

Date: 15 October 2025
Ref: 237401.0015.R02V01
To: Brett Smith
Company: Sarazin
Author: Akwasi Asumadu-Sakyi / Samuel Wong
Subject: Proposed Multiple Dwelling Development, 825 Stanley Street, Woolloongabba – Air Quality Review – Assessment of the updated plans of development for compliance with air quality objectives.
Pages: 1 of 20

Dear Brett,

This report letter presents a qualitative air quality review of the updated plans of the proposed development at 825 Stanley Street, Woolloongabba.

An air quality modelling assessment report (237401.0015.R01V03, dated 28 July 2023) for the basement car park exhausts of the proposed development was previously undertaken. Based on the initial design, which include 3 car park exhausts, predicted compliance with the air quality criteria was achieved and the exhaust locations were deemed suitable. However, the development plans have since been updated, including the car park ventilation system design.

1. PROPOSED DEVELOPMENT

Based on the new plan, the proposed development now comprises of 52 and 35 storey residential Towers (West Tower formerly Silk 3) and East Tower (formerly Silk 2), including food and drinks and retail uses, cinema, gym, pool facilities, wellness deck, golf sim room, office facility, residential cinema and music room, SPA Over and a work from home facility. The development also includes five (5) basement car parks for the West Tower and 3 basement car parks for the East Tower, respectively.

A summary of the development features is presented in **Table 1**. Sections of the new plan sets of the proposed development (West Tower and East Tower) as well as elevations are presented in **Appendix A**.

Table 1: Summary of Development

Development Building	Development Feature
West Tower	<ul style="list-style-type: none"> ■ Ground level (Level 1): Plant, Manager’s office, Parcel room, Retail refuse room, Substation, Plant rooms, Service Bay, Fire Control Room, 4 Tenancies, deep planting. ■ Basement 1: Foyer, Lifts, Domestic water pressure set room, Sewage pump station, 1 Fan room. ■ Basement 2: Foyer, Lifts, 2 Fan rooms. ■ Basement 3: Foyer, Lifts, 2 Fan rooms. ■ Basement 4: Foyer, Lifts, 2 Fan rooms. ■ Basement 5: Foyer, Lifts, 2 Fan rooms. ■ Level 1 Mezzanine: 4 Tenancies ■ Level 2 Podium: Residential Units ■ Level 3 Podium: Residential Units ■ Level 4 Podium: Residential Units

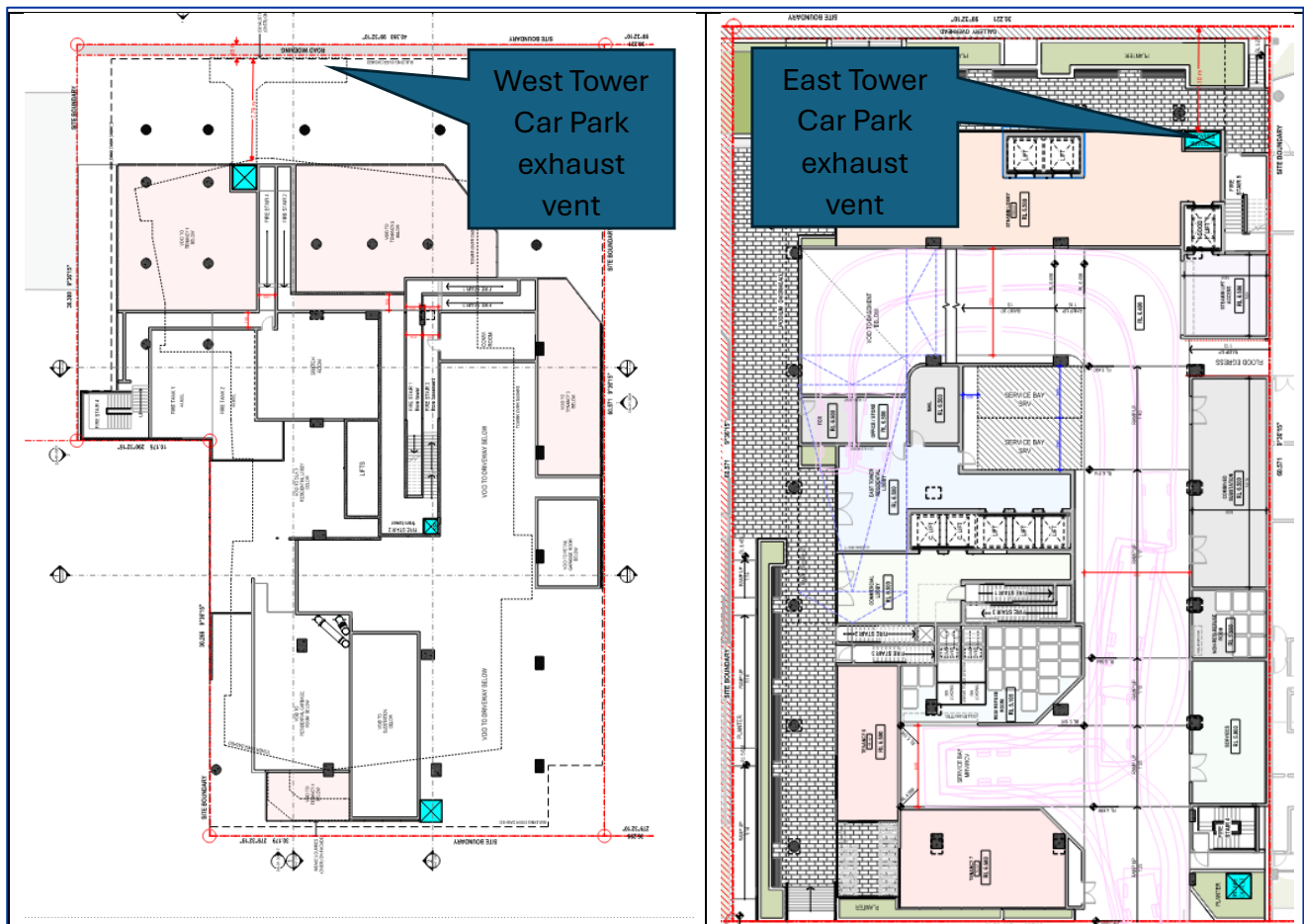
Development Building	Development Feature
	<ul style="list-style-type: none"> ■ Level 5-26: Residential units (Low) ■ Level 27-33: Residential units (Upper) ■ Level 34: Recreation deck/Plant room (Mechanical) ■ Level 35 – Roof Deck (Pool, Gym, Sauna, Yoga lawn, outdoor dining, Outdoor kitchen, Wellness deck, Drop planter).
East Tower	<ul style="list-style-type: none"> ■ Ground level (Level 1): Garbage room, Service Bay, Tank room, Lobbies, FCR, 2 Tenancies, Planter, Deep planting, Office/Store, Mail room, Podium Overhead, Lifts. ■ Basement 1: 1 Fan room, Lobbies, deep planting, bicycle parking, Lifts. ■ Basement 2: 2 Fan rooms, Lobbies, bicycle parking, Lifts. ■ Basement 3: 1 Fan room, bicycle parking, Lobbies. ■ Level 2 Podium 1: Gallery, bicycle parking, Lobbies, Steam M Foyer, ■ Level 3 Podium 2: Gallery, Chute zone, Lifts, Lobbies. ■ Level 4 Podium 3: Gallery, Chute zone, Lifts, Lobbies. ■ Level 5 Podium 4: Gallery, Chute zone, Lifts, Lobbies. ■ Level 6 Podium Top: Amenities, Gallery, Steam m. offices, Event Space, Pavilion, 1 Fan Room, Service. ■ Level 7-9: Office/Commercial Facilities ■ Level 10-31: Residential units (Low) ■ Level 32: Recreation deck/Plant room ■ Level 33: Recreation deck ■ Level 34: Plant deck (Mechanical plant room) ■ Level 35-49: Residential Units (Upper) ■ Level 50: Plant Deck (Mechanical) ■ Level 51: Roof Deck (Multi-Court, Kitchenette, Pool, Sauna, Refuse room) ■ Level 52: Rooftop Plant (Mechanical).
Car parks (West Tower)	<ul style="list-style-type: none"> ■ Basement 1: for resident (60 spaces) ■ Basement 2: for resident (62 spaces) ■ Basement 3: for resident (63 spaces) ■ Basement 4: for resident (63 spaces) ■ Basement 5: for resident (63 spaces) ■ Total – 311 Basement car spaces.
Car parks (East Tower)	<ul style="list-style-type: none"> ■ Level 2 Podium 1: for resident (27 spaces) ■ Level 3 Podium 2: for resident (42 spaces) ■ Level 4 Podium 3: for resident (42 spaces) ■ Level 5 Podium 4: for resident (42 spaces) ■ Basement 1: for resident (50 spaces) ■ Basement 2: for resident (67 spaces) ■ Basement 3: for resident (38 spaces) ■ Total – 155 Basement car spaces.

1.1 Proposed Car Park Exhausts

The proposed development includes two (2) car park exhaust vents, one (1) serving the five (5) basement car park with 311 spaces in the West Tower and the other serving the three (3) basement car parks with 155 spaces in the East Tower. The proposed location for the development's car park exhaust vents is shown in **Figure 1**.

The basement car park exhaust vent of the proposed West Tower is ducted to the Level 1 Mezzanine, located approximately 1.0 metre from the northern site boundary and facing Stanley Street. The basement car park exhaust vent of the proposed East Tower is located on the Ground floor (Level 1), approximately 7.1 metres from the northern site boundary and facing Stanley Street.

Figure 1: Proposed Car park Exhaust Vent Location on Ground Level of West Tower and Level 1 Mezzanine of East Tower



2. REVIEW

For air quality purposes, the location of the proposed car park exhaust vents in the development has been assessed against the 15-metre acceptable setback distance (between car park exhausts and sensitive uses) specified in the Brisbane City Plan 2014. It is noted that the development application is being made with Economic Development Queensland (EDQ) under the Woolloongabba Priority Development Area Development Scheme (October 2025). Section 2.5.5 of the development scheme states that development:

"minimises adverse lighting, noise, odour, air-quality and/or other impacts on adjoining sites and public realm"

The scheme is not prescriptive with respect to assessment approach however, reference is made to the Brisbane City Plan 2014.

The car park exhaust vent in the West Tower is located within 7.8 metres horizontally and 5.8 metres vertically of the nearest on-site sensitive uses (proposed apartments on the floors above), which is less than the acceptable setback distance of 15 metres. Meanwhile, the car park exhaust vent of the East Tower is approximately 33.5 metres from the closest on-site sensitive uses, and compliant with the acceptable distance of 15 metres. Considering off-site receptors on Level 5-7 of the existing Silk 2 tower, which is located east of the East Tower (as identified in the previous 2023 report), the acceptable setback distance of 15 metres will be exceeded because the car park exhaust vent of the East Tower is approximately 18.2 metres away.

Although the proposed car park exhaust vent of the West Tower is less than the acceptable setback distance of 15 metres, based on experience with similar separation distances and similar sized car parks, compliance with air quality goals are achievable. Mitigation may be required (e.g. directing air a certain direction away from receptors, using barrier fins to block air flow, filtration, etc). The specifics of the design can be determined during the detailed design phase, once ventilation details are known (e.g. flow rates).

Table 2 shows similar projects which Trinity has completed in Brisbane City with comparable-sized car parks, similar separation distances, and analogous locations of exhaust vents. For these project, air quality modelling assessments predicted compliance with the air quality goals.

Table 2: Similar car park spaces and separation distances where compliance was met


Total Car Park Spaces	Basement Car park Levels	Number of Exhaust Vent	Separation Distances from Exhaust Vent to Sensitive Receptors (m)
Proposed Development 466	5 (West Tower); 3 (East Tower)	1 (West Tower); 1 (East Tower)	7.8 m horizontal and 5.8 m vertical distance, distance from West Tower exhaust servicing 311 cars 18.2 m vertical, distance from East Tower exhaust servicing 155 cars
365	3	1	10.7 m below nearest unit, 13.3 m horizontal setback from nearest unit
424	4	1	1.1 m below the nearest sensitive receptor, 10 m horizontal setback from balcony edge

3. CONCLUSION

Based on this review, it is concluded that the proposed car park vents are in a suitable location from an air quality perspective. The specifics of the design and mitigation if required (e.g. filtration, etc) can be determined during the detailed design phase, once ventilation details are known (e.g. flow rates).

Document Approval

Approver Signature



Name

Samuel Wong

Title

Environmental Manager

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Figure A4: Level 34 – Rec/Plant

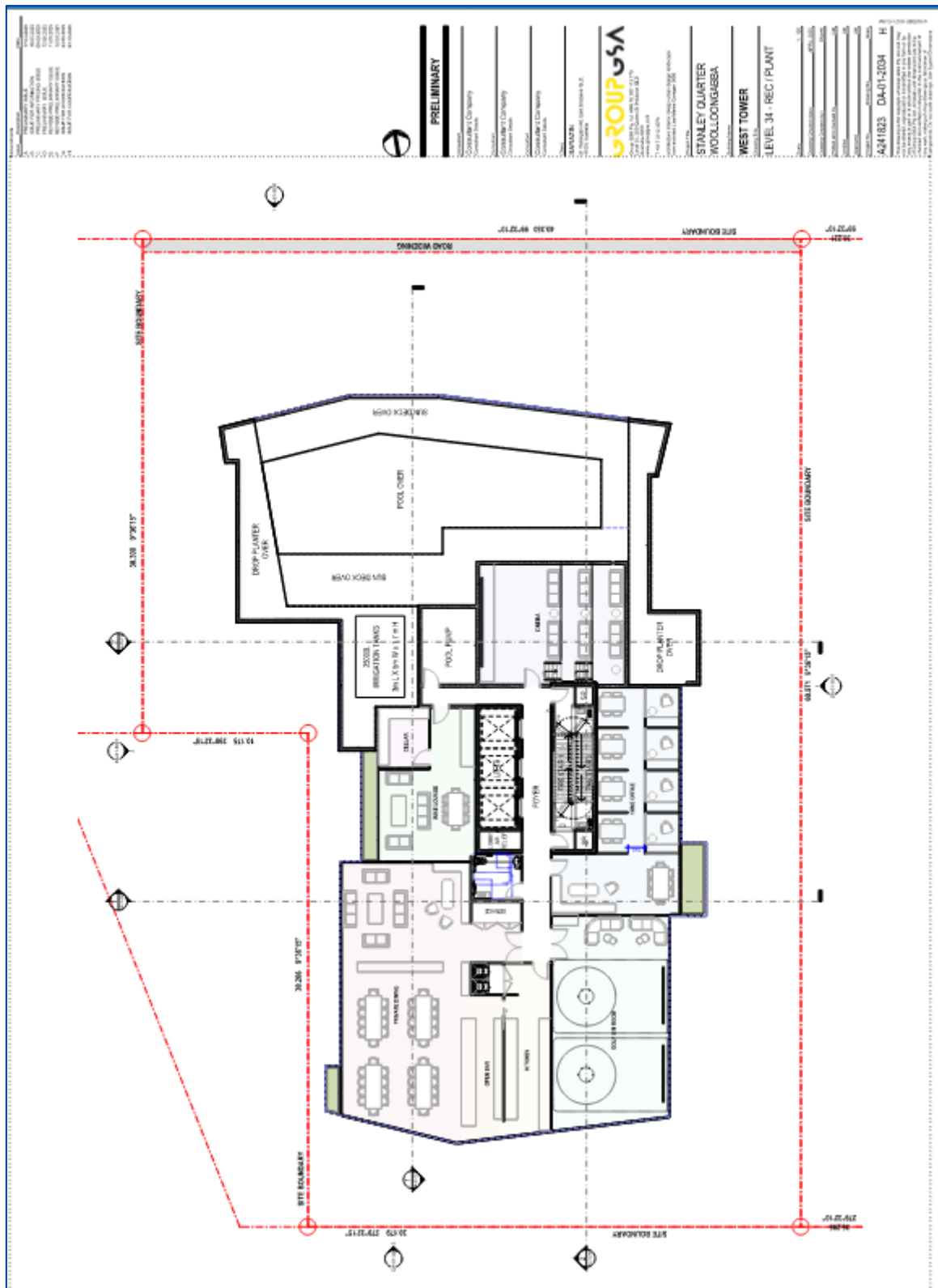


Figure A5: Level 35 – Roof Deck

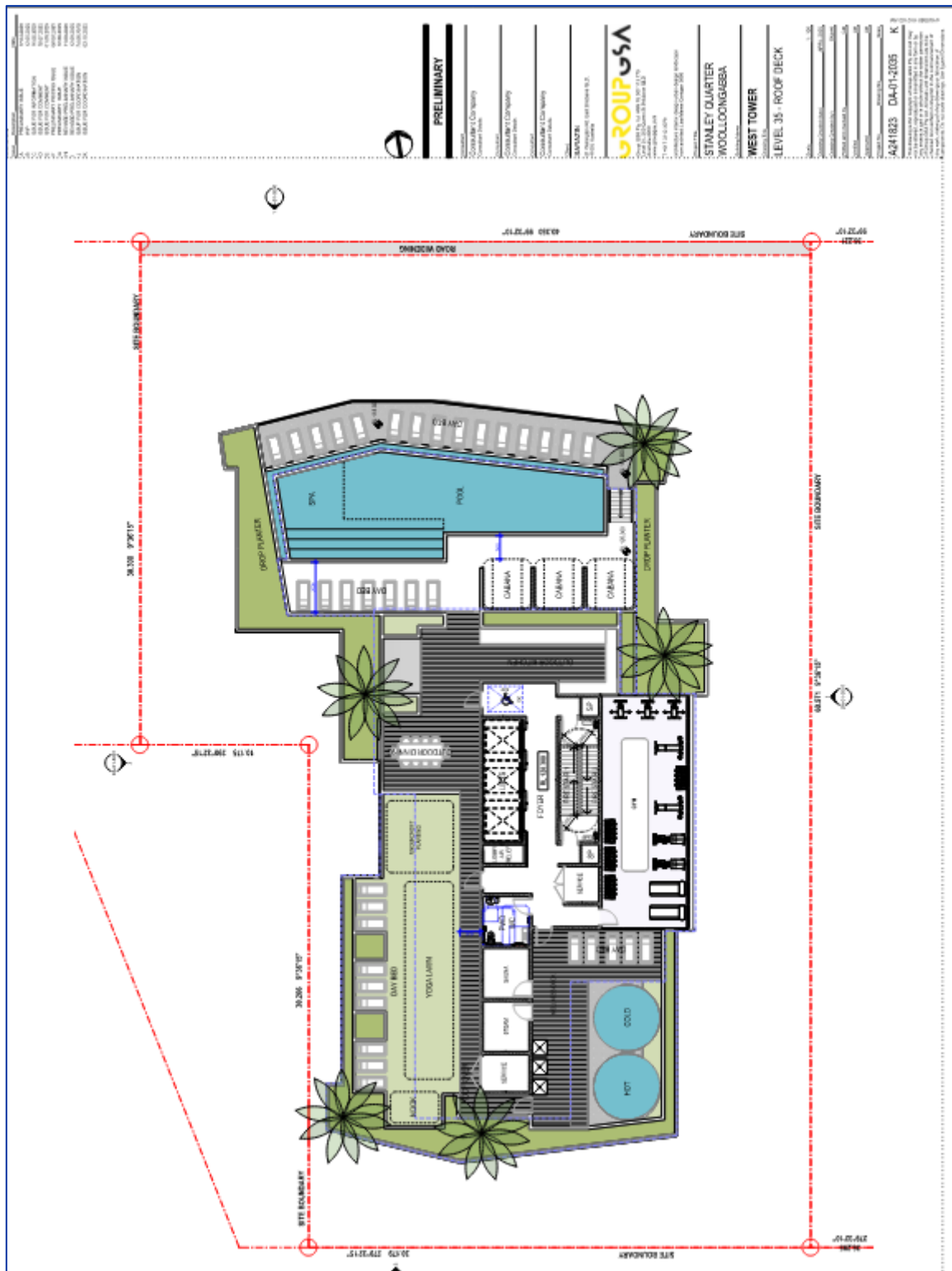
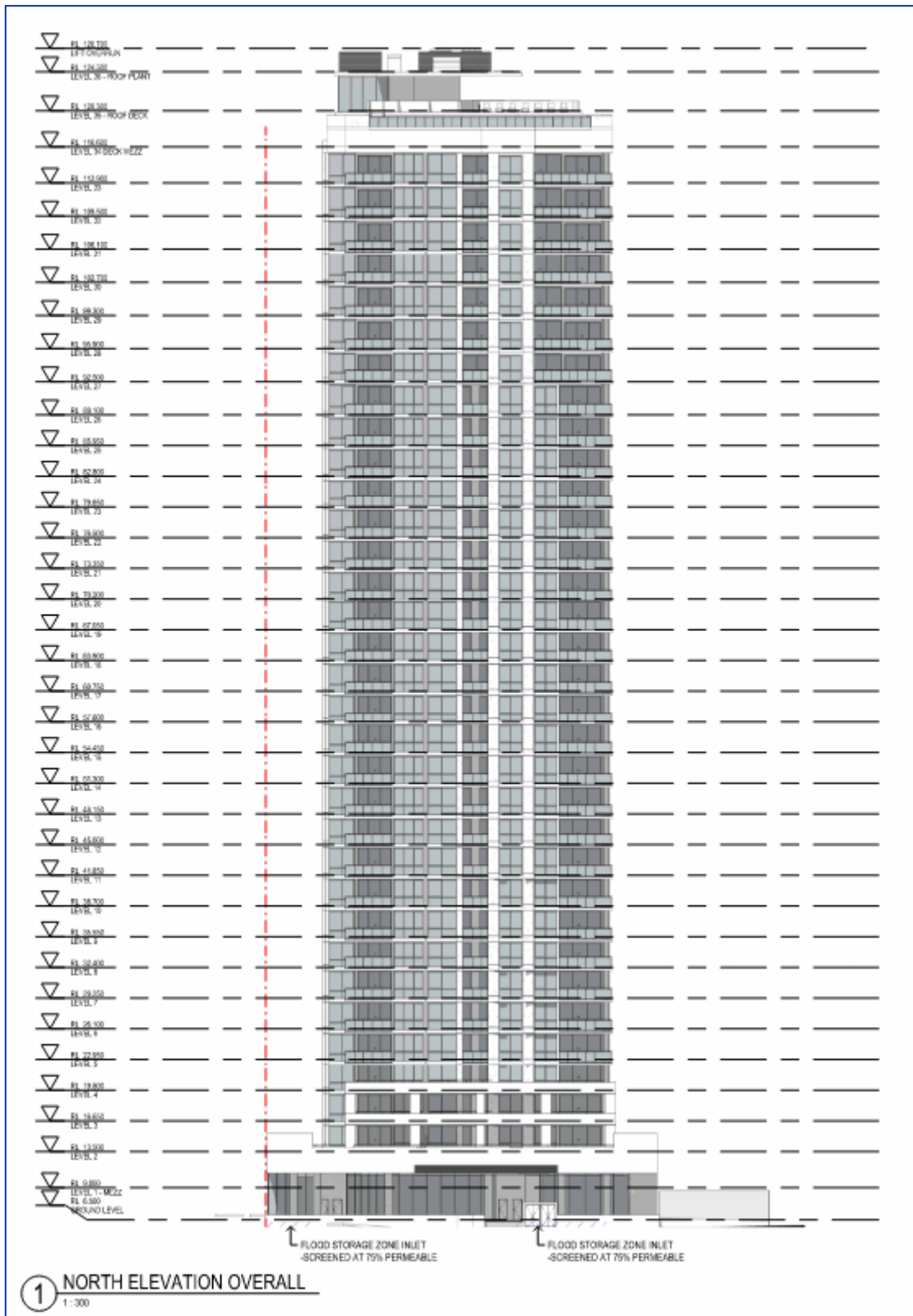


Figure A6: North Elevation of West Tower facing Stanley St, Woolloongabba



A-2 East Tower

Figure A7: Level 1-Groundfloor

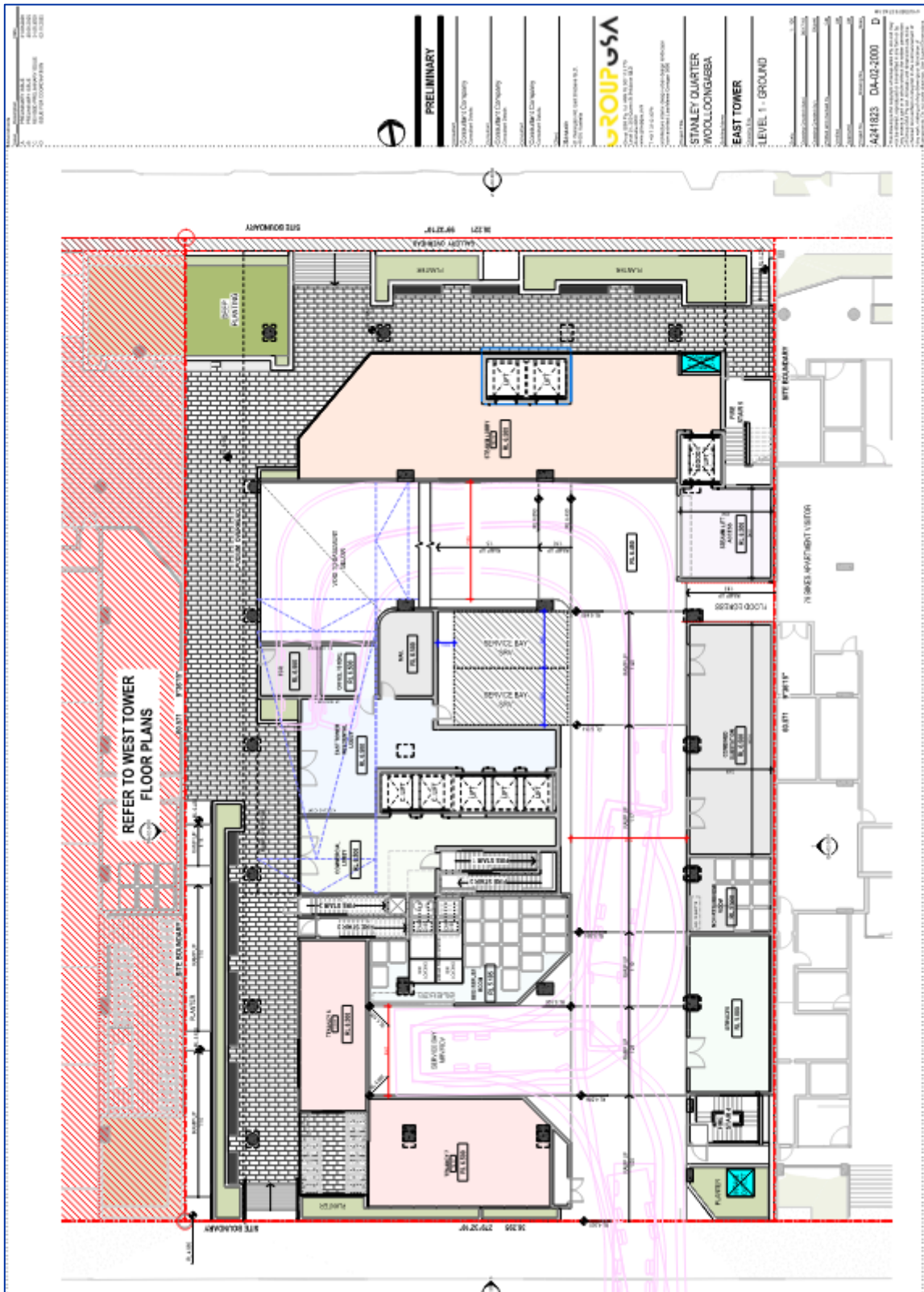


Figure A8: Level 6-Podium Top

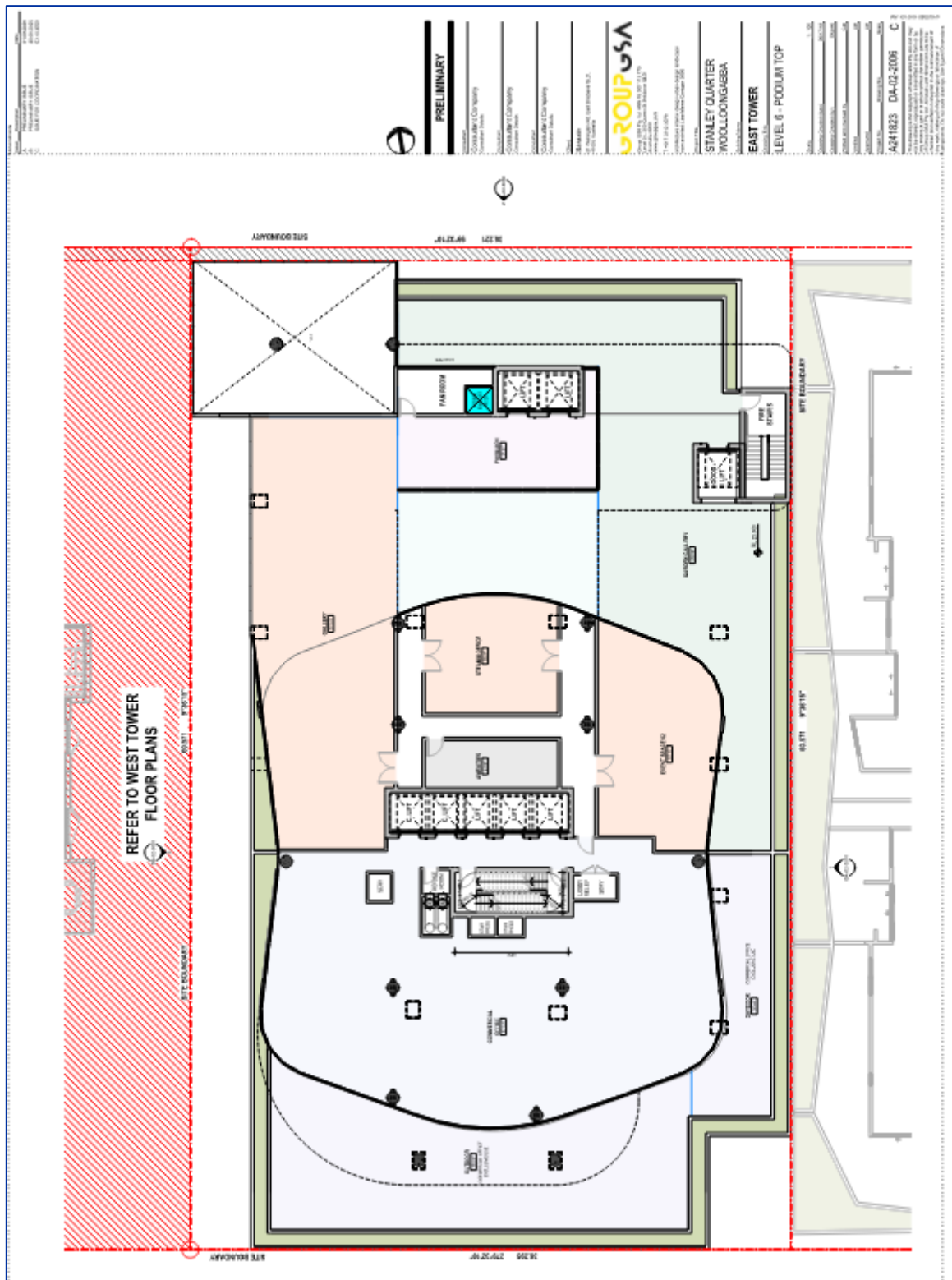


Figure A10: Level 10-31 Apartments Typ. Low

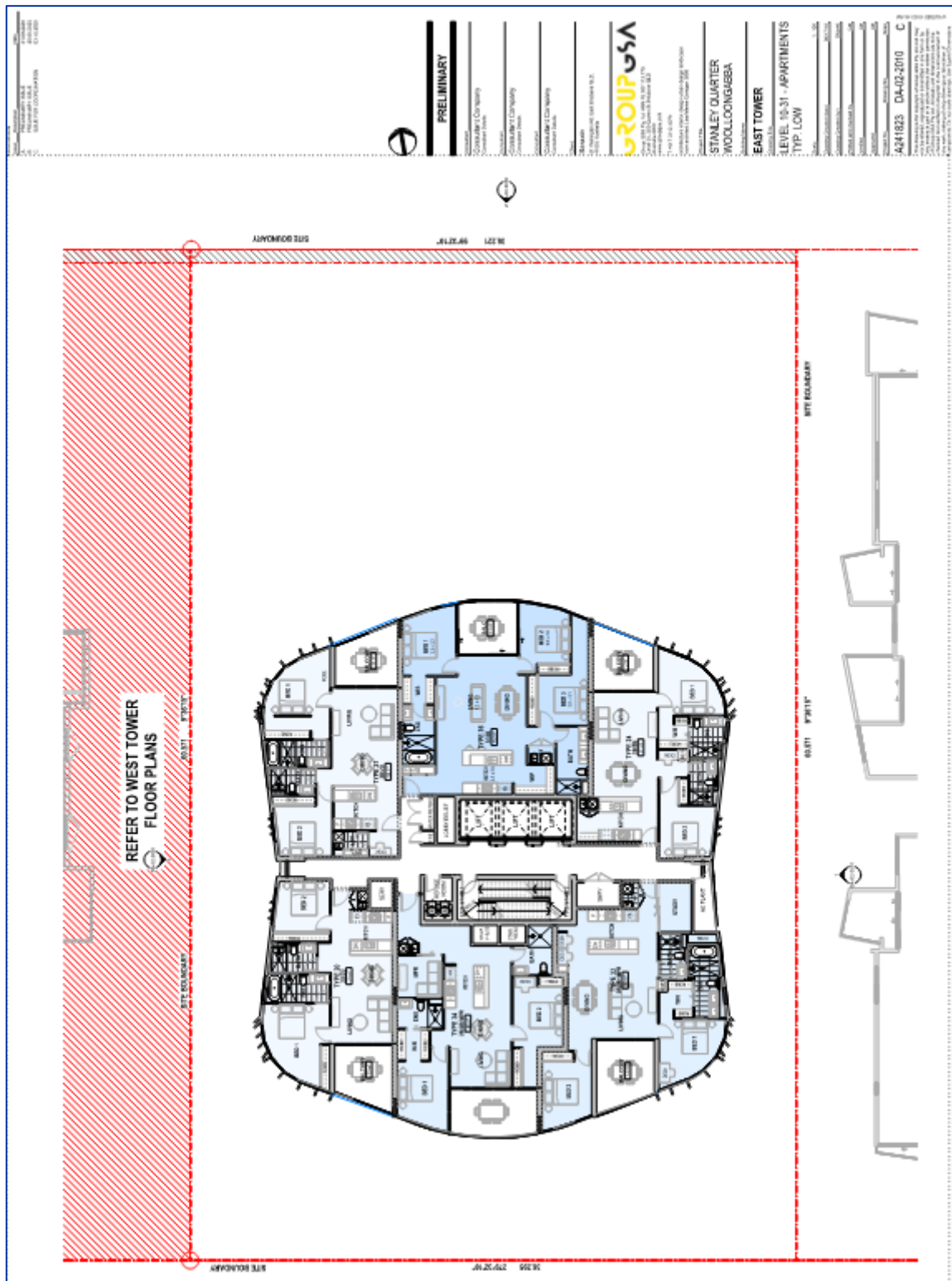
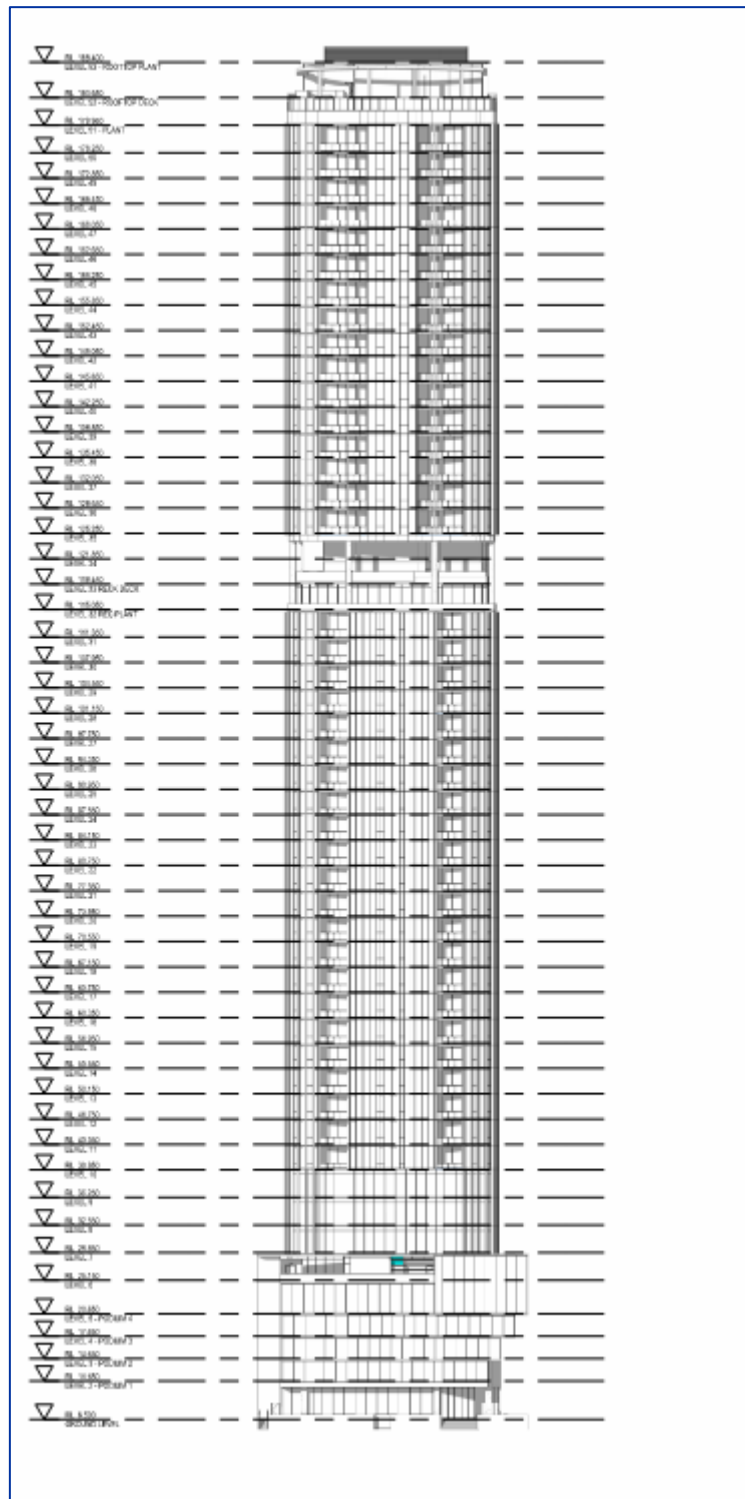


Figure A13: North Elevation of East Tower facing Stanley St, Woolloongabba





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