

29 September 2025

Lucas Flecha
Project Director

RE: Revised Air Quality Assessment – 1 Crescent Street, Holroyd

Dear Lucas,

Todoroski Air Sciences has prepared this revised air quality assessment on behalf of Tiberius (Holroyd) Pty Ltd in association with a State Significant Development Application (**SSDA**) for a proposed mixed-use development at 1 Crescent Street, Holroyd (**the site**).

The potential air quality impacts from nearby roadways at the site were previously assessed in the *Air Quality Impact Assessment Crescent Parklands SSD-70283710: 1 Crescent Street, Holroyd* report (**Todoroski Air Sciences, 2024**).

The report responds to matters raised by the Department of Planning, Housing and Infrastructure (**DPHI**), Cumberland City Council, other State government authorities /agencies, utility service providers and the community during public exhibition of SSD-70283710.

The report also assesses the proposed amendments to the original proposal, including changes to the following:

- ✦ Stage A – Mixed use podium, Buildings 1 to 3 and supporting infrastructure
- ✦ Stage B – Buildings 4 and 5 and supporting infrastructure
- ✦ Stage C – Buildings 6 and 7 and supporting infrastructure

The proposed changes extend beyond minor refinements which can be accommodated via a Submissions Report. As a result, a combined Submissions and Amendment Report has been prepared and consent sought from DPHI to amend the SSDA as per section 37 of the *Environmental Planning and Assessment Regulation 2021* (**the Regulation**).

To understand the cumulative impact of the above design refinements, the project description has been updated to reflect the proposed amendments to the scheme as originally lodged with DPHI for assessment.

The amended description is provided as follows:

- ✦ Site establishment works, tree removal, site preparation, earthworks and excavation, services augmentation, and remediation works.

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- ✦ Development of seven residential buildings comprising four shop top housing buildings and three residential flat buildings as outlined below:
 - Buildings 1-3 are integrated with an eastern mixed-use podium building, while Building 4 is situated above mixed residential / commercial space, offering shop-top housing.
 - Buildings 5-7 consist of residential flat buildings.
 - ✦ Delivery of 15% of the total floor space as affordable housing to be distributed across each of the 7 residential buildings, or within a consolidated building proposed proportionately as buildings are developed.
 - ✦ Approximately 134,208 m² total floor space comprising:
 - A total of 2,496 m² retail GFA and approximately 2,710 m² commercial GFA.
 - 1,374 residential apartments
 - Communal amenity facilities for residents.
 - Building services areas.
 - ✦ Activation of Crescent Street through a mix of amenity areas and pockets of open space.
 - ✦ Shared car parking for Buildings 1 to 3 and the commercial and retail tenancies within the podium.
 - ✦ Shared car parking for Buildings 4 to 7 on the lower ground levels and within the above ground parking structures adjoining Buildings 4-5 and 6-7.
 - ✦ Landscaping and accompanying place making works including:
 - Public open space, hard and soft landscape works.
 - Ground and rooftop communal open space.
 - Publicly accessible through-site links.
 - At grade car parking for the park, forecourt and retail areas.
 - Vehicle access via a new internal publicly accessible road and vehicle accessway.
 - New pedestrian footpaths and access arrangements to the site.
 - Café tenancy within park-side structure.
 - ✦ Staged completion of a public park.
 - ✦ Associated works involving the widening of Crescent Street and road upgrades to Crescent Street.

This revised report incorporates changes to the site layout, including a change in the main residential level for buildings along Woodville Road from Level 7 to Level 8 (namely buildings 1 and 3. This change would reduce



potential air quality exposure levels due to road traffic emissions from the roadway. It is important to note that there are no proposed changes to the ground floor or Level 2 residential development of any of the buildings, as previously assessed in **Todoroski Air Sciences (2024)**. Therefore, this assessment focuses on the potential air quality impacts associated with the relocated residential dwellings on Level 8 for buildings 1 and 3.

Overview

The site is located at 1 Crescent Street, Holroyd, and is bounded by Parramatta Road/Church Street/Woodville Road intersection to the northeast, Woodville Road to the east and Crescent Street to the south. The northern frontage of the site faces the Holroyd Sportsground and the M4 Motorway beyond.

Figure 1 presents the location of the site with reference to the nearby roadways, in particular Woodville Road, Crescent Street and the M4 motorway, considered in this assessment and the assessment locations.

The previous site layout designated Level 7 as the primary residential floor for the buildings located along Woodville Road (buildings 1 and 3), situated at an elevation of approximately 22.7 metres (m). Under the proposed design modifications, the residential dwellings, initially located on Level 7, will be relocated to Level 8 for buildings 1 and 3, raising the elevation to approximately 30.9m (i.e. a height increase of approximately 3.2m).

Other changes to the site layout include minor changes to building sizes; however, their orientation and positioning remain unchanged, and therefore, no additional impacts are anticipated from these modifications. Furthermore, the site setback from the roadways remains unchanged, which varies depending on the road, to maintain compliance with air quality standards at all key receptor areas. Thus, this assessment focuses solely on potential air quality impacts resulting from relocating the residential dwellings from Level 7 to Level 8 for buildings 1 and 3. The indicative site layout for the Level 8 is presented in **Figure 2**.

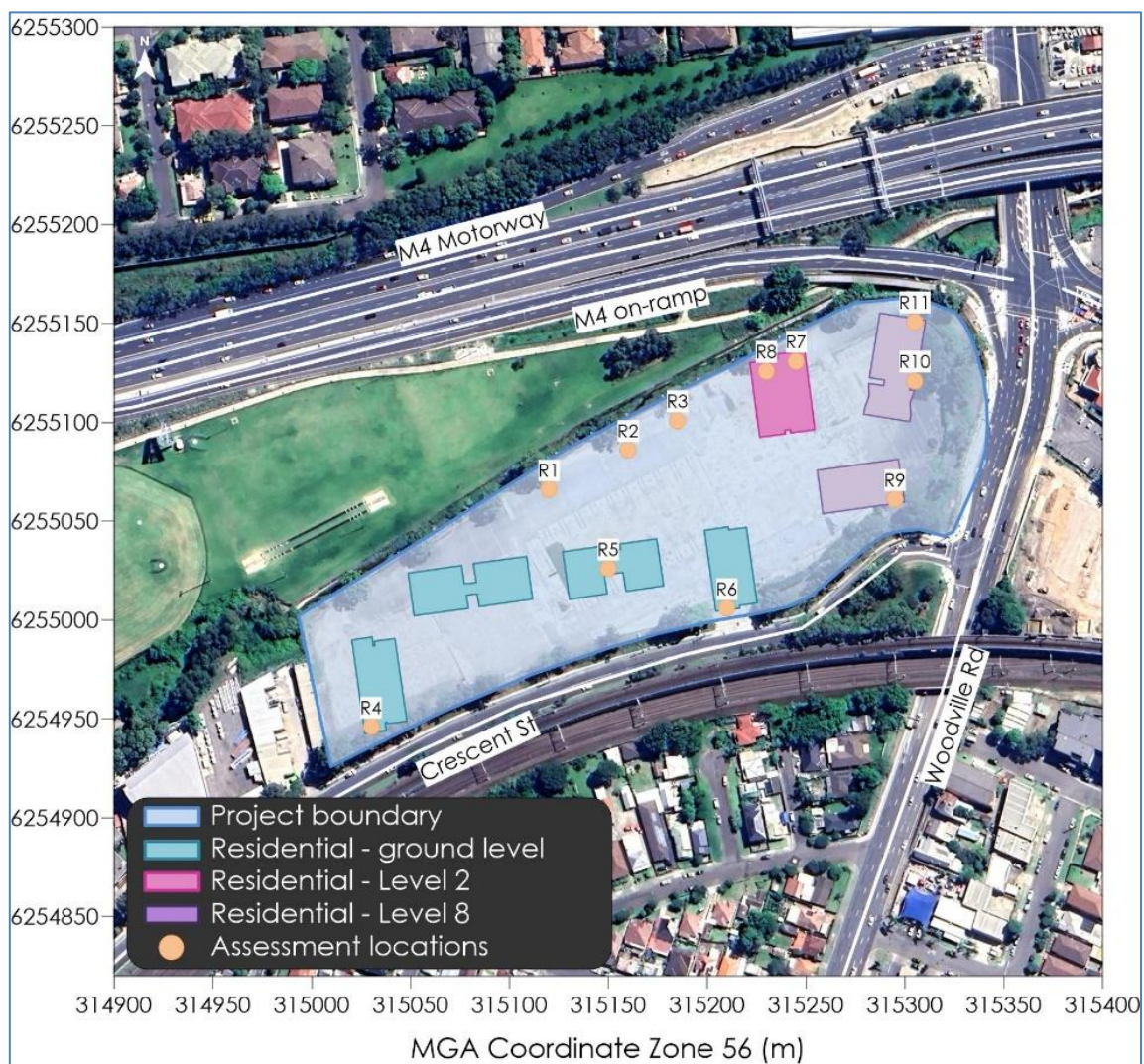


Figure 1: Site layout

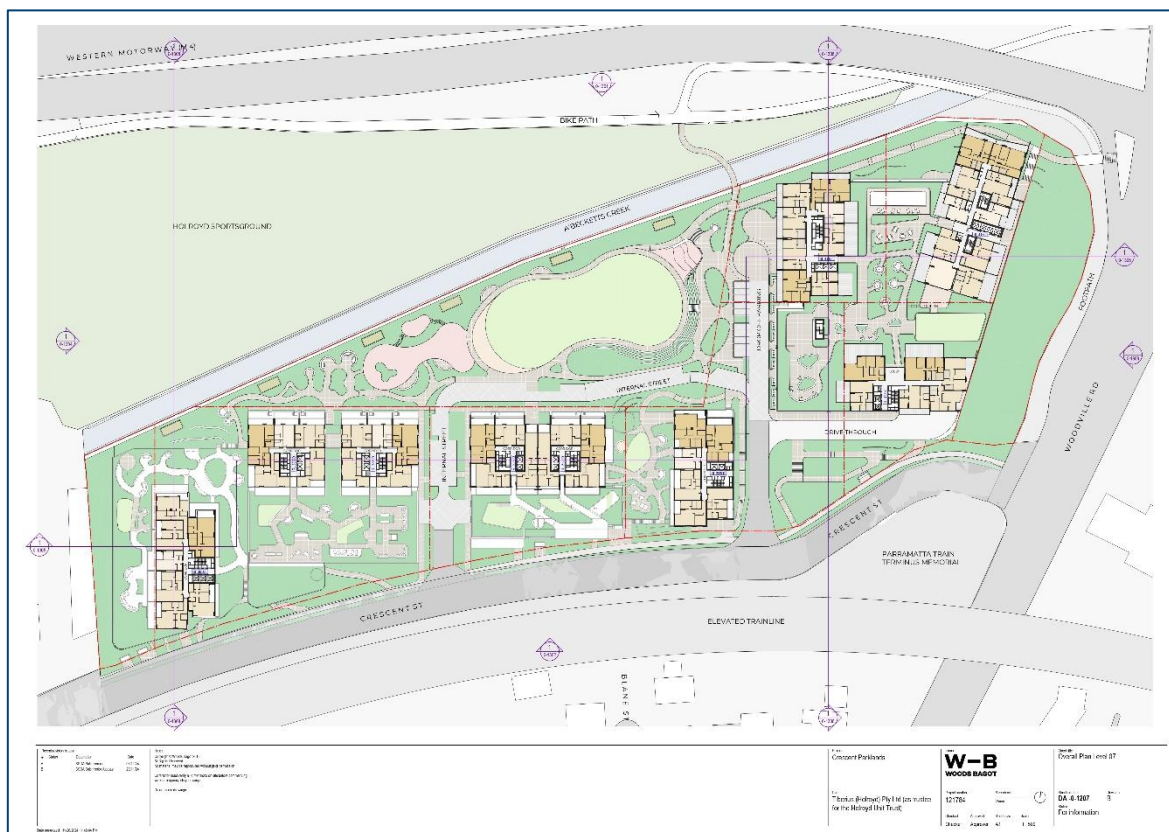


Figure 2: Indicative site layout – Level 8

Assessment of potential air emissions

In order to evaluate the potential air quality impacts at the site, we have reviewed air quality modelling predictions previously prepared to infer the likelihood of such impacts.

The air quality predictions in **Todoroski Air Sciences (2024)** indicate that all pollutant levels at the site would be within the relevant EPA impact assessment criteria.

Given the proposed increased elevation for the primary residential floor for the buildings located along Woodville Road for buildings 1 and 3, it can be expected that any air quality impacts previously assessed in the **Todoroski Air Sciences (2024)** report for Level 7 would be lower at the newly proposed residential level, due to the increased separation distance (i.e. approximately 3.2m higher).

Figure 3 to **Figure 6** present pollutant concentration isopleths showing the spatial distribution of the predicted incremental impacts associated with the assessed roadways for each pollutant at Level 7 from **Todoroski Air Sciences (2024)**. The predicted incremental and cumulative results indicate that the assessed locations are predicted to experience levels below the applicable EPA criteria.

Therefore, it is determined that the assessed road traffic emissions would not lead to any unacceptable level of harm or impact at the site.

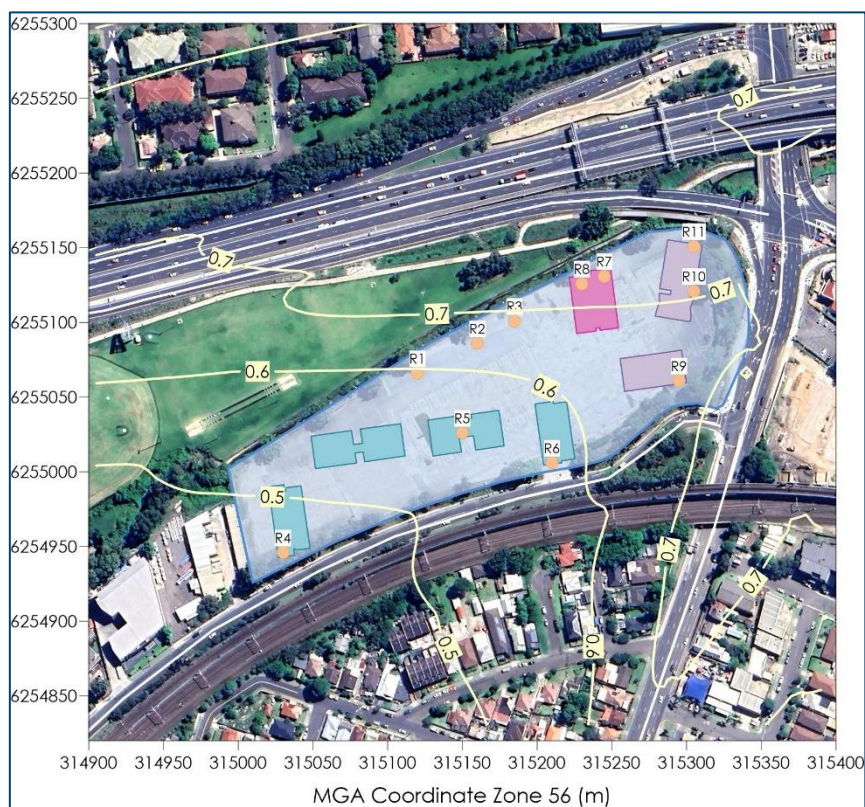


Figure 3: Predicted incremental 24-hour average $PM_{2.5}$ concentrations ($\mu g/m^3$) – Level 7

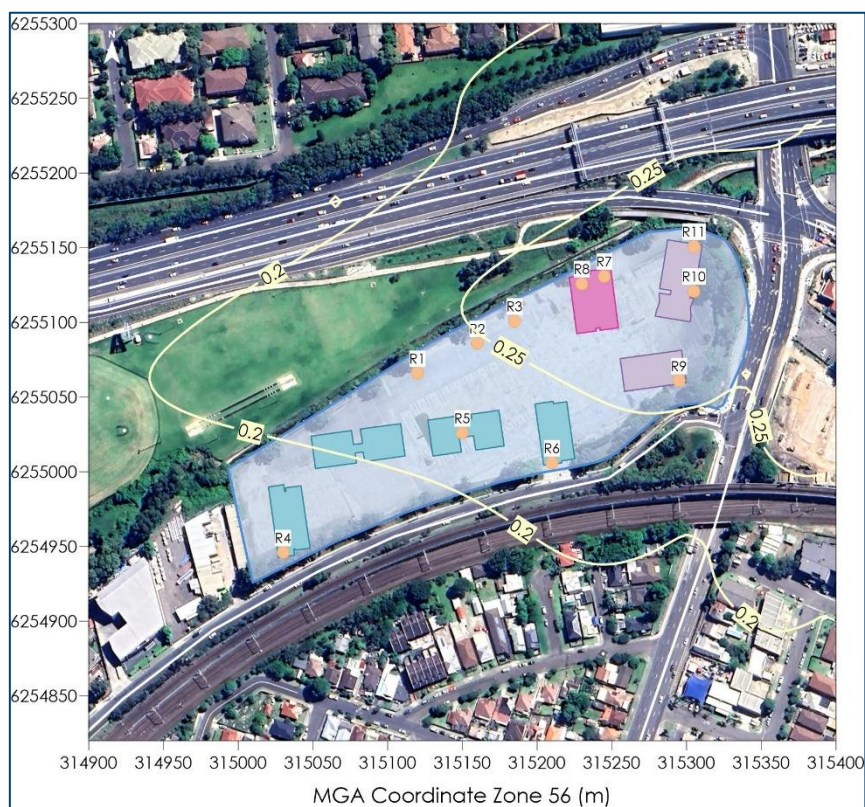


Figure 4: Predicted incremental annual average $PM_{2.5}$ concentrations ($\mu g/m^3$) – Level 7

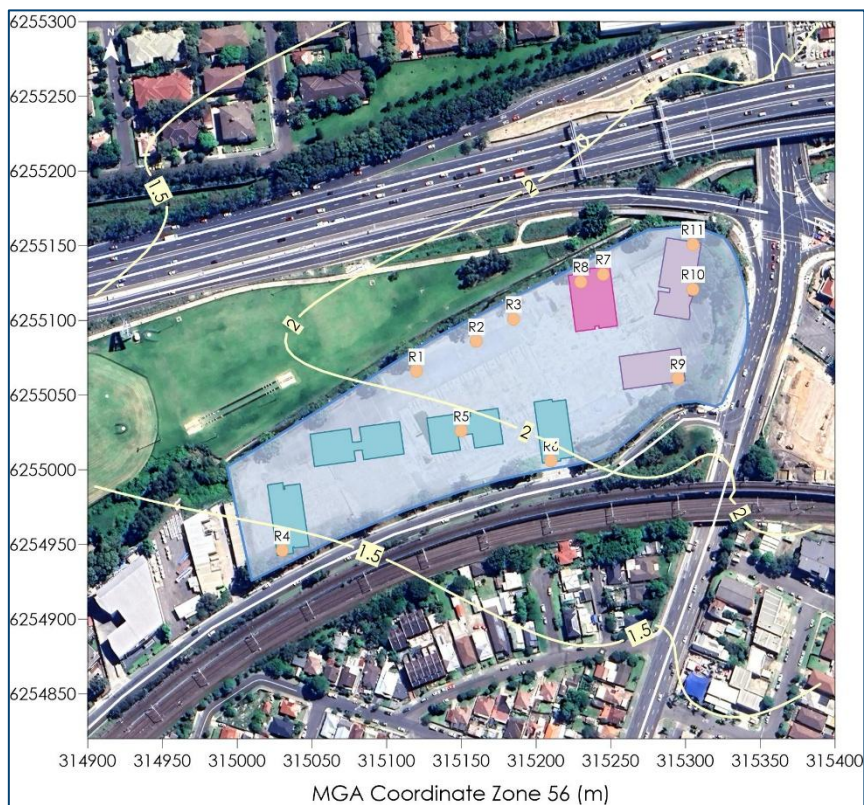


Figure 5: Predicted incremental annual average NO₂ concentrations (µg/m³) – Level 7

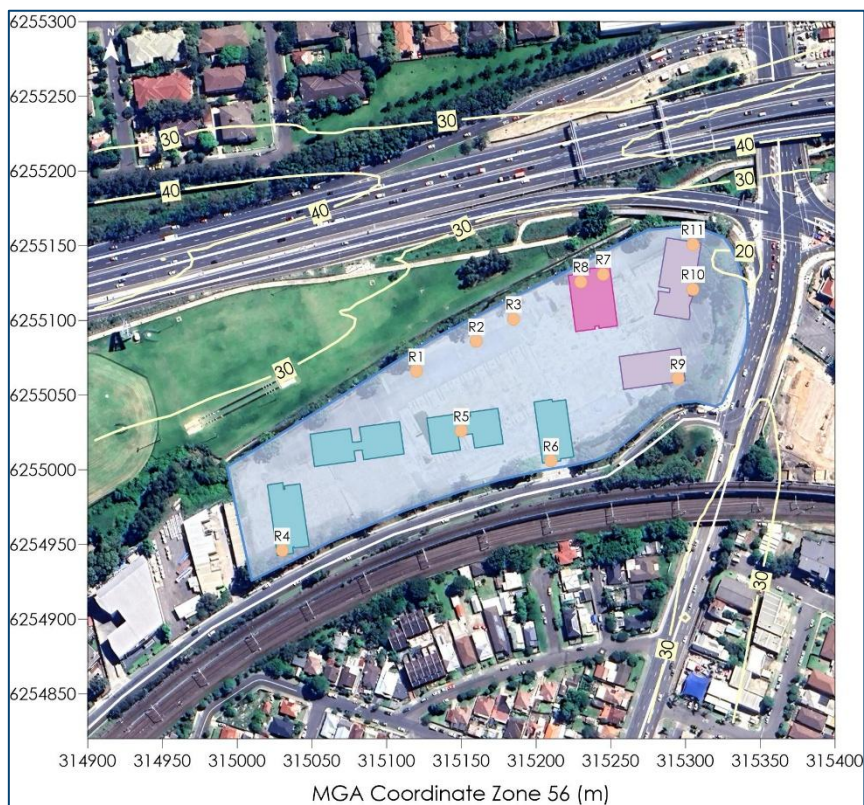


Figure 6: Predicted incremental 1-hour average NO₂ concentrations (µg/m³) – Level 7

Summary

This report has assessed the potential for air quality impacts associated with traffic emissions to impact upon the proposed design modifications at 1 Crescent Street, Holroyd. The proposed design modification seeks to relocate the main residential areas on Level 7 of buildings 1 and 3 to Level 8, effectively increasing the separation distance of the residential areas by 3.2m, thus further reducing any potential air emissions generated from road traffic at these locations.

Overall, the assessment demonstrates that the proposed design modification would not result in any additional air quality impact with a potential reduction in potential air emissions for the primary residential floor for buildings 1 and 3 located along Woodville Road. Therefore, there are no proposed additional mitigation and management measures required for the site.

Please feel free to contact us if you would like to clarify any aspect of this report.

Yours faithfully,
Todoroski Air Sciences



Emilie Aragnou

References

Todoroski Air Sciences (2024)

"Air Quality Impact Assessment Crescent Parklands SSD-70283710: 1 Crescent Street, Holroyd", prepared by Todoroski Air Sciences, November 2024.