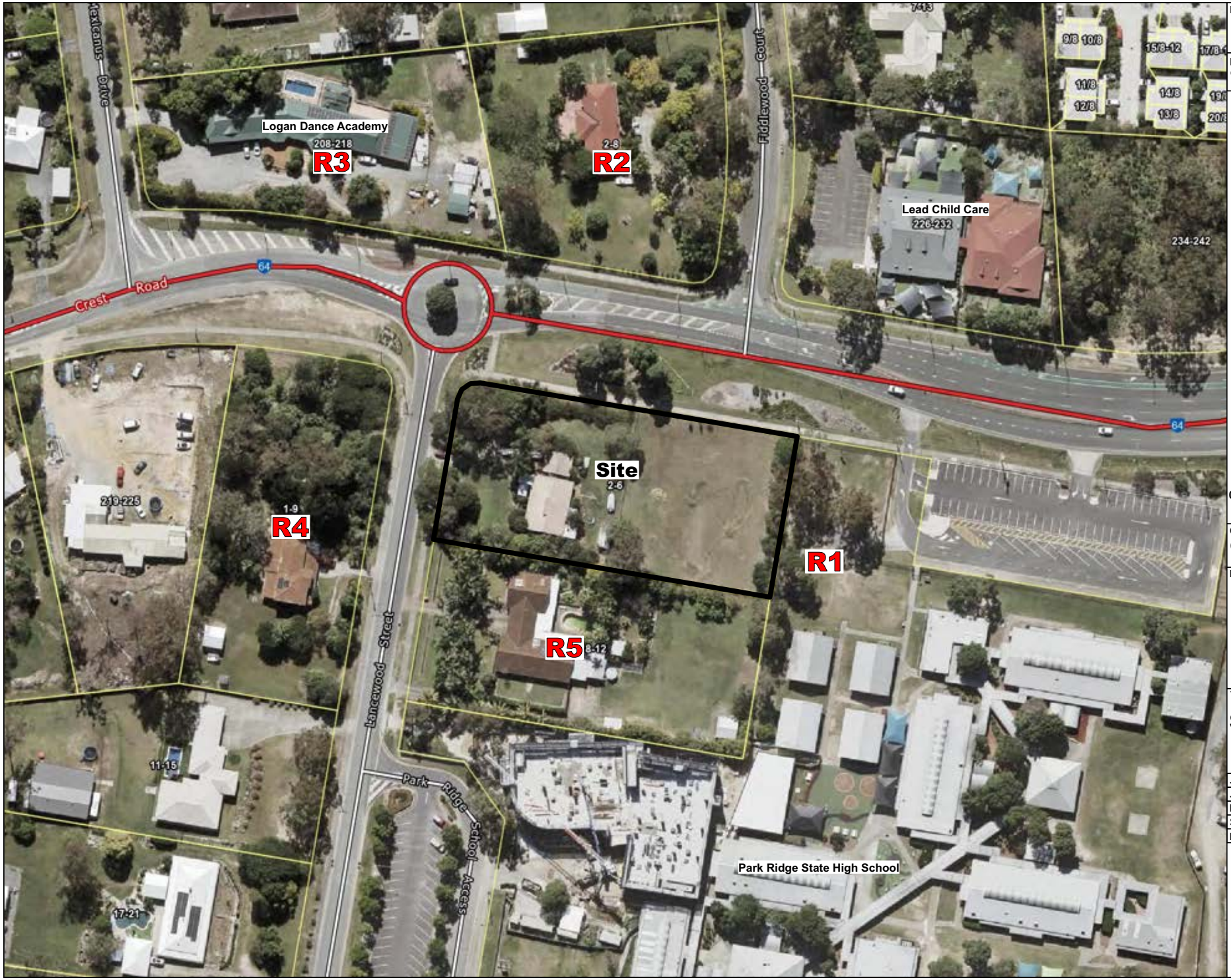

LEGEND

SITE LOCATION

R5 SENSITIVE RECEPTOR LOCATIONS (R1-R5)

DRAWING REFERENCE

N

0 10 20 30 40 50m

CLIENT

ONEFIN PROPERTY PTY LTD

PROJECT

NOISE IMPACT ASSESSMENT

PROPOSED CHILDCARE CENTRE DEVELOPMENT 2-6 LANCEWOOD STREET PARK RIDGE QLD

TITLE

SENSITIVE RECEPTOR LOCATIONS

JOB	PARK RIDGE	**FIGURE 4**
JOB NO.	23091	
DATE	26/02/24	DWG NUMBER
SCALE	1:1500 (A4)	**23091-4**
REV.		

mwa ENVIRONMENTAL

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AREA SCHEDULE

SITE COVER:	**17.3%**
SITE COVER:	868.35 m²
SITE AREA .:	5,015 m²
GBA	
CHILDCARE:	690.3m²
PLAY AREAS:	737.45m²
OUTDOOR STORE:	36.2m²
CARPARK:	1,156.5m²
POPULATION:	
CHILDREN:	90
FULL TIME STAFF:	15
CAR PARKING REQUIRED:	
1 PER 10 PLACES + 1 PER FTE	24
CAR PARKING PROVIDED:	
(INCLUDES 1 DISABLED)	24

LEGEND

1.8m Acoustic Barrier (specified to be height above top of retaining wall or driveway level, whichever is higher).

1 **SITE PLAN**
1:300

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LANCEWOOD ST CHILDCARE
2-6 LANCEWOOD STREET PARK RIDGE QLD 4125
For **ONEFIN OPS PTY LTD.**

onefin

DA ISSUE
NOT FOR CONSTRUCTION

SITE PLAN

Project	Date	Scale	Page	Revision
23882	14/03/2024	1:300@A3	23882_DA-100_I	

CLIENT
ONEFIN PROPERTY PTY LTD

PROJECT
NOISE IMPACT ASSESSMENT
PROPOSED CHILDCARE CENTRE DEVELOPMENT 2-6 LANCEWOOD STREET PARK RIDGE QLD

TITLE
ACOUSTIC BARRIER LOCATIONS

JOB	PARK RIDGE	**FIGURE 5**
JOB NO.	23091	
DATE	05/03/24	DWG NUMBER
SCALE	1:500 (A4)	**23091-5**
REV.		

mwa ENVIRONMENTAL
Max Winders & Associates Pty Ltd tas MWA Environmental
Level 7, 241 Adelaide St, Brisbane, GPO BOX 3137, Brisbane Qld 4001
P 07 3002 5500 E mail@mwaenviro.com.au
W www.mwaenviro.com.au
ABN 94 010 833 084

Attachment 1

Proposed Development Plans


Lancewood St
LANCEWOOD STREET
BOUNDARY
SERVICES
40.47 m²
ROOF OVER
SIGNAGE
PLANTER
1.8M HEIGHT IMPACT RESISTANT SOLID WALL
REQ.: 168 m²
PROV.: 249.16 m²
REQ.: 154 m²
PROV.: 168.91 m²
REQ.: 308 m²
PROV.: 320.67 m²
VERANDA
MIN. 1.8M HIGH LAPPED TIMBER ACOUSTIC FENCE ON TOP OF RETAINING WALL
STORE
PROPOSED CHILDCARE
90 PLACE CENTRE
ENTRY
SAFE ZONE
PATH
CROSS OVER DETAIL AS PER LCC STANDARD DRAWING
BOL.
DIS.
VIS.
STAFF
CAR PARK
24 SPACES (INC. 1 DISABLED)
WATER METER LOCATION & SIZE TO BE DETERMINED BY CIVIL
SIGNAGE & LETTERBOX
BIN STORE
15.02 m²
TURNING BAY
2M LANDSCAPE BUFFER
RETAINING WALL
N

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Member Australian Institute of Architects

LANCEWOOD ST CHILDCARE

2-6 LANCEWOOD STREET PARK RIDGE QLD 4125

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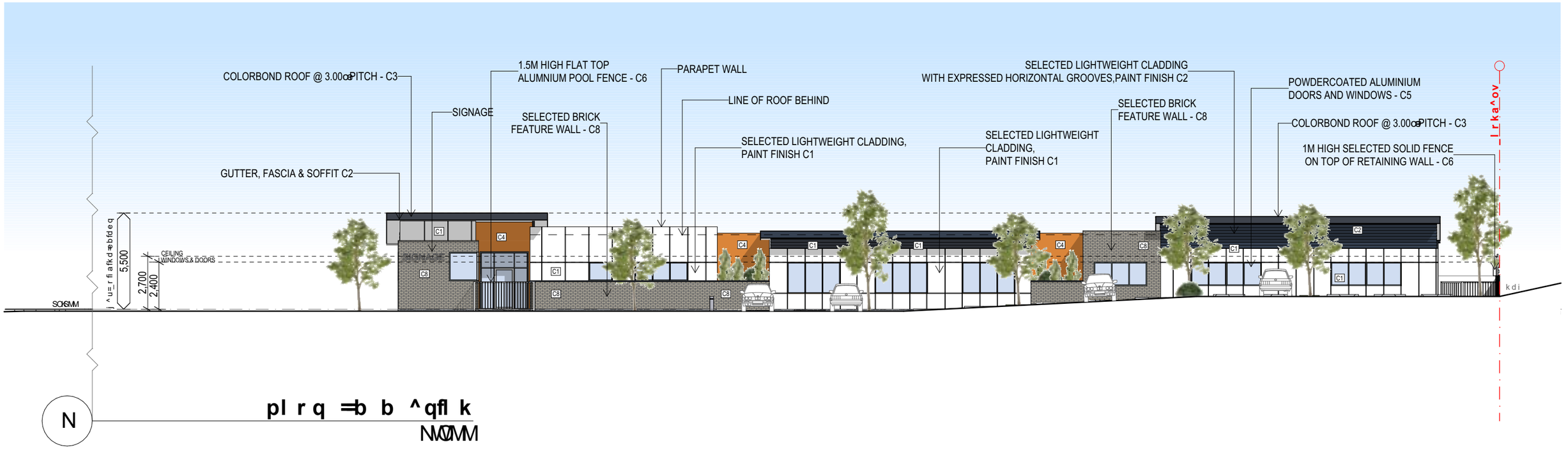
FLOOR PLAN

Project	Date	Scale	Page	Revision
23882	14/03/2024	1:200@A3	23882_DA-130_	I



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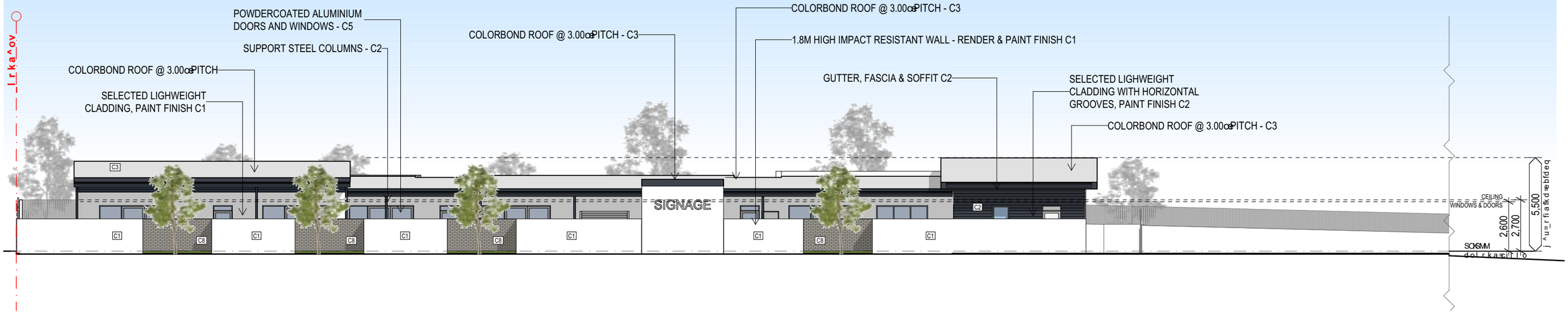

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NWMMM

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ELEVATIONS

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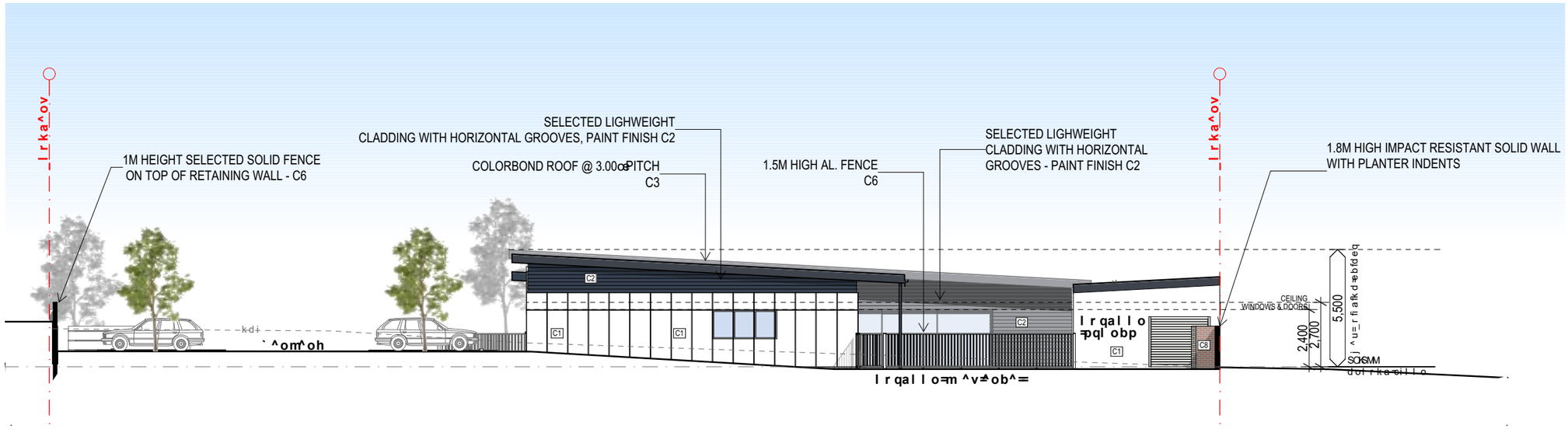

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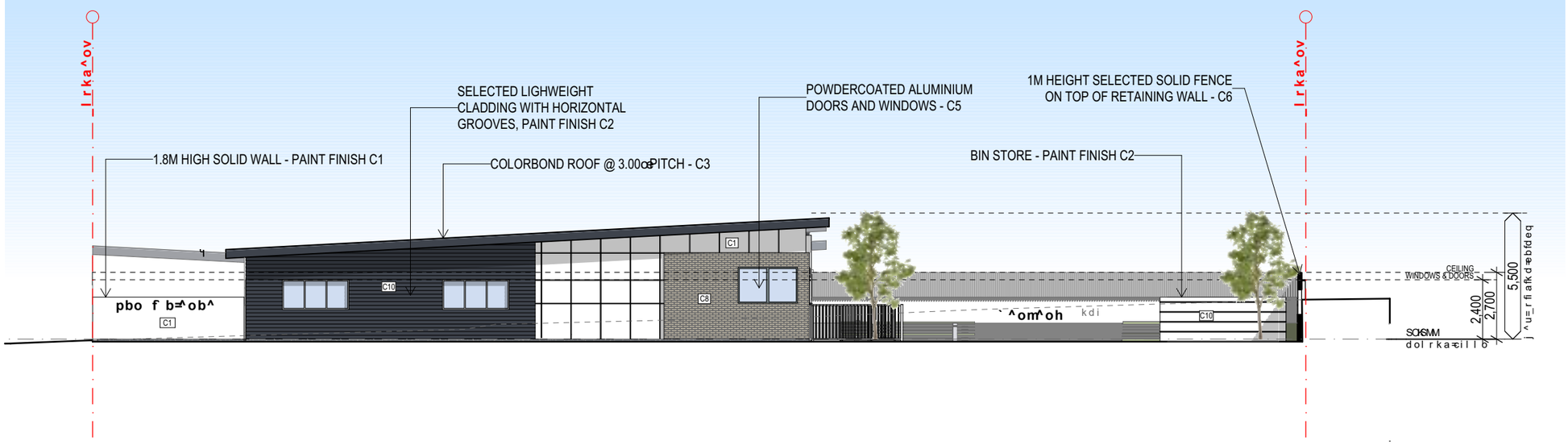

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LANCEWOOD ST CHILDCARE

2-6 LANCEWOOD STREET PARK RIDGE QLD 4125

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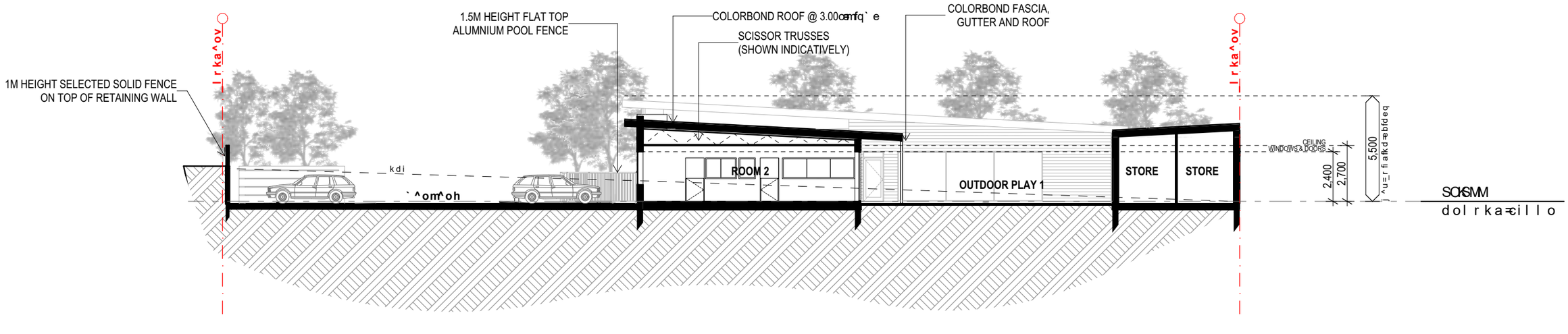

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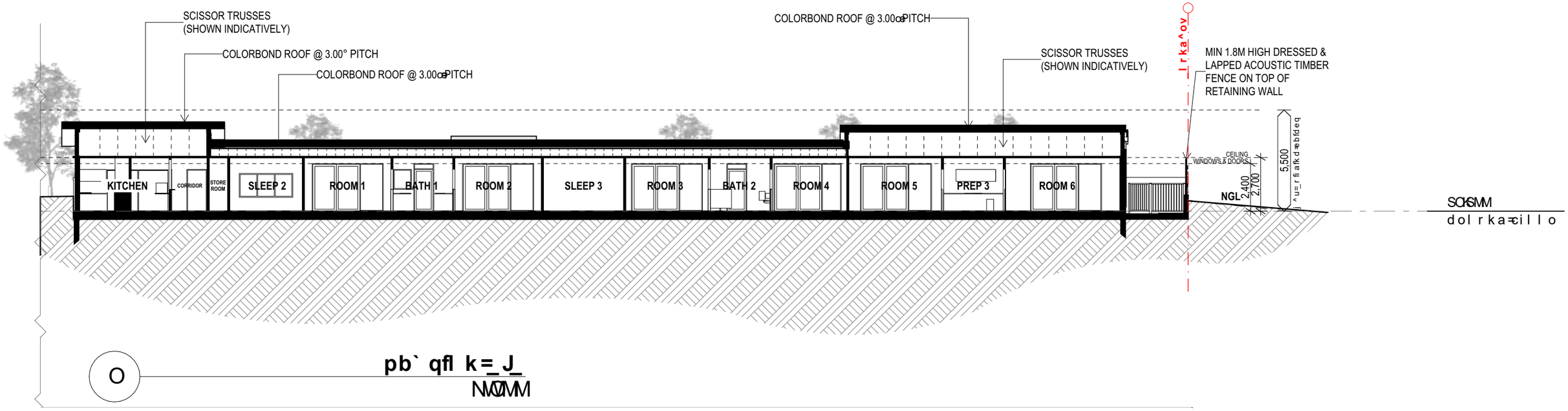

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2-6 LANCEWOOD STREET PARK RIDGE QLD 4125

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SECTIONS

Project	Date	Scale	Page	Revision
23882	14/03/2024	1:200@A3	**23882_DA-300_D**	

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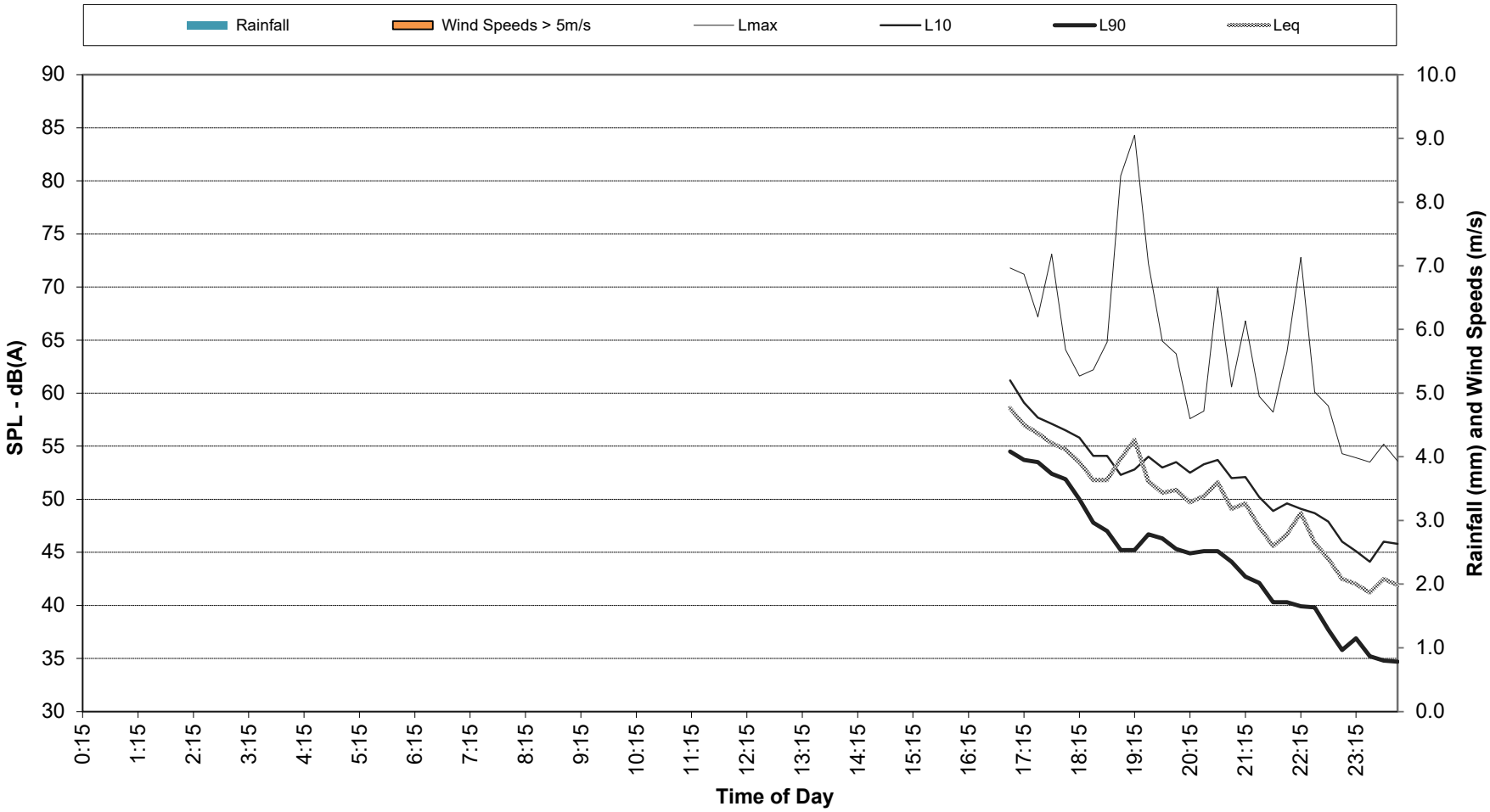
PERSPECTIVES

Project	Date	Scale	Page	Revision
23882	14/03/2024	NTS	23882_DA-900_F	

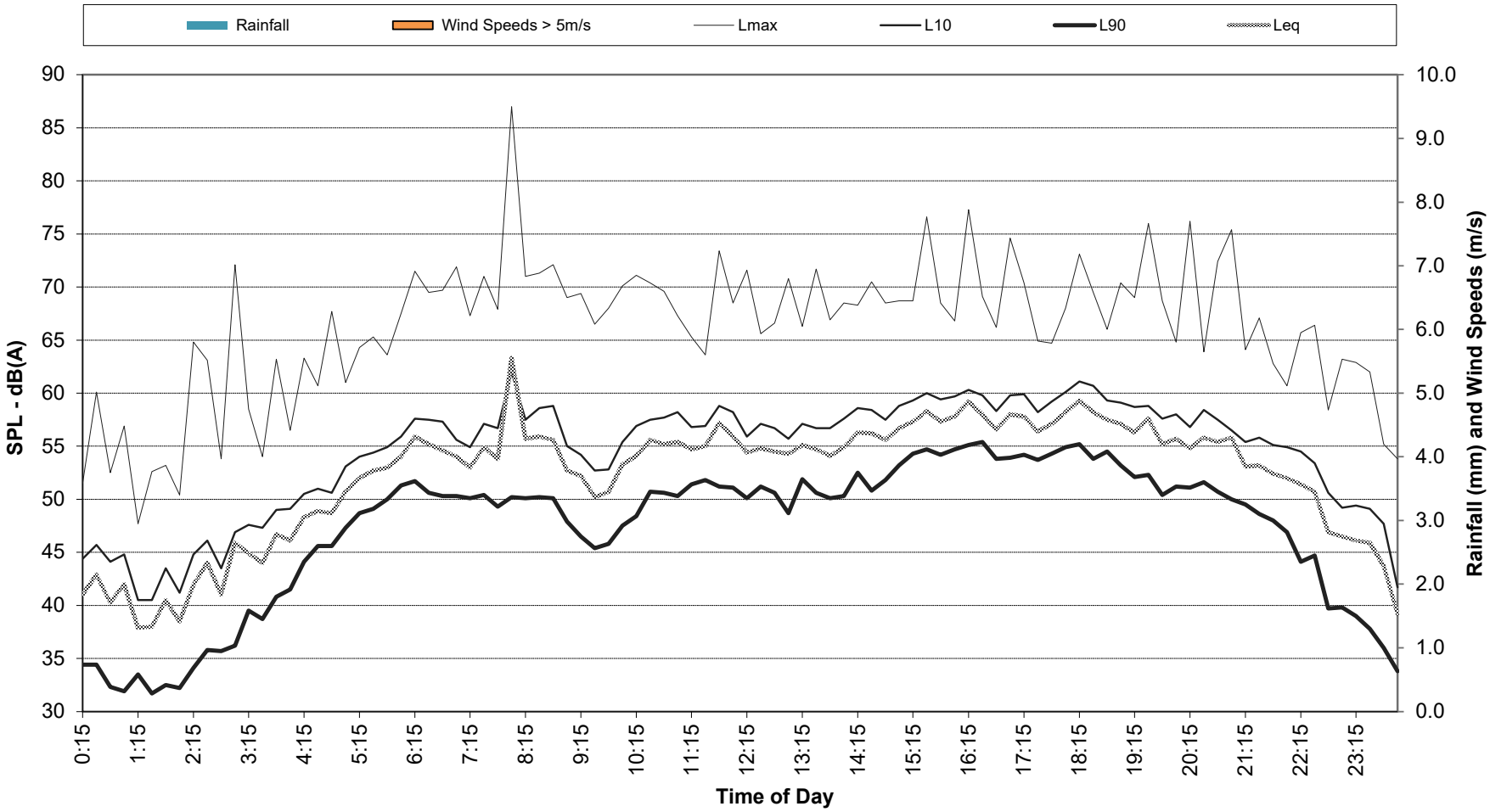
Attachment 2

Data Logger Results

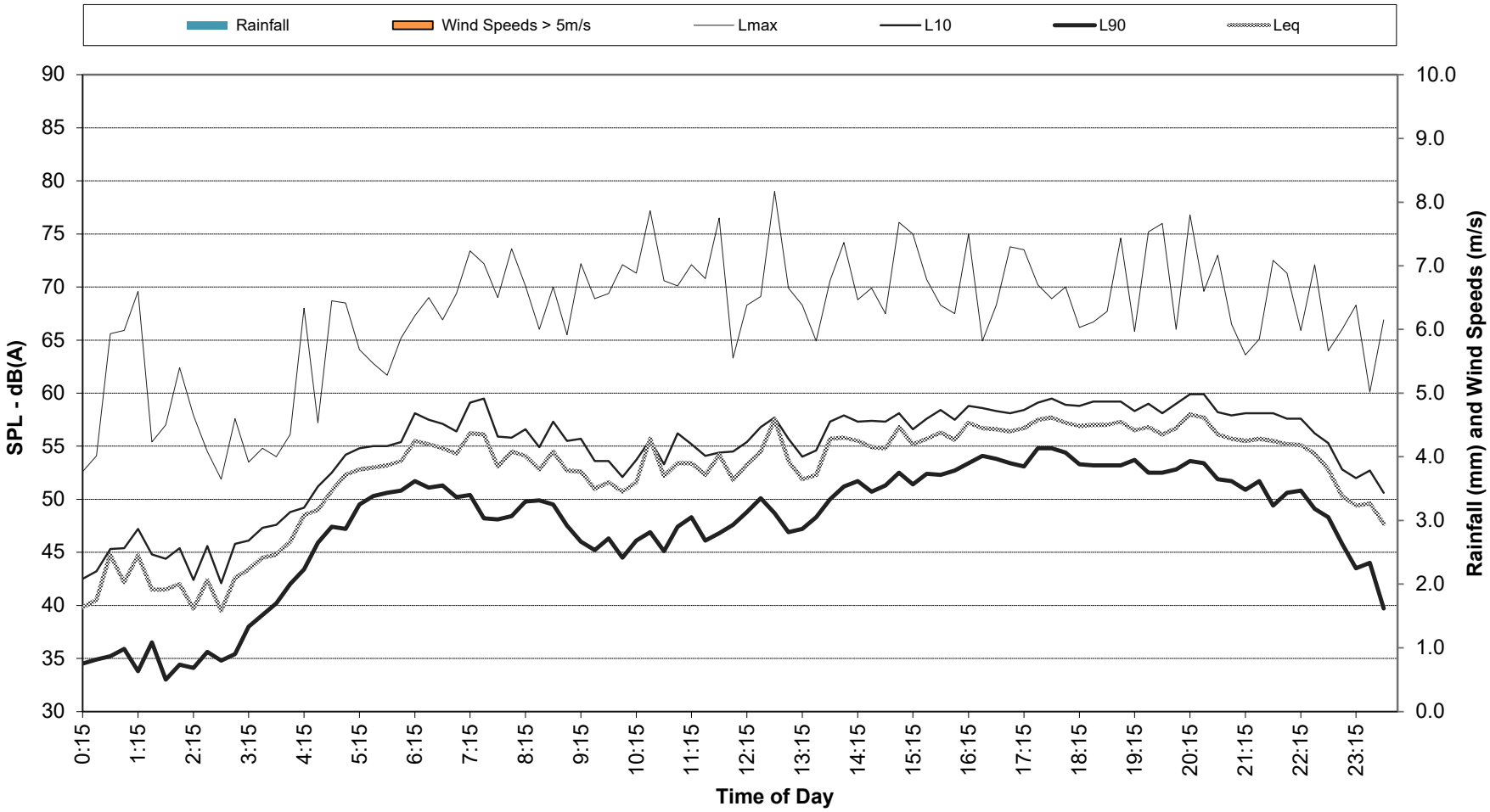
Recorded Statistical Noise Levels for Park-Ridge 23091 - - 12-Jul-2023 - Wednesday



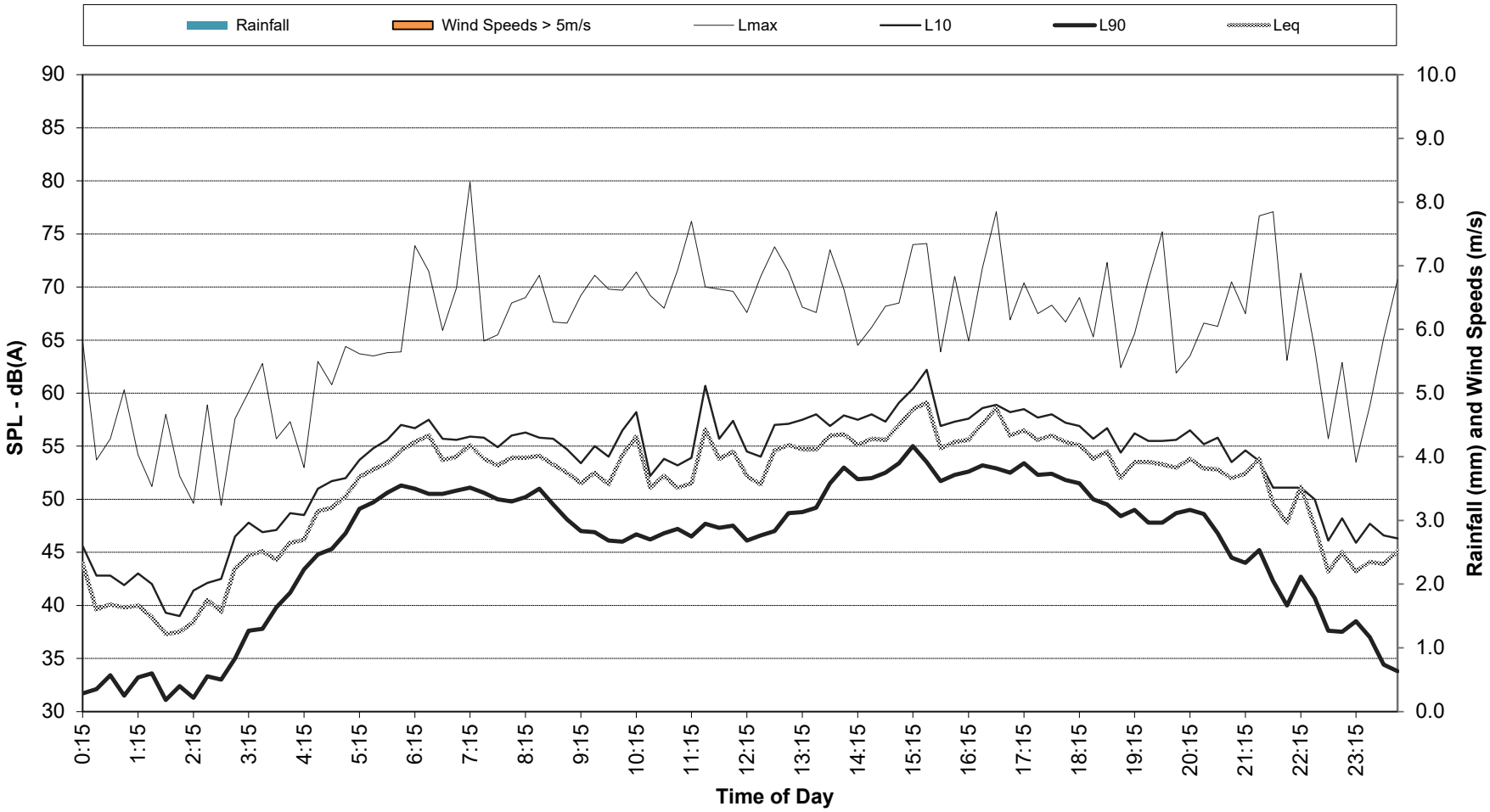
Recorded Statistical Noise Levels for Park-Ridge 23091 - - 13-Jul-2023 - Thursday



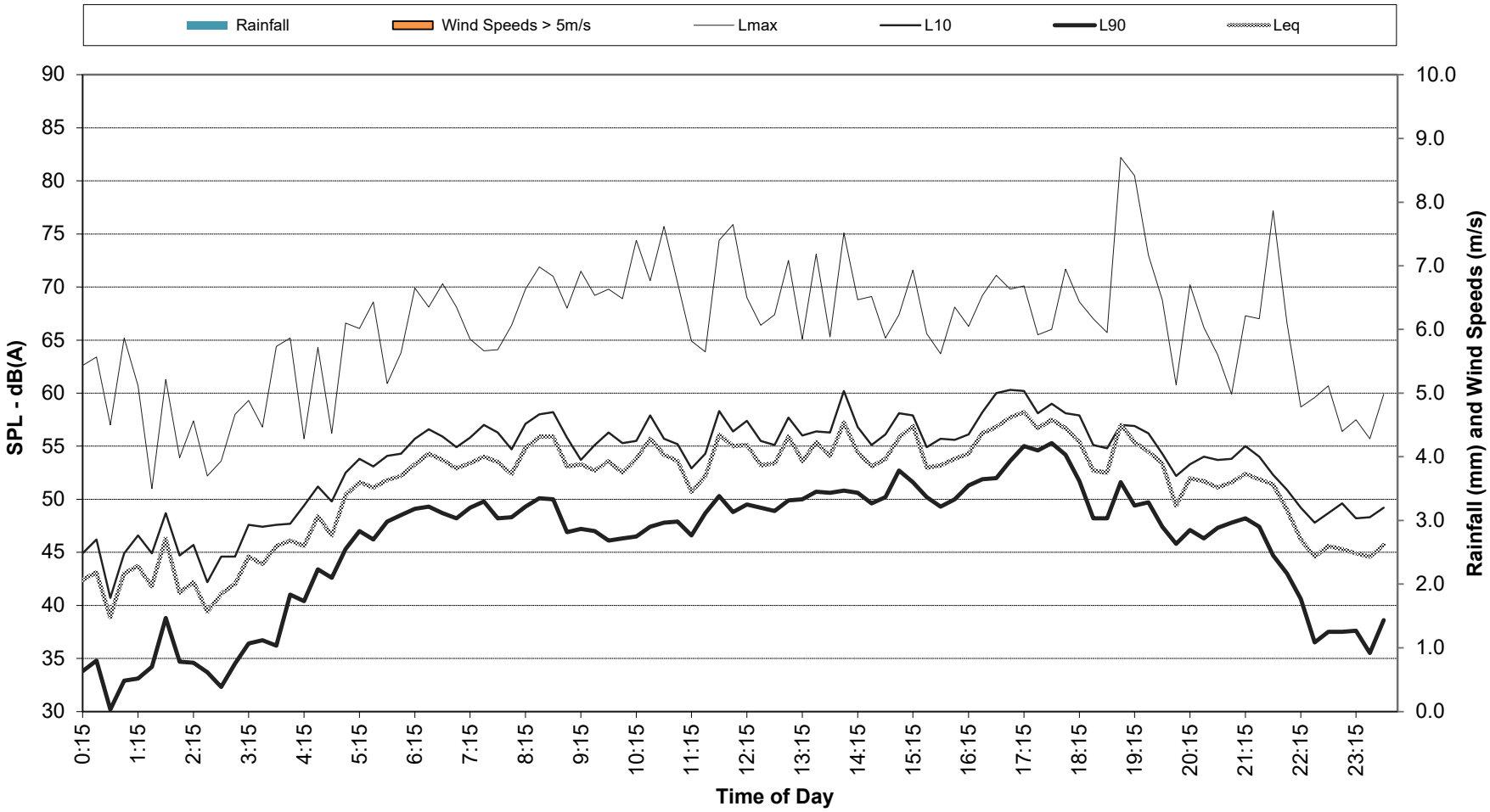
Recorded Statistical Noise Levels for Park-Ridge 23091 - - 14-Jul-2023 - Friday



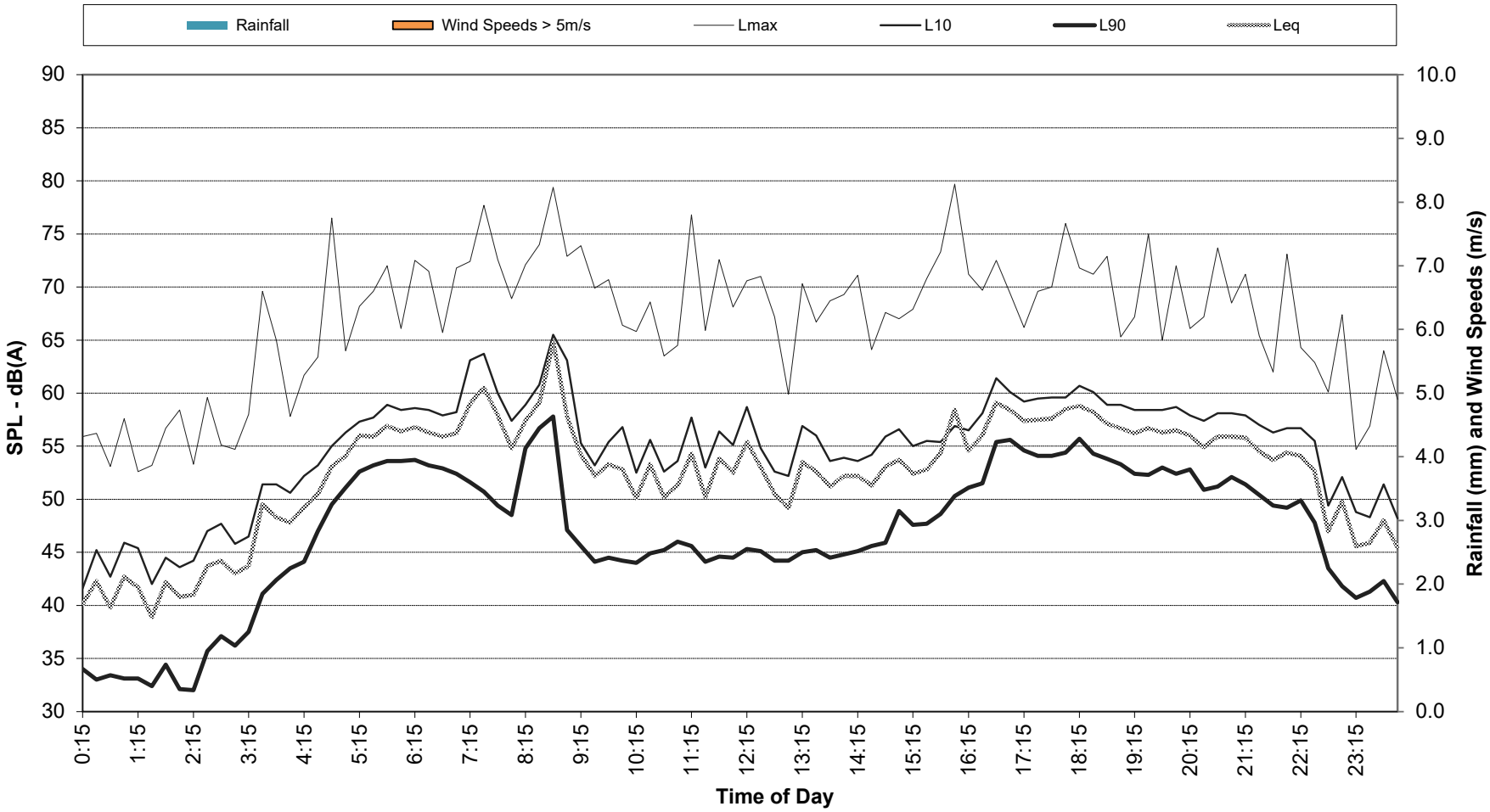
Recorded Statistical Noise Levels for Park-Ridge 23091 - - 17-Jul-2023 - Monday



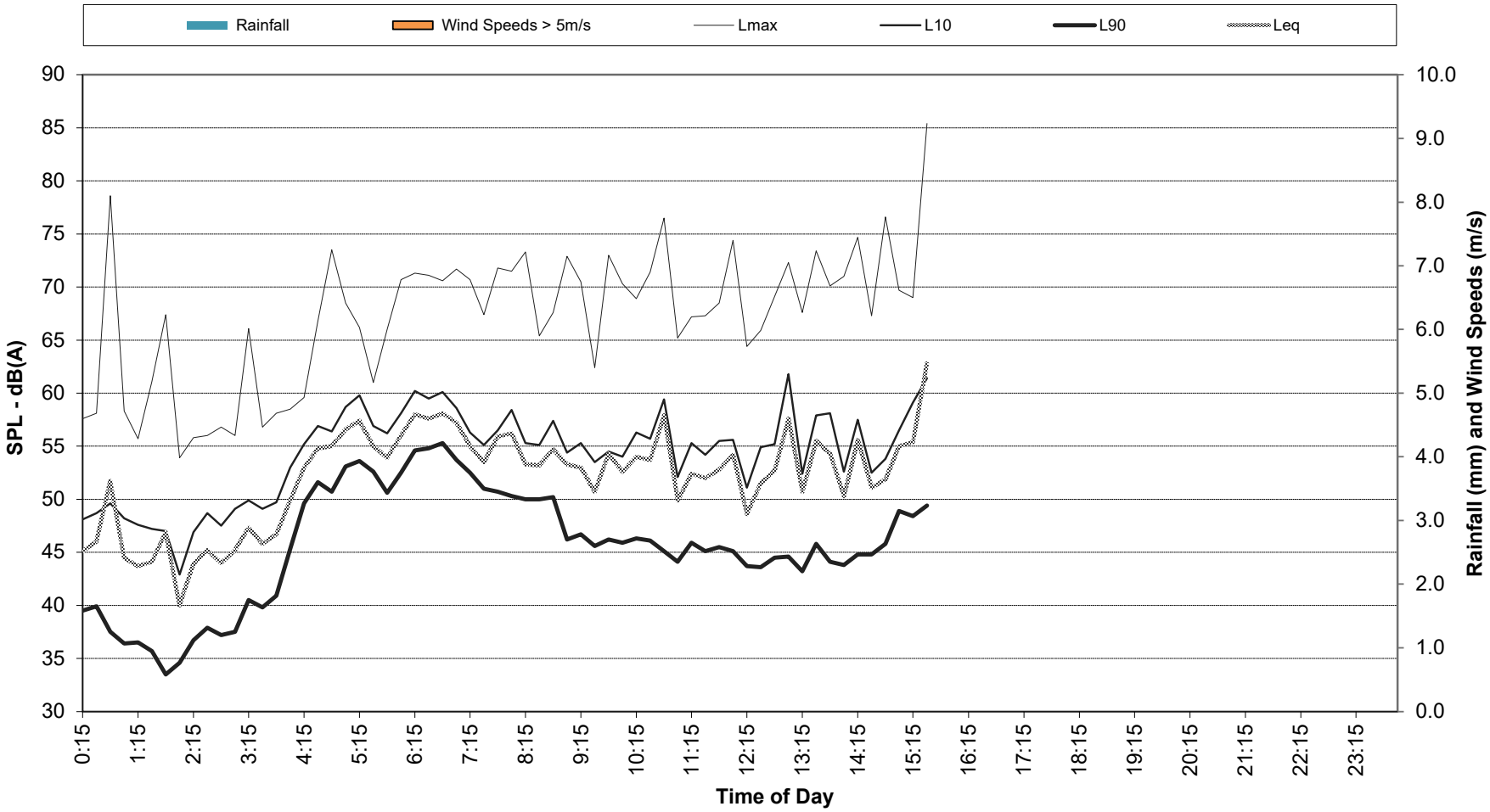
Recorded Statistical Noise Levels for Park-Ridge 23091 - - 18-Jul-2023 - Tuesday



Recorded Statistical Noise Levels for Park-Ridge 23091 - - 20-Jul-2023 - Thursday

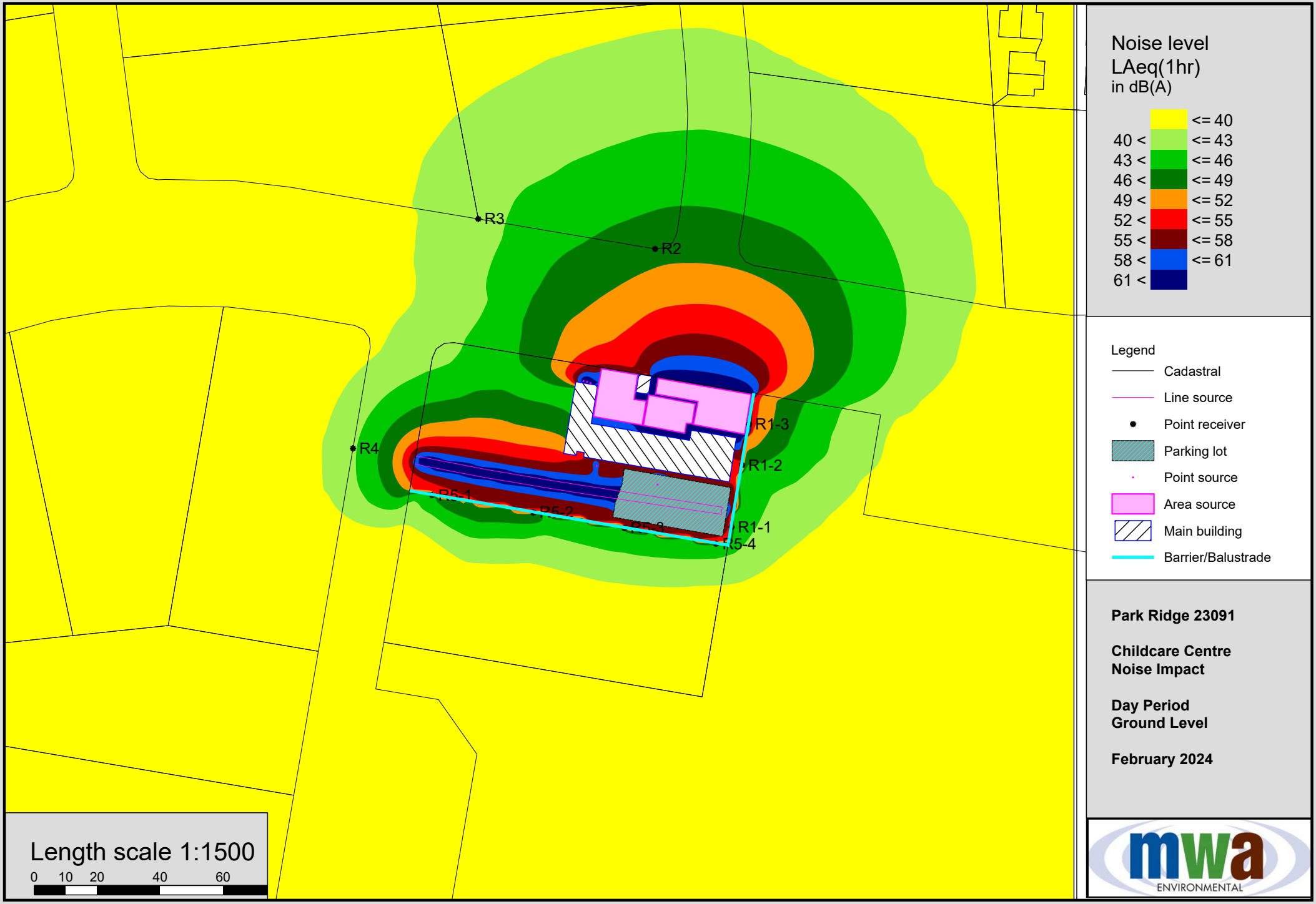


Recorded Statistical Noise Levels for Park-Ridge 23091 - - 21-Jul-2023 - Friday



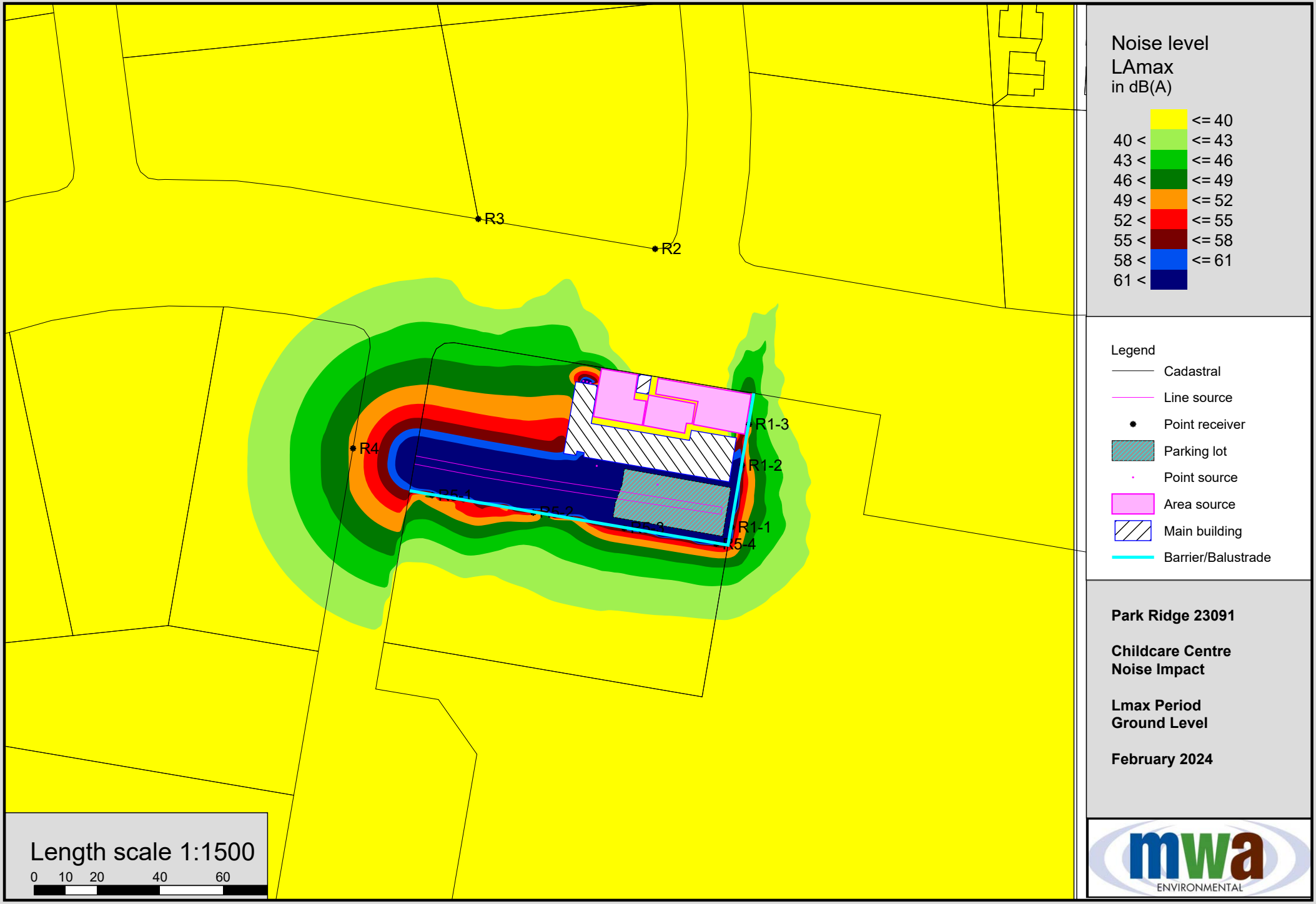
Attachment 3

SoundPLAN 8.2
Overall Noise Model Results


Noise level
LAeq(1hr)
in dB(A)
<= 40
40 < <= 43
43 < <= 46
46 < <= 49
49 < <= 52
52 < <= 55
55 < <= 58
58 < <= 61
61 <
Legend
Cadastral
Line source
Point receiver
Parking lot
Point source
Area source
Main building
Barrier/Balustrade
R1-1
R1-2
R1-3
R2
R3
R4
R5-1
R5-2
R5-3
R5-4
Length scale 1:1500
0 10 20 40 60
Park Ridge 23091
Childcare Centre
Noise Impact
Day Period
Ground Level
February 2024
mwa
ENVIRONMENTAL


Noise level
LAeq(1hr)
in dB(A)
<= 40
40 < <= 43
43 < <= 46
46 < <= 49
49 < <= 52
52 < <= 55
55 < <= 58
58 < <= 61
61 <
Legend
Cadastral
Line source
Point receiver
Parking lot
Point source
Area source
Main building
Barrier/Balustrade
R1-1
R1-2
R1-3
R2
R3
R4
R5-1
R5-2
R5-3
R5-4
Park Ridge 23091
Childcare Centre
Noise Impact
Evening Period
Ground Level
February 2024
Length scale 1:1500
0 10 20 40 60
mwa
ENVIRONMENTAL


R3
R2
R4
R1-3
R1-2
R1-1
R5-1
R5-2
R5-3
R5-4
Noise level
LAeq(1hr)
in dB(A)
<= 40
40 < <= 43
43 < <= 46
46 < <= 49
49 < <= 52
52 < <= 55
55 < <= 58
58 < <= 61
61 <
Legend
Cadastral
Line source
Point receiver
Parking lot
Point source
Area source
Main building
Barrier/Balustrade
Park Ridge 23091
Childcare Centre
Noise Impact
Night Period
Ground Level
February 024
Length scale 1:1500
0 10 20 40 60
mwa
ENVIRONMENTAL


Noise level
LAmax
in dB(A)
<= 40
40 < <= 43
43 < <= 46
46 < <= 49
49 < <= 52
52 < <= 55
55 < <= 58
58 < <= 61
61 <
Legend
Cadastral
Line source
Point receiver
Parking lot
Point source
Area source
Main building
Barrier/Balustrade
R1-1
R1-2
R1-3
R2
R3
R4
R5-1
R5-2
R5-3
R5-4
Length scale 1:1500
0 10 20 40 60
Park Ridge 23091
Childcare Centre
Noise Impact
Lmax Period
Ground Level
February 2024
mwa
ENVIRONMENTAL