Aurecon Australasia Pty Ltd
ABN 54 005 139 873
Level 11, 73 Miller Street
North Sydney 2060 Australia
PO Box 1319
North Sydney NSW 2059
Australia

T +61 2 9465 5599
F +61 2 9465 5598
E sydney@aurecongroup.com
W aurecongroup.com

Memorandum

To	**Christopher Croucamp, Urbis**	From	**Juan Lewis, Aurecon**
Copy	**Mishelle Yam, NEXTDC**	Reference	**P521243 NEXTDC S4**
Date	**2026-03-17**	Pages (including this page)	**4**
Subject	**Confirmation of Servicing Strategy LOT 305 NEXTDC S4 Data Centre– Infrastructure, Hydraulic Services and Hazardous Goods**		

1 Purpose of this Memo

This memorandum has been prepared to confirm that the approved SSDA servicing strategy and environmental performance outcomes for the NEXTDC S4 Data Centre development remain valid following minor design development changes.

This memo addresses the following areas:

- Infrastructure Requirements Report
- Backup Power Report
- Preliminary Hazards Analysis
- Noise and Vibration Impact Assessment

The purpose of this memorandum is to confirm that the design development changes do not result in new or materially different impacts to those assessed under the approved State Significant Development Application (SSDA).

2 Background

The NEXTDC S4 Data Centre was approved under State Significant Development Application SSD-63741210, supported by technical assessments prepared by Aurecon, including the **Infrastructure Requirements Report, Preliminary Hazards Analysis and the Noise and Vibration Impact Assessment.**

Since SSDA approval, minor design development has occurred as part of detailed design coordination. These changes are a result of the refinement of plant layouts and selections and do not alter the approved development intent, servicing strategy, or environmental performance assumptions.

3 Summary of Design Development Changes

The design development changes include:

- Increase the width of the pump house building by 5.5m,
- Increase in the height of the industrial water tanks by an additional 1.5m,
- Increase in the height of the fire water storage tanks by 0.5m
- Amendments to the dimensions of the fire pump building, including:
    - Building height raised by 0.94m,

- Width increased by 1m, and
- Length increased by 0.4m.

- Increase to the bulk fuel tank capacity from 4472kL to 4600kL.
- Administrative update to reflect 372MW backup power capacity.
- Amendments to the existing acoustic walls, including:
  - Increase in the transformer wall height from 10m to 13m,
  - Increase in the HVSB wall height from 6.85m to 10m and extended linearly by 3.5m to the south
- Administrative updates to amend the development description to remove reference to the café.

These changes are internal in nature and represent design refinement rather than a change to the approved development intent.

4 Infrastructure Requirements

The approved infrastructure servicing strategy, as reported in the Infrastructure Requirements Report, remains unchanged.

Specifically:

- The overall servicing philosophy and infrastructure strategy are unchanged
- Utility demand drivers and staging assumptions remain consistent with the approved SSDA
- No changes are proposed to external utility connections, connection locations, or authority agreements
- No additional off-site infrastructure is required

The design development changes do not alter the conclusions or assumptions of the approved Infrastructure Requirements assessment.

Accordingly, an update to the Infrastructure Requirements report is not considered necessary.

5 Backup Power Report

The conditions of consent for the SSDA erroneously references a total installed back-up generator capacity of 360 MW.

As per the Backup Power Report [Rev E] dated 2025-04-24, Section 5.2 Generator Design. The generators provide a total backup power capacity of 372 MW.

There is reference made to 120 off 3MW generators in the Air Quality Impact Assessment [Rev4V2], Section 2.3.2.1 Emissions from Generators, the reference to a generator capacity of 3 megawatts is a clerical error and the engine selected for the facility has been modelled in the AQIA modelling. This has been clarified in Appendix A – NEXTDC S4 Air Quality Technical Clarification

6 Hydraulic Services

The hydraulic servicing strategy remains consistent with that assessed and approved under the SSDA.

The internal layout refinements (including pump room sizing and tank height adjustments) do not:

- Change potable, fire, or industrial water demand beyond that previously assessed
- Alter connection points to Sydney Water or other authorities
- Introduce new hydraulic servicing risks or constraints

The approved hydraulic servicing approach therefore continues to apply without modification.

---

7 Preliminary Hazards Assessment (Bulk Diesel Storage)

The approved SSDA includes bulk diesel storage associated with back-up power generation infrastructure. As part of detailed design refinement, a minor increase in bulk diesel storage has been proposed:

- Approved bulk diesel storage: 4,472 kL
- Proposed bulk diesel storage: 4,600 kL
- Net increase: 128 kL

This increase:

- Does not alter the hazardous goods classification previously assessed
- Does not introduce new hazardous goods storage types

Importantly, the total bulk diesel storage volume **continues to remain below the relevant thresholds under the Protection of the Environment Operations (POEO) Act**, including the 5,000 kL threshold applicable to scheduled activities. Accordingly:

- The hazardous goods classification of the development remains unchanged
- No new licensing or regulatory triggers are introduced
- The conclusions of the approved Preliminary Hazards Analysis remain valid

Based on the above, the minor diesel increase does not alter the hazard classification, and the existing SSDA assessment remains valid.

---

8 Acoustics

The detail design development with updated substation equipment selections and layouts has been reviewed and addressed through design development of the acoustic performance analysis. As a result, amendments to the noise wall configuration are required to ensure continued compliance with the **approved SSDA noise criteria**.

The proposed increases to existing acoustic wall heights and extents, are specifically intended to mitigate noise from the updated equipment configuration.

On this basis:

- Predicted operational noise levels at sensitive receivers are not expected to be higher compared to the previous noise assessment results
- Noise impacts at the nearest receivers will be within the stipulated noise criteria.
- There is no substantial change to the operational noise impacts previously assessed under the approved Noise and Vibration Impact Assessment

Accordingly, the approved acoustic assessment outcomes remain applicable, and the design development changes do not result in any significant change to overall operational noise impacts.

For further information please refer to Appendix B - NEXTDC S4 Substation Transformer noise study R2 discussing the relevant changes

---

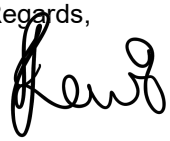
9 Conclusion

Based on the above:

- The approved infrastructure, hydraulic servicing, hazardous goods, and acoustic strategies assessed under the SSDA continue to apply
- The design development changes represent internal refinements and do not result in new or materially different impacts
- Compliance with approved noise criteria and POEO Act thresholds will be maintained
- No additional mitigation measures beyond those already incorporated into the approved design are required
- A short design confirmation memorandum is sufficient, and full updates to the supporting technical reports are not required

This memorandum is provided to support SSDA change documentation and authority consultation.

Regards,



Juan Lewis

Technical Director, Aurecon

APPENDIX A – NEXTDC S4 Air Quality Technical Clarification

APPENDIX B – NEXTDC S4 Substation Transformer noise study R2

APPENDIX A

Letter

Head Office: Suite 1504, 275 Alfred Street, North Sydney, NSW 2060
Riverina Office: PO Box 483, Albury, NSW 2640
Web: northstar-env.com | Tel: 1300 708 590

air quality | environment | sustainability

Date: Thursday, 2 April 2026

Aurecon Group,
Level 11/73 Miller St, North Sydney NSW 2060

FAO: Juan Lewis

Project Name:	**NEXTDC S4 Data Centre – Air Quality Technical Clarification**
Reference:	**24.1064.DR6V1**
Status	**Final**

The following letter has been prepared by Northstar Air Quality Pty Ltd to provide technical clarification in response to comments received from Aurecon Group on 1 April 2026 regarding backup generator capacity and the Air Quality Impact Assessment (24.1064.FR4V2, dated 28 April 2025) produced for the NEXTDC S4 Data Centre development.

Should you require any further information or clarification, please do not hesitate to contact the undersigned.

For and on behalf of

Northstar Air Quality Pty Ltd

Declan Alder

Principal Air Quality Consultant

Reviewed by: Gary Graham

1. CLARIFICATION

This letter provides clarification regarding the installed backup generator capacity and associated references within the approved technical documentation for the NEXTDC S4 Data Centre development under State Significant Development (SSD) 63741210.

Condition A6 of SSD-63741210, dated 24 December 2025 states:

> *A6. The Applicant must ensure the back-up generators installed and operated under this consent do not exceed a total installed generating capacity of 360 megawatts.*

As documented in Section 5.2 (Generator Design) of the Backup Power Report (Rev E, dated 24 April 2025), the installed generators provide a total backup power capacity of 372 MW, reflecting 120 × 3.1 MW generators. The Backup Power Report provides the definitive design basis for backup generation capacity at the NEXTDC S4 data centre.

Within Section 2.3.2.1 (Emissions from Generators) of the AQIA (24.1064.FR4V2, dated 28 April 2025), reference is made to 120 × 3 MW generators. This is acknowledged as a clerical carry-over from earlier project discussions and represents a nominal ('approximate') descriptor only.

For clarity, the AQIA assessment scenarios conservatively assume that standby generators operate at 100 % (full) load with corresponding emissions data provided in Appendix E. The dispersion modelling has been carried out using manufacturer-derived performance and emissions data for two candidate generator engines, namely the Caterpillar C175-20 and MTU 20V4000G94LF generator sets. Based on manufacturer technical specifications presented in Appendix E, the full-load electrical outputs for the assessed generators are as follows:

- Caterpillar C175-20: 3 102 kW; and,
- MTU 20V4000G94LF: 3 307 kW.

Pollutant emission data for each candidate generator (expressed as $g \cdot hr^{-1}$ and $g \cdot kWh^{-1}$) were used to derive the emission rates applied in the dispersion modelling (expressed as $g \cdot s^{-1}$). The AQIA modelling therefore reflects manufacturer specified full-load generator performance rather than the nominal description provided in Section 2.3.2.1. Accordingly, the reference to '3 MW generators' within Section 2.3.2.1 represents a clerical descriptor only and does not affect the emissions inputs used in the dispersion modelling and the AQIA modelling remains valid.

It is our understanding that the total installed backup generation capacity is 372 MW, as documented in the Backup Power Report, and is assessed as such in the AQIA.

air quality | environment | sustainability

air quality	Northstar specialises in all aspects of air quality, dust, and odour management, covering monitoring, modelling and assessment, due diligence and process specification, licencing and regulatory advice, peer review and expert witness.
environment	Our team has extensive experience in environmental management, covering environmental policy and management plans, licencing, compliance reporting, auditing, data, and spatial analysis.
sustainability	We look beyond compliance to add value and identify opportunities. Our services range from sustainability strategies, ecologically sustainable development reporting and assessment, to bespoke greenhouse gas and energy estimation and reporting.

Head Office

Suite 1504, 275 Alfred Street,
North Sydney NSW 2060

Riverina Office

PO Box 483
Albury NSW 2640

supporting carbon neutral
Turn Emissions into Trees®

northstar

Tel: 1300 708 590 | admin@northstar-env.com | northstar-env.com

APPENDIX B

Aurecon Australasia Pty Ltd
ABN 54 005 139 873
Level 11, 73 Miller Street
North Sydney 2060 Australia
PO Box 1319
North Sydney NSW 2059
Australia

T +61 2 9465 5599
F +61 2 9465 5598
E sydney@aurecongroup.com
W aurecongroup.com

Memorandum

To	**James Cameron**	From	**Mark Cheng**
Copy	**Juan Lewis**	Reference	**P521243**
Date	**2026-03-19**	Pages (including this page)	**8**
Subject	**NEXTDC S4 – Substation transformer noise study**		

1 Executive summary

This memorandum presents an updated noise assessment for the NEXTDC S4 Data Centre with specific consideration to the substation transformers at 16 Johnston Crescent, Horsley Park. A review was required because we have been informed that the original sound power level (confirmed in email correspondence dated 01 March 2024) target specified by the manufacturer during the SSDA stage cannot be achieved. Using the SSDA noise model as a base, worst-case operational scenarios were assessed for the new, noisier transformer noise levels, and indicative mitigation options were evaluated.

Key findings of the study are as follows:

- Predicted impacts: Without mitigation, noise levels at the nearest sensitive receivers will exceed allowable limits.
- Mitigation effectiveness: Increasing noise wall heights, adding absorption lining, extending the HVSB noise wall, and introducing boundary wall significantly reduce predicted levels.
- Based on the assessment, the following modifications are recommended to the mitigation included in the SSDA design:
  - Install a minimum of 12 m high C-shaped noise wall around transformer bays with Flexshield Sonic V100 lining (NRC 1.0) applied to the inner wall surface facing the transformers, noting the SSDA model had an original 10m wall.
  - Install a minimum 10 m high wall with Megasorber P100 lining (NRC 1.0) on walls facing transformers for HVSB façade, noting this was originally a 6.85m high wall in the SSDA model.
  - Install a minimum 8 m high angled wall to the south of the transformer yard near the batter zone (Scenario 2), or extend the HVSB noise wall by 3.5 m toward the south (Scenario 5). Refer to **Figure** 6-3 for noise wall extent and orientation.
  - Consider investigating the feasibility and reasonability of installing Pyrotek Reapor or equivalent absorption of NRC 0.95 on the eastern façade of Building D for at least 80% of the area. Note the SSDA model doesn't have this treatment.
- Aurecon highlights the following limitations and risks that NEXTDC should consider when procuring the transformers as we understand from the manufacturers that detailed noise data will not be available until very late in the design. Based on this, Aurecon strongly recommends that the manufacturer should investigate treatments at the source to further reduce the source noise levels. The following assumptions are currently made in the modelling exercise:
  - A typical 1/3 octave noise spectrum for transformers has been adopted for noise modelling, with each individual 1/3 octave band level corrected to provide an overall sound power level of 95 dB(A).
  - tonality has currently been assessed using the typical transformer noise spectrum described in the dot point above and with 1/3 octave sound levels for other equipment interpolated from manufacturers' 1/1 octave data.

2 Introduction

Aurecon has been commissioned by NEXTDC to review and evaluate the noise impacts from the S4 Data Centre with specific consideration to the substation transformers located within the S4 site at 16 Johnston Crescenr, Horseley Park.

The key reason for this updated study is due to the manufacturer of the substation transformer not being able to meet the sound power level target initially specified during the SSDA stage of the project. During the SSDA stage of the project, the potential manufacturer for the transformer (i.e. Wilson Transformers) indicated that a Sound Power Level of 84 dBA was achievable for the transformer (email correspondence attached dated 01 March 2024). Subsequently, after the SSDA stage, Aurecon was advised by Transgrid that a Sound Power Level of 95 dBA would be the minimum achievable noise level for the transformers. Hence a reassessment of noise has been made for the nearest sensitive receivers, utilising the noise model prepared for the SSDA stage of the NEXTDC S4 dated 2nd April 2025 and the updated transformer sound power levels. Detailed information of the SSDA stage model is provided in the report titled *NEXTDC S4, Noise and Vibration assessment report, Rev H, 2 April, Aurecon*.

3 Scope of works

The scope of works for the noise assessment includes the following:

- Review the current architectural design for the substation.
- Establish the key operational scenarios to be assessed.
- Develop the noise model for each scenario to predict indicative noise emissions to the nearest sensitive receiver
- Identify options for indicative noise mitigation as necessary

4 Limitations and uncertainty

The following are the main limitations for the noise assessment of the proposed design option:

- For typical operation, it has been assumed that all equipment is operating continuously and simultaneously over the assessment period, providing the most conservative noise predictions.
- It has been assumed that data such as building heights from Open Street Maps or the elevation contours from ELVIS (Elevation and Depth - Foundation Spatial Data) are accurate and current at the time of the assessment.

- 1/3 octave sound power levels for the transformers are currently unavailable to undertake the assessment of penalties for tonality or low frequencies in accordance with the NSW Noise Policy for Industry. A typical 1/3 octave noise spectrum for transformers has been adopted for noise modelling, with individual 1/3 octave band sound power levels corrected for an overall sound power level of 95 dB(A). Also, the 1/3 octave noise data for some items of equipment have been interpolated from 1/1 octave data where 1/3 octave data was not available. These will need to be re-assessed as the design progresses and full 1/3 octave band noise data is available as noise from electrical infrastructure tends to be tonal in nature.
- With the increase in noise levels from the transformers, there is a greater risk that tonality may be experienced at the nearest receivers due to the hum from the transformer. If this tonality is predicted when 1/3 octave noise data is available for the transformer, it is anticipated the site would be non-compliant by up to 5 dBA after considering all the mitigations and the inclusion of a 5 dBA tonality penalty. The noise model used for the noise assessment does not contain contingencies to alleviate this risk and further mitigation later in the design stage is unlikely to be possible.
- If the actual sound power levels of the transformer are higher than the stated sound power levels of 95 dBA, this will likely result in non-compliance at some of the nearest sensitive receivers.
- Sound absorbing treatment is assumed on the internal faces of substation noise barriers and the High Voltage Switch Board (HVSB) Building façade facing the transformers. Acoustic performance requirements for these sound absorbing finishes are discussed in the sections below.

5 Sensitive receivers

The potentially most affected noise sensitive receivers have been shown in Figure 5-1. For this study only two receivers, R3 (two-storey residence) and R4 (single storey residence), have been considered since they are closest to the substation transformers and subsequently most affected by the noise from the substation transformers.

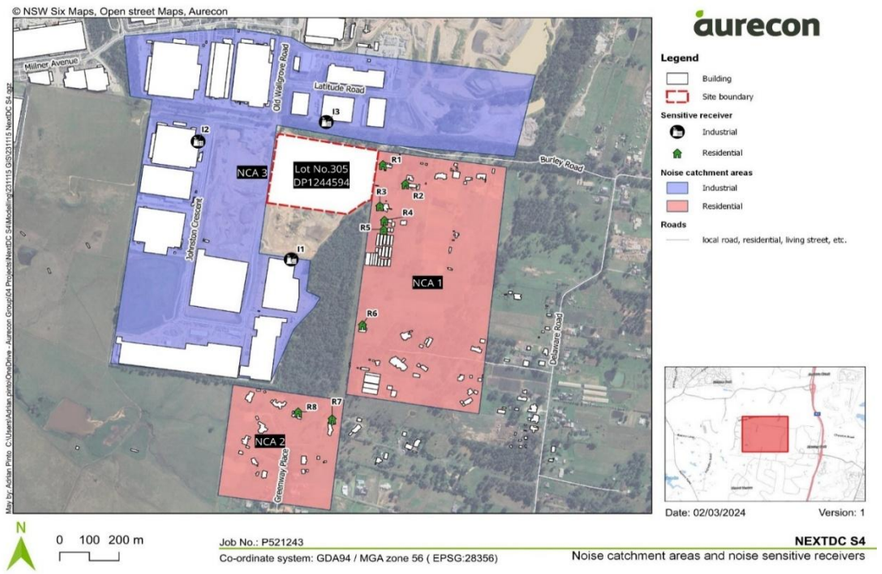


Figure 5-1 Nearest sensitive receivers

5.1 Transformer operational modes:

We understand that the substation transformers could be operating in one of two possible modes:

Mode 1: Normal maximum load operation: all 4x 170MVA transformers operational with transformers varying between 102 and 123 MVA load. This is approximately 75% of the full capacity.

Mode 2: Worst case Fail / N-1 operation is where the transformers would be running at their highest expected load: 3x 170MVA transformers operational at 174MVA load, with the 4th transformer de-energised (offline).

Through noise modelling for each of the above case, it was found that mode 2 generates a marginally higher noise level (1.3 dBA higher) and has been assumed in the model although it is unlikely to be a common occurrence. Predicted levels for mode 1 were predicted to be slightly lower than that of mode 2.

6 Assumptions

For the purposes of this assessment, the worst-case scenario during the night-time period of 10 pm to 7 am has been assessed.

Key noise sources in these scenarios are equipment associated with data centre operation, vehicle movements and the substation transformers. Although the mechanical plant may operate at a reduced capacity during certain periods, a conservative approach has been taken by assuming 100% operation. The equipment considered includes the following:

- Mechanical equipment on rooftop including:
  - Water-cooled chillers within plantrooms with intake and discharge attenuators located at the louvres
  - Front of House OAP units
  - OA fans
  - Cooling towers
- Electrical equipment such as substation transformers
- Onsite traffic (light and heavy vehicles)

The noise assessment was conducted for all scenarios under noise enhancing meteorological conditions.

- Night period – 2 m/s winds from source to receiver under Class F temperature inversion

The noise assessment was conducted using the manufacturers' noise data available for the at the time of this assessment. Where manufacturers' noise data is not available, for example for the substations, noise data assumptions have been made based on the information available and best practice.

6.1 Base scenario

Figure 6-1 and Figure 6-2 show the SSDA RTS configuration which is based on the concept design drawings dated 11th March 2025. In this configuration, the transformer yard is located closer to the Substation building and it is noted that the transformer yard has been modelled with fire walls separating each transformer. Further, the HVSB building has been modelled as a building height of 9.4m above ground level.

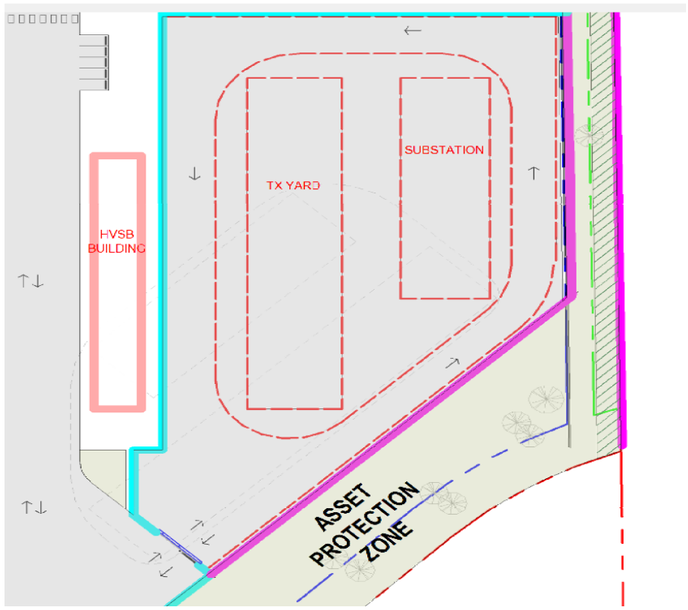


Figure 6-1 Substation configuration used for the SSDA noise model

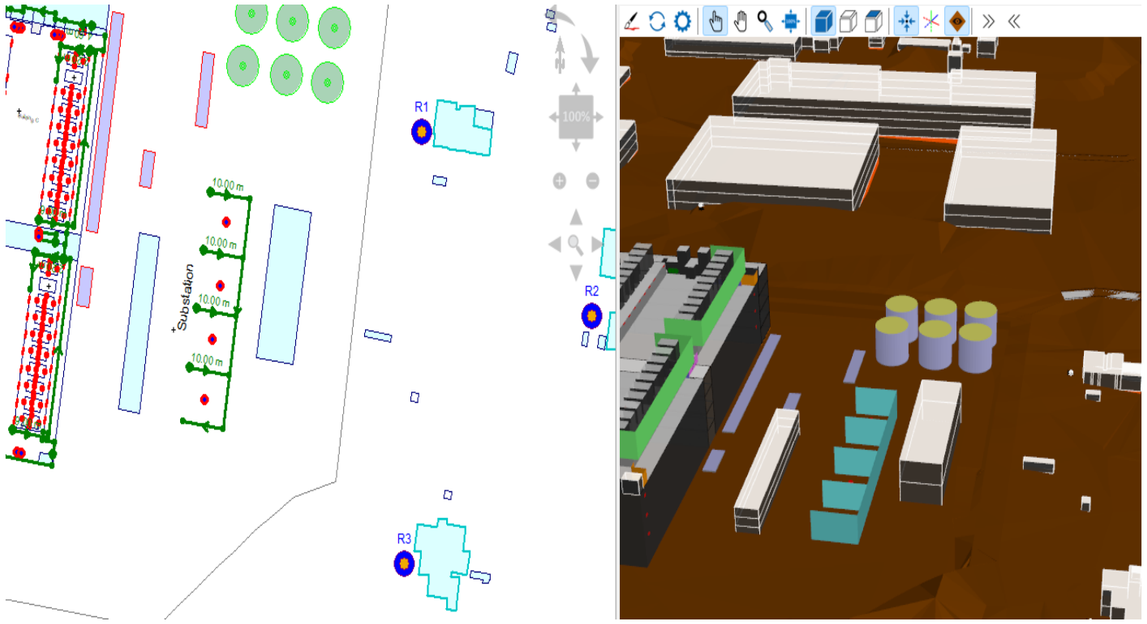


Figure 6-2 Configuration in the noise model showing the fire walls considered for the original SSDA scenario with 84 dBA SWL for the transformers

Table 6-1 Scenarios assessed

Scenario	Transformer set up	Transformer noise source height AGL	Transformer bay perimeter C shaped noise wall	HVSB Noise wall	Additional walls	Absorption lining
Base scenario	4x transformers at Lw 89 dBA	3m	10m	6.85m	No	Absorption for the fire walls and HVSB noise wall
S1	3x transformers Lw 95 dBA + 1x de-energised at Lw 89 dBA	3m	12m	10m	Yes. 12m height dog leg wall to be extended from C shaped wall towards the oil spill tank	Absorption for the C-shaped noise wall, dog leg wall, HVSB noise wall, and extension of the HVSB noise wall
S2	Same as scenario 1	3m	12m	10m	Yes. 8m height wall to the south of the transformer yard near the batter zone, Refer to Figure 6-3 for noise wall location, extent and orientation.	
S3	Same as scenario 1	3m	13m	10m	No	
S4	2x transformers Lw 95 dBA	3m	13m	10m	No	
S5	Same as scenario 1	3m	13m	10m	Yes. Extension of the 10m HVSB noise wall by 3.5m toward the south. Refer to Figure 6-3 for noise wall location, extent and orientation.	

Absorption: Flexshield Sonic V100 lining, Megasorber P100 or equivalent with Noise reduction coefficient (NRC) 1.0 on the side facing the transformers

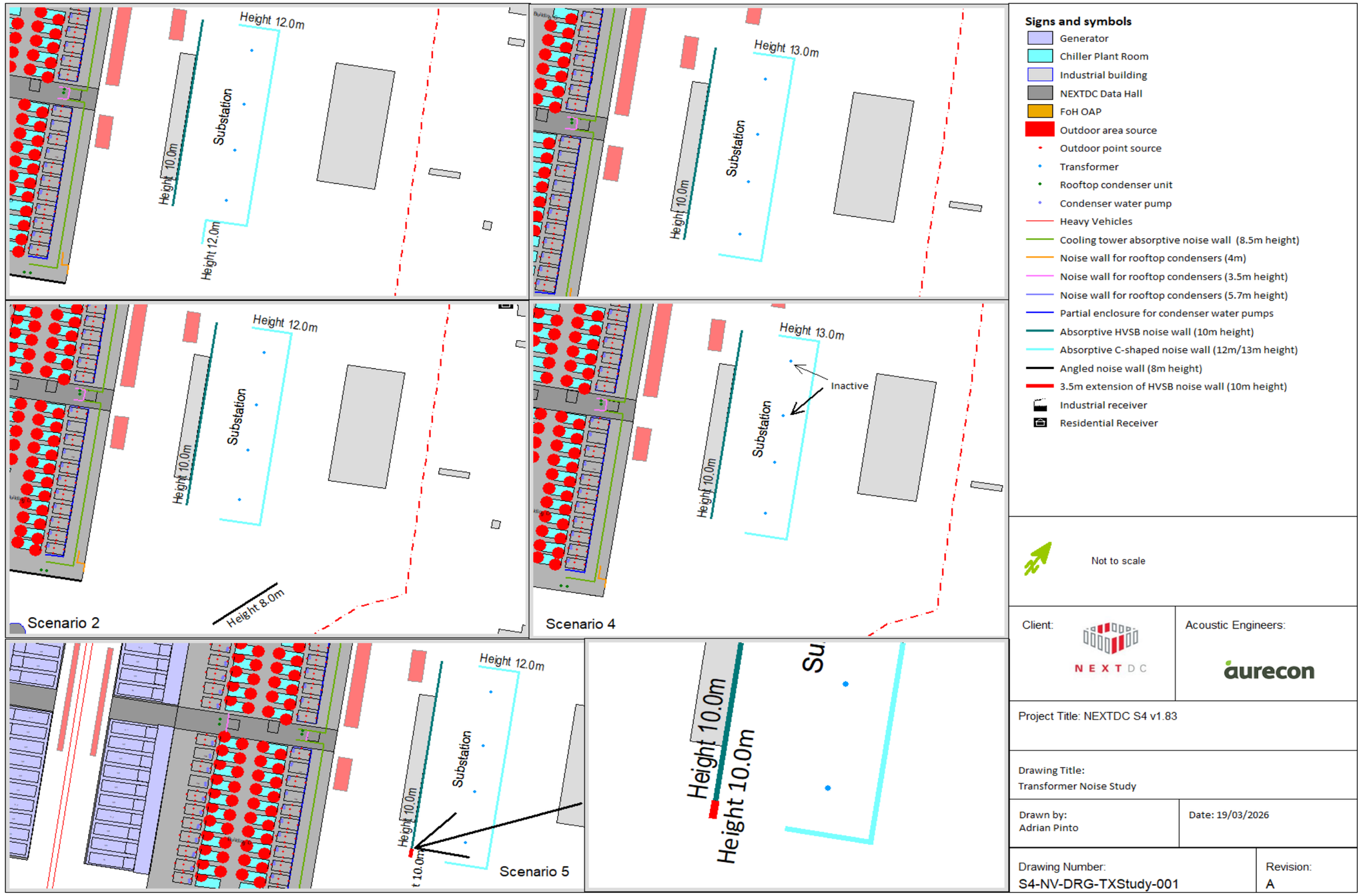


Figure 6-3 Investigated noise wall scenarios

7 Predicted noise levels

Noise modelling was undertaken for 5 scenarios, including variations in wall height, absorption treatment, and transformer offsetting. These scenarios are summarised in Table 6-1. Results indicate:

- Mitigation measures used in Scenarios 1, 3 and 4 result in non-compliances. Scenarios 2 and 5 are predicted to just achieve the noise limits for the site. This is assuming no tonality penalty applied.
- Reflections from Building D and the HVSB building result in exceedances at receivers R3 and R4. To reduce the effect of reflections on the predicted noise level, a minimum 10m high absorptive noise wall along the façade of the HVSB building and a minimum NRC of 0.95 with low frequency performance (absorption coefficient > 0.2 between 50 and 100 Hz) is required. Note this measure was previously proposed in the SSDA model for a 6.85m height. Example products which can achieve this include:
  - Megasorber P100
  - Flexshield Sonic System V50 or V100
  - Pyrotek Reapor 63mm.
  - IAC Acoustics Noise Shield barriers such as C/S and C/A

The acoustic absorption spectra of Megasorber P100 and Flexshield Sonic System used for modelling are shown in Table 7-1.

Table 7-1 Absorption spectrum of acoustic lining used for noise modelling

Acoustic lining product	1/3 octave band centre frequency, Hz																						
	50	63	80	125	160	200	250	315	400	500	630	800	1k	1.25	1.6k	2kH	2.5k	3.15	4k	5k	6.3k	8k	10k
Megasorber P100	0.3	0.4	0.5	0.6	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9	1.0	0.9	1.0	0.9	0.9	0.9	0.9	0.9
Flexshield Sonic System V100	0.2	0.4	0.4	0.8	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

- To further reduce the predicted noise level at receiver R4, installation of an 8m high angled noise wall to the south of the transformer yard near the batter zone or extension of the HVSB noise wall by 3.5 m toward the south, as shown in **Figure** 6-3, is also required. Note this measure was not proposed in the SSDA model or submission.
- The transformer noise walls still require additional absorption with NRC 1.0, consistent with the SSDA stage mitigation, however the noise walls for the transformers will need to be increased in height.
- While there is an indication of reduction in noise by incorporating at least 80% of the eastern façade of building D requires a sound absorbing finish such as Pyrotek Reapor with NRC 0.95, it is anticipated this measure may not be reasonable. It is recommended to investigate the feasibility and reasonability of this measure.
- Aurecon highlights the following limitations and risks that NEXTDC should consider when procuring the transformers:
  - tonality has currently been assessed using a typical transformer noise spectrum and with 1/3 octave noise data of some items of equipment interpolated from 1/1 octave data. With the increase in noise levels from the transformers, there is a greater risk that tonality may be experienced at the nearest receivers due to the hum from the transformer. If this tonality is predicted when 1/3 octave noise data is available for the transformer and other equipment, it is anticipated the site would be non-compliant by up to 5 dBA after considering all the mitigations and the inclusion of a 5 dBA tonality penalty. The noise model used for the noise assessment does not have further contingencies to further alleviate this risk and further mitigation later in the design stage is unlikely to be possible.
  - If the actual sound power levels of the transformer are higher than the stated sound power levels of 95 dBA, this will likely result in non-compliance.

Predicted noise levels for each scenario are summarised in Table 7-2.

Table 7-2 Predicted noise levels for the worst-case receiver affected by substation transformers

Receiver name	Night time Criteria dBA	Base Scenario	S1	S2	S3	S4	S5
R3	38	0	-0.5	-0.4	-0.5	-0.7	-0.3
R4	38	-2.4	0.9	-1.6	0.8	0.7	-2.4

8 Recommended Mitigation

Based on the assessment, the following modifications are recommended to the mitigation included in the SSDA design:

- Install a minimum of 12 m high C-shaped noise walls around transformer bays with Flexshield Sonic System V100 lining (NRC 1.0) on walls facing transformers, noting the SSDA model had an original 10m wall.
- Install a minimum 10m high wall with Megasorber P100 lining (NRC 1.0) on walls facing transformers for HVSB façade, noting this was originally a 6.85m high wall in the SSDA model.
- Install a minimum 8 m high angled wall to the south of the transformer yard near the batter zone (Scenario 2), or extend the HVSB noise wall by 3.5 m toward the south (Scenario 5). Refer to **Figure** 6-3 for noise wall extent and orientation.
- Consider investigating the feasibility and reasonability of installing Pyrotek Reapor or equivalent absorption of NRC 0.95 on the eastern façade of Building D for at least 80% of the area. Note the SSDA model doesn't have this treatment.
- Aurecon strongly recommends that the manufacturer should investigate treatments at the power transformer to further reduce the source noise levels

9 Future Considerations

- Confirm detailed noise data for transformers as soon as possible for use in future modelling.
- Review the predicted levels during the tender design stage of the project.
- Assess tonal and low-frequency penalties during tender design. It should be noted that if tonal characteristics are identified and a tonal penalty applied, site noise limits will likely be exceeded at some of the nearest sensitive receivers.
- Confirm acoustic performance of absorption materials.