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ENGINEERING SERVICES REPORT

Proposed Mixed Use Development
Mark Lane Precinct 1, Kangaroo Point QLD 4169

Document Control Record

Prepared by:	Marcus Lau	Civil Engineer
Approved by:	Calvin Kirk	RPEQ: 19536
Signed:		1/05/2026
Job No:	BR262006	

REVISION STATUS

Revision	Description of Revision	Date	Issued By:
A	DRAFT	20 April 2026	Marcus Lau
B	FOR APPROVAL	1 May 2026	Marcus Lau

Recipients are responsible for eliminating all superseded documents in their possession.

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1. Background

van der Meer Consulting have been engaged to prepare an Engineering Services Report (ESR) forming part of the Development Application (DA) package lodgement with Economic Development Queensland (EDQ) for the proposed Mark Lane Precinct 1 at 350-352 Vulture St, 803-811 Main St and 18-52 Mark Ln, Kangaroo Point comprising of a mixed-use development.

The purpose of this ESR is to provide advice on the development regarding management with respect to earthworks, stormwater, water, sewer and other infrastructure such as gas, electricity and telecommunications. The stormwater infrastructure will be required to meet conditions outlined in the Development Approval to be issued by EDQ; van der Meer will propose conceptual plans to address infrastructure requirements for the development that meet council performance criteria.

The following standards and documents were utilised to assess compliance:

- Brisbane City Council City Plan 2014
- Queensland Urban Drainage Manual (QUDM) 2016
- State Planning Policy (2017)
- SEQ Water & Sewer Code

1.1 Existing Site

The subject site has a total area of approximately 10,065 m² and is located within the MU1 Mixed Use and Community Facility zone. It currently comprises the following lots:

- 350 Vulture St, Kangaroo Point (Lot 2 on RP11188)
- 819 Main St, Kangaroo Point (Lot 1 on SP328486)
- 811 Main St, Kangaroo Point (Lot 8 on SP184392)
- 807 Main St, Kangaroo Point (Lot 9 on SP184393)
- 1/6 Mark Lane, Kangaroo Point (Lot 10 on SP352833)
- 18 Mark Lane, Kangaroo Point (Lot 1 on SP260456)
- 26 Mark Lane, Kangaroo Point (Lot 2 on SP260456)
- 32 Mark Lane, Kangaroo Point (Lot 1 on RP11182)
- 38 Mark Lane, Kangaroo Point (Lot 3 on SP352812)
- 44 Mark Lane, Kangaroo Point (Lot 5 on RP11186)
- 46 Mark Lane, Kangaroo Point (Lot 2 on RP11186)
- 48 Mark Lane, Kangaroo Point (Lot 1 on RP99240)
- 52 Mark Lane, Kangaroo Point (Lot 1 on RP99746)

The site is bounded by Vulture Street to the south, Mark Lane to the north, and Main Street to the east. An existing church facility and a mix of residential properties are located to the west of the site.

The current land use comprises a mix of residential and commercial development, and the site catchment is considered fully developed. The southern portion of the site has recently been demolished and is currently being used for temporary vehicle parking.

An aerial image showing the existing lot configuration is provided in Figure 1-1.

Figure 1-1: Site Location (Source: NearMaps)

1.2 Site Topography

The site ground level varies from approximately 18.0m AHD at the northeastern corner to approximately 11.5m AHD to the south at an average grade of 6% as detailed in Appendix A 'Site Survey'.

1.3 Proposed Development

1.3.1 Mixed Use Development

The proposed development consists of a new residential towers, community spaces, podium and basement carparking and landscaped areas as shown in Figure 1-3. The site will be accessible through Vulture St, Main St and Mark Lane. Refer to Appendix B 'Proposed Plans' for details.

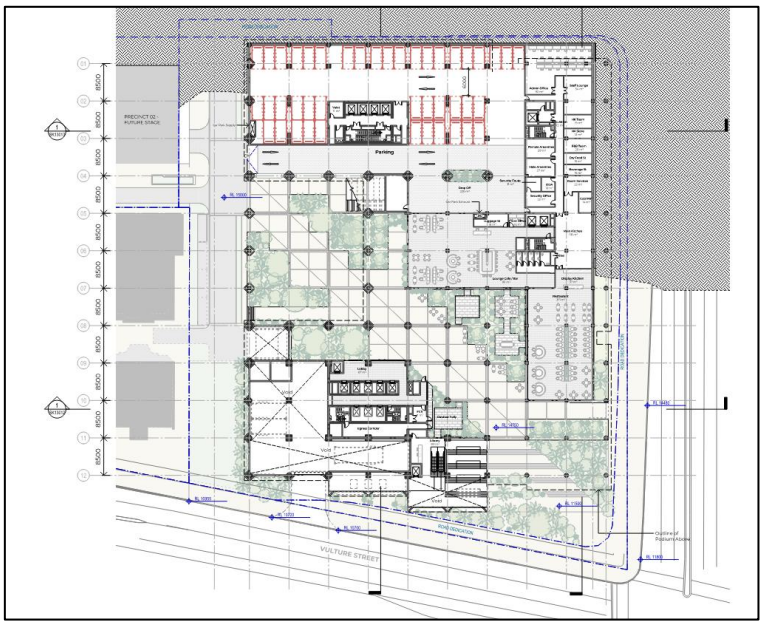


Figure 1-3 – Proposed Precinct 1 (Source: Woods Bagot)

2. Existing and Proposed Services

The following section will provide a summary of existing and proposed infrastructure services for the development. Refer to Appendix C 'Concept Civil Plans' for all existing and proposed service connections for stormwater, water and sewer.

2.1 Stormwater

Stormwater from the site currently discharges as sheet flow to Vulture Street, which serves as the lawful point of discharge (LPOD). Existing buildings on Main St direct roof runoff to the kerb and channel. An existing gully pit in Vulture St discharges via a DN375 RCP towards the south as shown in Figure 2-1. Further downstream of the site, the existing DN375 RCP connects into a large DN1350 pipe.

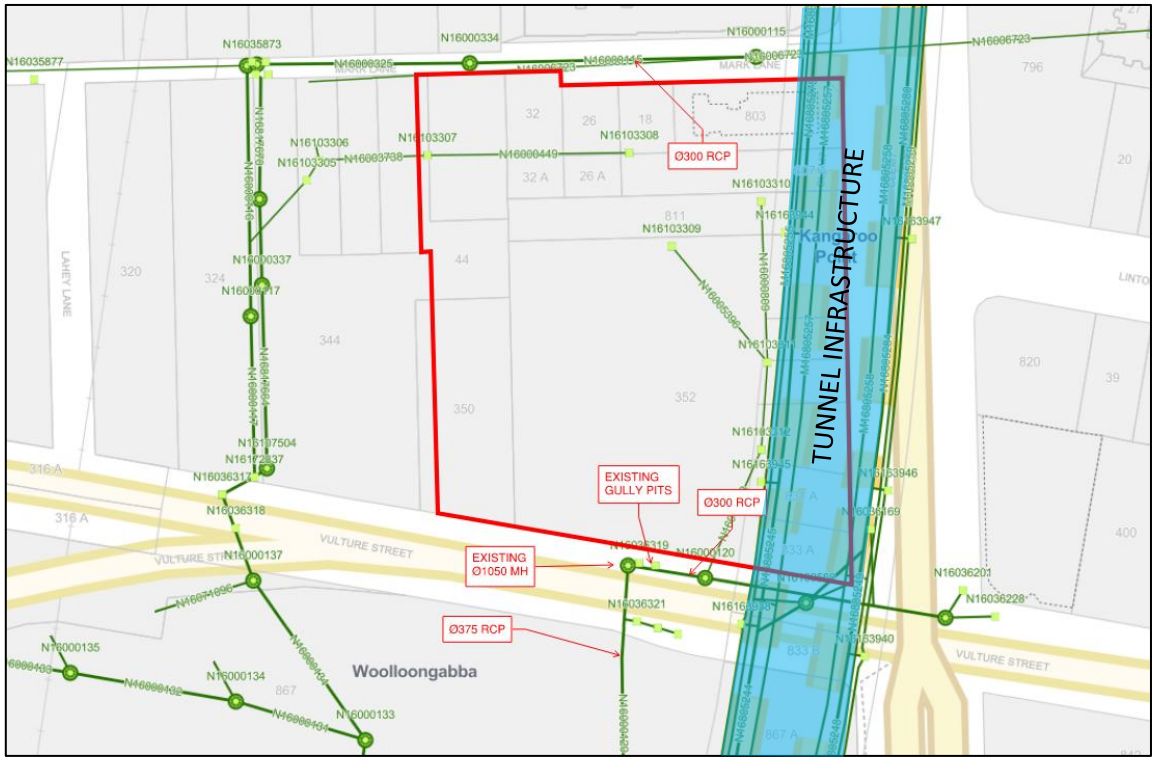


Figure 2-1 – Existing Stormwater Assets (Source: BCC Community Maps)

2.1.1 Proposed Stormwater

The proposed precinct will discharge to the existing drainage infrastructure within Vulture Street, which is nominated as the Legal Point of Discharge (LPOD). Surface runoff will continue to sheet flow toward Vulture Street in accordance with existing conditions.

Roofwater will be collected and conveyed to a proposed inlet pit located along the southern boundary, which will discharge to the existing gully pits via a new piped drainage system. Pipe sizing will be confirmed during the detailed design phase. All redundant stormwater connections will be removed. Refer to Section 4 for further details.

2.2 Water

There is an existing DN100 Cast Iron (CI) water main running along Mark Ln, a DN150 CI water main in Main St and a DN300 CI water main in Vulture St. These mains currently service the existing lots via a water service and metered connection as shown in Figure 2-2.

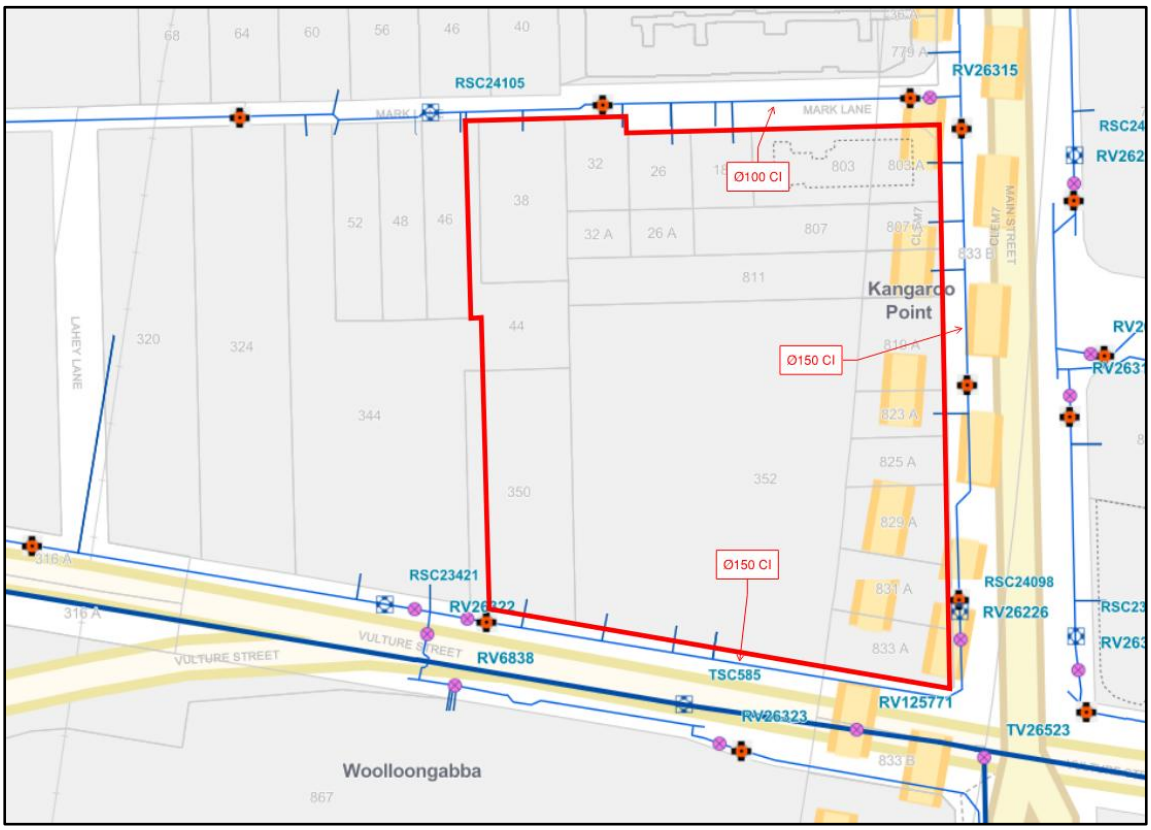


Figure 2-2 – Existing Water Assets (Source: BCC Community Maps)

2.2.1 Proposed Water

A new water service connection is proposed from the DN150 CI water main in Vulture Street to service development, utilising the available capacity of the larger main.

A master meter will be installed to service the site, with sub-meters provided for each proposed building as required. The sizing and location of the meters will be confirmed during the detailed design phase.

All redundant water service and meters for the reconfigured lots are to be removed as part of the construction works and services are to be capped at the main.

2.3 Sewer

An existing DN150 earthenware (EW) sewer main runs along Mark Ln which discharges into the DN225 Unreinforced Concrete (UC) in Vulture St via a north-south main as shown in Figure 2-3.

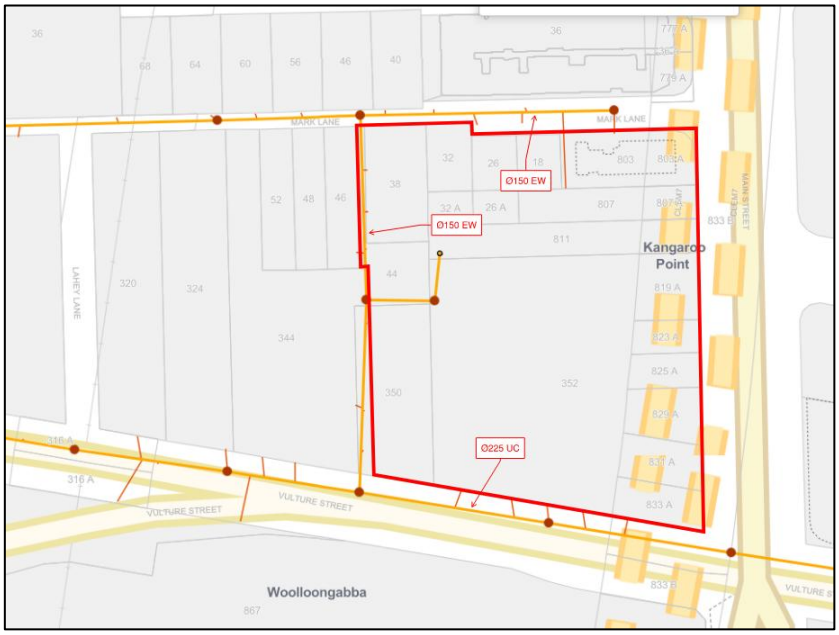


Figure 2-3 – Existing Sewer Assets (Source: BCC Community Maps)

2.3.1 Proposed Sewer

The sewer main connecting Mark Ln and Vulture St is to be retained as this is not impacted by future excavations. A new connection to the proposed development is to be from the DN225 UC main in Vulture St.

All redundant sewer property connections for the reconfigured lots are to be removed as part of the construction works.

2.4 Other Services

Electricity and telecommunication infrastructure is available in the near vicinity of the subject site. The appropriate consultants should be engaged to assess the available capacity in the network to service the development. The location of the existing electricity and communication should be confirmed via potholing prior to construction.

2.5 Vehicular Access and External Verge Works

Proposed vehicle crossovers per BCC standards are proposed on Mark Lane, Main St and Vulture to gain site access to the respective future building. Internal driveways and parking areas will be designed in accordance with AS2890.1 and will be delivered as part of the building works, subject to private certification where applicable.

Verge improvements and external works are proposed to upgrade existing infrastructure and accommodate the installation of new services. Additionally, a proposed road widening will allow for the construction of a new turning lane, which will necessitate the installation of a new kerb and channel along the widened section of the road. The existing bus stop on Main Street is proposed to be relocated to accommodate the new streetscape layout and verge configuration. No significant underground services are identified within Main Street, and therefore the relocation is not expected to be constrained by existing services.

3. Filling and Excavation

Specification and quality control measures are outlined by BCC in their Development guidelines.

3.1 Earthworks

Significant excavation and cutting are anticipated as part of the basement works associated with the proposed precinct development.

As a result of this work, the following measures will be used (subject to Geotechnical Report):

- Topsoil removed to approximately 200mm depth during earthworks and must be stockpiled and stockpiled separately clear of contamination.
- Unsuitable materials as per Section 4.3 of AS3798-2007 must be replaced with appropriate structural fill where recommended by the geotechnical engineer; and
- Compaction will be achieved in accordance with AS 1289.5.1.1, or not less than 98 percent.

Structural details will be required for the shoring and wall thicknesses to ensure compliance with the relevant codes and planning scheme policies.

The development site is potentially affected by Acid Sulphate Soils as indicated on BCC's City Plan mapping shown in Figure 3-1.

Figure 3-1 – Potential Acid Sulphate Soils (Source: BCC City Plan)

The proposed development will disturb more than 500m³ as part of the precinct development. An assessment of the acid sulphate in the area will be required prior to the commencement of construction.

3.2 Erosion and Sedimentation Control Measures

The Erosion Hazard Assessment Form is included in Appendix D 'Erosion Hazard Assessment Form'. The assessment has categorised the development as 'Medium Risk' and will require an Erosion and Sediment Control Plan (ESCP) undertaken by an RPEQ or CPESC.

All works must be carried out in accordance with an ESCP for each stage of the project. The following sediment and erosion control measures in conjunction with the approved ESCP will be deemed an

acceptable solution by minimising ground disturbance and ensuring water quality in accordance with IECA 2008 standards. This will be done by:

3.2.1 Pre-development Phase

The following measures are used to support ESC construction phase

- Setout transport routes to ensure minimise and isolate site disturbance.
- Construct entry/exit traffic shakedown areas that comprise a designed gravel pad or hardwood logs in accordance with the IECA (2008);
- Install sediment control fences around proposed bulk earthworks and areas of disturbance where most effective and efficient.
- Install dust control fences adjacent to proposed bulk earthworks.

3.2.2 Bulk Earthworks Phase

- Diversion drains to isolate clean upstream overland flow around the development
- Stockpiles and construction materials are not permitted to be stored within the road reserve.
- Earthworks, pollutants, and water measures as per 3.2.1 Pre-development Phase.

3.2.3 Construction Phase

- Sediment fences are to be erected at the base of all batters and stockpiles to prevent sediment transportation off site.
- Grass filter strips to be placed along all road verges.
- Re-vegetation of all disturbed areas within two weeks of completion using retained topsoil.
- All sediment control structures to be maintained in an effective manner and inspected after each storm event. No structure is to accumulate sediment above 40% of its capacity.
- Dust producing areas to be swept to remove silt/dust and wetting of roads is only permitted where sweeping has failed.
- At least one bin or litter trap is to be provided for waste material.

3.2.4 Post-development maintenance period

Silt fences and regular inspections will be required until revegetation is established on formerly exposed areas. Once established, all sediment and erosion measures are to be removed.

3.2.5 Performance objectives

Construction phase erosion and sediment control measures must achieve the following water quality objectives (WQO's) for a site runoff up to the design event as per Best Practise Erosion and Sediment Control (IECA 2008).

Table 3-1 – Pollutant criteria

Pollutant	Criteria
Total Suspended Solids	Maximum suspended solids concentration in stormwater does not exceed 50mg/l
pH	6.5 – 8.5

3.2.6 Monitoring and Maintenance

The following monitoring and maintenance procedures will be undertaken by the land developer during all phases of the project as per Brisbane City Council Development Guidelines:

- Earthworks and site cleaning are undertaken in accordance with the Erosion and Sediment Control plans.
- Self-auditing program must be developed
- Any worn, damaged, or defective materials are to be immediately rectified to prevent uncontrolled discharge from the site
- Monitoring frequencies to be undertaken as per 3.2.8 Monitoring Frequency

Self-audits, original test results and weekly sheets shall be kept on-site and available for council officers. Non-complying test results (Table 3-1 – Pollutant criteria) must be reported to council immediately.

3.2.7 Self-auditing requirements

The self-auditing program will be performed at least once a week, immediately before site closure and following rainfall events that cause runoff. These self-audits must be undertaken systematically and recorded:

- Installation/removal of any erosion and sediment control measures
- Condition of each device employed
- Circumstances contributing to damage of any measure
- Storage capacity available in pollution control structures (e.g. portable toilets, pollutant traps etc)
- Time, date, volume, and type of additional flocculants
- Maintenance or repair requirements for each measure

3.2.8 Monitoring frequency

Stormwater monitoring shall take place at the following intervals when surface water leaves the site:

Table 3-2 – Monitoring Frequency

Parameter	Frequency
TSS, NFR	Monthly or during discharge event (>25mm in any 24-hour period)
pH	In acid sulphate soils risk area, daily or during controlled discharge event
Total P, Total N	3 monthly

4. Stormwater Quantity Management

The following guidelines will be followed as part of this stormwater strategy for both stormwater quantity and quality management:

Water Quantity
Guidelines: Queensland Urban Drainage Manual 2017
Brisbane City Council City Plan 2014
Australian & Rainfall Runoff 2019 methods

Water Quality
Guidelines: State Planning Policy 2017
Brisbane City Council City Plan 2014

4.1 Lawful Point of Discharge (LPOD)

The existing lawful point of discharge (LPOD) is located on Main St and Vulture Street, with stormwater conveyed via connections and sheet flow to existing infrastructure, including pits within the roadway and the kerb and channel. The existing gully pit discharges into a DN375 mm stormwater main, which traverses Vulture Street and continues to the opposite side of the roadway.

In the developed scenario, it is proposed that the site retains the existing LPOD by collecting and directing roof water towards the existing gully pit. If required, additional kerb adaptors will be provided to facilitate the direct discharge of flow onto Vulture St kerb and channel. The proposed stormwater discharge arrangement is deemed to comply with the requirements for a lawful point of discharge and will be retained following the site's development. No stormwater runoff is expected to be directed toward adjoining properties.

4.2 Proposed Stormwater Quantity Management

4.2.1 Existing and Developed Site Imperviousness

The site has an existing impervious area of approximately 85% provided it was a fully developed catchment per its existing land use as shown in Figure 4-1.

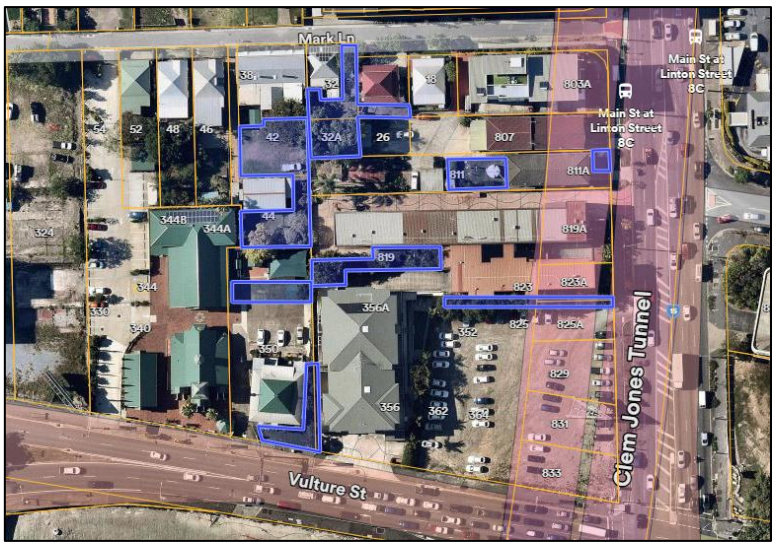


Figure 4-1 – Existing Impervious Area (Source: NearMaps)

The proposed impervious area has a measured impervious area of approximately 72% which incorporates all the future deep planting, gardens and pervious areas shown in the Landscaping plans by Urbis. As the proposed development does not increase the fraction imperviousness of the site, it is expected that there will be a decrease in the peak discharge stormwater flow at the LPOD in all the stormwater events up to and including the 1% AEP.

Additional kerb adaptors can be proposed along Main Street and Mark Lane to facilitate the discharge of roof water. This approach will assist in reducing peak flows to the LPOD by increasing the time of concentration, allowing runoff to enter the downstream system more gradually and improving overall hydraulic performance.

4.2.2 On-Site Detention Requirements

Further to the above, in accordance with BCC City Plan 2014 SC6.16, Clause 7.5.2(3)(e), detention requirements are generally not required for infill developments where the existing impervious area exceeds 60%.

Furthermore, as the post-development peak discharge is less than the existing condition, the current drainage configuration can be retained. It is not anticipated that the proposed development will result in an actionable nuisance to adjoining properties. All existing drainage connections discharge to the same lawful point of discharge as proposed. It is also proposed that the new development will improve and augment older roof water and stormwater drainage system.

As the existing impervious area of the site is greater than 60%, and the proposed development does not result in an increase in peak flow, on-site detention will not be required as part of the development.

5. Stormwater Quality Management

5.1 State Planning Policy

An assessment has been undertaken to determine whether the development proposal necessitates compliance with the State Planning Policy (SPP) objectives. The following trigger questions shown in Table 5-1 are used to determine whether SPP compliance is required for the MCU components of the DA.

Table 5-1 – Assessment Benchmarks-Water Quality

Criteria	Development Response
1. Material Change of Use for Urban Purposes with land area greater than 2,500m^2, **and**	Yes
a. Will result in an impervious area greater than 25% of the net developable area	Yes
b. Will result in 6 or more dwellings	Yes
2. Reconfiguration of Lot for Urban Purposes that involves a land area of greater than 2,500m^2, and will result in 6 or more lots	No
3. Operational Work for Urban Purposes that involves disturbing more than 2,500m^2 of land	N/A

As the development falls into category 1a and 1b from the above, stormwater quality management is required in accordance with the water quality objectives listed in the next section.

5.2 Water Quality Objectives

The SPP (2017) states a solution is deemed to comply with Water Sensitive Urban Design when the target pollutant reductions outlined in Table 5-2 are met.

Table 5-2 – Water Quality Objectives

Pollutant	Reduction Target
Total Suspended Solids (g/yr)	80%
Total Phosphorus (kg/yr)	60%
Total Nitrogen (kg/yr)	45%
Gross Pollutants (kg/yr)	90%

5.3 Water Quality Strategy

The proposed treatment strategy to achieve the SPP (2017) water quality objectives will incorporate the following:

- ENVIRO Treatment Chamber – One Enviro H60 treatment chamber fitted to the proposed stormwater line.
- Discharging into the outlet pit towards the southern boundary to LPOD.

5.4 Design Parameters for the Stormwater Improvement System

The parameters for the ENVIRO Treatment Chamber were provided by Enviro Australis. Refer Appendix E 'Enviro Australis Product Brochure' for the verification certificate.

5.5 MUSIC Modelling

The effectiveness of the proposed water quality measures has been assessed using numerical modelling. Water quality modelling has been conducted using the latest version of MUSIC (Model for Urban Stormwater Improvement Conceptualisation).

The model includes rainfall data from station 40063 (BCC Central – Brisbane Regional Office) with 6-minute time step from 01/01/1980 to 31/12/1989 as well as pollutant loads and catchment properties from Water by Design's 'MUSIC Modelling Guidelines' (2018).

5.5.1 Design Parameters for the Stormwater Quality Improvement System

The following tables outline the parameters that were used for the purposes of MUSIC modelling based on the *Water by Design MUSIC Modelling Guideline (2018).*

Table 5-3 – MUSIC Source Node Parameters (Commercial Parameters)

Rainfall Runoff Parameters	Values
Rainfall Threshold (mm/day)	1.00
Soil Storage Capacity (mm)	18
Initial Storage (% of capacity)	10
Field Capacity (mm)	80
Infiltration Capacity Coefficient – a	243
Infiltration Capacity Coefficient – b	0.6
Initial Depth (mm)	50
Daily Recharge Rate (%)	0
Daily Baseflow Rate (%)	31
Daily Deep Seepage (%)	0

Table 5-4 – MUSIC Pollutant Concentration Parameters (Commercial Parameters)

		TSS		TP		TN	
		Mean (Log mg/L)	Std Dev (Log mg/L)	Mean (Log mg/L)	Std Dev (Log mg/L)	Mean (Log mg/L)	Std Dev (Log mg/L)
Roof	Baseflow	N/A	N/A	N/A	N/A	N/A	N/A
	Stormflow	1.3	0.38	-0.89	0.34	0.37	0.34
Road	Baseflow	0.78	0.39	-0.60	0.50	0.32	0.30
	Stormflow	2.43	0.38	-0.30	0.34	0.37	0.34
Ground	Baseflow	0.78	0.39	-0.60	0.50	0.32	0.30
	Stormflow	2.16	0.38	-0.39	0.34	0.37	0.34

5.5.2 Catchments

The catchment areas noted in Table 5-5 have been utilised for each of the input nodes.

Table 5-5 – MUSIC Modelling Catchment Areas

Input Node	Area	Imperviousness
Roof	6,312m²	100%
Ground/Landscape	3,042m²	0%
Road	1,296m²	100%
Total	10,650m²	72%

5.6 Results

The results of the treatment train are shown in Figure 5-1. This demonstrates that the water quality objectives can be achieved by incorporating the proposed treatment strategy into the development.

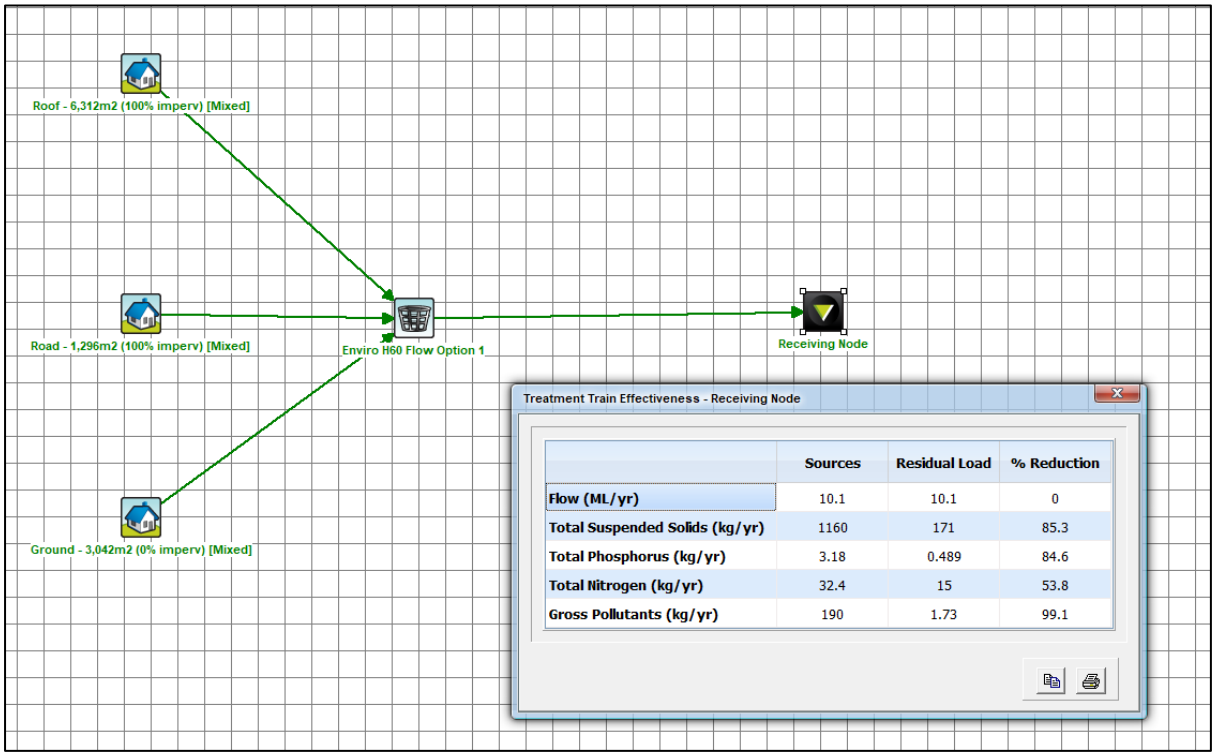


Figure 5-1 – Treatment Results (Source: MUSIC)

6. Conclusion

This Engineering Services Report has assessed the existing and proposed infrastructure associated with the proposed DA application for the Mark Lane Precinct 1.

The report demonstrates that the proposed lot can be adequately serviced by sewer, water, and stormwater infrastructure. Deep excavation will be required to facilitate the proposed underground parking within the precinct.

The stormwater quantity management strategy includes the following key components:

- A new stormwater connection for the development discharging to the existing gully pit in Vulture Street
- Surface flows continuing to discharge in accordance with existing drainage conditions
- No detention provided for the development, consistent with the provisions for infill development where existing impervious area exceeds 60%, and to avoid worsening flood conditions within the broader catchment
- Post-development peak flows being less than existing due to a reduction in overall impervious area

Council code compliance is detailed in Appendix F 'BCC Code Compliance'.

By implementing the above, the requirements outlined by Council can be achieved.

APPENDIX A – SITE SURVEY

MARK LANE

LAHEY LANE

MAIN STREET

VULTURE STREET

BM 9000
RL 19.127
Screw in Kerb

BM 9036
RL 17.924
Screw in Path

BM 9032
RL 11.739
Screw in M/H Surround

SEW M/H
S/L 17.40

SEW M/H
S/L 17.38

SEW M/H
S/L 18.02

SEW M/H
S/L 12.69

SEW M/H
S/L 11.82

SEW M/H
S/L 11.19

SEW M/H
S/L 10.70

STORM M/H
SL13.69

W MANHOLE
SL14.54

W MANHOLE
SL16.17

1 RP11165
2 RP11165
3 RP11165
4 RP11165
5 RP11165
6 RP11165

Emt A SP172001

Emt B SP184354

Emt A SP260455

Emt B SP260456

Emt A RP42570

Emt A RP40956

10 RP114612
9 RP114612
11 P11195

1 RP99746
1 RP99240
2 RP11186
CP BUP100190
5 RP11186

1 RP11182
2 SP260456
1 SP260456
CP SP260455

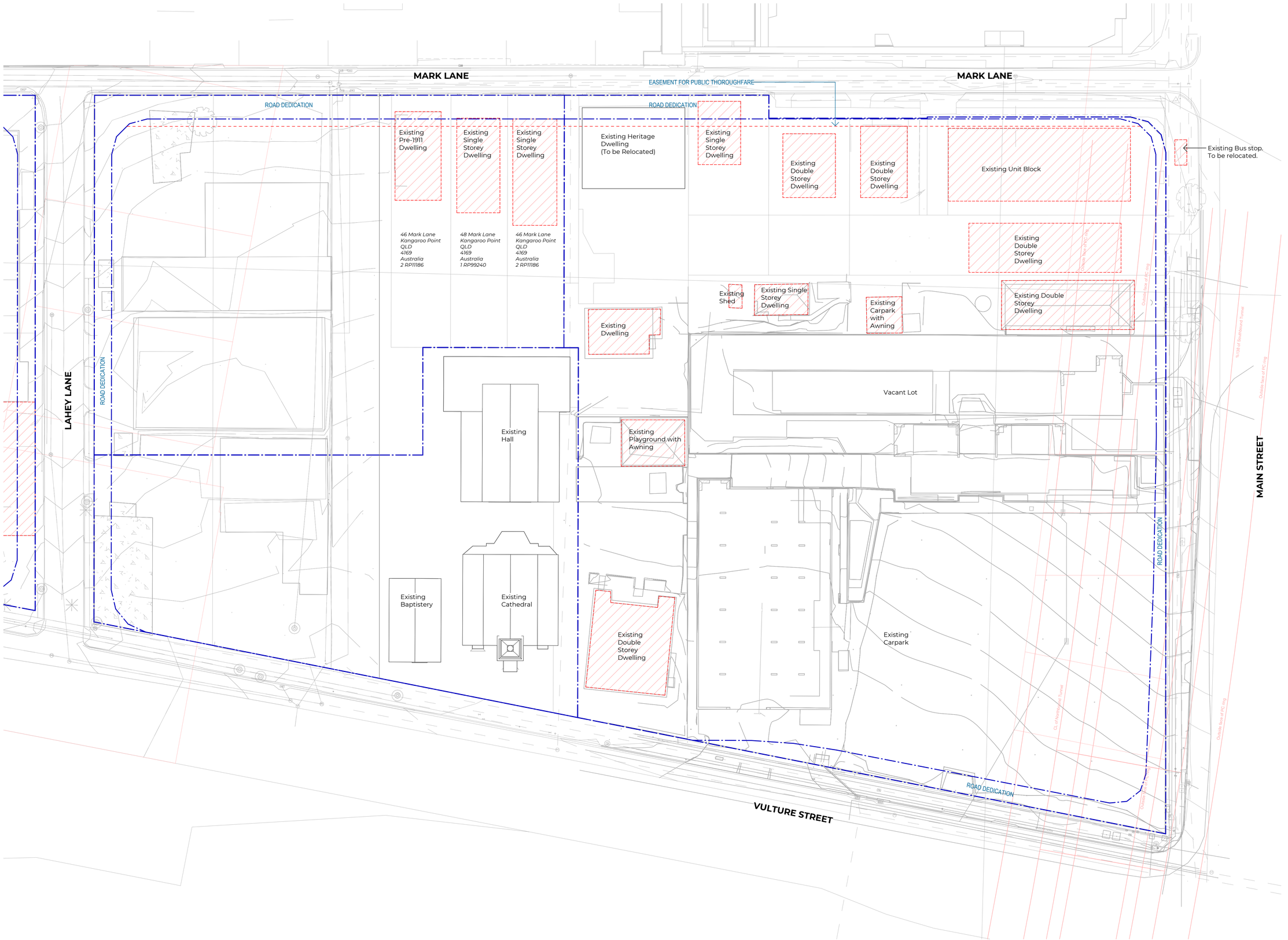
1 RP11180
2 RP11180
9 SP184393
8 SP184392

1 SP226094
2 RP11188
1 SP328486
805 (Vol) SP198695

LOWSET DWELLING
LOWSET DWELLING
HIGHSET DWELLING
LOWSET TERRACES
LOWSET DWELLING
DOUBLE STOREY DWELLING
CARPORT
STAIRS
DOUBLE STOREY DWELLING
DOUBLE STOREY DWELLING
DOUBLE STOREY DWELLING
UNITS
BACKPACKERS
RUSSIAN CHURCH
DOUBLE STOREY DWELLING
BACKPACKERS

Unit Block
Level 1 Floor RL: 21.49, Window Sill RL:22.7
Level 2 Window Sill RL: 25.8
Level 3 Floor RL: 27.72, Window Sill RL:28.95
Level 4 Floor RL: 30.82, Window Sill RL:32.055
Level 5 Floor RL: 33.77,
Roof RL: 36.08

APPENDIX B – PROPOSED PLANS



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Recent revision history

#	Status	Description	Date
A		DA WIP - BACKGROUND UPDATE	17/04/26
B		DEVELOPMENT APPLICATION	01/05/26

Notes

Contractor must verify all dimensions on site before commencing work or preparing shop drawings.

Do not scale drawings.

Demolition Legend

For Demolition

Note:
To be read in conjunction with other specialist reports

Refer to landscape designer for existing tree removal and retention

Project
Mark Lane Stage 1A and Precinct

Client
Philip Usher Constructions

Issuer
W—B
WOODS BAGOT

Project number
150740

Size check
25mm

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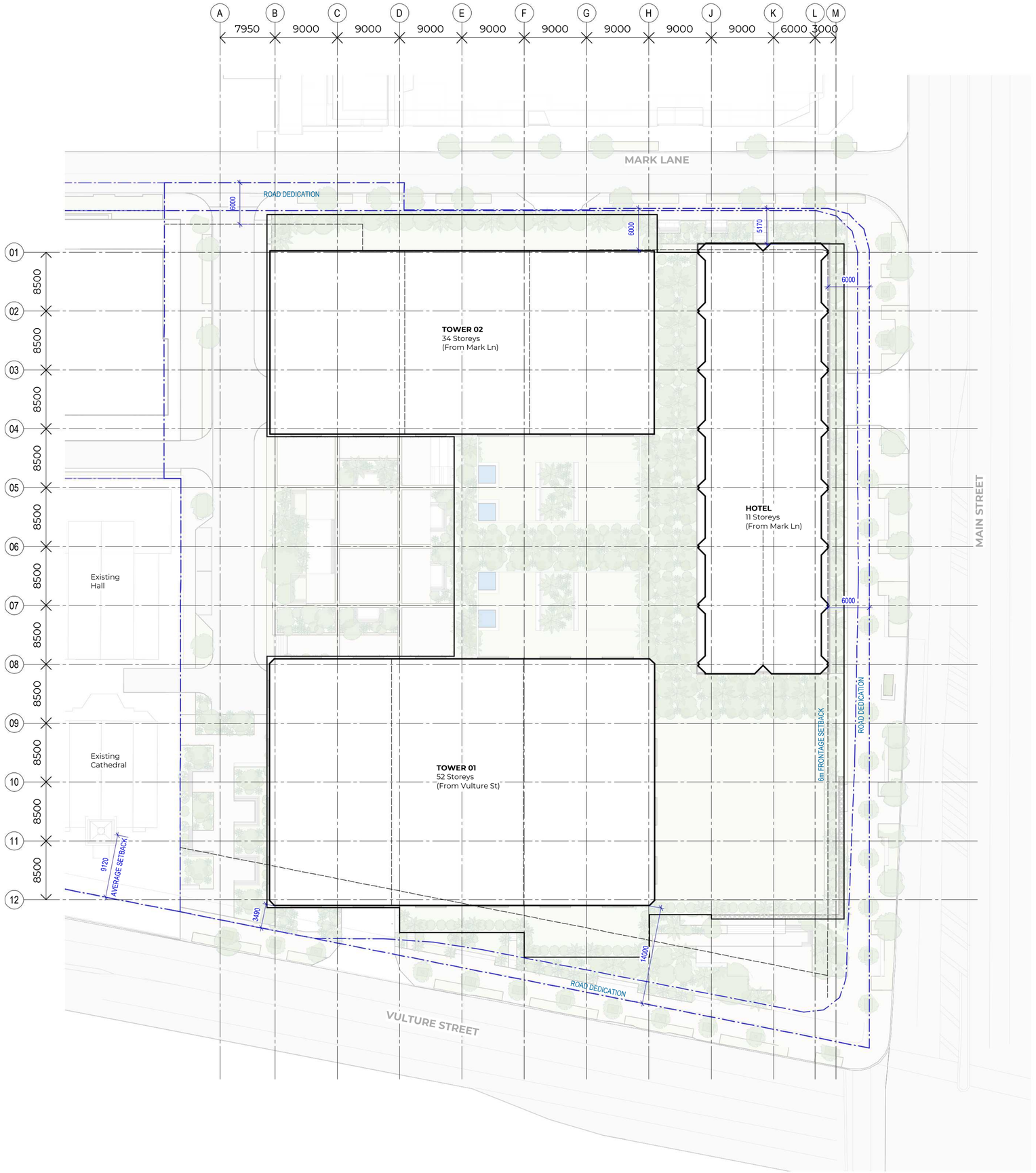
Sheet title
Overall Arrangement
Site Plan
Existing

Sheet number
SK11000

Revision
B

Status
For Information



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Recent revision history

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A		DEVELOPMENT APPLICATION	01/05/26

Project
Mark Lane Stage 1A and Precinct

Client
Philip Usher Constructions

Issuer
W–B
WOODS BAGOT

Project number
150740

Size check
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Scale
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Sheet title
Overall Arrangement
Site Plan
Proposed

Sheet number
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Revision
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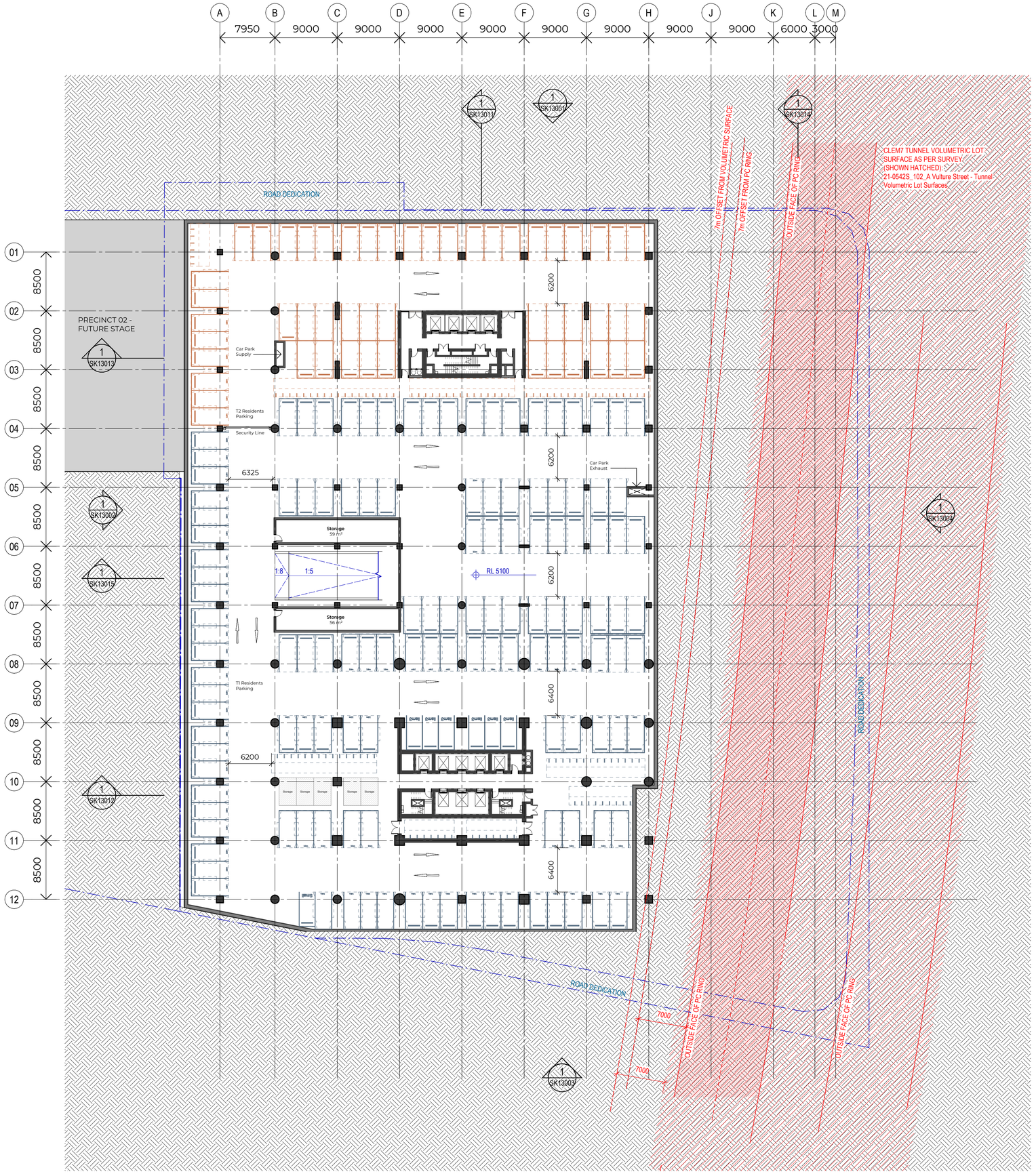

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A		DA WIP - BACKGROUND UPDATE	17/04/26
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Parking Allocation

- Hotel
- Other Uses
- Tower 1 - Visitor
- Tower 1 - Residents
- Tower 2 - Visitor
- Tower 2 - Residents

Project
Mark Lane Stage 1A and Precinct

Client
Philip Usher Constructions

Issuer
W—B
WOODS BAGOT

Project number
150740

Size check
25mm

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Sheet title
Overall Arrangement Plans
Basement 02

Sheet number
SK12000

Revision
B

Status
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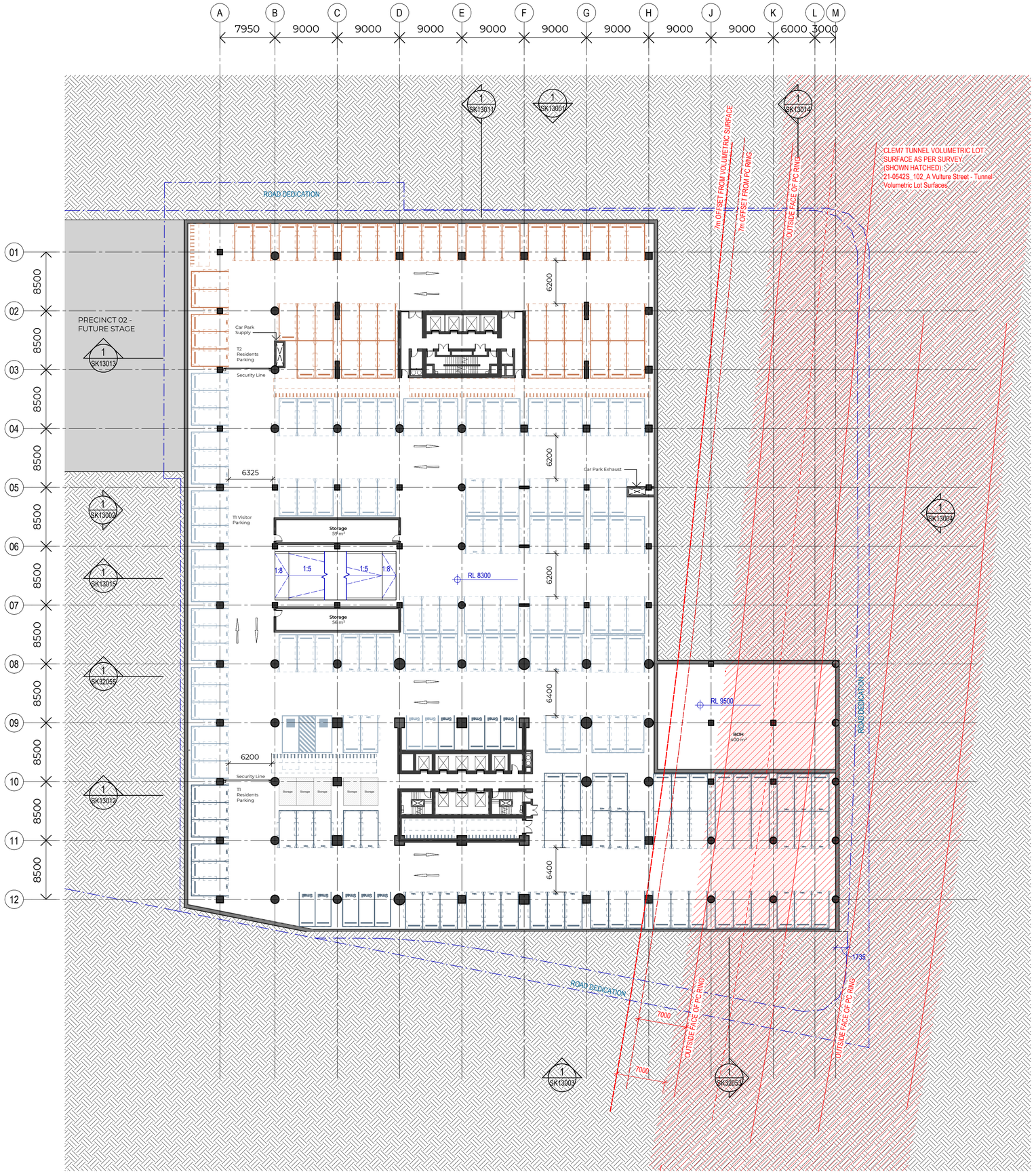

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A		DA WIP - BACKGROUND UPDATE	17/04/26
B		DEVELOPMENT APPLICATION	01/05/26

Parking Allocation

- Hotel
- Other Uses
- Tower 1 - Visitor
- Tower 1 - Residents
- Tower 2 - Visitor
- Tower 2 - Residents

Project
Mark Lane Stage 1A and Precinct

Client
Philip Usher Constructions

Issuer
W—B
WOODS BAGOT

Project number
150740

Size check
25mm

Checked	Approved	Sheet size	Scale
PL	DL	A1	1 : 300

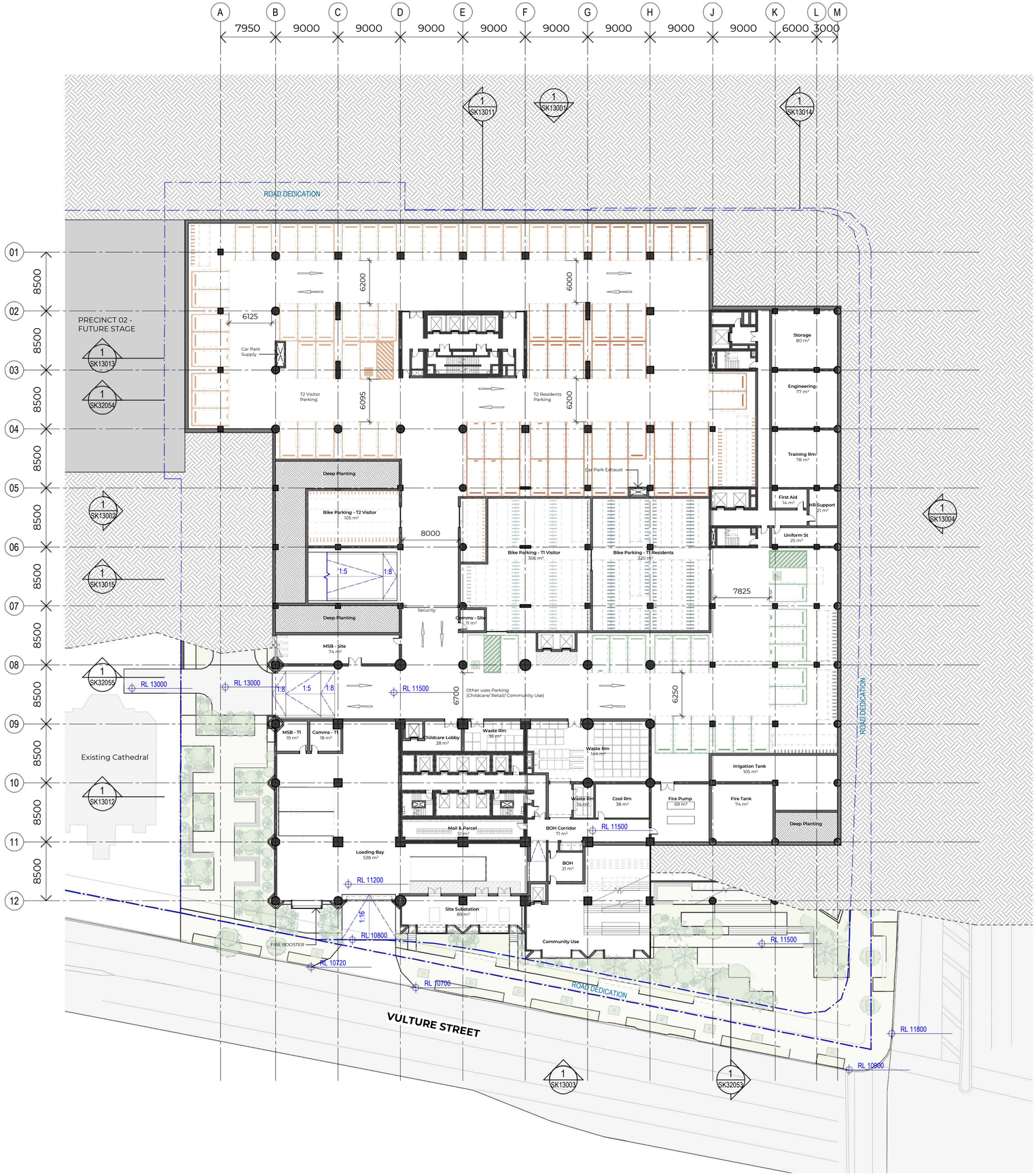
Sheet title
Overall Arrangement Plans
Basement 01

Sheet number
SK12001

Revision
B

Status
For Information

Date generated 30/04/2026 5:37:18 PM



Date generated 30/04/2026 5:37:25 PM

Recent revision history

#	Status	Description	Date
A		DA WIP - BACKGROUND UPDATE	17/04/26
B		DEVELOPMENT APPLICATION	01/05/26

Parking Allocation

- Hotel
- Other Uses
- Tower 1 - Visitor
- Tower 1 - Residents
- Tower 2 - Visitor
- Tower 2 - Residents

Project
Mark Lane Stage 1A and Precinct

Client
Philip Usher Constructions

Issuer
W—B
WOODS BAGOT

Project number
150740

Size check
25mm

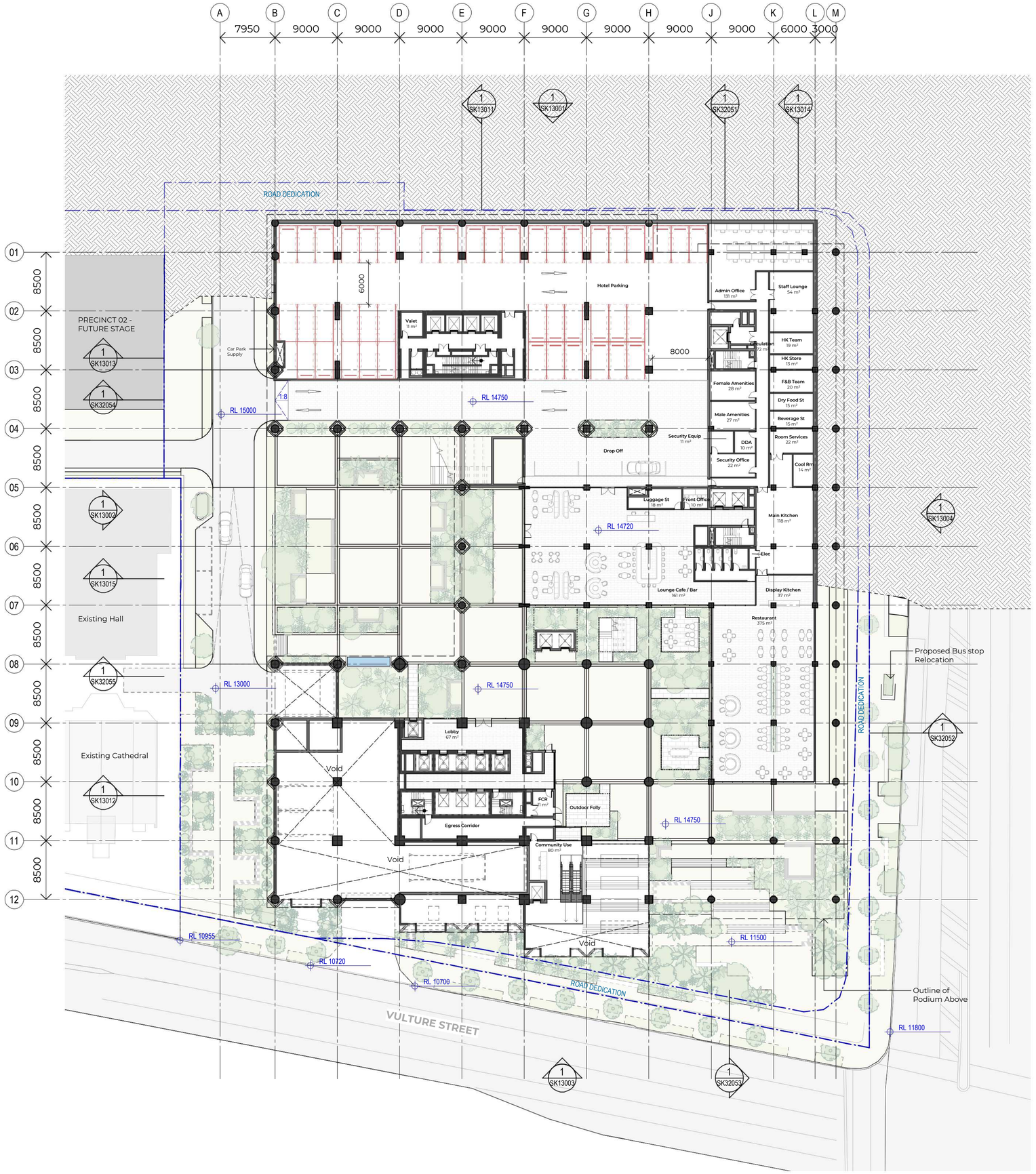
Checked	Approved	Sheet size	Scale
PL	DL	A1	1 : 300

Sheet title
Overall Arrangement Plans
Lower Ground (Vulture St)

Sheet number
SK12002

Revision
B

Status
For Information



Date generated 30/04/2026 5:37:54 PM

Recent revision history

#	Status	Description	Date
A		DA WIP - BACKGROUND UPDATE	17/04/26
B		DEVELOPMENT APPLICATION	01/05/26

Notes

Contractor must verify all dimensions on site before commencing work or preparing shop drawings.

Do not scale drawings.

Parking Allocation

- Hotel
- Other Uses
- Tower 1 - Visitor
- Tower 1 - Residents
- Tower 2 - Visitor
- Tower 2 - Residents

Project
Mark Lane Stage 1A and Precinct

Client
Philip Usher Constructions

Issuer
W—B
WOODS BAGOT

Project number
150740

Size check
25mm

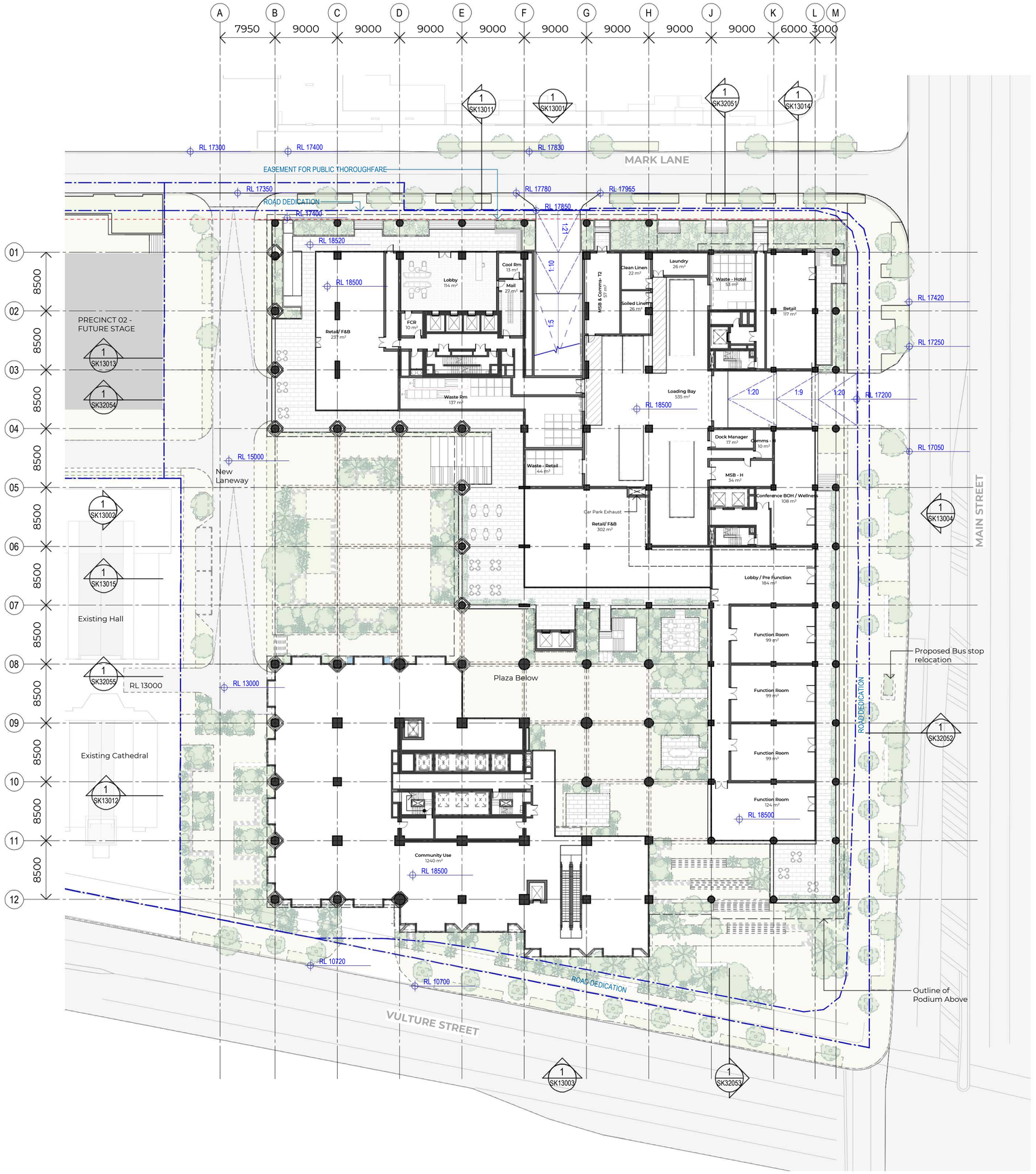
Checked	Approved	Sheet size	Scale
PL	DL	A1	1 : 300

Sheet title
Overall Arrangement Plans
Plaza

Sheet number
SK12003

Revision
B

Status
For Information



Recent revision history

#	Status	Description	Date
A		DA WIP - BACKGROUND UPDATE	17/04/26
B		DEVELOPMENT APPLICATION	01/05/26

Project
Mark Lane Stage 1A and Precinct

Client
Philip Usher Constructions

Issuer
W—B
WOODS BAGOT

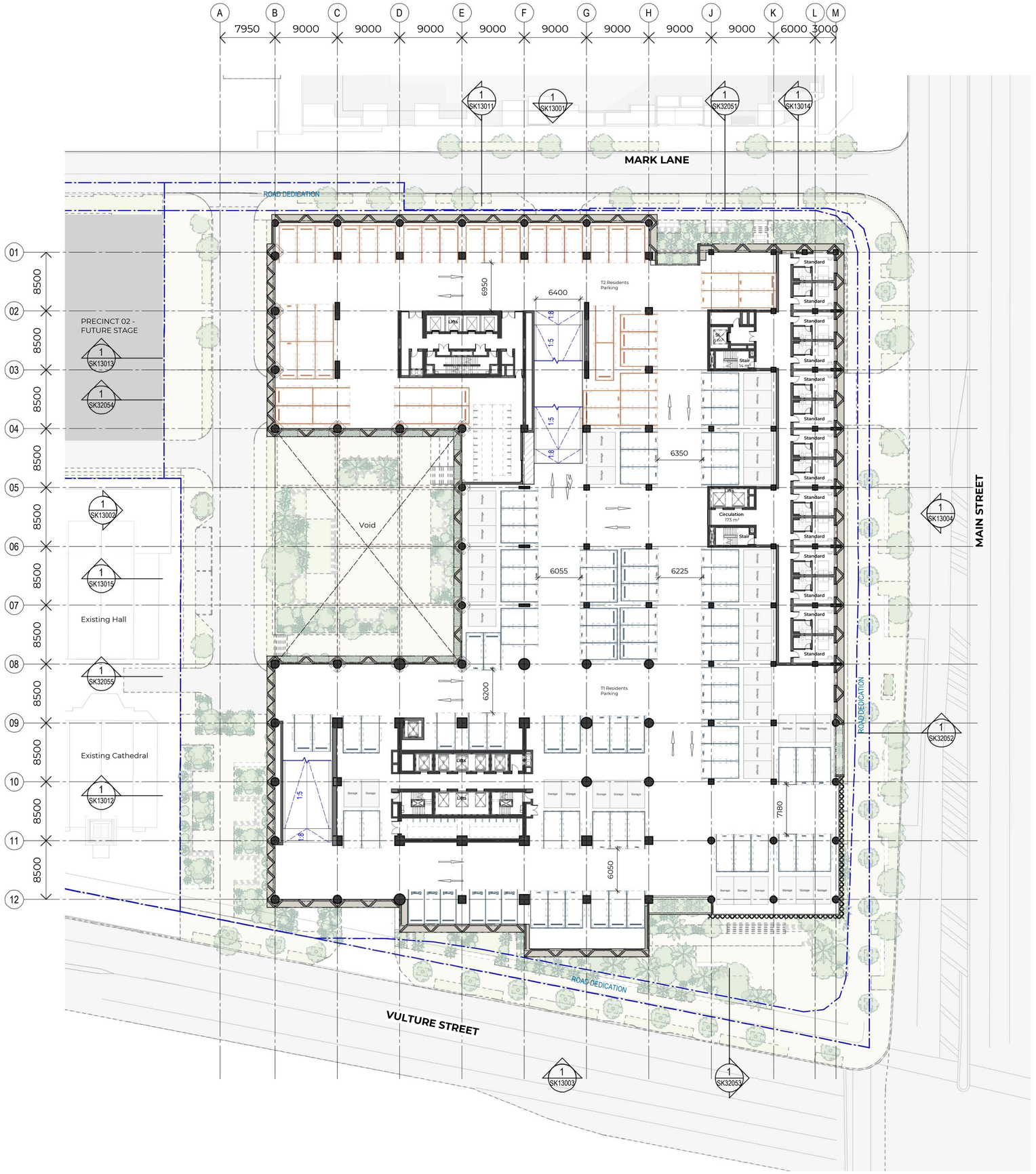
Project number	Size check		
150740	25mm		
Checked	Approved	Sheet size	Scale
PL	DL	A1	1 : 300

Sheet title
Overall Arrangement Plans
Upper Ground (Mark Ln)

Sheet number	Revision
SK12004	B

Status
For Information

Date generated 30/04/2026 5:38:28 PM



Recent revision history

#	Status	Description	Date
A		DA WIP - BACKGROUND UPDATE	17/04/26
B		DEVELOPMENT APPLICATION	01/05/26

Parking Allocation

- Hotel
- Other Uses
- Tower 1 - Visitor
- Tower 1 - Residents
- Tower 2 - Visitor
- Tower 2 - Residents

Project
Mark Lane Stage 1A and Precinct

Client
Philip Usher Constructions

Issuer
W—B
WOODS BAGOT

Project number
150740

Size check
25mm

Checked	Approved	Sheet size	Scale
PL	DL	A1	1 : 300

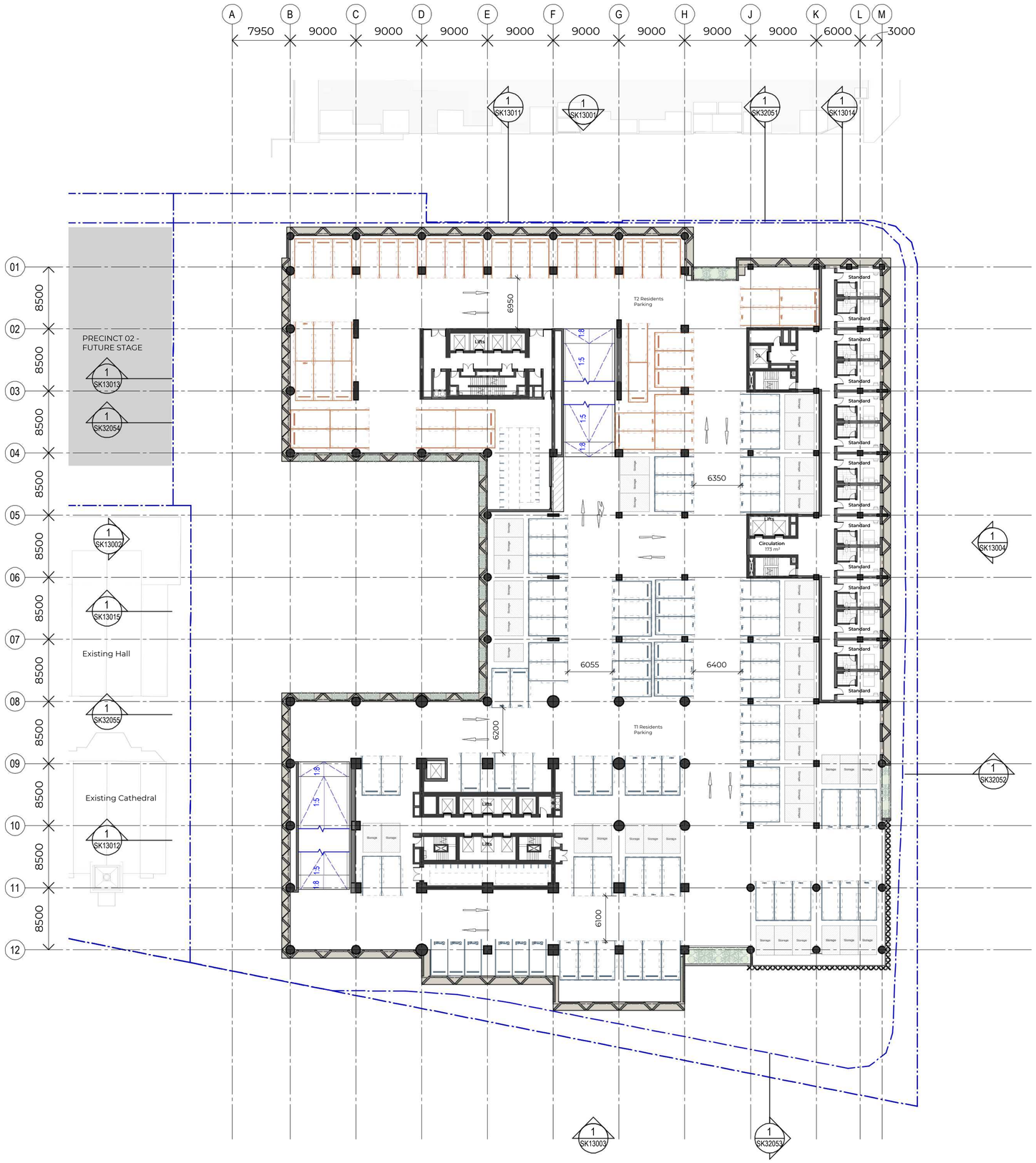
Sheet title
Overall Arrangement
Plans
Level 01 - Podium

Sheet number
SK12005

Revision
B

Status
For Information

Date generated 30/04/2026 5:28:44 PM



Recent revision history

#	Status	Description	Date
A		DA WIP - BACKGROUND UPDATE	17/04/26
B		DEVELOPMENT APPLICATION	01/05/26

Parking Allocation

- Hotel
- Other Uses
- Tower 1 - Visitor
- Tower 1 - Residents
- Tower 2 - Visitor
- Tower 2 - Residents

Project
Mark Lane Stage 1A and Precinct

Client
Philip Usher Constructions

Issuer
WOODS BAGOT

Project number
150740

Size check
25mm

Checked	Approved	Sheet size	Scale
PL	DL	A1	1 : 300

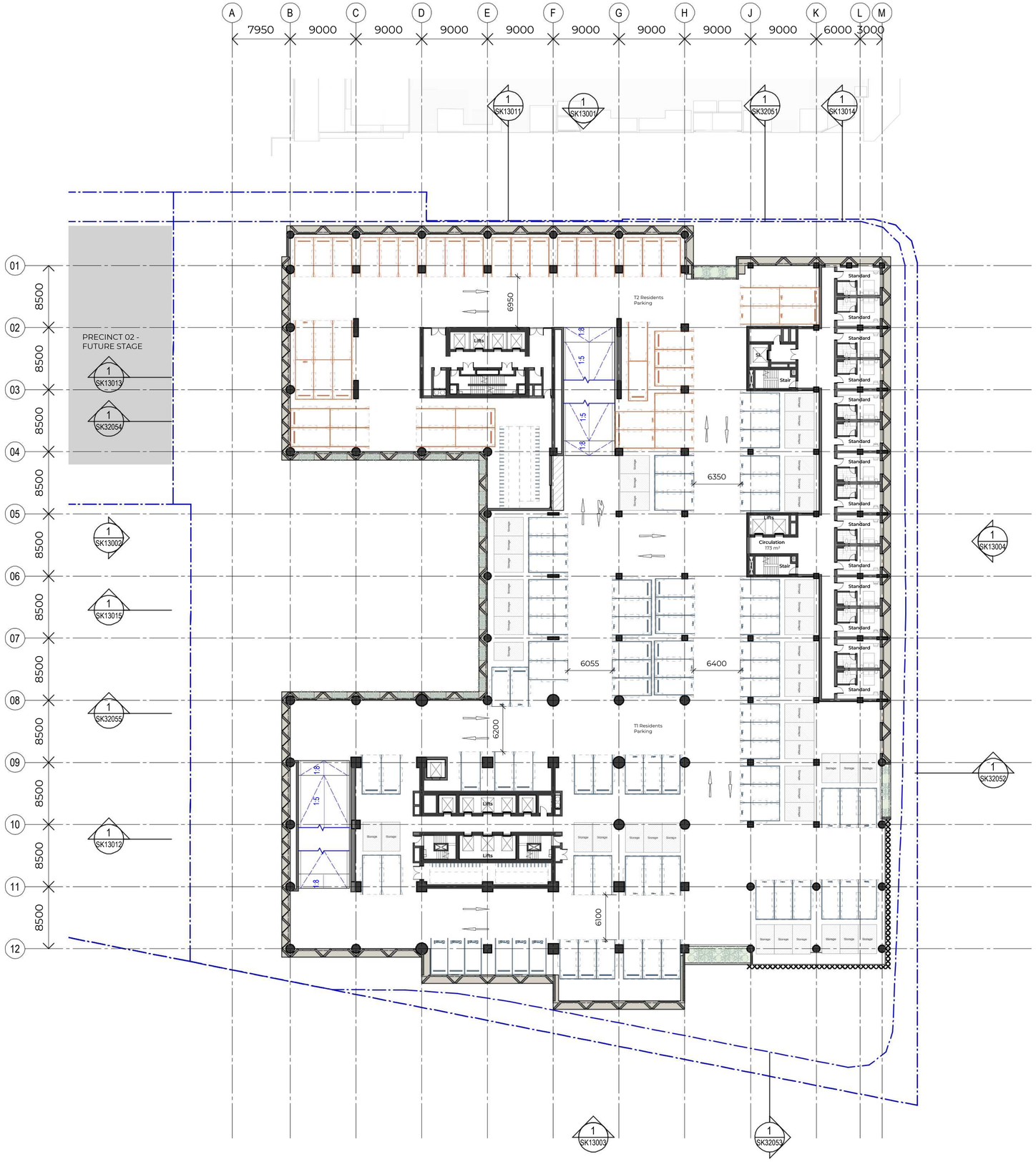
Sheet title
Overall Arrangement Plans
Level 02 - Podium

Sheet number
SK12006

Revision
B

Status
For Information

Date generated 30/04/2026 5:28:59 PM



Recent revision history

#	Status	Description	Date
A		DA WIP - BACKGROUND UPDATE	17/04/26
B		DEVELOPMENT APPLICATION	01/05/26

Parking Allocation

- Hotel
- Other Uses
- Tower 1 - Visitor
- Tower 1 - Residents
- Tower 2 - Visitor
- Tower 2 - Residents

Project
Mark Lane Stage 1A and Precinct

Client
Philip Usher Constructions

Issuer
W–B
WOODS BAGOT

Project number
150740

Size check
25mm

Checked
PL

Approved
DL

Sheet size
A1

Scale
1 : 300

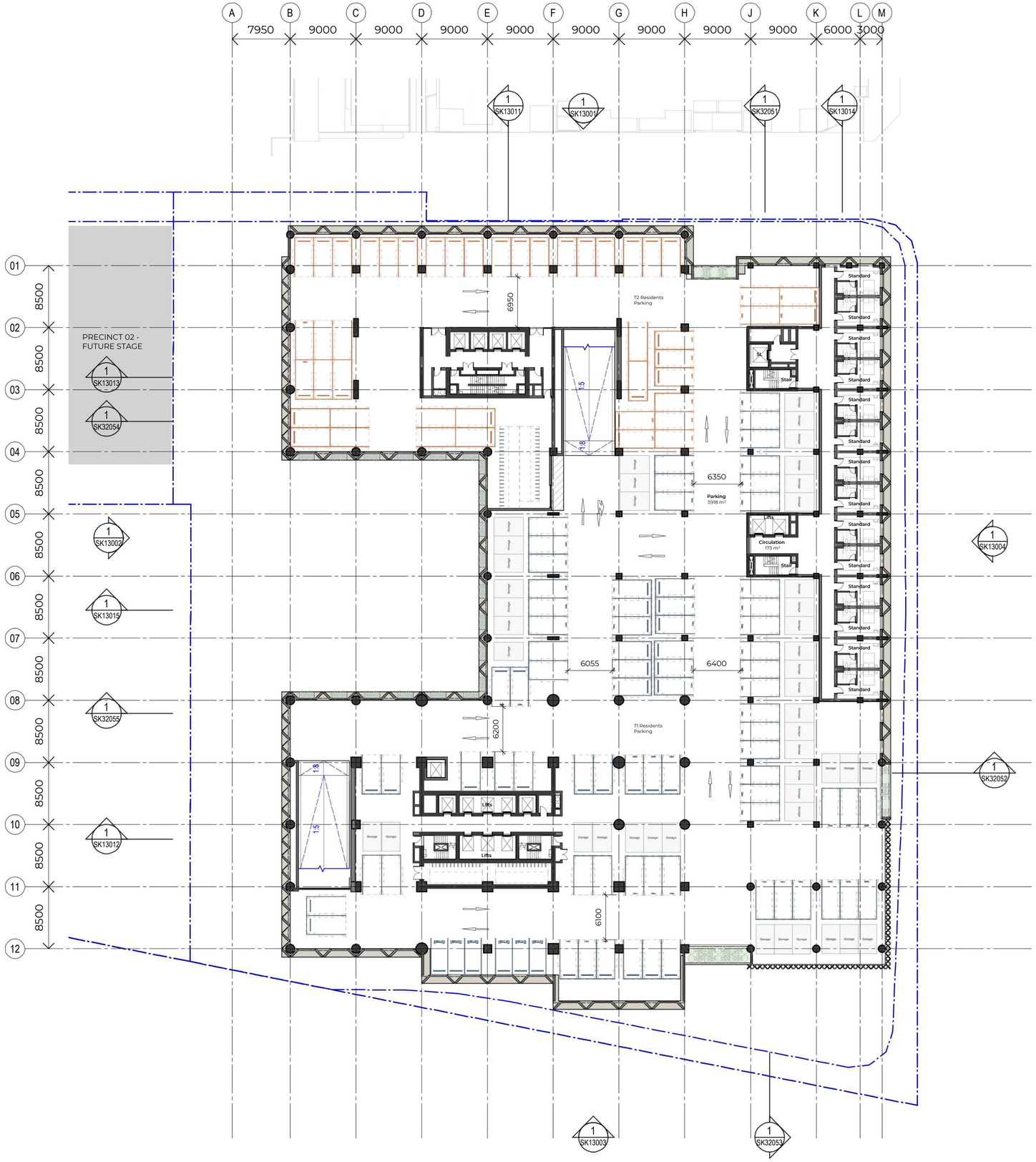
Sheet title
Overall Arrangement Plans
Level 03 - Podium

Sheet number
SK12007

Revision
B

Status
For Information

Date generated 30/04/2026 5:29:09 PM



Recent revision history

#	Status	Description	Date
A		DA WIP - BACKGROUND UPDATE	17/04/26
B		DEVELOPMENT APPLICATION	01/05/26

Parking Allocation

- Hotel
- Other Uses
- Tower 1 - Visitor
- Tower 1 - Residents
- Tower 2 - Visitor
- Tower 2 - Residents

Project
Mark Lane Stage 1A and Precinct

Client
Philip Usher Constructions

Issuer
W–B
WOODS BAGOT

Project number
150740

Size check
25mm

Checked	Approved	Sheet size	Scale
PL	DL	A1	1 : 300

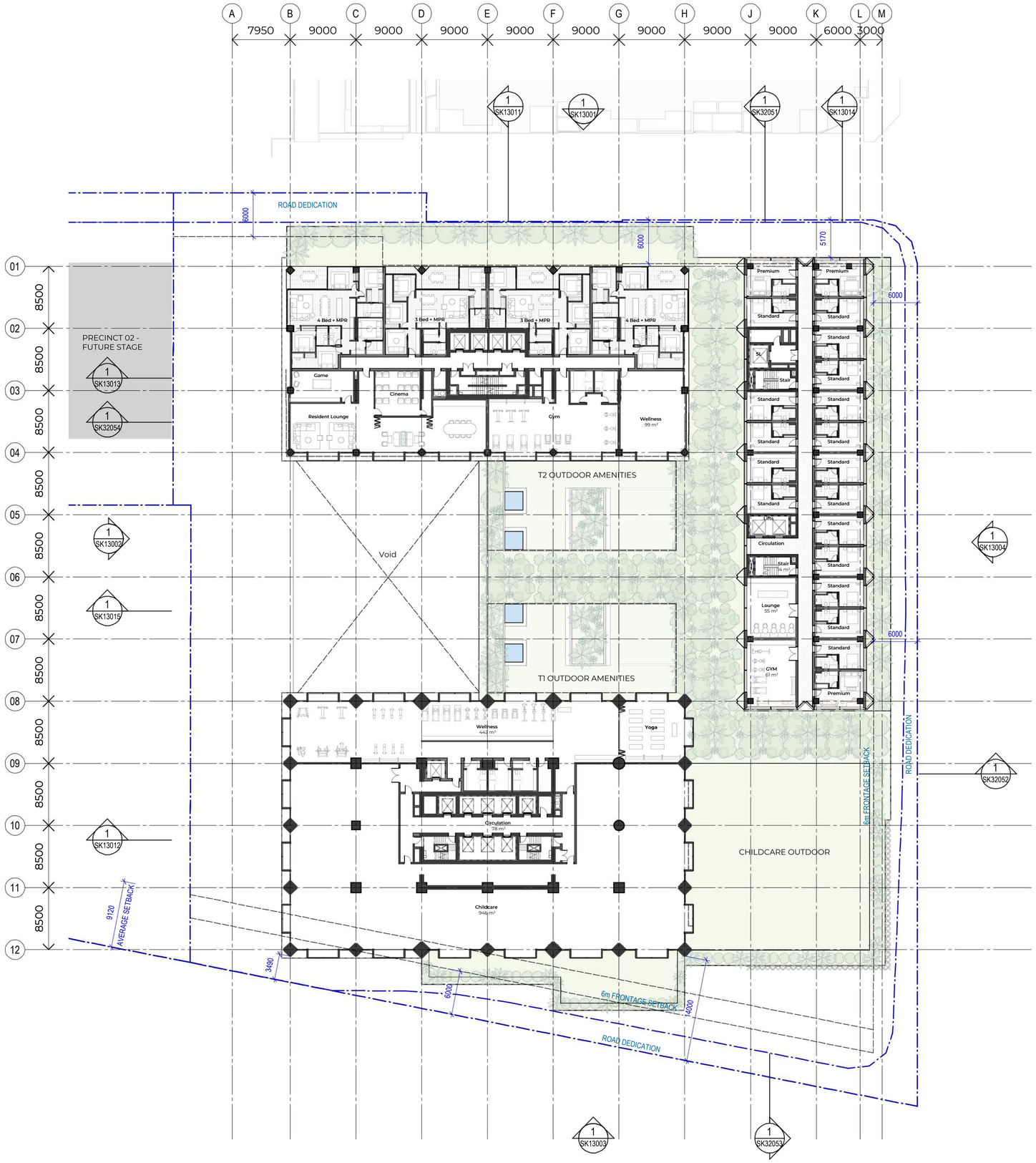
Sheet title
Overall Arrangement Plans
Level 04 - Podium

Sheet number
SK12008

Revision
B

Status
For Information

Date generated 30/04/2026 5:29:21 PM



Recent revision history

#	Status	Description	Date
A		DA WIP - BACKGROUND UPDATE	17/04/26
B		DEVELOPMENT APPLICATION	01/05/26

Project
Mark Lane Stage 1A and Precinct

Client
Philip Usher Constructions

Issuer
W—B
WOODS BAGOT

Project number
150740

Size check
25mm

Checked
PL

Approved
DL

Sheet size
A1

Scale
1 : 300

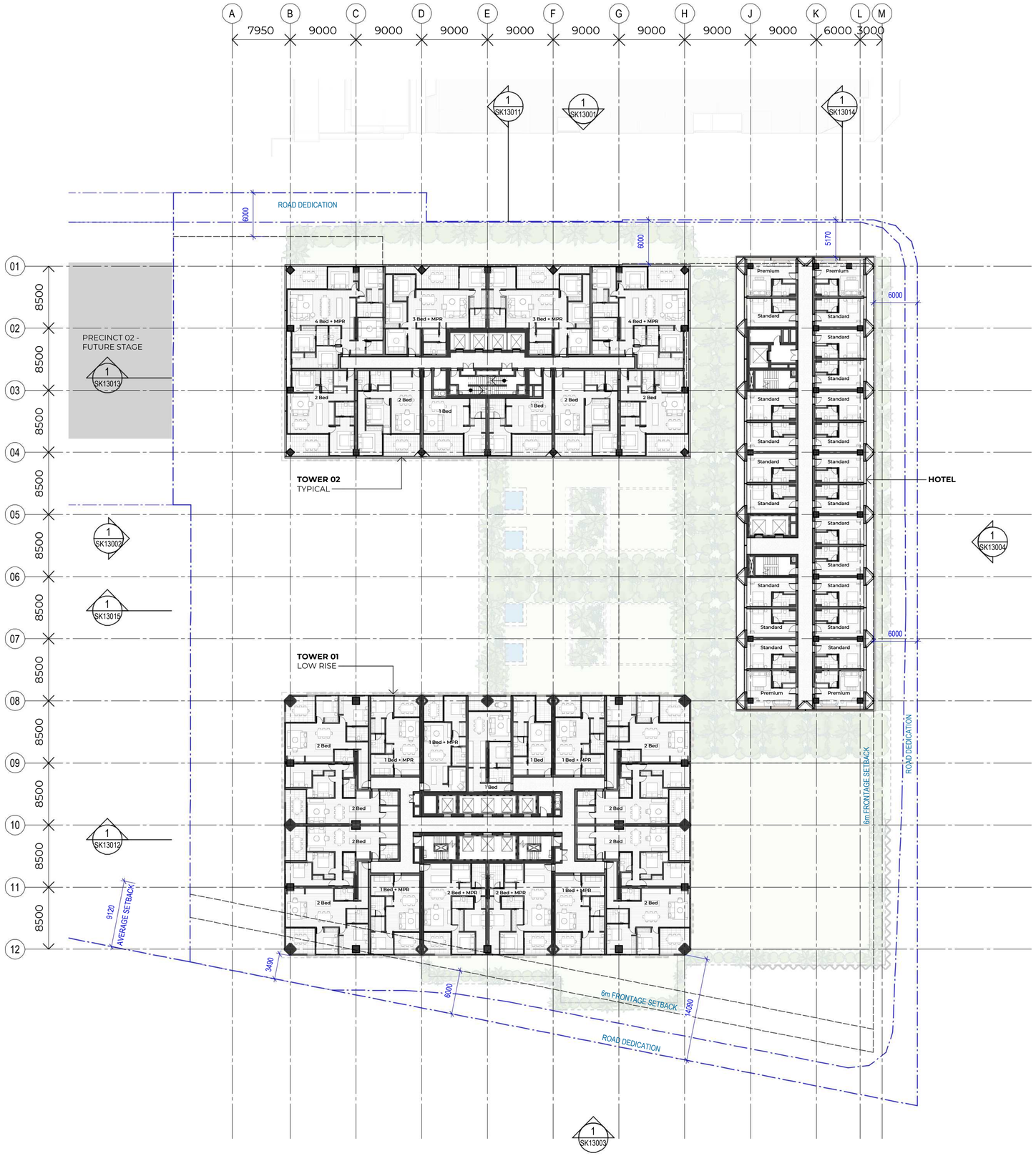
Sheet title
Overall Arrangement Plans
Level 05 - Podium Roof

Sheet number
SK12009

Revision
B

Status
For Information

Date generated 30/04/2026 5:29:49 PM



Recent revision history

#	Status	Description	Date
A		DA WIP - BACKGROUND UPDATE	17/04/26
B		DEVELOPMENT APPLICATION	01/05/26

Project
Mark Lane Stage 1A and Precinct

Client
Philip Usher Constructions

Issuer
W–B
WOODS BAGOT

Project number
150740

Size check
25mm

Checked
PL

Approved
DL

Sheet size
A1

Scale
1 : 300

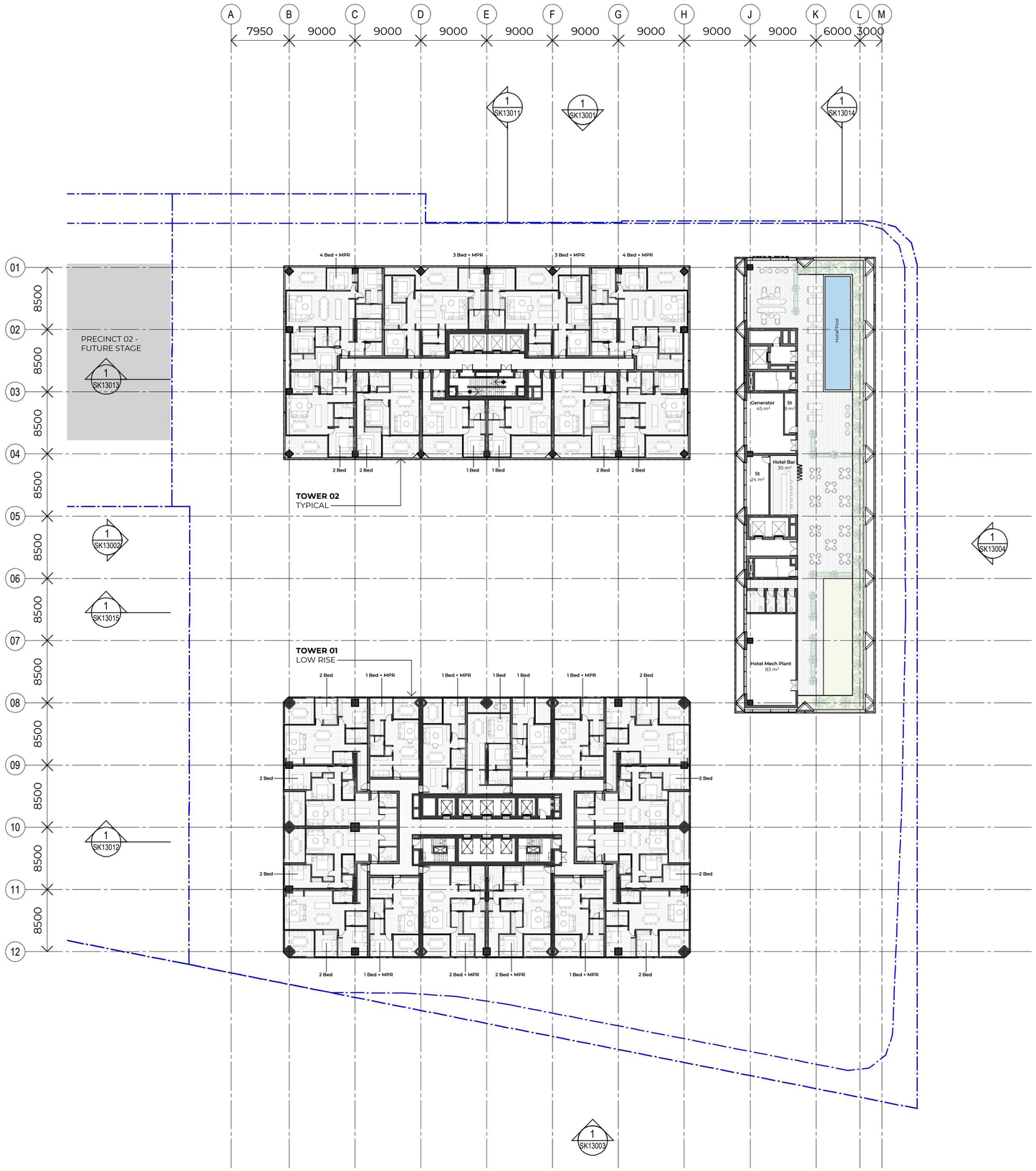
Sheet title
Overall Arrangement Plans
Level 06 - Typical

Sheet number
SK12010

Revision
B

Status
For Information

Date generated 30/04/2026 5:30:22 PM



Recent revision history

#	Status	Description	Date
A		DA WIP - BACKGROUND UPDATE	17/04/26
B		DEVELOPMENT APPLICATION	01/05/26

Project
Mark Lane Stage 1A and Precinct

Client
Philip Usher Constructions

Issuer
W—B
WOODS BAGOT

Project number
150740

Size check
25mm

Checked	Approved	Sheet size	Scale
PL	DL	A1	1 : 300

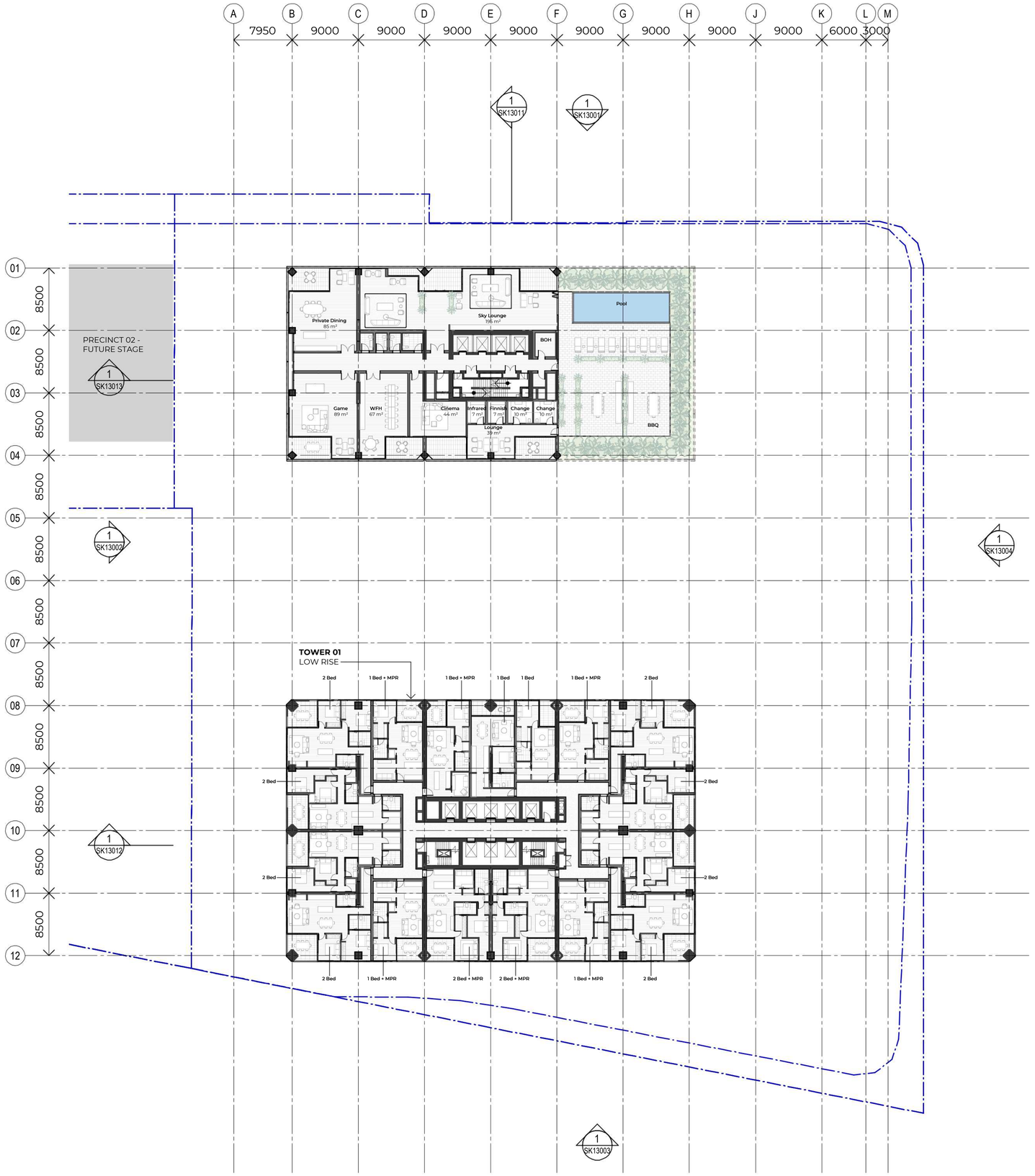
Sheet title
Overall Arrangement Plans
Level 11 - Hotel Roof

Sheet number
SK12011

Revision
B

Status
For Information

Date generated 30/04/2026 5:30:39 PM



Recent revision history

#	Status	Description	Date
A		DA WIP - BACKGROUND UPDATE	17/04/26
B		DEVELOPMENT APPLICATION	01/05/26

Project
Mark Lane Stage 1A and Precinct

Client
Philip Usher Constructions

Issuer
W—B
WOODS BAGOT

Project number
150740

Size check
25mm

Checked	Approved	Sheet size	Scale
PL	DL	A1	1 : 300

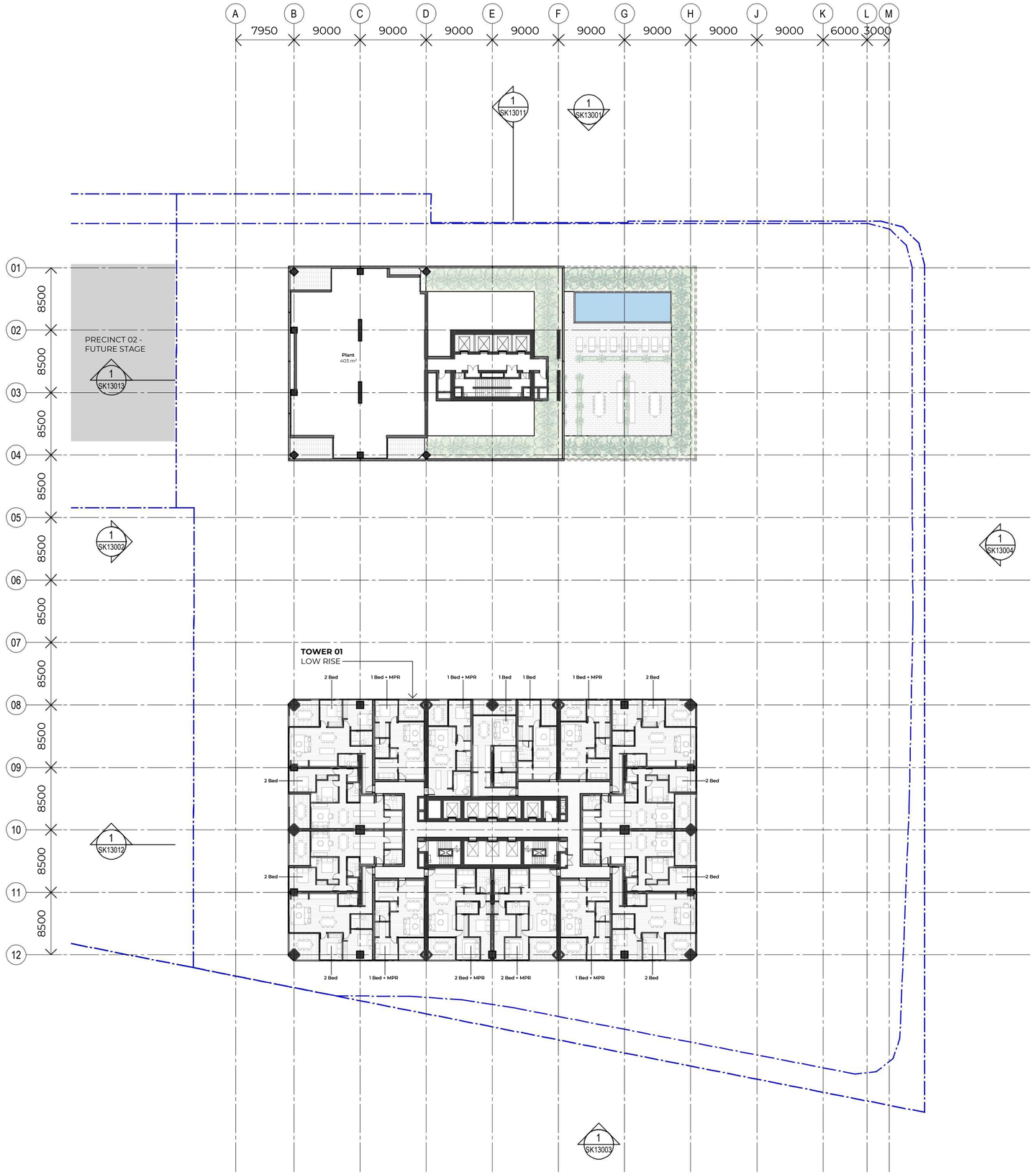
Sheet title
Overall Arrangement Plans
Level 33 - T2 Amenities

Sheet number
SK12033

Revision
B

Status
For Information

Date generated 30/04/2026 5:30:52 PM



Recent revision history

#	Status	Description	Date
A		DA WIP - BACKGROUND UPDATE	17/04/26
B		DEVELOPMENT APPLICATION	01/05/26

Project
Mark Lane Stage 1A and Precinct

Client
Philip Usher Constructions

Issuer
W–B
WOODS BAGOT

Project number
150740

Size check
25mm

Checked
PL

Approved
DL

Sheet size
A1

Scale
1 : 300

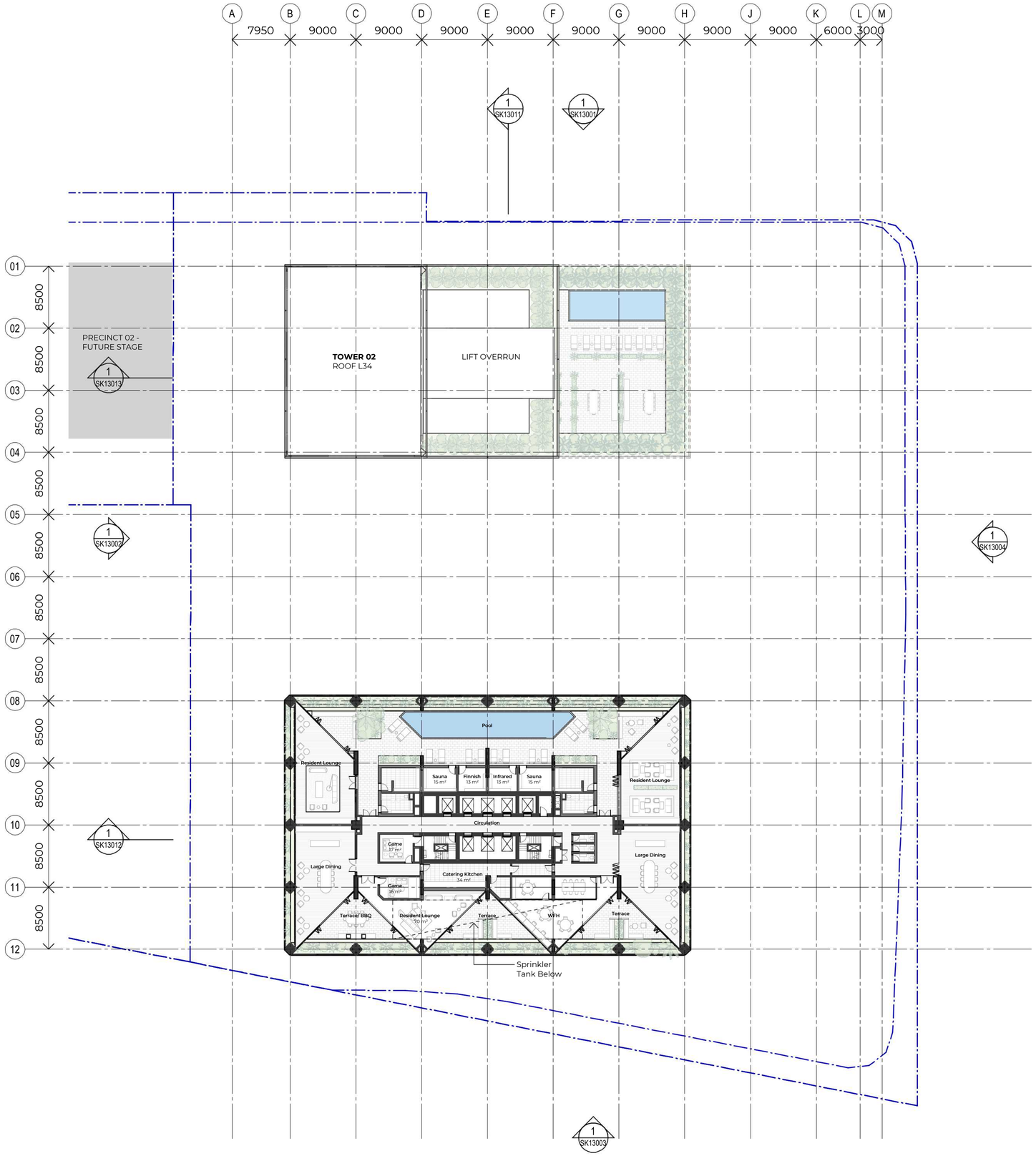
Sheet title
Overall Arrangement Plans
Level 34 - T2 Roof Plant

Sheet number
SK12034

Revision
B

Status
For Information

Date generated 30/04/2026 5:31:10 PM



Date generated 30/04/2026 5:31:34 PM

Recent revision history

#	Status	Description	Date
A		DA WIP - BACKGROUND UPDATE	17/04/26
B		DEVELOPMENT APPLICATION	01/05/26

Project
Mark Lane Stage 1A and Precinct

Client
Philip Usher Constructions

Issuer
W—B
WOODS BAGOT

Project number
150740

Size check
25mm

Checked
PL

Approved
DL

Sheet size
A1

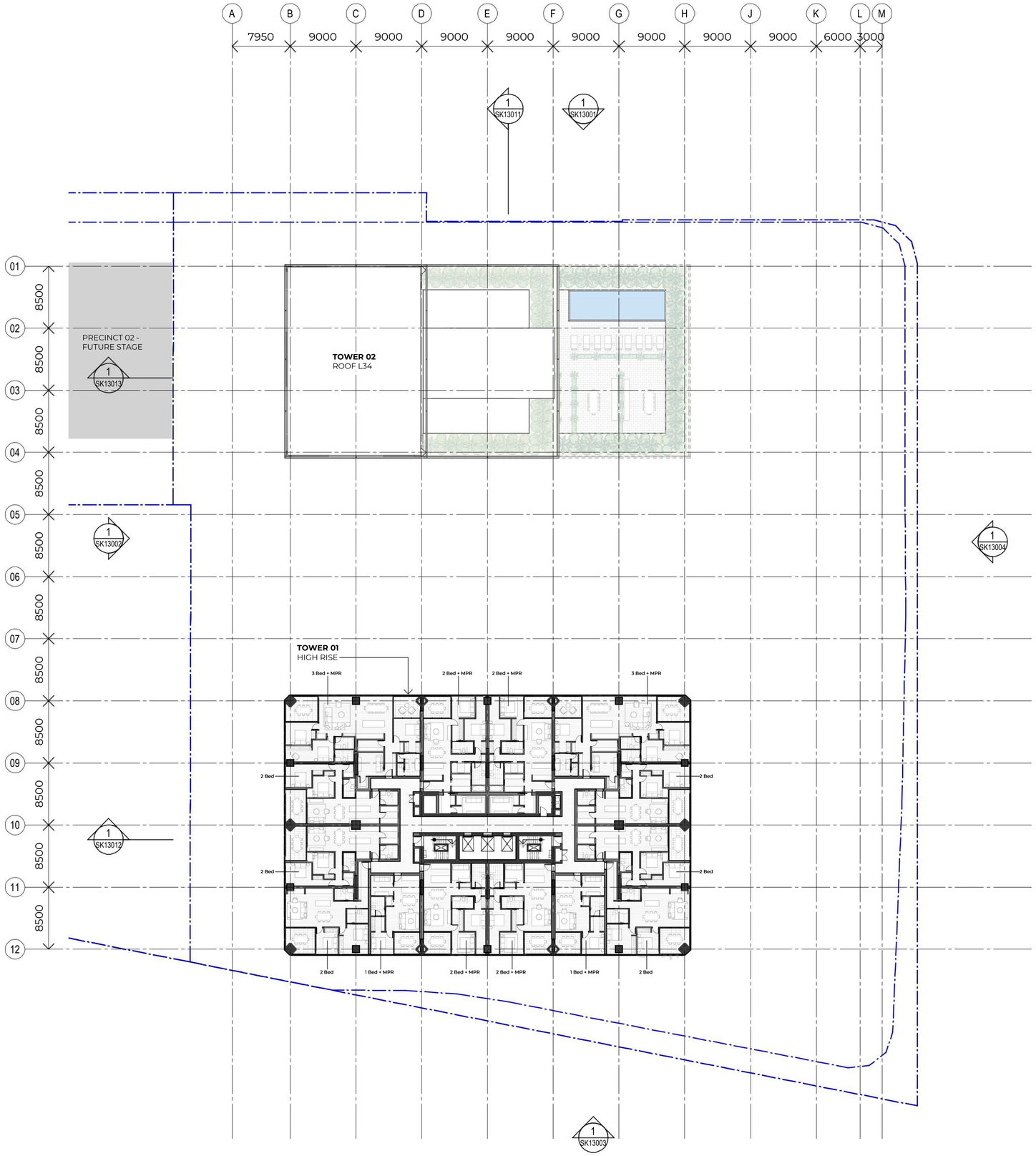
Scale
1 : 300

Sheet title
Overall Arrangement Plans
Level 36 - T1 Amenities

Sheet number
SK12036

Revision
B

Status
For Information



Recent revision history

#	Status	Description	Date
A		DA WIP - BACKGROUND UPDATE	17/04/26
B		DEVELOPMENT APPLICATION	01/05/26

Project
Mark Lane Stage 1A and Precinct

Client
Philip Usher Constructions

Issuer
WOODS BAGOT

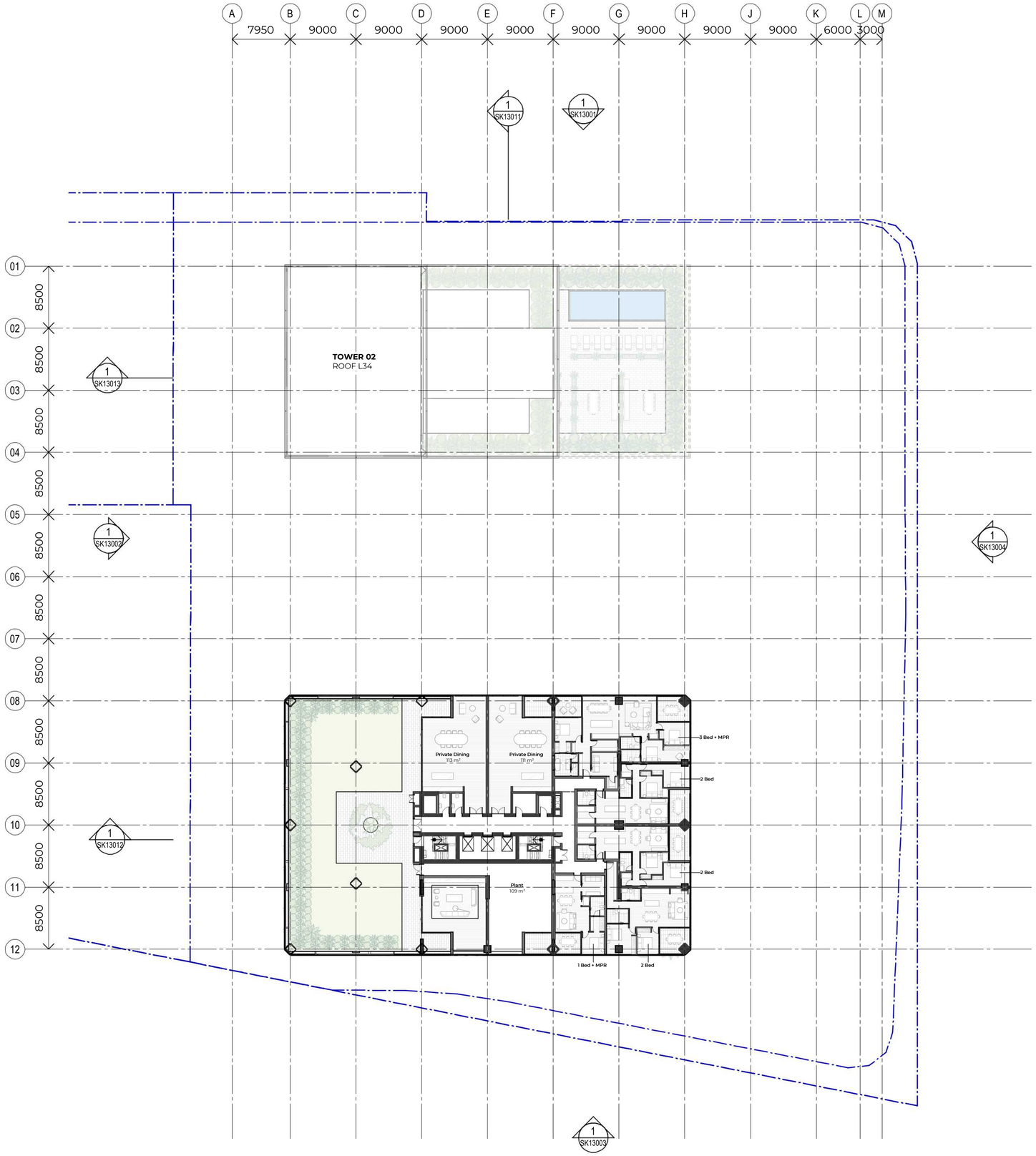
Project number	Size check		
150740	25mm		
Checked	Approved	Sheet size	Scale
PL	DL	A1	1 : 300

Sheet title
Overall Arrangement Plans
Level 37 - T1 High Rise

Sheet number	Revision
SK12037	B

Status
For Information

Date generated 30/04/2026 5:31:53 PM



Recent revision history

#	Status	Description	Date
A		DA WIP - BACKGROUND UPDATE	17/04/26
B		DEVELOPMENT APPLICATION	01/05/26

Project
Mark Lane Stage 1A and Precinct

Client
Philip Usher Constructions

Issuer
W—B
WOODS BAGOT

Project number
150740

Size check
25mm

Checked
PL

Approved
DL

Sheet size
A1

Scale
1 : 300

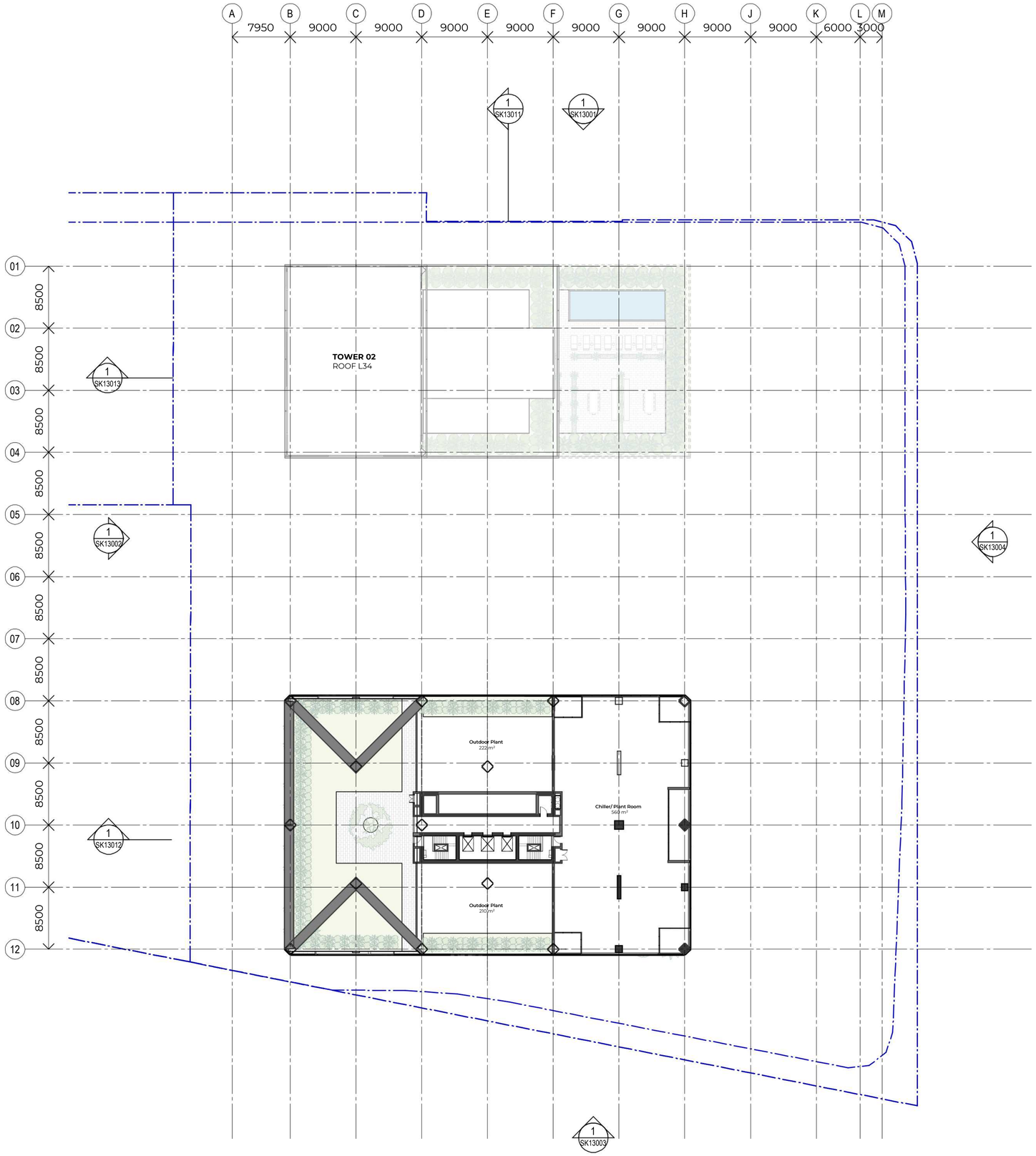
Sheet title
Overall Arrangement Plans
Level 49 - T1 Amenities

Sheet number
SK12049

Revision
B

Status
For Information

Date generated 30/04/2026 5:32:21 PM



Recent revision history

#	Status	Description	Date
A		DA WIP - BACKGROUND UPDATE	17/04/26
B		DEVELOPMENT APPLICATION	01/05/26

Project
Mark Lane Stage 1A and Precinct

Client
Philip Usher Constructions

Issuer
W—B
WOODS BAGOT

Project number
150740

Size check
25mm

Checked
PL

Approved
DL

Sheet size
A1

Scale
1 : 300

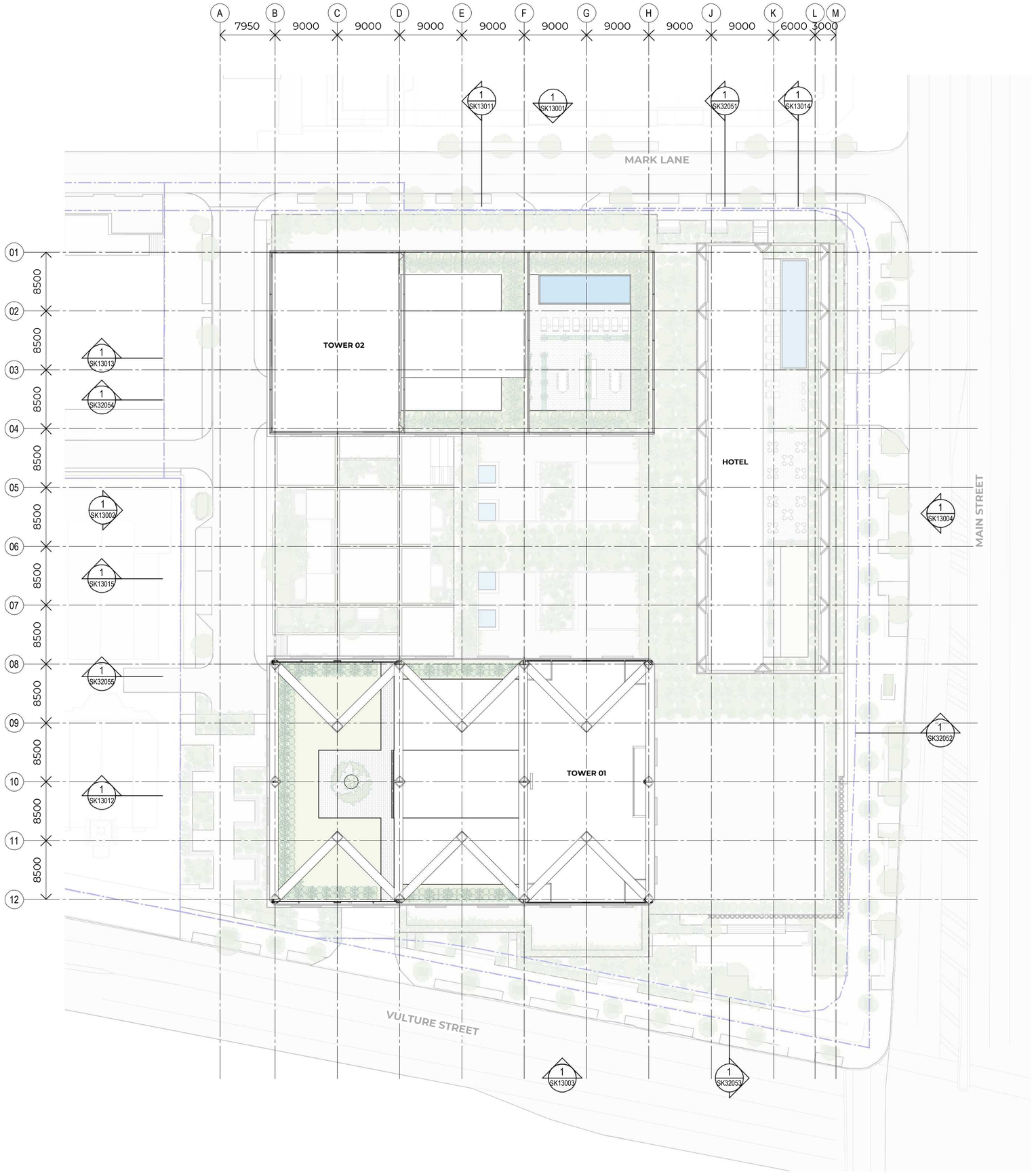
Sheet title
Overall Arrangement Plans
Level 50 - T1 Roof Plant

Sheet number
SK12050

Revision
B

Status
For Information

Date generated 30/04/2026 5:32:52 PM



Recent revision history

#	Status	Description	Date
A		DA WIP - BACKGROUND UPDATE	17/04/26
B		DEVELOPMENT APPLICATION	01/05/26

Project
Mark Lane Stage 1A and Precinct

Client
Philip Usher Constructions

Issuer
W—B
WOODS BAGOT

Project number
150740

Size check
25mm

Checked
PL

Approved
DL

Sheet size
A1

Scale
1 : 300

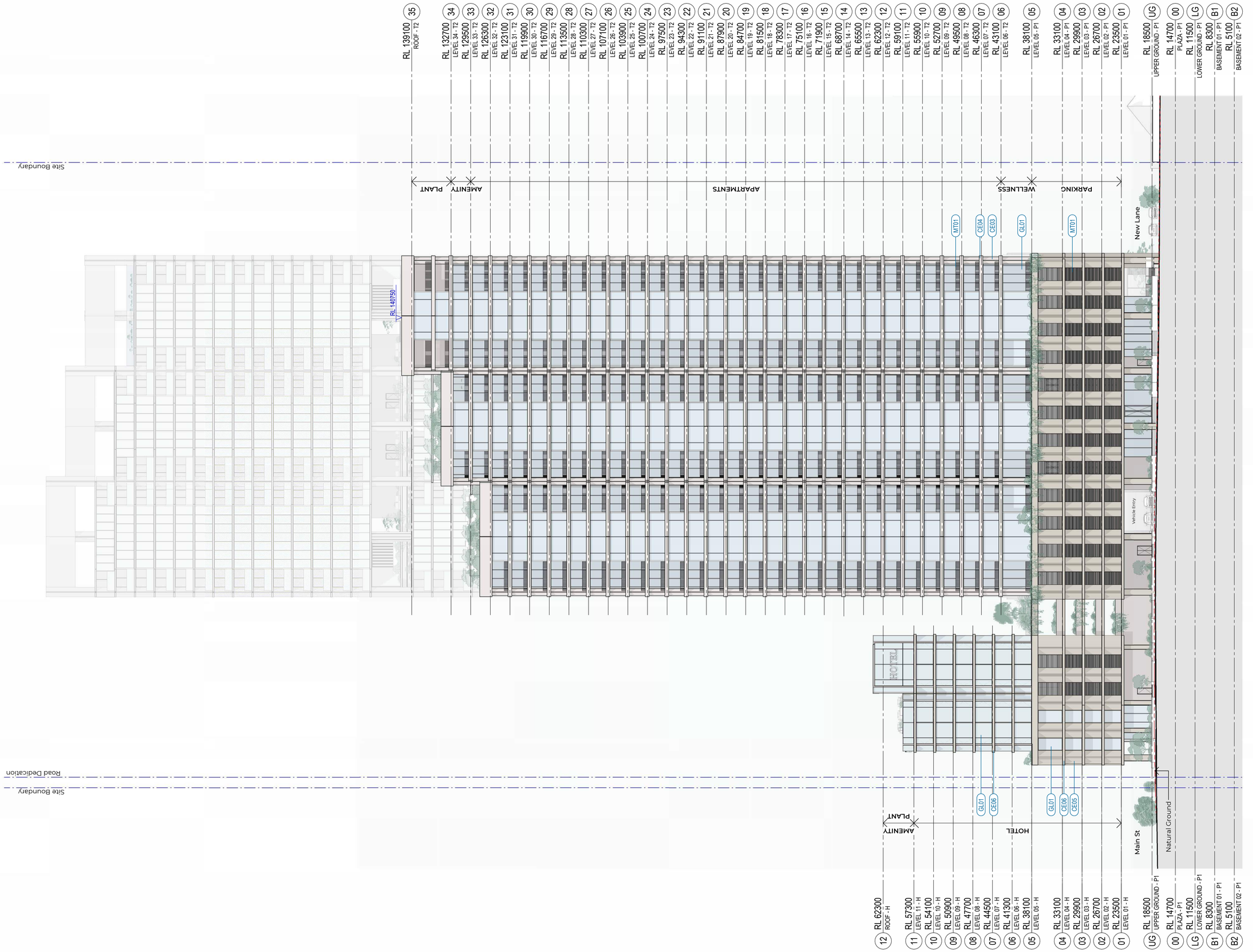
Sheet title
Overall Arrangement Plans
Roof Plan

Sheet number
SK12051

Revision
B

Status
For Information

Date generated 30/04/2026 5:34:32 PM



Recent revision history

#	Status	Description	Date
A		DA WIP - BACKGROUND UPDATE	17/04/26
B		DEVELOPMENT APPLICATION	01/05/26

Materials Legend

CE01	Textured Concrete - Tower 01
CE02	Smooth Concrete - Tower 01
CE03	Textured Concrete - Tower 02
CE04	Smooth Concrete - Tower 02
CE05	Textured Concrete - Podium&Hotel
CE06	Smooth Concrete - Podium&Hotel
MT01	Metal Finish
MT02	Screen
GL01	Glass

Project
Mark Lane Stage 1A and Precinct

Client
Philip Usher Constructions

Issuer
W—B
WOODS BAGOT

Project number
150740

Size check
25mm

Checked	Approved	Sheet size	Scale
PL	DL	A1	As indicated

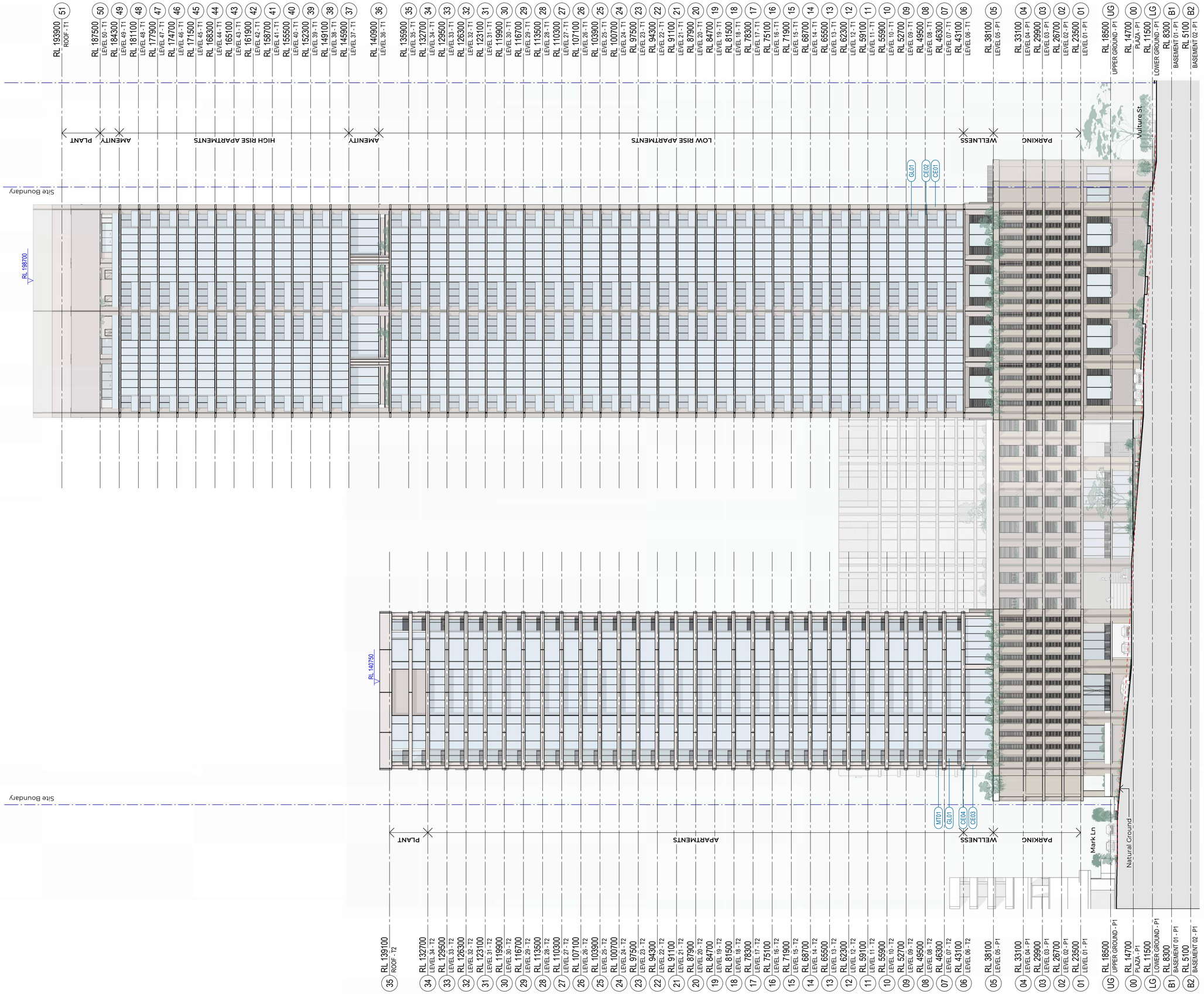
Sheet title
Overall Arrangement Elevations
North (Mark Ln)

Sheet number
SK13001

Revision
B

Status
For Information

Date generated 30/04/2026 4:53:19 PM



Recent revision history

#	Status	Description	Date
A		DA WIP - BACKGROUND UPDATE	17/04/26
B		DEVELOPMENT APPLICATION	01/05/26

Materials Legend

CE01	Textured Concrete - Tower 01
CE02	Smooth Concrete - Tower 01
CE03	Textured Concrete - Tower 02
CE04	Smooth Concrete - Tower 02
CE05	Textured Concrete - Podium&Hotel
CE06	Smooth Concrete - Podium&Hotel
MT01	Metal Finish
MT02	Screen
GL01	Glass

Project
Mark Lane Stage 1A and Precinct

Client
Philip Usher Constructions

Issuer
W–B
WOODS BAGOT

Project number
150740

Size check
25mm

Checked	Approved	Sheet size	Scale
PL	DL	A1	As indicated

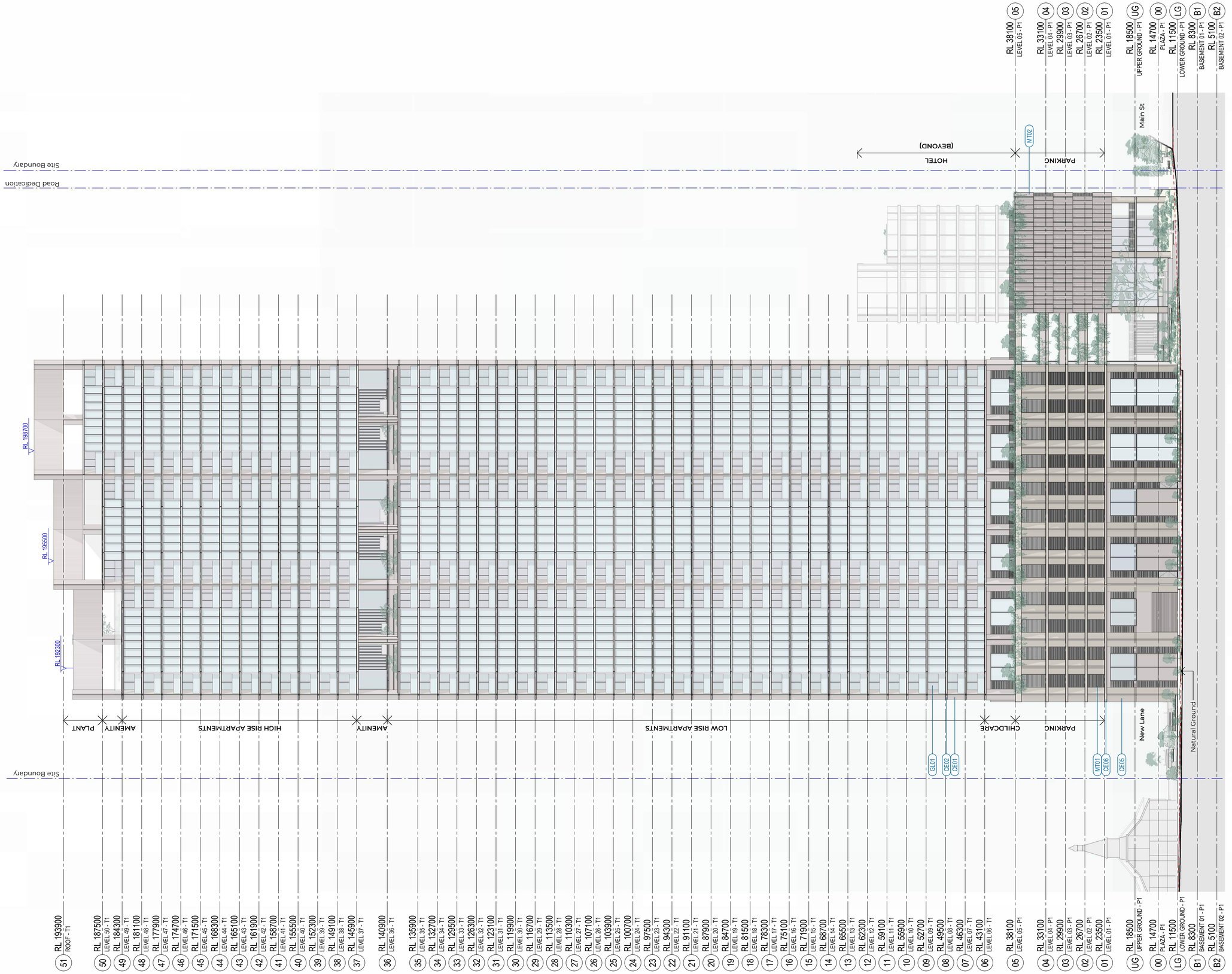
Sheet title
Overall Arrangement Elevations West (New Lane)

Sheet number
SK13002

Revision
B

Status
For Information

Date generated 30/04/2026 4:55:10 PM



Recent revision history

#	Status	Description	Date
A		DA WIP - BACKGROUND UPDATE	17/04/26
B		DEVELOPMENT APPLICATION	01/05/26

Materials Legend

CE01	Textured Concrete - Tower 01
CE02	Smooth Concrete - Tower 01
CE03	Textured Concrete - Tower 02
CE04	Smooth Concrete - Tower 02
CE05	Textured Concrete - Podium&Hotel
CE06	Smooth Concrete - Podium&Hotel
MT01	Metal Finish
MT02	Screen
GL01	Glass

Project
Mark Lane Stage 1A and Precinct

Client
Philip Usher Constructions

Issuer
W—B
WOODS BAGOT

Project number
150740

Size check
25mm

Checked
PL

Approved
DL

Sheet size
A1

Scale
As indicated

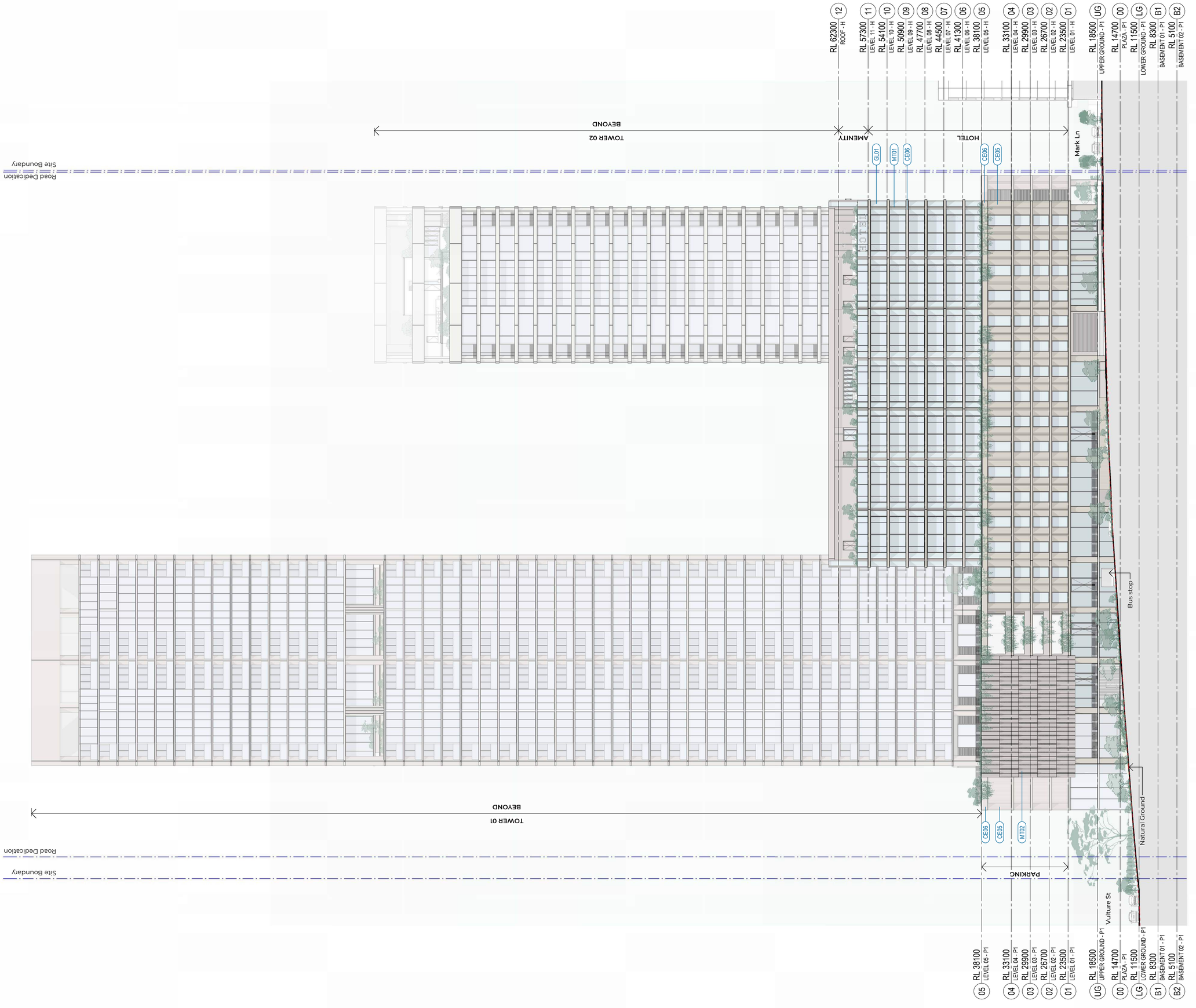
Sheet title
Overall Arrangement Elevations
South (Vulture St)

Sheet number
SK13003

Revision
B

Status
For Information

Date generated 30/04/2026 4:56:26 PM



Recent revision history

#	Status	Description	Date
A		DA WIP - BACKGROUND UPDATE	17/04/26
B		DEVELOPMENT APPLICATION	01/05/26

Materials Legend

CE01	Textured Concrete - Tower 01
CE02	Smooth Concrete - Tower 01
CE03	Textured Concrete - Tower 02
CE04	Smooth Concrete - Tower 02
CE05	Textured Concrete - Podium&Hotel
CE06	Smooth Concrete - Podium&Hotel
MT01	Metal Finish
MT02	Screen
GL01	Glass

Project
Mark Lane Stage 1A and Precinct

Client
Philip Usher Constructions

Issuer
W—B
WOODS BAGOT

Project number	Size check
150740	25mm

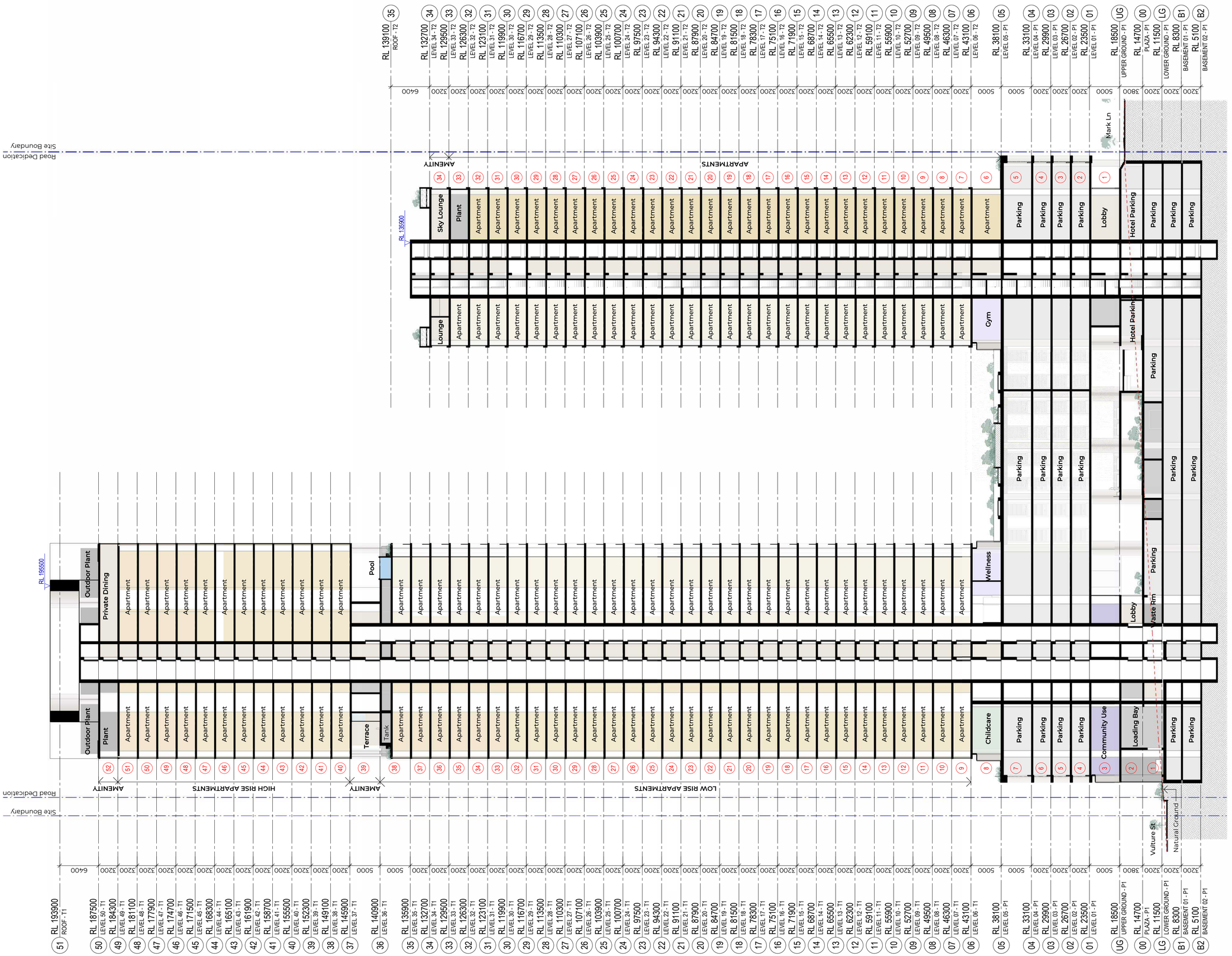
Checked	Approved	Sheet size	Scale
PL	DL	A1	As indicated

Sheet title
Overall Arrangement Elevations
East (Main St)

Sheet number	Revision
SK13004	B

Status
For Information

Date generated 30/04/2026 4:57:39 PM



Date generated 30/04/2026 9:35:03 PM

Recent revision history

#	Status	Description	Date
A		DA WIP - BACKGROUND UPDATE	17/04/26
B		DEVELOPMENT APPLICATION	01/05/26

Project
Mark Lane Stage 1A and Precinct

Client
Philip Usher Constructions

Issuer
W—B
WOODS BAGOT

Project number	Size check
150740	25mm

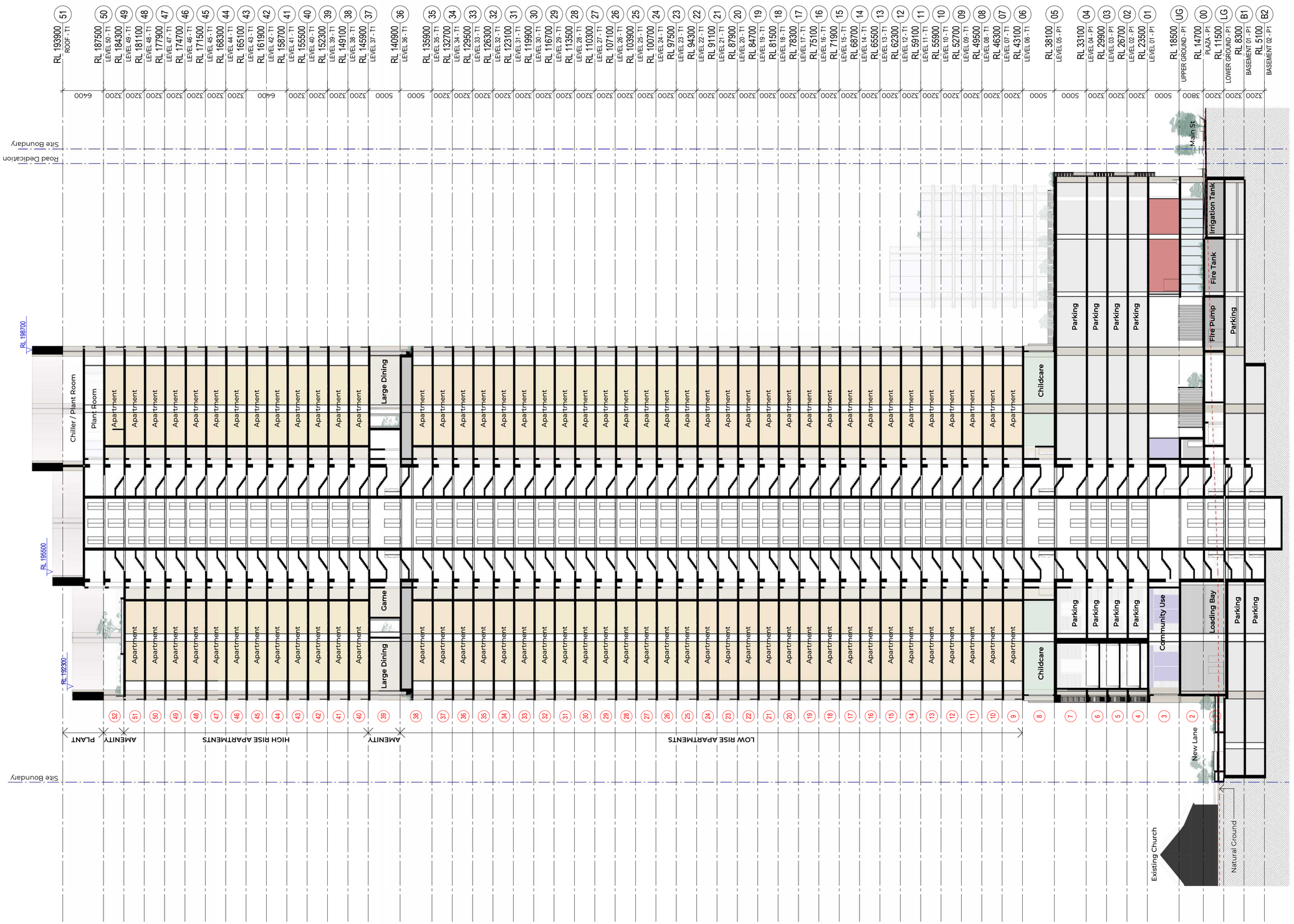
Checked	Approved	Sheet size	Scale
PL	DL	A1	1 : 300

Sheet title
Overall Arrangement Sections
Sheet 01

Sheet number
SK13011

Revision
B

Status



Recent revision history

#	Status	Description	Date
A		DA WIP - BACKGROUND UPDATE	17/04/26
B		DEVELOPMENT APPLICATION	01/05/26

Project
Mark Lane Stage 1A and Precinct

Client
Philip Usher Constructions

Issuer
W–B
WOODS BAGOT

Project number
150740

Size check
25mm

Checked	Approved	Sheet size	Scale
PL	DL	A1	1 : 300

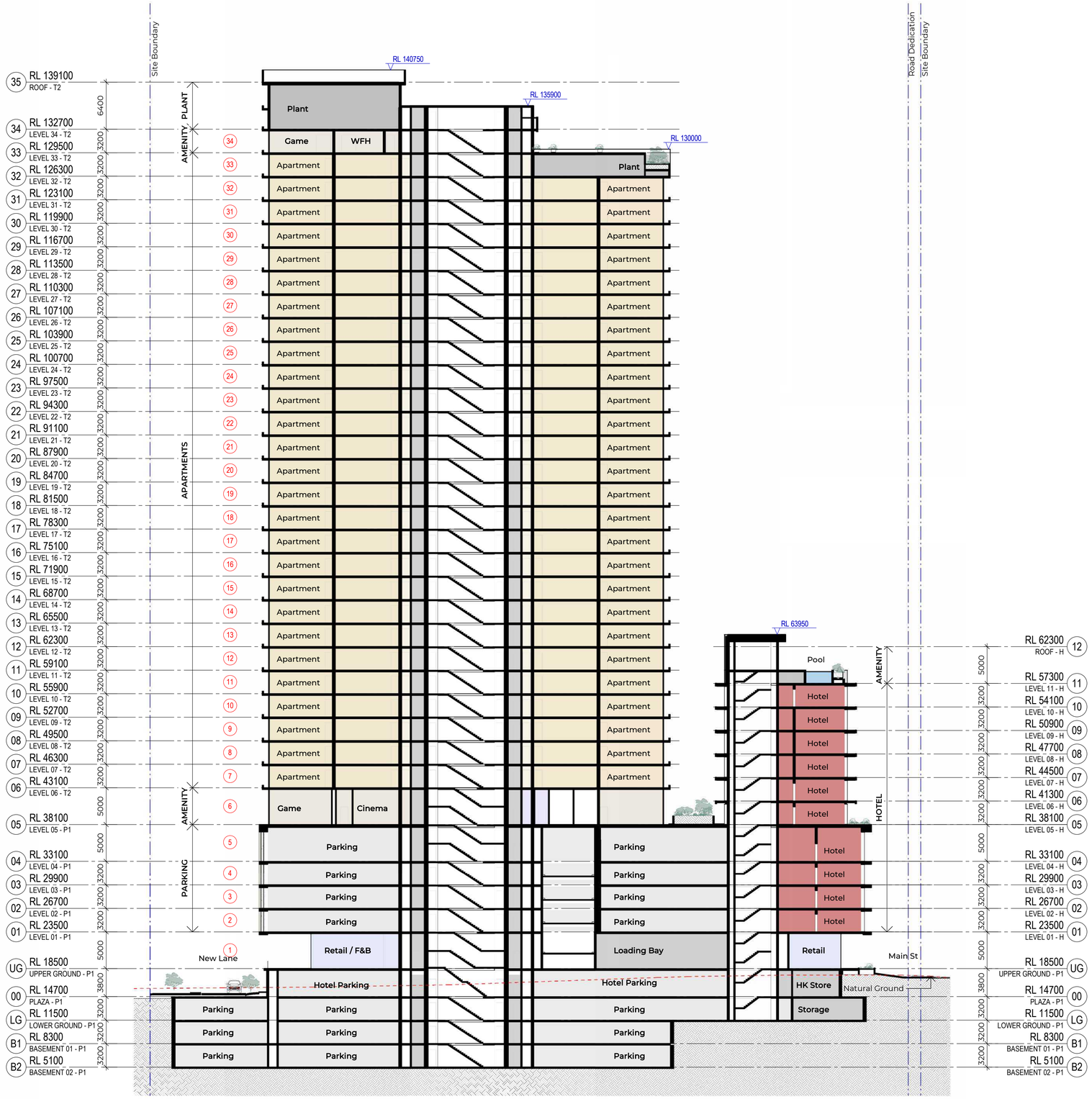
Sheet title
Overall Arrangement
Sections
Sheet 02

Sheet number
SK13015

Revision
B

Status

Date generated 30/04/2026 9:37:12 PM



Date generated 30/04/2026 9:40:23 PM

Recent revision history

#	Status	Description	Date
A		DA WIP - BACKGROUND UPDATE	17/04/26
B		DEVELOPMENT APPLICATION	01/05/26

Project
Mark Lane Stage 1A and Precinct

Client
Philip Usher Constructions

Issuer
W—B
WOODS BAGOT

Project number	Size check
150740	25mm

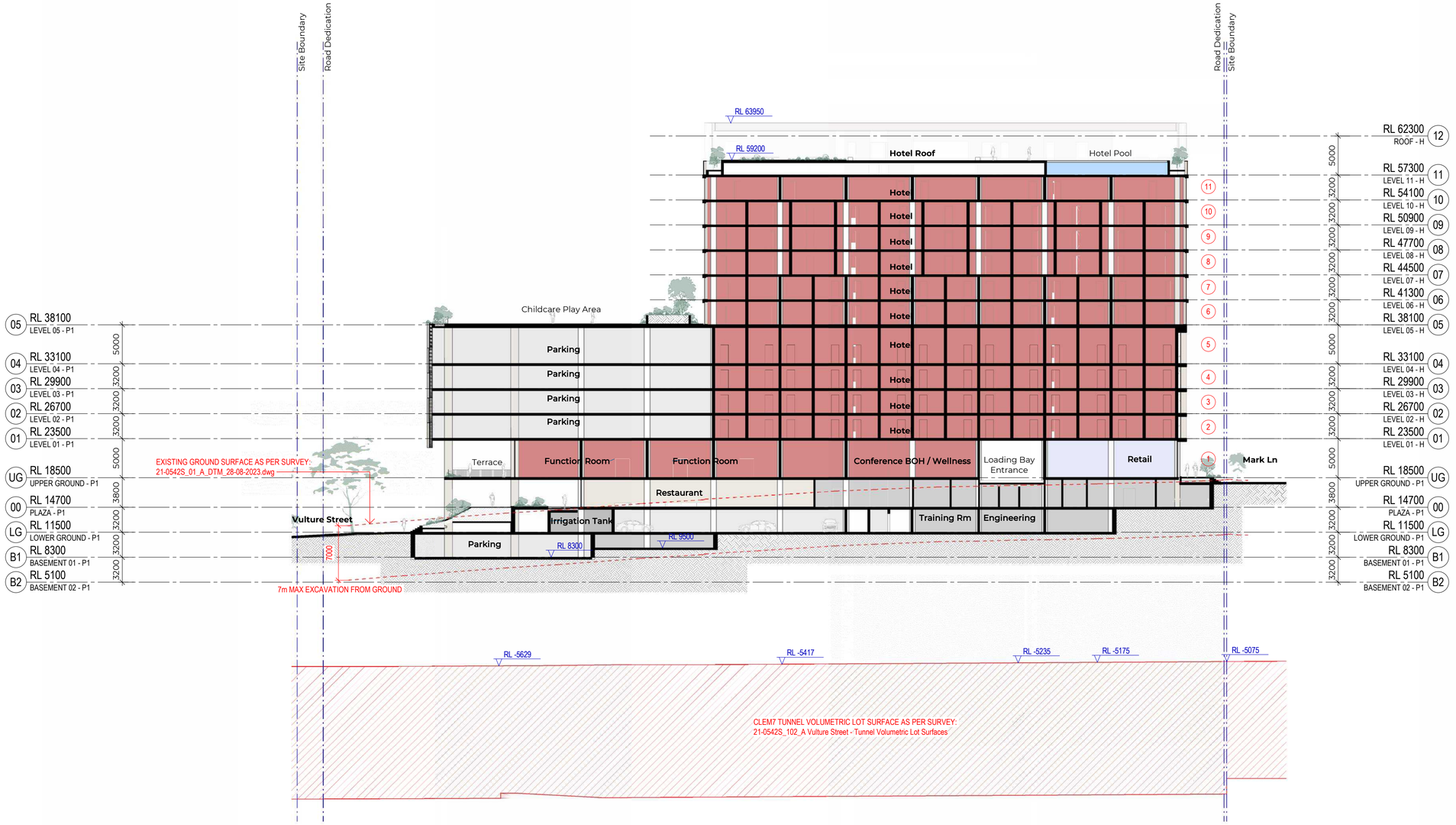
Checked	Approved	Sheet size	Scale
PL	DL	A1	1 : 300

Sheet title
Overall Arrangement Sections Sheet 03

Sheet number
SK13013

Revision
B

Status



Date generated 30/04/2026 9:42:00 PM

Recent revision history

#	Status	Description	Date
A		DA WIP - BACKGROUND UPDATE	17/04/26
B		DEVELOPMENT APPLICATION	01/05/26

Notes

Contractor must verify all dimensions on site before commencing work or preparing shop drawings.

Do not scale drawings.

Project
Mark Lane Stage 1A and Precinct

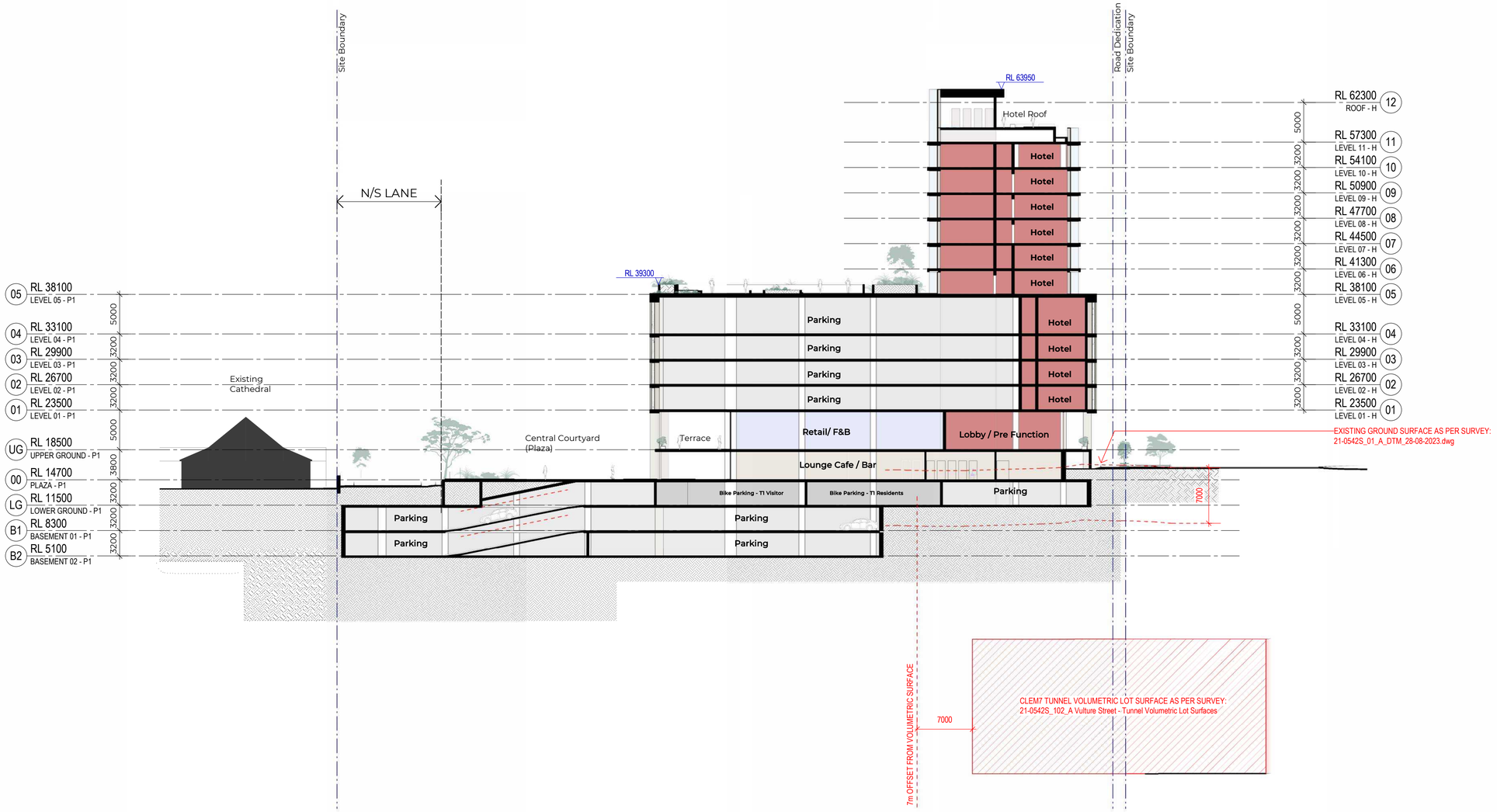
Client
Philip Usher Constructions

Issuer
W—B
WOODS BAGOT

Project number 150740
Size check 25mm
Checked PL
Approved DL
Sheet size A1
Scale 1 : 300

Sheet title
Overall Arrangement Sections Sheet 04

Sheet number SK13015
Revision B
Status



Recent revision history

#	Status	Description	Date
A		DEVELOPMENT APPLICATION	01/05/26

Notes

Contractor must verify all dimensions on site before commencing work or preparing shop drawings.

Do not scale drawings.

Project
Mark Lane Stage 1A and Precinct

Client
Philip Usher Constructions

Issuer
W—B
WOODS BAGOT

Project number
150740

Size check
25mm

Checked	Approved	Sheet size	Scale
PL	DL	A1	1 : 300

Sheet title
Overall Arrangement
Sections
Sheet 05

Sheet number
SK13015

Revision
A

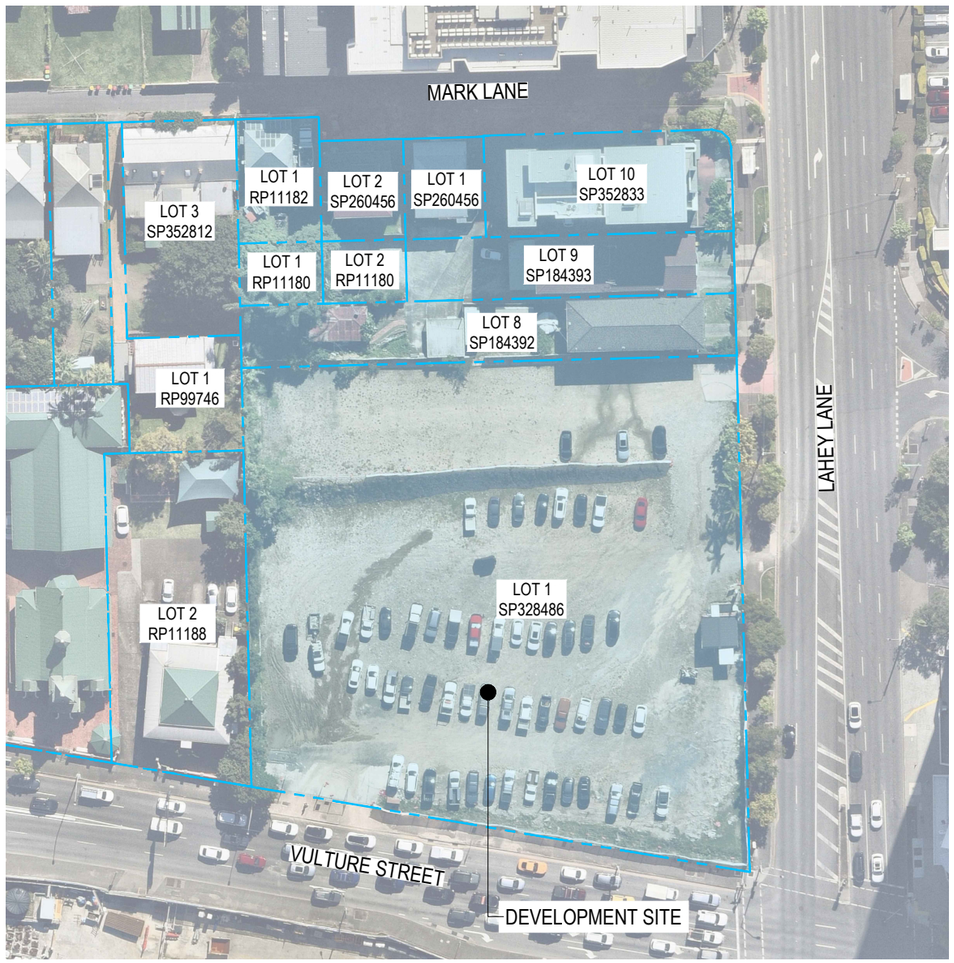
Status

Date generated 30/04/2026 9:45:02 PM

APPENDIX C – CONCEPT CIVIL PLANS

MARK LANE PRECINCT 1

KANGAROO POINT, QLD 4169



LOCALITY PLAN
1:500

DRAWING LIST

Sheet Number	Sheet Title
SK1	LOCALITY PLAN AND COVER SHEET
SK2	BULK EARTHWORKS LAYOUT
SK3	BULK EARTHWORKS SECTIONS
SK4	STORMWATER DRAINAGE LAYOUT PLAN
SK5	SERVICE LAYOUT PLAN

REFERENCED GUIDELINES & STANDARDS

BRISBANE CITY COUNCIL (BCC)	
BRISBANE CITY COUNCIL - PLANNING SCHEME POLICIES (PSPs) AND DEVELOPMENT CODES	
WATER SERVICES ASSOCIATION OF AUSTRALIA	
WATER SUPPLY CODE OF AUSTRALIA - SEQ SERVICE PROVIDERS EDITION V1.3	
GRAVITY SEWERAGE CODE OF AUSTRALIA - SEQ SERVICE PROVIDERS EDITION V2.0	
SEQ CODE FOR WATER SUPPLY AND SEWER DESIGN AND CONSTRUCTION	
SEQ WS&S D&C CODE - DESIGN CRITERIA	
SEQ WS&S D&C CODE - SEQ ACCEPTED INFRASTRUCTURE PRODUCTS AND MATERIALS (IPAM) LIST	
AUSTRALIAN STANDARDS (AS)	
AS 3798 - 2007	EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS
AS 1289.1.1	METHODS OF TESTING SOILS FOR ENGINEERING PURPOSES
AS 2890.1	OFFSTREET CARPARKING
AS 3500-2018	PLUMBING AND DRAINAGE
INTERNATIONAL EROSION CONTROL ASSOCIATION (IECA)	
IECA AUSTRALIA GUIDELINES AND STANDARD DRAWINGS	

REVISIONS:

No.	REVISION DESCRIPTION	DRAWN	DATE
B	FOR APPROVAL	JP	01.05.26
A	FOR APPROVAL	JP	24.04.26

SCALE BAR
0 10 20 30 40 50m
SCALE 1:500

N

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van der Meer (QLD) Pty Ltd
A.B.N. 63 609 812 615

CLIENT: URBIS

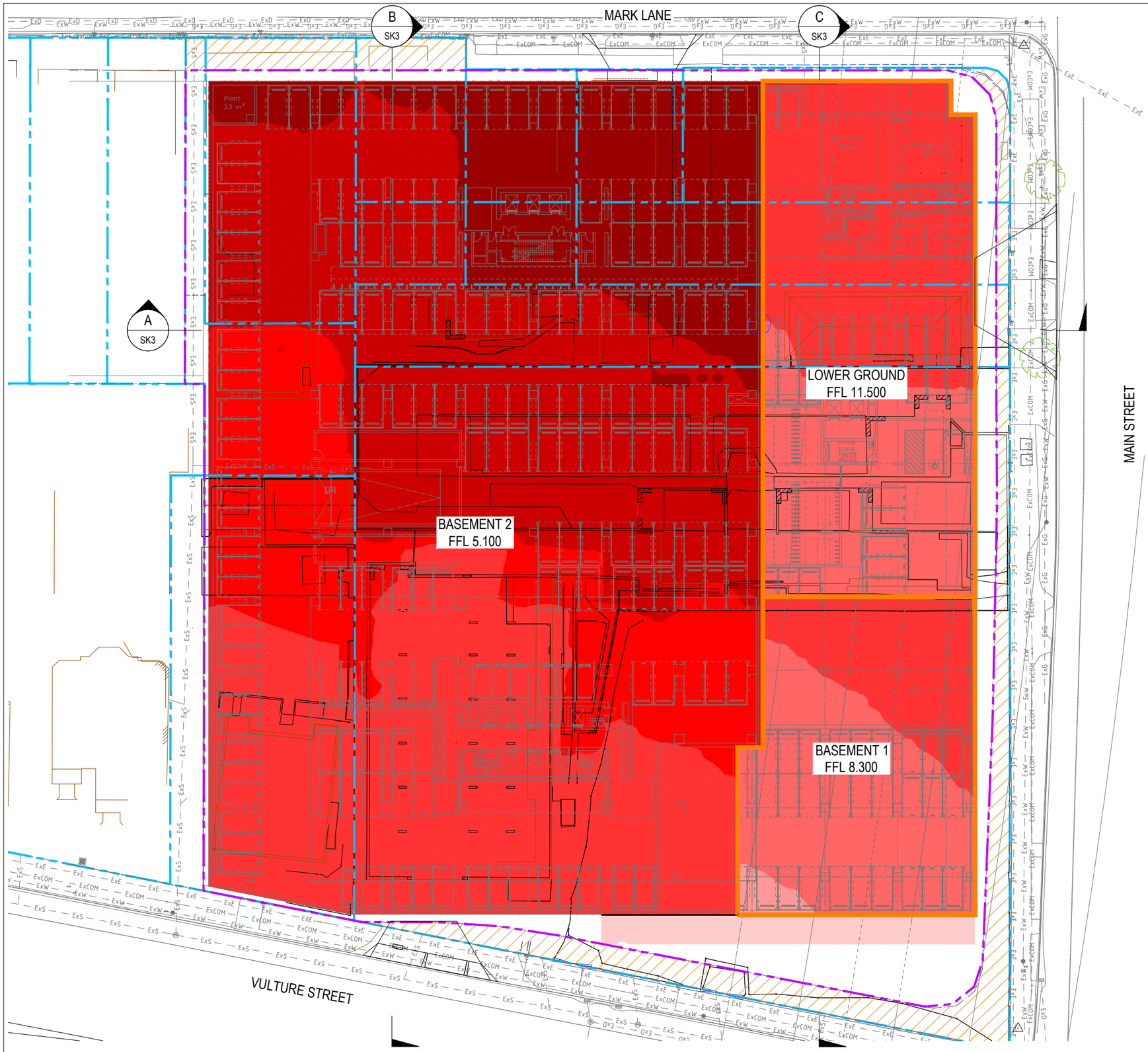
ARCHITECT: W—B WOODS BAGOT

PROJECT TITLE: MARK LANE PRECINCT 1

DRAWING TITLE: LOCALITY PLAN AND COVER SHEET

DRAWING STATUS: **FOR APPROVAL**
NOT TO BE USED FOR CONSTRUCTION

PROJECT LEADER	DESIGNER	SIGNATURE	RPEQ: 19536
ML	JP	C. KIRK	NER: 3053220
DRAFTSPERSON	SCALE		SHEET SIZE
JP			A1
JOB No.		DRAWING No.	REVISION
BR262006		SK1	B



CONTRACTOR TO CONFIRM LOCATION OF ALL SERVICES TRAVERSING OR ADJACENT TO THE DEVELOPMENT SITE PRIOR TO UNDERTAKING WORKS.

REFER STRUCTURAL DRAWINGS PREPARED BY STRUCTURAL ENGINEER FOR FOOTING SLAB AND WALL DETAILS.

ANY DAMAGE TO EXISTING ROADWAYS WILL BE RECTIFIED BY THE CONTRACTOR AT HIS EXPENSE.

ANY DAMAGE TO EXISTING ROADWAYS WILL BE RECTIFIED BY THE CONTRACTORS AT THEIR EXPENSE.

REFER STRUCTURAL ENGINEER FOR DETAILS OF TEMPORARY SOIL RETENTION METHOD

LEGEND

- EXISTING PROPERTY BOUNDARY
- PROPOSED PROPERTY BOUNDARY
- PROPOSED CHANGE IN FLOOR LEVEL
- XX.XX EXISTING CONTOUR (0.5m)
- EXISTING CONTOUR (0.1m)
- PROPOSED EARTHWORKS CONTOURS MAJOR
- PROPOSED EARTHWORKS CONTOURS MINOR
- Ex W EXISTING WATER
- Ex SW EXISTING STORMWATER
- Ex S EXISTING SEWER
- ExD EXISTING STORMWATER
- ExCOM EXISTING COMMUNICATIONS
- ExE EXISTING ELECTRICAL

EARTHWORKS CUT AND FILL TABLE

COLOR	MIN ELEVATION (m)	MAX ELEVATION (m)
	-14.000	-4.000
	-4.000	-3.500
	-14.000	-3.000
	-12.000	-2.500
	-10.000	-2.000
	-8.000	-1.500
	-6.000	-1.000
	-4.000	-0.500
	-2.000	0.000

BULK EARTHWORKS QUANTITIES

TOTAL CUT VOLUME:	84,583m³
TOTAL FILL VOLUME:	0m³
TOTAL EXPORT VOLUME:	84,583m³

NOTE:

EXISTING HARDSTAND, CROSSOVERS AND STRUCTURES TO BE REMOVED

NOTE: SURVEY

1. ALL EXISTING SERVICES HAVE BEEN LOCATED USING DBYD AND COUNCIL MAPPING SERVICES OR AS SHOWN IN SURVEY. CONTRACTOR TO CONFIRM ALL EXISTING SERVICE LOCATIONS PRIOR TO COMMENCEMENT OF WORKS
2. STORMWATER INFRASTRUCTURE LOCATED WITHIN SITE AND EXTERNAL TO SITE WERE NOT CAPTURED IN DETAILED SITE SURVEY. INFORMATION SHOWN IS INDICATIVE ONLY AND BASED ON SITE MEASUREMENTS CAPTURED BY CONTRACTOR. CONTRACTOR TO CONFIRM LOCATION AND LEVELS ON SITE PRIOR TO CONSTRUCTION FOR STORMWATER ASSETS. IF IN DOUBT ASK.

THIS DEVELOPMENT MAY REQUIRE THE IMPLEMENTATION OF SOIL RETENTION METHODS DURING CONSTRUCTION. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THESE WORKS ARE CERTIFIED BY A SUITABLY QUALIFIED RPEQ AND INSTALLED PRIOR TO COMMENCING FILLING AND EXCAVATION WORKS AS INDICATED ON THIS PLAN

THE CONTRACTOR IS TO PRODUCE A MANAGEMENT PLAN FOR CONTROL OF DUST AND AIR EMISSIONS DURING WORKS.

NO DUST IS TO EXTEND BEYOND THE SITE BOUNDARY INCLUDING VEHICLES ENTERING AND LEAVING THE SITE.

ALL ENVIRONMENTAL MEASURES INCLUDING VEGETATION PROTECTION AND EROSION AND SEDIMENT CONTROL SHALL BE IN PLACE PRIOR TO THE COMMENCEMENT OF ANY WORK

REVISIONS:

No.	REVISION DESCRIPTION	DRAWN	DATE
B	FOR APPROVAL	JP	01.05.26
A	FOR APPROVAL	JP	24.04.26

SCALE BAR

0 1 2 3 4 5 10m 15 20m

SCALE 1:250

N

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van der Meer (QLD) Pty Ltd
A.B.N. 63 609 812 615

CLIENT: URBIS

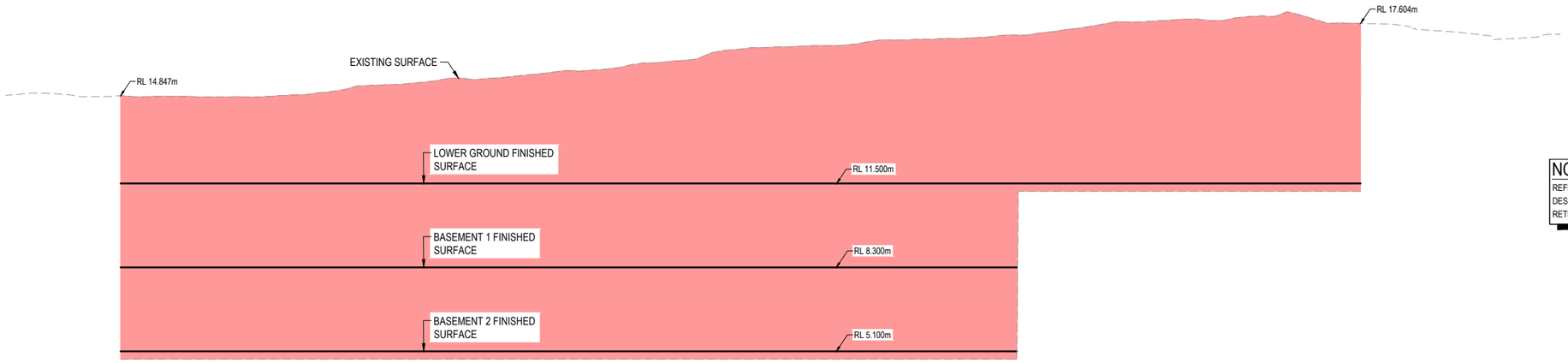
ARCHITECT: W—B WOODS BAGOT

PROJECT TITLE: MARK LANE PRECINCT 1

DRAWING TITLE: BULK EARTHWORKS LAYOUT

DRAWING STATUS: **FOR APPROVAL**
NOT TO BE USED FOR CONSTRUCTION

PROJECT LEADER: ML	DESIGNER: JP	SIGNATURE: C. KIRK	RPEQ: 19536 NER: 3053220
DRAFTSPERSON: JP	SCALE:		SHEET SIZE: A1
JOB No.: BR262006	DRAWING No.: SK2		REVISION: B

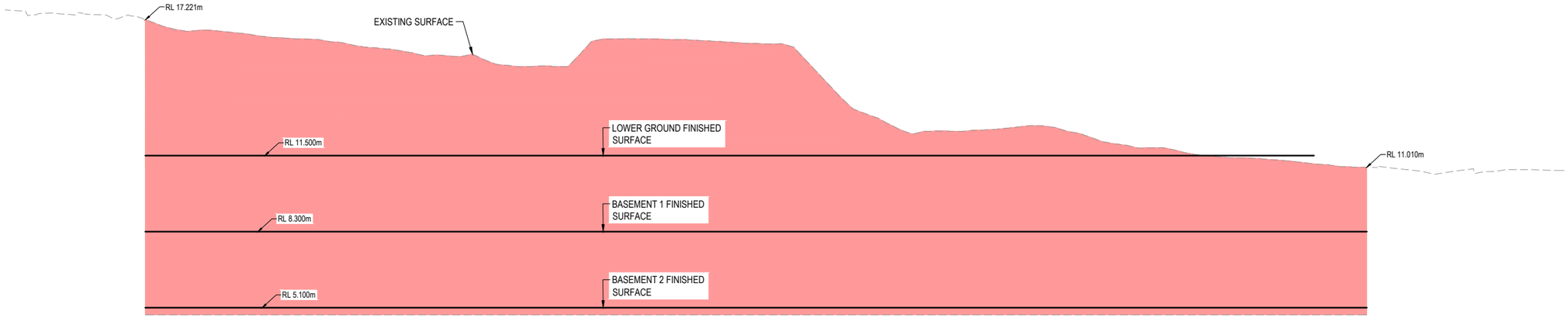


VERT EXAG 1:2
Datum 4.000

NOTE:
REFER STRUCTURAL ENGINEER'S DRAWINGS FOR RETAINING WALL DESIGN, SUB SOIL DRAINS BEHIND WALLS AND TEMPORARY EARTH RETENTION METHODS

BEW SECTION A LONG SECTION

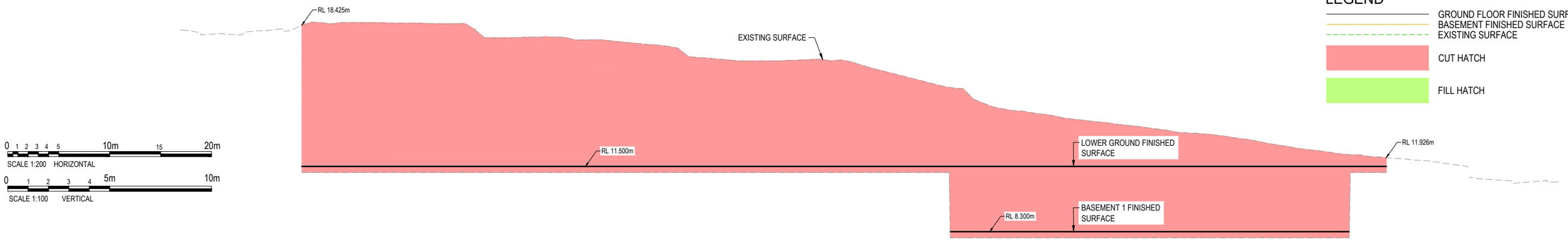
SECTION A
SCALE H 1:200 V 1:40 SK2



VERT EXAG 1:2
Datum 4.000

BEW SECTION B LONG SECTION

SECTION B
SCALE H 1:200 V 1:40 SK2



LEGEND
- GROUND FLOOR FINISHED SURFACE
- BASEMENT FINISHED SURFACE
- EXISTING SURFACE
- CUT HATCH
- FILL HATCH

0 1 2 3 4 5 10m 15 20m
SCALE 1:200 HORIZONTAL

0 1 2 3 4 5m 10m
SCALE 1:100 VERTICAL

VERT EXAG 1:2
Datum 4.000

BEW SECTION C LONG SECTION

SECTION C
SCALE H 1:200 V 1:40 SK2

REVISIONS:

No.	REVISION DESCRIPTION	DRAWN	DATE
B	FOR APPROVAL	JP	01.05.26
A	FOR APPROVAL	JP	24.04.26

SCALE BAR

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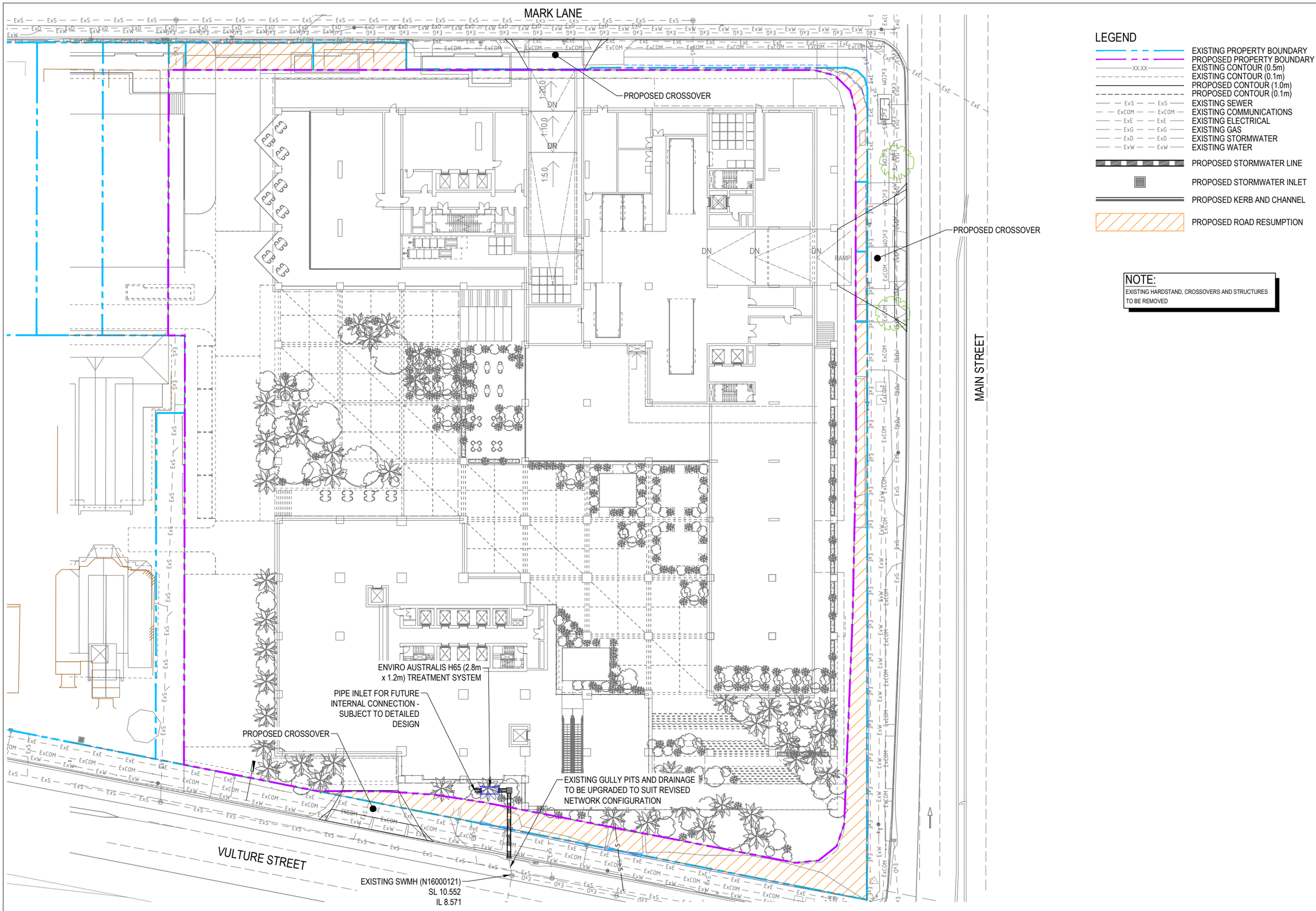
www.vandermeer.com.au
van der Meer (QLD) Pty Ltd
A.B.N. 63 609 812 615

CLIENT: URBIS
ARCHITECT: W–B WOODS BAGOT

PROJECT TITLE: MARK LANE PRECINCT 1
DRAWING TITLE: BULK EARTHWORKS SECTIONS

DRAWING STATUS: FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION

PROJECT LEADER	DESIGNER	SIGNATURE	RPEQ: 19536
ML	JP	C. KIRK	NER: 3053220
DRAFTSPERSON	SCALE		SHEET SIZE
JP			A1
JOB No.		DRAWING No.	REVISION
BR262006		SK3	B



LEGEND

- EXISTING PROPERTY BOUNDARY
- PROPOSED PROPERTY BOUNDARY
- EXISTING CONTOUR (0.5m)
- EXISTING CONTOUR (0.1m)
- PROPOSED CONTOUR (1.0m)
- PROPOSED CONTOUR (0.1m)
- EXISTING SEWER
- EXISTING COMMUNICATIONS
- EXISTING ELECTRICAL
- EXISTING GAS
- EXISTING STORMWATER
- EXISTING WATER
- PROPOSED STORMWATER LINE
- PROPOSED STORMWATER INLET
- PROPOSED KERB AND CHANNEL
- PROPOSED ROAD RESUMPTION

NOTE:
EXISTING HARDSTAND, CROSSOVERS AND STRUCTURES TO BE REMOVED

No.	REVISION DESCRIPTION	DRAWN	DATE
B	FOR APPROVAL	JP	01.05.26
A	FOR APPROVAL	JP	24.04.26

SCALE BAR
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SCALE 1:250

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A.B.N. 63 609 812 615

CLIENT: URBIS
ARCHITECT: WOODS BAGOT

PROJECT TITLE: MARK LANE PRECINCT 1
DRAWING TITLE: STORMWATER DRAINAGE LAYOUT PLAN

DRAWING STATUS: **FOR APPROVAL**
NOT TO BE USED FOR CONSTRUCTION

PROJECT LEADER	DESIGNER	SIGNATURE	RPEQ: 19536
ML	JP	C. KIRK	NER: 3053220
DRAFTSPERSON	SCALE		SHEET SIZE
JP			A1
JOB No.	DRAWING No.		REVISION
BR262006	SK4		B

MARK LANE

MAIN STREET

VULTURE STREET

RAMP

DN

1:20.0

1:10.0

1:5.0

PROPOSED WATER SERVICE AND METER. SIZE AND LOCATION TO BE CONFIRMED AT DETAILED DESIGN STAGE

PROPOSED SEWER PROPERTY CONNECTION. SIZE AND LOCATION TO BE CONFIRMED AT DETAILED DESIGN

LEGEND

- EXISTING PROPERTY BOUNDARY
- PROPOSED PROPERTY BOUNDARY
- EXISTING SEWER
- EXISTING COMMUNICATIONS
- EXISTING ELECTRICAL
- EXISTING GAS
- EXISTING STORMWATER
- EXISTING WATER
- PROPOSED STORMWATER LINE
- PROPOSED STORMWATER INLET
- PROPOSED SEWER
- PROPOSED WATER

NOTE:

REDUNDANT SEWER AND WATER CONNECTIONS TO BE REMOVED/DECOMMISSIONED.

REVISIONS:

No.	REVISION DESCRIPTION	DRAWN	DATE
B	FOR APPROVAL	JP	01.05.26
A	FOR APPROVAL	JP	24.04.26

SCALE BAR

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SCALE 1:250

N

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van der Meer (QLD) Pty Ltd
A.B.N. 63 609 812 615

CLIENT: URBIS

ARCHITECT: W—B WOODS BAGOT

PROJECT TITLE: MARK LANE PRECINCT 1

DRAWING TITLE: SERVICE LAYOUT PLAN

DRAWING STATUS: **FOR APPROVAL**
NOT TO BE USED FOR CONSTRUCTION

PROJECT LEADER	DESIGNER	SIGNATURE	RPEQ: 19536
ML	JP	C. KIRK	NER: 3053220

DRAFTSPERSON	SCALE		SHEET SIZE
JP			A1

JOB No.	DRAWING No.	REVISION
BR262006	SK5	B

APPENDIX D – EROSION AND HAZARD ASSESSMENT FORM

BRISBANE CITY COUNCIL ABN 72 002 765 795

Erosion Hazard Assessment - June 2014

Brisbane City Council (BCC), *Erosion Hazard Assessment* form must be read in conjunction with the *Erosion Hazard Assessment- Supporting Technical Notes* (June 2014 or later version) for explanatory terms and Certification information.

What is an Erosion Hazard Assessment?
Soil erosion and sediment from urban development, particularly during construction activities, is a significant source of sediment pollution in Brisbane's waterways. The Erosion Hazard Assessment determines whether the risk of soil erosion and sediment pollution to the environment is 'low' , 'medium' or 'high'.

When is the EHA required?
An *Erosion Hazard Assessment* form must be completed and lodged with BCC for any Development Application (ie MCU or ROL) that will result in soil disturbance OR Operational Works or Compliance Assessment Application for 'Filling' or Excavation.

Failure to submit this form during lodgement of an application may result in assessment delays or refusal of the application.

Privacy Statement
The personal information collected on this form will be used by Brisbane City Council for the purposes of fulfilling your request and undertaking associated Council functions and services. Your personal information will not be disclosed to any third party without your consent, unless this is required or permitted by law.

Assessment Details

1 Please turn over and complete the erosion hazard assessment.

2 Based on the erosion hazard assessment overleaf, is the site:

☐ ***A 'low' risk site***

Best practice erosion and sediment control (ESC) must be implemented but no erosion and sediment control plans need to be submitted with the development application. Factsheets outlining best practice ESC can be found at http://www.waterbydesign.com.au/factsheets

☒ ***A 'medium' risk site***

If the development is approved, the applicant will need to engage a Registered Professional Engineer (RPEQ) or Certified Professional in Erosion and Sediment Control (CPESC) to prepare an ESC Program and Plan and supporting documentation — in accordance with the requirements of the Infrastructure Design Planning Scheme Policy.

☐ ***A 'high' risk site***

If the development is approved, the applicant will need to engage a RPEQ and CPESC to prepare an ESC Program and Plan and supporting documentation — in accordance with the requirements of the Infrastructure Design Planning Scheme Policy. The plans and program will need to be certified by a CPESC.

3 Site Information and Certification

Application number (if known)

Site address

350-352 Vulture St, 803-811 Main St
and 18-52 Mark Ln, Kangaroo Point
Postcode 4169

I certify that:

☒ I have made all relevant enquiries and am satisfied no matters of significance have been withheld from the assessment manager.

☒ I am a person with suitable qualifications and/or experience in erosion and sediment control.

☒ The Erosion Hazard Assessment was completed in accordance with the Erosion Hazard Assessment Supporting Technical Notes and the BCC Infrastructure Design Planning Scheme Policy.

☒ The Erosion Hazard Assessment accurately reflects the site's overall risk of soil erosion and sediment pollution to the environment.

☒ I acknowledge and accept that the BCC, as assessment manager, relies, in good faith, on this certification as part of its development assessment process and the provision of false or misleading information to the BCC constitutes an offence for which BCC may take punitive steps/ action against me/ enforcement action against me.

Certified by *Print name*

Calvin Kirk

Certifier's signature

C. KIRK RPEQ: 19536
NER: 3053220

Date

24 / 04 / 2026

Assessment Table

Table 1: Low Risk Test

		Yes	*No*
1.1	is the area of land disturbance > 1000 m^2	X	
1.2	does any land disturbance occur in a BCC mapped waterway corridor		X
1.3	is there any slope on site (longer than three metres in length) before, during or after construction that is steeper than 5%	X	
1.4	does any land disturbance occur below 5 m AHD		X
1.5	does development involve endorsement of a staging plan	X	
1.6	is there an upstream catchment passing through the site > 1 hectare		X

Have you answered 'yes' to any of the questions in Table 1?	*Yes*	*No*	
	X		**If '*No*' then site is <u>low risk</u> with respect to erosion and sediment control**

If '*Yes*' then proceed to Table 2

Table 2: Medium Risk Test

		Yes	*No*	
2.1	is the area of land disturbance > 1 hectare	X		**If '*No*' then site is <u>medium risk</u> with respect to erosion and sediment control**

If '*Yes*' then proceed to Table 3

Table 3: High Risk Test

3.1	is there an upstream catchment passing through the site > 1 hectare		X
3.2	does any land disturbance occurs in a BCC mapped waterway corridor		X
3.3	is there any slope on site (longer than three metres in length) before, during or after construction that is steeper than 15%		X

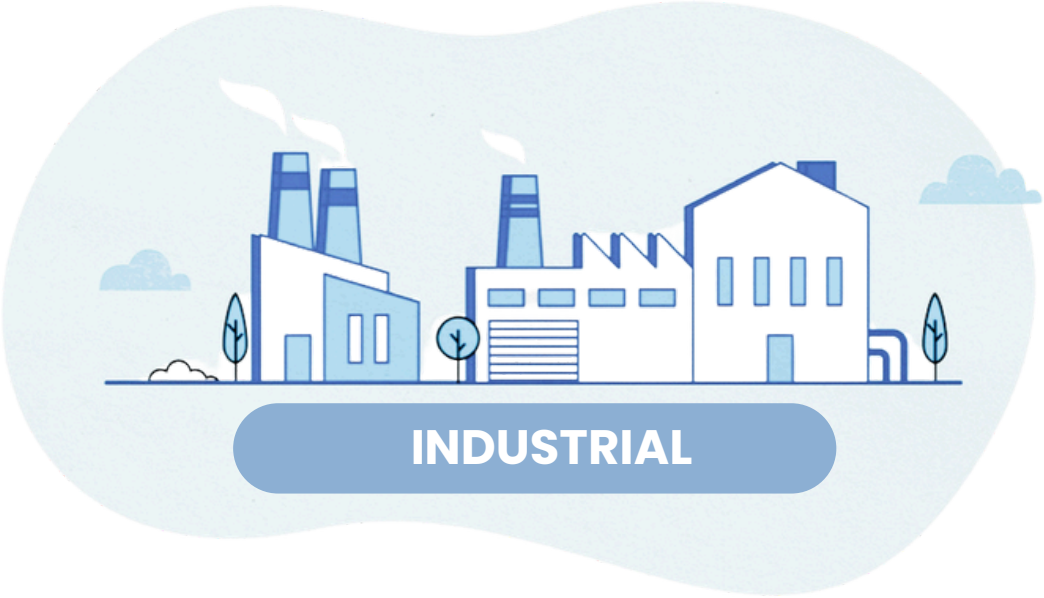
Have you answered 'yes' to any of the questions in Table 3?	*Yes*	*No*	
		X	**If '*No*' then site is <u>medium risk</u> with respect to erosion and sediment control**

If '*Yes*' then site is <u>high risk</u> with respect to erosion and sediment control

APPENDIX E – ENVIRO AUSTRALIS PRODUCT BROCHURE

ENVIRO

H SERIES



- Design service life of **100 years** for fixed parts + 25 years for servicable parts
- Made using 'green concrete' **reducing carbon emission by more than 80%** when compared to other materials
- Internal components manufactured from **high grade stainless steel**, complying with International Corrosion Standards. No welding necessary
- The safest solution with **no confined space entry** required
- Installation is simple and prompt without the need for site closure + with minimal disruption
- Enviro systems are self ballasting + are fully structural

GOOD DESIGN AWARD® WINNER

info@enviroaustralis.com.au

PO BOX 34, Angaston, South Australia 5353

ENVIRO

H SERIES

"Enviro systems ensure the highest compliance at the lowest cost."

Enviro's H Series is the optimal EPS for **high impact** catchments where the likelihood of oil spillage is present and/or downstream sensitive wetlands need to be protected.

Enviro's H Series has a unique **oil/water separator function in accordance to EN858-1 certification**, as well as a stormwater quality improvement device (SQID).

Enviro systems are:

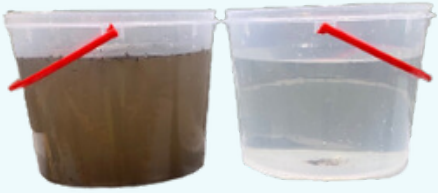
- *45% lower cost to install*
- *87% lower cost to maintain*
- *77% lower cost to own over 25 years*

compared to alternative systems.

Re-Poly

Enviro's 'green concrete' chambers cut carbon emissions by over 80% compared to traditional materials, like fibreglass and are indefinitely recyclable.

(Left) Natural Stormwater
(Right) Results after single pass in Enviro H45



Results from full scale testing conducted by the Australian Flow Management Group in 2018 on the Enviro H45 oil/water separator system.

Hydraulic Resistance K Factor = 0.425
Inlet to outlet differential = 25mm

Performance testing verifies pollutant removal rates:

Pollutants Reduction Claim	% Reduction (minimum requirement)	% Reduction (as tested)
Total Suspended Solids (TSS)	85%	90%
Total Phosphorous (TP)	60%	97%
Total Nitrogen (TN)	45%	85%
Total Petroleum Hydrocarbons	99.95%	99.95%
Gross Pollutants	90%	95%

Model	Pipe Size	Treated Flow + Storage Capacity	Plan Dimensions (External length + width)	Depth Below Invert	Mass	Excavation Volume
Enviro H30	Nominally 300mm ID can be used for 375mm ID subject to gradient + velocity	22 litres/sec 0.6 m3	1.5m x 0.9m	1.2m	3.2 tonnes	3.2 m3
Enviro H45	450mm ID	66 litres/sec 1.3 m3	2.2m x 1.2m	1.4m	6.3 tonnes	6.1 m3
Enviro H60	600mm ID	142 litres/sec 2.0 m3	2.8m x 1.2m	1.8m	9.9 tonnes	9.3 m3
Enviro H75	750mm ID	258 litres/sec 7.7 m3	3.6m x 1.95m	2.2m	16.9 tonnes	16.1 m3
Enviro H90	Nominally 900mm ID can be used for 1050mm pipe size subject to gradient + velocity	419 litres/sec 8.1 m3	4.35m x 1.95m	2.0m	19.2 tonnes	18.7 m3

PO BOX 34, Angaston, South Australia 5353
info@enviroaustralis.com.au

APPENDIX F – BCC CODE COMPLIANCE

9.4.3 Filling and excavation code

9.4.3.1 Application

1. This code applies to assessing:
    a. accepted development subject to compliance with identified requirements, where acceptable outcomes of this code are identified requirements in a table of assessment for an overlay (section 5.10); or
    b. operational work for filling or excavation which is assessable development if this code is an applicable code identified in the assessment benchmarks column of a table of assessment for operational work (section 5.8) or an overlay (section 5.10); or
    c. a material change of use or reconfiguring a lot if:
        i. assessable development where this code is identified as a prescribed secondary code in the assessment benchmarks column of a table of assessment for material change of use (section 5.5) or reconfiguring a lot (section 5.6); or
        ii. impact assessable development, to the extent relevant.

Note—The following purpose, overall outcomes, performance outcomes and acceptable outcomes comprise the assessment benchmarks of this code.

Note—This code does not apply to building work as defined in the Act.

Note—A development application involving a rock anchor within an adjoining site is submitted with proof of consent from an adjoining land and building owner.

Editor's note—Guidance on managing the spread of invasive species in filling or excavation activities is provided in Minimising Pest Spread Advisory Guidelines prepared for the Petroleum industry.

Editor's note—Where filling or excavation is conducted on land previously occupied by a notifiable activity or on land listed on the Environmental Management Register or the Contaminated Land Register, the relevant Queensland Government department should be contacted for advice and guidelines.

2. When using this code, reference should be made to section 1.5 and section 5.3.3.

Note—Where this code includes performance outcomes or acceptable outcomes that relate to:

- air quality assessment, guidance is provided in the Air quality planning scheme policy;
- ecological assessment, koala habitat or development design, guidance is provided in the Biodiversity areas planning scheme policy;
- retaining wall construction, guidance is provided in the Infrastructure design planning scheme policy;
- landscape design, guidance is provided in the Landscape design planning scheme policy;
- noise and dust impacts during construction and/or demolition, guidance is provided in the Management plans planning scheme policy;
- noise impact assessment, guidance is provided in the Noise impact assessment planning scheme policy;
- the selection of planting species, guidance is provided in the Planting species planning scheme policy;
- significant vegetation, guidance is provided in the Vegetation planning scheme policy.

Editor's note—For a proposal to be accepted development, subject to compliance with identified requirements, it must meet all the identified acceptable outcomes of this code and any other applicable code. Where it does not meet all identified acceptable outcomes, the proposal becomes assessable development and a development application is required. Where a development application is triggered, only the specific acceptable outcome that the proposal fails to meet needs to be assessed against the corresponding acceptable outcome or performance outcome and relevant overall outcomes. Other identified acceptable outcomes that are met are not assessed as part of the development application.

9.4.3.2 Purpose

1. The purpose of the Filling and excavation code is to assess the suitability of development for filling or excavation.
2. The purpose of the code will be achieved through the following overall outcomes:
    a. filling or excavation does not adversely affect the visual character and amenity of the site or the surrounding area and provides access for maintenance to any structure as a result of filling or excavation.
    b. filling or excavation does not adversely impact significant vegetation, water quality or drainage of upstream, downstream and adjoining land.
    c. filling or excavation effectively manages the impacts associated with the activity.
    d. filling or excavation and any retaining structure is designed and constructed to be fit for purpose and to protect services and utilities.

9.4.3.3 Performance outcomes and acceptable outcomes

Table 9.4.3.3.A—Performance outcomes and acceptable outcomes

Performance outcomes	Acceptable outcomes	Comments
PO1 Development for filling or excavation minimises visual impacts from retaining walls and earthworks.	**AO1** Development ensures that the total height of any cut and fill, whether or not retained, does not exceed: a. 2.5m in a zone in the Industry zones category; b. 1m in all other zones, or if adjoining a sensitive zone.	Not applicable. No retaining walls are required for the site other than basement walls.
PO2 Development of a retaining wall proposed as a result of filling or excavation: a. is designed and constructed to be fit for purpose; b. does not impact adversely on significant vegetation; c. is capable of easy maintenance. Editor's note—A retaining wall also needs to comply with the Building Regulation and embankment gradients will need to comply with the Building Regulation.	**AO2.1** Development of a retaining structure, including footings, surface drainage and subsoil drainage: a. is wholly contained within the site; b. if the total height to be retained is greater than 1m, then: i. the retaining wall at the property boundary is no greater than 1m above the ground level; ii. all further terracing from the 1m high	Not applicable. There are no retaining walls proposed at the site boundaries.

Note—Guidance on the protection of native vegetation is included in the Biodiversity areas planning scheme policy.	boundary retaining wall is 1 vertical unit:1 horizontal unit; iii. the distance between each successive retaining wall (back of lower wall to face of higher wall) is no less than 1m horizontally to incorporate planting areas. **AO2.2** Development of a retaining wall over 1m in height protects significant vegetation on the site and on adjoining land and is designed and constructed in accordance with the structures standards in the Infrastructure design planning scheme policy and certified by a Registered Professional Engineer Queensland.	
	AO2.3 Development provides a retaining wall finish that presents to adjoining land that is maintenance free if the setback is less than 750mm from the boundary.	
	AO2.4 Development for filling only uses clean fill that does not include any construction rubble, debris, weed seed or viable parts of plant species listed as an undesirable plant species in the Planting species planning scheme policy.	
PO3 Development ensures that a rock anchor is designed and constructed to be fit for purpose.	**AO3** Development ensures that a rock anchor: a. is constructed in accordance with the standards in the Infrastructure design planning scheme policy; b. where it extends beyond the property boundary, is supported by a letter of consent from the	By others.

	adjoining land and building owners.	
PO4 Development protects all services and public utilities.	**AO4** Development protects services and public utilities and ensures that any alteration or relocation of services or public utilities meets the standard design specifications of the responsible service authorities.	Will comply. All existing and proposed services are to ensure it will not affect BCC corridors and to meet the relevant design specifications.
PO5 Development provides surface and sub-surface drainage to prevent water seepage, concentration of run-off or ponding of stormwater on adjacent land.	**AO5** Development ensures all flows and subsoil drainage are directed to a lawful point of discharge of a surface water diversion drain, including to the top or toe of a retaining wall in accordance with the stormwater drainage section of the Infrastructure design planning scheme policy.	Will comply. Field inlet pits are proposed to collect surface and sub-surface drainage to a lawful point of discharge.
PO6 Development ensures that the design and construction of all open drainage works is undertaken in accordance with natural channel design principles, being the development of a stormwater conveyance system for major flows, by using a vegetated open channel or drain that approximates the features and functions of a natural waterway to enhance or improve riparian values of those stormwater conveyance systems. Editor's note—Guidance on natural channel design principles can be found in the Council's publication Natural channel design guidelines.	**AO6** Filling or excavation does not involve the construction of open drainage.	Not applicable. There are no proposed construction of open drainage.
PO7 Development for filling or excavation: a. does not degrade water quality or adversely affect environmental values in receiving waters; b. ensures site sediment and erosion control standards are best practice.	**AO7.1** Development for filling or excavation provides water quality treatment that complies with the stormwater drainage section of the Infrastructure design planning scheme policy. **AO7.2** Development provides erosion and sediment control standards that are in accordance with the stormwater drainage section of the Infrastructure design planning	Will comply. Erosion and sediment measures are to be in place prior to undertaking works. The site is classified as Medium Risk and an erosion and sediment control plan designed and certified by an RPEQ is to be submitted to Council and implemented.

	scheme policy.	
PO8 Development for filling or excavation is conducted such that adverse impacts at a sensitive use due to noise and dust are prevented or minimised. Note—A noise and dust impact management plan prepared in accordance with the Management plans planning scheme policy can assist in demonstrating achievement of this performance outcome.	**AO8.1** Development ensures that no dust emissions extend beyond the boundary of the site, including dust from construction vehicles entering and leaving the site. **AO8.2** Development for filling or excavation activity only occurs between the hours of 6:30am and 6:30pm Monday to Saturday, excluding public holidays.	Will comply. Dust will be controlled during construction and works are to be undertaken in the approved hours for construction.
PO9 Development ensures that vibration generated by the filling or excavation operation does not exceed the vibration criteria in Table 9.4.3.3.B, Table 9.4.3.3.C, Table 9.4.3.3.D and Table 9.4.3.3.E. Note—A noise management report prepared in accordance with the Noise impact assessment planning scheme policy can assist in demonstrating achievement of this performance outcome.	**AO9** Development involving filling or excavation does not cause a ground-borne vibration beyond the boundary of the site.	Will comply. Vibration levels will be adhered to the appropriate tolerances for the surrounding zones.
PO10 Development ensures that heavy trucks hauling material to and from the site do not affect the amenity of established areas and limits environmental nuisance impact on adjacent land.	**AO10** Development ensures that heavy trucks hauling material to and from the site: a. occur for a maximum of 3 weeks; b. use a major road to access the site; c. only use a minor road for the shortest-most-direct route that has the least amount of environmental nuisance if there is no major road alternative.	Will comply. Construction site access will be via Vulture St for heavy trucks hauling material from the site.
PO11 Development for filling or excavation protects the environment and community health and wellbeing from exposure to contaminated land and contaminated material.	**AO11** Development does not involve: a. excavation on land previously occupied by a notifiable activity or on land listed on the Environmental Management Register or the Contaminated Land Register; b. filling with material containing a contaminant.	Will comply. An assessment into the soil prior to works to determine any contaminants. If contaminants are present onsite, appropriate measures will be in place to manage any risks.

PO12 Development provides for: a. landscaping for water conservation purposes; b. water sensitive urban design measures which are employed within the landscape design to maximise stormwater use; c. drainage and stormwater measures to reduce any adverse impacts on the landscape; d. stormwater harvesting to be maximised and any adverse impacts of stormwater minimised; e. reticulated irrigation to all artificial growing environments. Note—The Landscape design planning scheme policy provides guidance on information to be provided to demonstrate compliance with the performance outcome and acceptable outcomes.	**AO12.1** Development provides drainage for artificial growing environments which is connected to the stormwater drain. **AO12.2** Development ensures that the maximum site stormwater harvest capacity is utilised to meet the irrigation demand of the development before alternative irrigation sources are utilised and is in compliance with the standards in the Landscape design planning scheme policy. **AO12.3** Development provides areas of pavement, turf, landscaping and mulched garden beds which are drained. Note—This may be achieved through the provision and/or treatment of swales, spoon drains, field gullies, sub-surface drainage and stormwater connections. **AO12.4** Development provides a reticulated irrigation system to all landscaping areas in accordance with the Landscape design planning scheme policy.	Will comply. Gardens and deep planting areas to comply with the Landscape design planning scheme policy.
PO13 Development ensures cutting and filling for the development of canals or artificial waterways avoids adverse impacts on coastal resources and processes.	**AO13** Development does not involve the creation of canals or artificial waterways.	Not applicable.

9.4.4 Infrastructure design code

9.4.4.1 Application

1. This code applies to assessing a material change of use, reconfiguring a lot or building work if:
    a. assessable development where this code is identified as a prescribed secondary code in the assessment benchmarks column of a table of assessment for a material change of use (section 5.5), reconfiguring a lot (section 5.6),operational work (section 5.8), or an overlay (section 5.10); or
    b. impact assessable development, to the extent relevant.
2. When using this code, reference should be made to section 1.5 and section 5.3.3.

Note—The following purpose, overall outcomes, performance outcomes and acceptable outcomes comprise the assessment benchmarks of this code.

Note—Where this code includes performance outcomes or acceptable outcomes that relate to:

- ecological assessment, koala habitat or development design, guidance is provided in the Biodiversity areas planning scheme policy;
- infrastructure design and construction works, guidance is provided in the Infrastructure design planning scheme policy;
- noise and dust impacts during construction and/or demolition, guidance is provided in the Management plans planning scheme policy;
- noise impact assessment, guidance is provided in the Noise impact assessment planning scheme policy;
- refuse and recycling, guidance is provided in the Refuse planning scheme policy;
- parking or servicing management during construction, guidance is provided in the Transport, access, parking and servicing planning scheme policy.

9.4.4.2 Purpose

1. The purpose of the Infrastructure design code is to assess the suitability of infrastructure for development.
2. The purpose of the code will be achieved through the following overall outcomes:
    a. Development is provided with a safe, connected and efficient transport network for all modes that has a minimal whole-of-life cost.
    b. Development provides for public utilities and services to the standards acceptable to the Council and the reasonable expectations of service providers.
    c. Development involving infrastructure which is intended to become a Council asset is safe, aesthetically pleasing, functional, fit for purpose, durable, minimises environmental impacts and has minimal whole-of-life cost.
    d. Development provides for a public space to be safe and inviting, allowing high levels of pedestrian activity.
    e. Development ensures that the community and environment are not unreasonably disrupted or impacted by construction or demolition for the development.
    f. Development involving infrastructure is designed with consideration of, and to integrate with, other related and interfacing infrastructure components.
    g. Development accessed by common private title is provided with appropriate fire hydrant infrastructure and has unimpeded access for refuse vehicles and for emergency service vehicles to protect people, property and the environment.
    h. Development ensures major electricity infrastructure and bulk water supply infrastructure identified on the State Planning Policy Interactive Mapping System is not compromised.
    i. Development for major electricity infrastructure and bulk water supply infrastructure identified on the State Planning Policy Interactive Mapping System

avoids or otherwise minimises adverse impacts on surrounding land uses.

9.4.4.3 Performance outcomes and acceptable outcomes

Table 9.4.4.3.A—Performance outcomes and acceptable outcomes

Performance outcomes	Acceptable outcomes	Comments
PO1 Development provides roads, pavement, edging and landscaping which: a. are designed and constructed in accordance with the road hierarchy; b. provide for safe travel for pedestrians, cyclists and vehicles; c. provide access to properties for all modes; d. provide utilities; e. provide high levels of aesthetics and amenity, improved liveability and future growth; f. provide for the amelioration of noise and other pollution; g. provide a high-quality streetscape; h. provide a low-maintenance asset with a minimal whole-of-life cost. Note—This can be demonstrated in an engineering report prepared and certified by a Registered Professional Engineer Queensland in accordance with the Infrastructure design planning scheme policy.	**AO1** Development provides roads and associated pavement, edging and landscaping which are designed and constructed in compliance with the road corridor design standards in the Infrastructure design planning scheme policy.	Development will comply with the road corridor design standards in the Infrastructure design planning policy.
PO2 Development provides road pavement surfaces which: a. are well designed and constructed; b. durable enough to carry the wheel loads of the intended types and numbers of travelling and parked vehicles; c. ensures the safe passage of vehicles,	**AO2** Development provides road pavement surfaces which are designed and constructed in compliance with the road corridor design standards in the Infrastructure design planning scheme policy.	Road pavement will be design and constructed to comply with the road corridor design standards in the Infrastructure design planning policy.

pedestrians and cyclists, the discharge of stormwater run-off and the preservation of all-weather access; d. allows for reasonable travel comfort.		
PO3 Development provides a pavement edge which is designed and constructed to: a. control vehicle movements by delineating the carriageway for all users; b. provide for people with disabilities by allowing safe passage of wheelchairs and other mobility aids.	**AO3** Development provides pavement edges which are designed and constructed in compliance with the road corridor design standards in the Infrastructure design planning scheme policy.	Development will comply with the road corridor design standards in the Infrastructure design planning policy.
PO4 Development provides verges which are designed and constructed to: a. provide safe access for pedestrians clear of obstructions and access areas for vehicles onto properties; b. provide a sufficient area for public utility services; c. be maintainable by the Council.	**AO4** Development provides verges which are designed and constructed in compliance with the road corridor design and streetscape locality advice standards in the Infrastructure design planning scheme policy.	Development will comply with the road corridor design standards in the Infrastructure design planning policy.
PO5 Development provides a lane or laneway identified on the Streetscape hierarchy overlay map or in a neighbourhood plan which: a. allows equitable access for all modes; b. is safe and secure; c. has 24-hour access; d. is a low-speed shared zone environment; e. has a high-quality streetscape.	**AO5** Development provides a lane or laneway identified on the Streetscape hierarchy overlay map or in a neighbourhood plan which is embellished in compliance with the streetscape locality advice standards in the Infrastructure design planning scheme policy.	Not applicable.
PO6 Development of an existing premises provides at the frontage to the site, if not already provided, the following	**AO6** Development of an existing premises provides at the frontage of the site, if not already existing, the following	Development will comply with the road corridor design standards in the Infrastructure design planning policy.

infrastructure to an appropriate urban standard: a. an effective, high-quality paved roadway; b. an effective, high-quality roadway kerb and channel; c. safe, high-quality vehicle crossings over channels and verges; d. safe, accessible, high-quality verges compatible and integrated with the surrounding environment; e. safe vehicle access to the site that enables ingress and egress in a forward gear; f. provision of and required alterations to public utilities; g. effective drainage; h. appropriate conduits to facilitate the provision of required street-lighting systems and traffic signals.	infrastructure to the standard that would have applied if the development involved new premises as stated in the road corridor design standards in the Infrastructure design planning scheme policy: a. concrete kerb and channel; b. forming and grading to verges; c. crossings over channels and verges; d. a constructed bikeway; e. a constructed verge or reconstruction of any damaged verge; f. construction of the carriageway; g. payment of costs for required alterations to public utility mains, services or installations; h. construction of and required alterations to public utility mains, services or installations; i. drainage works; j. installation of electrical conduits.	
PO7 Development provides both cycle and walking routes which: a. are located, designed and constructed to their network classification (where applicable); b. provide safe and attractive travel routes for pedestrians and cyclists for commuter and recreational purposes; c. provide safe and comfortable access to properties for pedestrians and cyclists; d. incorporate water sensitive urban design into stormwater drainage; e. provide for utilities; f. provide for a high level of aesthetics and amenity, improved liveability and future growth; g. are a low-maintenance asset with a minimal whole-of-life cost;	**AO7** Development provides cycle and walking routes which are located, designed and constructed in compliance with the road corridor design and off-road pathway design standards in the Infrastructure design planning scheme policy.	Not applicable.

h. minimise the clearing of significant native vegetation. Note—This can be demonstrated in an engineering report prepared and certified by a Registered Professional Engineer Queensland in accordance with the Infrastructure design planning scheme policy.		
PO8 Development provides refuse and recycling collection, separation and storage facilities that are located and managed so that adverse impacts on building occupants, neighbouring properties and the public realm are minimised.	**AO8.1** Development provides refuse and recycling collection and storage facilities in accordance with the Refuse planning scheme policy. **AO8.2** Development ensures that refuse and recycling collection and storage location and design do not have any adverse impact including odour, noise or visual impacts on the amenity of land uses within or adjoining the development. Note—Refer to the Refuse planning scheme policy for further guidance.	Development ensures compliance with the Refuse planning scheme policy.
PO9 Development ensures that: a. land used for an urban purpose is serviced adequately with regard to water supply and waste disposal; b. the water supply meets the stated standard of service for the intended use and fire-fighting purposes.	**AO9.1** Development ensures that the reticulated water and sewerage distribution system for all services is in place before the first use is commenced. **AO9.2** Development provides the lot with reticulated water supply and sewerage to a standard acceptable to the distributor—retailer.	Will comply. Water and sewer connections are proposed to service the new development in compliance with the utility provider.
PO10 Development provides public utilities and street lighting which are the best current or alternative technology and facilitate accessibility, easy maintenance, minimal whole-of-life costs, and minimal adverse environmental impacts.	**AO10.1** Development provides public utilities and street lighting which are located and aligned to: a. avoid significant native vegetation and areas identified within the Biodiversity areas overlay map; b. minimise earthworks; c. avoid crossing waterways, waterway corridors and wetlands or if a crossing is unavoidable,	Will comply. As part of a separate application however, the development will achieve this acceptable outcome.

	tunnel-boring techniques are used to minimise disturbance, and a disturbed area is reinstated and restored on completion of the work. Note—Guidance on the restoration of habitat is included in the Biodiversity areas planning scheme policy. **AO10.2** Development provides compatible public utility services and street-lighting services which are co-located in common trenching for underground services.	
	AO10.3 Development provides public utilities and street lighting which are designed and constructed in compliance with the public utilities standards in the Infrastructure design planning scheme policy.	
PO11 Development ensures that land used for urban purposes is serviced adequately with telecommunications and energy supply.	**AO11** Development provides land with the following services to the standards of the approved supplier: a. electricity; b. telecommunications services; c. gas service where practicable.	Will comply. Telecommunications and energy supply will be proposed to comply with the relevant authority.
PO12 Development ensures that major public projects promote the provision of affordable, high-bandwidth telecommunications services throughout the city.	**AO12** Development provides conduits which are provided in all major Council and government works projects to enable the future provision of fibre optic cabling, if: a. the additional expense is unlikely to be prohibitive; or b. further major work is unlikely or disruption would be a major concern, such as where there is a limited capacity road; or c. there is a clear gap in the telecommunications network; or d. there is a clear gap in the bandwidth available to	Will comply. As part of a separate application however, the development will achieve this acceptable outcome.

	the area. Editor's note—An accurate, digital 'as built' three-dimensional location plan is to be supplied for all infrastructure provided in a road.	
PO13 Development provides public art identified in a neighbourhood plan or park concept plan which: a. is provided commensurate with the status and scale of the proposed development; b. is sited and designed: i. as an integrated part of the project design; ii. as conceptually relevant to the context of the location; iii. to reflect and respond to the cultural values of the community; iv. to promote local character in a planned and informed manner.	**AO13** Development provides public art identified in a neighbourhood plan or park concept plan which is sited and designed in compliance with the public art standards in the Infrastructure design planning scheme policy.	Not applicable.
PO14 Development provides signage of buildings and spaces which promote legibility to help users find their way.	**AO14** Development provides public signage: a. at public transport interchanges and stops, key destinations, public spaces, pedestrian linkages and at entries to centre developments; b. which details the location of the key destinations, public spaces and pedestrian linkages in the vicinity, the services available within the development and where they are located. Editor's note—Signage is to be in accordance with Local Law Number 1 (Control of Advertisements Local Law).	Will comply.
PO15 Development that provides community facilities which form part of the development is functional, safe, low maintenance, and fit for purpose.	**AO15** Development that provides community facilities which form part of the development is designed in compliance with the community facilities standards in the Infrastructure design planning scheme policy.	Complies. Acceptable outcome can be and is proposed to be met as identified on the architectural drawings.

PO16 Development provides public toilets which: a. are required as part of a community facility or park; b. are located, designed and constructed to be: i. safe; ii. durable; iii. resistant to vandalism; iv. able to service expected demand; v. fit for purpose.	**AO16** Development that provides public toilets is designed and constructed in compliance with the public toilets standards in the Infrastructure design planning scheme policy.	Will comply.
PO17 Development provides bridges, tunnels, elevated structures and water access structures that are designed and constructed using proven methods, materials and technology to provide for: a. safe movement of intended users; b. an attractive appearance appropriate to the general surroundings and any adjacent structures; c. functionality and easy maintenance; d. minimal whole-of-life cost; e. longevity; f. current and future services. Note—All bridges and elevated and associated elements must be designed and certified by a Registered Professional Engineer Queensland in accordance with the Infrastructure design planning scheme policy.	**AO17** Development that provides bridges, tunnels, elevated structures and water access structures is designed and constructed in compliance with the standards in the Infrastructure design planning scheme policy.	Not applicable.
PO18 Development provides culverts which are designed and constructed using proven methods, materials and technology to provide for: a. safety; b. an attractive appearance appropriate to the general surroundings;	**AO18** Development that provides culverts is designed and constructed in compliance with the structures standards in the Infrastructure design planning scheme policy.	Not applicable.

c. functionality and easy maintenance; d. minimal whole-of-life cost; e. longevity; f. future widening; g. current and future services; h. minimal adverse impacts, such as increase in water levels or flow velocities, and significant change of flood patterns. Note—All culverts and associated elements are to be designed and certified by a Registered Professional Engineer Queensland in accordance with the applicable design standards.		
PO19 Development provides batters, retaining walls, and seawalls and river walls which are designed and constructed using proven methods, materials and technology to provide for: a. safety; b. an attractive appearance appropriate to the surrounding area; c. easy maintenance; d. minimal whole-of-life cost; e. longevity; f. minimal water seepage. Note—All retaining walls and associated elements are to be designed and certified by a Registered Professional Engineer Queensland in accordance with the applicable design standards.	**AO19** Development that provides batters, retaining walls, seawalls and river walls is designed and constructed in compliance with the structures standards in the Infrastructure design planning scheme policy.	Not applicable.
If for development with a gross floor area greater than 1,000m^2		
PO20 Development ensures that construction is managed so that use of public spaces and movement on pedestrian, cyclist and other traffic routes is not unreasonably disrupted and existing landscaping is adequately protected from short- and long-term impacts. Note—The preparation of a construction management plan can assist	**AO20** Development ensures that during construction: a. the ongoing use of adjoining and surrounding parks and public spaces, such as malls and outdoor dining, is not compromised; b. adjoining and surrounding landscaping is protected from damage;	Will comply. Development construction will ensure public spaces are maintained and safe for pedestrian movements.

in demonstrating achievement of this performance outcome. Note—The Transport, access, parking and servicing planning scheme policy provides advice on the management of vehicle parking and deliveries during construction.	c. safe, legible, efficient and sufficient pedestrian, cyclist and vehicular accessibility and connectivity to the wider network are maintained.	
PO21 Development ensures that construction and demolition activities are guided by measures that prevent or minimise adverse impacts including sleep disturbance at a sensitive use, due to noise and dust, including dust from construction vehicles entering and leaving the site. Note—A noise and dust impact management plan prepared in accordance with the Management plans planning scheme policy can assist in demonstrating achievement of this performance outcome.	**AO21.1** Development ensures that demolition and construction: a. only occur between 6:30am and 6:30pm Monday to Saturday, excluding public holidays; b. do not occur over periods greater than 6 months. **AO21.2** Development including construction and demolition does not release dust emissions beyond the boundary of the site.	Will comply. Development will ensure the acceptable outcome can be achieved.
	AO21.3 Development construction and demolition does not involve asbestos-containing materials.	
PO22 Development ensures that: a. construction and demolition do not result in damage to surrounding property as a result of vibration; b. vibration levels achieve the vibration criteria in Table 9.4.4.3.B, Table 9.4.4.3.C, Table 9.4.4.3.D and Table 9.4.4.3.E. Note—A vibration impact assessment report prepared in accordance with the Noise impact assessment planning scheme policy can assist in demonstrating achievement of this performance outcome.	**AO22** Development ensures that the nature and scale of construction and demolition do not generate noticeable levels of vibration.	Will comply. Development will ensure the acceptable outcome can be met and vibration levels are within specified tolerances.

9.4.9 Stormwater code

9.4.9.1 Application

1. This code applies to assessing a material change of use, reconfiguring a lot or operational work if:
    a. assessable development where this code is identified as a prescribed secondary code in the assessment benchmarks column of a table of assessment for a material change of use (section 5.5), reconfiguring a lot (section 5.6) operational work (section 5.8) or an overlay (section 5.10); or
    b. impact assessable development, to the extent relevant.
2. When using this code, reference should be made to section 1.5 and section 5.3.3.

Note—The following purpose, overall outcomes, performance outcomes and acceptable outcomes comprise the assessment benchmarks of this code.

Note—Where this code includes performance outcomes or acceptable outcomes that relate to infrastructure design and construction works, guidance is provided in the Infrastructure design planning scheme policy.

9.4.9.2 Purpose

1. The purpose of the Stormwater code is to assess the suitability of the stormwater aspects of development.
2. The purpose of the code will be achieved through the following overall outcomes:
    a. Development achieves acceptable levels of stormwater run-off quality and quantity by applying water sensitive urban design principles as part of an integrated stormwater management framework.
    b. Development protects public health and safety and protects against damage or nuisance caused by stormwater flows.
    c. Development has a stormwater management system which maintains, recreates or minimises impact to natural catchment hydrological processes.
    d. Development ensures that the environmental values of the city's waterways are protected or enhanced.
    e. Development minimises run-off, including peak flows.
    f. Development maintains or enhances the efficiency and integrity of the stormwater infrastructure network.
    g. Development minimises the whole of life cycle cost of stormwater infrastructure.

9.4.9.3 Performance outcomes and acceptable outcomes

Table 9.4.9.3.A—Performance outcomes and acceptable outcomes

Performance outcomes	Acceptable outcomes	Comments
Section A—If for a material change of use, reconfiguring a lot, operational work or building work Note—Compliance with the performance outcomes and acceptable outcomes in this section should be demonstrated by the submission of a site-		

based stormwater management plan for high risk development only.		
PO1 Development provides a stormwater management system which achieves the integrated management of stormwater to: a. minimise flooding; b. protect environmental values of receiving waters; c. maximise the use of water sensitive urban design; d. minimise safety risk to all persons; e. maximise the use of natural waterway corridors and natural channel design principles. Editor's note—The stormwater management system to be developed to address PO1 is not intended to require management of stormwater quality.	**AO1** Development provides a stormwater management system designed in compliance with the Infrastructure design planning scheme policy.	Complies. The development provides a stormwater system which is designed in compliance with the Infrastructure design planning scheme policy.
PO2 Development ensures that the stormwater management system and site work does not adversely impact flooding or drainage characteristics of premises which are up slope, down slope or adjacent to the site.	**AO2.1** Development does not result in an increase in flood level or flood hazard on up slope, down slope or adjacent premises. **AO2.2** Development provides a stormwater management system which is designed in compliance with the standards in the Infrastructure design planning scheme policy.	Complies. The proposed development does not result in an increase in peak flow provided that the impervious area is reduced from existing site conditions. The development provides a stormwater system which is designed in compliance with the Infrastructure design planning scheme policy.
PO3 Development ensures that the stormwater management system does not direct stormwater run-off through existing or proposed lots and property where it is likely to adversely affect the safety of, or cause nuisance to properties.	**AO3.1** Development ensures that the location of the stormwater drainage system is contained within a road reserve, drainage reserve, public pathway, park or waterway corridor. **AO3.2** Development provides a stormwater management system which is designed in compliance with the standards in the Infrastructure design planning scheme	Complies. Existing stormwater LPOD in Vulture St to remain. Surface flows to be captured in Vulture St kerb and channel. The development provides a stormwater system which is designed in compliance with the Infrastructure design planning scheme policy.

	policy. **AO3.3** Development obtains a lawful point of discharge in compliance with the standards in the Infrastructure design planning scheme policy. **AO3.4** Where on private land, all underground stormwater infrastructure is secured by a drainage easement.	
PO4 Development provides a stormwater management system which has sufficient capacity to safely convey run-off taking into account increased run-off from impervious surfaces and flooding in local catchments.	**AO4.1** Development provides a stormwater conveyance system which is designed to safely convey flows in compliance with the standards in the Infrastructure design planning scheme policy. **AO4.2** Development provides sufficient area to convey run-off which will comply with the standards in the Infrastructure design planning scheme policy.	Complies. A stormwater connection of sufficient size is proposed for each lot to discharge to LPOD and in compliance with the standards in the Infrastructure design planning scheme policy. Site area is sufficient in conveying surface runoff to the LPOD and complies with the standards in the Infrastructure design planning scheme policy.
PO5 Development designs stormwater channels, creek modification works, bridges, culverts and major drains to protect and enhance the value of the waterway corridor or drainage path for fauna movement.	**AO5** Development ensures the design of stormwater channels, creek modifications or other infrastructure, permits terrestrial and aquatic fauna movement.	Not applicable. No channels or structures are proposed.
PO6 Development ensures that location and design of stormwater detention and water quality treatment: a. minimises risk to people and property; b. provides for safe access and maintenance; c. minimises ecological impacts to creeks and waterways.	**AO6.1** Development locates stormwater detention and water quality treatment: a. outside of a waterway corridor; b. offline to any catchment not contained within the development. **AO6.2** Development providing for stormwater detention and water quality treatment devices are designed in	Complies. On-site detention is not required. Quality treatment is provided for the development in the form of an Enviro Australis system which discharges to the LPOD.

	compliance with the standards in the Infrastructure design planning scheme policy.	
PO7 Development is designed, including any car parking areas and channel works to: a. reduce property damage; b. provide safe access to the site during the defined flood event.	**AO7.1** Development (including any ancillary structures and car parking areas) is located above minimum flood immunity levels in Table 9.4.9.3.B, Table 9.4.9.3.C, Table 9.4.9.3.D, Table 9.4.9.3.E and Table 9.4.9.3.F. Note—Compliance with this acceptable outcome can be demonstrated by the submission of a hydraulic and hydrology report identifying flood levels and development design levels (as part of a site-based stormwater management plan). **AO7.2** Development including the road network provides a stormwater management system that provides safe pedestrian and vehicle access in accordance with the standards in the Infrastructure design planning scheme policy.	Complies. The site is not affected by flooding. Proposed infrastructure is constructed below ground and will not impact pedestrian and vehicle access.
PO8 Development designs stormwater channels, creek modification works and the drainage network to protect and enhance the environmental values of the waterway corridor or drainage path.	**AO8.1** Development ensures natural waterway corridors and drainage paths are retained. **AO8.2** Development provides the required hydraulic conveyance of the drainage channel and floodway, while maximising its potential to maximise environmental benefits and minimise scour. Editor's note—Guidance on natural channel design principles can be found in the Council's publication Natural channel design guidelines. **AO8.3** Development provides stormwater outlets into waterways, creeks, wetlands and overland flow paths with energy dissipation to minimise scour in compliance with the standards in the Infrastructure design planning scheme policy.	Not applicable. Stormwater channels, creek and drainage works are not proposed for this development.

	AO8.4 Development ensures that the design of modifications to the existing design of new stormwater channels, creeks and major drains is in compliance with the standards in the Infrastructure design planning scheme policy.	
PO9 Development is designed to manage run-off and peak flows by minimising large areas of impervious material and maximising opportunities for capture and re-use.	**AO9** No acceptable outcome is prescribed.	Complies. Runoff will be collected in an internal hydraulic design and discharged to the proposed field inlet pit to a LPOD.
PO10 Development ensures that there is sufficient site area to accommodate an effective stormwater management system. Note—Compliance with the performance outcome should be demonstrated by the submission of a site-based stormwater management plan for high-risk development only.	**AO10** No acceptable outcome is prescribed.	Complies. Runoff will be collected by a field inlet pit and discharged to a LPOD.
PO11 Development provides for the orderly development of stormwater infrastructure within a catchment, having regard to the: a. existing capacity of stormwater infrastructure within and external to the site, and any planned stormwater infrastructure upgrades; b. safe management of stormwater discharge from existing and future up-slope development; c. implication for adjacent and down-slope development.	**AO11.1** Development with up-slope external catchment areas provides a drainage connection sized for ultimate catchment conditions that is directed to a lawful point of discharge. **AO11.2** Development ensures that existing stormwater infrastructure that is undersized is upgraded in compliance with the Infrastructure design planning scheme policy.	Complies. Proposed development is not impacted to external catchments and retains the existing site conditions of stormwater management. Roof water is augmented to discharge to the LPOD rather than sheet flowing across the development.
PO12 Development provides stormwater infrastructure which: a. remains fit for purpose for the life of the development and maintains full functionality in the design flood event; b. can be safely accessed and maintained cost	**AO12.1** The stormwater management system is designed in compliance with the Infrastructure design planning scheme policy. **AO12.2**	Complies. The development proposes stormwater infrastructure to remain for the ultimate development and complies with the performance outcome.

effectively; c. ensures no structural damage to existing stormwater infrastructure.	Development provides a clear area with a minimum of 2m radius from the centre of an existing manhole cover and with a minimum height clearance of 2.5m.	
PO13 Development ensures that all reasonable and practicable measures are taken to manage the impacts of erosion, turbidity and sedimentation, both within and external to the development site from construction activities, including vegetation clearing, earthworks, civil construction, installation of services, rehabilitation, revegetation and landscaping to protect: a. the environmental values and water quality objectives of waters; b. waterway hydrology; c. the maintenance and serviceability of stormwater infrastructure. Note—The Infrastructure design planning scheme policy outlines the appropriate measures to be taken into account to achieve the performance outcome.	**AO13** No acceptable outcome is prescribed.	Complies. Erosion and sediment control measures to be in place prior to construction.
PO14 Development ensures that: a. unnecessary disturbance to soil, waterways or drainage channels is avoided; b. all soil surfaces remain effectively stabilised against erosion in the short and long term.	**AO14** No acceptable outcome is prescribed.	Complies. No disturbance to soil, waterways or drainage channels is proposed and all soil surfaces will remain stabilised in the long and short term.
PO15 Development does not increase: a. the concentration of total suspended solids or other contaminants in stormwater flows during site construction; b. run-off which causes erosion either on site or off site.	**AO15** No acceptable outcome is prescribed.	Complies. Development does not increase contaminants or runoff on site or off site.
Section B—Additional performance outcomes and acceptable outcomes which apply to high-risk		

development, being one or more of the following: a. a material change of use for an urban purpose which involves greater than 2,500m^2 of land that: i. will result in an impervious area greater than 25% of the net developable area; or ii. will result in 6 or more dwellings. b. reconfiguring a lot for an urban purpose that involves greater than 2,500m^2 of land and will result in 6 or more lots; c. operational work for an urban purpose which involves disturbing greater than 2,500m^2 of land.		
PO16 Development ensures that the entry and transport of contaminants into stormwater is avoided or minimised to protect receiving water environmental values. Note—Prescribed water contaminants are defined in the *Environmental Protection Act 1994*. Note—Compliance with the performance outcome should be demonstrated by the submission of a site-based stormwater management plan for high-risk development only.	**AO16** Development provides a stormwater management system which is designed in compliance with the standards in the Infrastructure design planning scheme policy.	Complies. Quality treatment is provided for the development in the form of an Enviro Australis system which discharges to the LPOD and in accordance with the standards in the Infrastructure design planning scheme policy.
PO17 Development ensures that: a. the discharge of wastewater to a waterway or external to the site is avoided; or b. if the discharge cannot practicably be avoided, the development minimises wastewater discharge through re-use, recycling, recovery and treatment. Note—The preparation of a wastewater management plan can assist in demonstrating achievement of this performance outcome. Editor's note—This code does not deal with sewerage which is the subject of the Wastewater code.	**AO17** No acceptable outcome is prescribed.	Complies. A sewer connection of sufficient size is to be constructed to service the new development and discharges into Urban Utilities assets.
Section C—Additional performance outcomes and acceptable outcomes for assessable development for a material change of use or reconfiguring a lot		
PO18 Development protects stormwater infrastructure to ensure the following are not compromised: a. the long term infrastructure for the stormwater	**AO18** Development protects stormwater infrastructure in compliance with the following: a. for long term infrastructure for the stormwater	Complies. The performance outcome can be achieved through compliance with appropriate approval conditions.

network in the Long term infrastructure plans; b. the existing and planned infrastructure for the stormwater network in the Local government infrastructure plan; c. the provision of long term, existing and planned infrastructure for the stormwater network which: i. is required to service the development or an existing and future urban development in the planning scheme area; or ii. is in the interests of rational development or the efficient and orderly planning of the general area in which the site is situated. Editor's note—A condition which requires a proposed development to keep permanent improvements and structures associated with the approved development clear of the area of long term infrastructure, may be imposed.	network, the Long term infrastructure plans; b. for existing and planned infrastructure for the stormwater network, the Local government infrastructure plan; c. the standards for stormwater drainage in the Infrastructure design planning scheme policy.	
PO19 Development provides for the payment of extra trunk infrastructure costs for the following: a. for development completely or partly outside the priority infrastructure area in the Local government infrastructure plan; b. for development completely inside the priority infrastructure area in the Local government infrastructure plan involving: i. trunk infrastructure that is to be provided earlier than planned in the Local government infrastructure plan; ii. long term infrastructure for the stormwater network which is made necessary by development that is not assumed future urban development; iii. other infrastructure for the stormwater network associated with development	**AO19** No acceptable outcome is prescribed.	Not applicable. No trunk stormwater is proposed for this development.

that is not assumed future urban development which is made necessary by the development. Editor's note—The payment of extra trunk infrastructure costs for development completely inside the priority infrastructure area in the Local government infrastructure plan is to be worked out in accordance with the Charges Resolution. Editor's note—See section 130 Imposing Development conditions (Conditions for extra trunk infrastructure costs) of the *Planning Act 2016*.		

Table 9.4.9.3.B—Categories of flood planning levels

Flooding type(1)	**Minimum design floor or pavement levels (m AHD)(2) (refer to Table 9.4.9.3.C for assignment of these categories)**				
	Category A	**Category B**	**Category C**	**Category D**	**Category E**
Waterway(A) or open channel	1% AEP flood level + 500mm	1% AEP flood level + 300mm	1% AEP flood level	1% AEP flood level	5% AEP flood level
Overland flow flooding(B)	2% AEP flood level +500mm	2% AEP flood level +300mm	2% AEP flood level	2% AEP flood level	5% AEP flood level

Notes—

(1) Where the site is subject to more than one type of flooding that is overland flow flooding, creek or waterway flooding or river flooding, the minimum flood immunity level is the highest level determined from these sources.

(2) Where flood levels are not available from Council's Floodwise Property Report such as overland flow flooding, the applicant will need to engage a suitably qualified Registered Professional Engineer Queensland with expertise in undertaking flood studies to estimate the relevant flood level.

Note (A) A waterway, including any indicated on the planning scheme maps, is defined as any element of a river, creek, stream, gully or drainage channel, including the bed and banks, typically with a catchment area greater than 30ha.

Note (B) Overland flow flooding usually occurs when the capacity of the underground piped drainage system is exceeded and/or when the overland flow path is blocked. Localised overland flow paths generally traverse along roadways, and in the older established areas, through private properties within existing low points and gullies. A localised overland flow path is not characterised by well-defined bed and banks and the contributing catchment is generally less than 30ha.

Note—A flood event with an AEP of 1% is the equivalent of a 100 year ARI flood event.

Note—A flood event with an AEP of 2% is the equivalent of a 50 year ARI flood event.

Note—A flood event with an AEP of 5% is the equivalent of a 20 year ARI flood event.

Note—The flood immunity level in some older inner-city areas is often controlled by local ponding.

Table 9.4.9.3.C—Flood planning level categories for development types

BCA building classification(1)	**Development types and design levels, assigned design floor or pavement levels**	**Category Refer to Table 8.2.11.3.L**
Class 1—4	Habitable room	Category A
	Non-habitable room including patio and courtyard	Category B
	Non-habitable part of a Class 2 or Class 3 building excluding the essential services(2) control room	Category B
	Parking located in the building undercroft of a multiple dwelling	Category C
	Carport(4), unroofed car park; vehicular manoeuvring area	Category D
	Essential electrical services(2) of a Class 2 or Class 3 building only	Category A(6)
	Basement parking entry(3)	Category C + 300mm
Class 5, Class 6, or Class 8	Building floor level	Category C
	Garage or car park located in the building undercroft(3)	Category C
	Carport(4) or unroofed car park	Category D
	Vehicular access and manoeuvring areas	Category D
	Basement parking entry(3)	Category C
	Essential electrical services(2)	Class 8 — Category C(6) Class 5 & 6 — Category A(6)

Class 7a	Refer to the relevant building class specified in this table	
Class 7b	Building floor level	Category C
	Vehicular access and manoeuvring area	Category D
	Essential electrical services(2)	Category C
Class 9	Building floor level	Category A
	Building floor level for habitable rooms in Class 9a or 9c where for a residential care facility	0.2% AEP flood
	Garage or car park located in the building undercroft(3)	Category C
	Carport(4) or unroofed car park	Category D
	Vehicular access and manoeuvring areas	Category D
	Essential electrical services(2)	Category A
Class 10a	Car parking facility	Refer to the relevant building class specified in this table
	Shed(5) or the like	Category D
Class 10b	Swimming pool	Category E
	Associated mechanical and electrical pool equipment	Category C
	Other structures	Flood immunity standard does not apply

Notes—

(1) Refer to the Building Code of Australia for definitions of building classifications.

(2) Essential services include any room used for fire control panel, telephone PABX, sensitive substation equipment including transformers, low voltage switch gear, high-voltage switch gear, battery chargers, protection control and communication equipment, low voltage cables, high-voltage cables and lift controls.

(3) Basement car parks must be suitably waterproofed and all air vents, air-conditioning ducts, pedestrian access and entry and exit ramps at the car park entrance have flood immunity in accordance with this table.

(4) A shelter for a motor vehicle, which has a roof and one or more open sides, and which can be built against the side of a building.

(5) A slight or rough structure built for shelter and storage; or a large strongly built structure, often open at the sides or end.

(6) Where essential services are proposed in a basement below the specified flood planning level, the flood immunity of all air vents, air-conditioning ducts, pedestrian access, lift shafts and entry/exit ramps at the

basement entrance and any other openings into that basement must conform to Category A for Residential development, and the relevant basement entry level of all other uses. This will require a waterproof basement design to prevent floodwaters entering the basement to ensure flood immunity.

Note—A flood event with an AEP of 2% is the equivalent of a 50 year ARI flood event.

Note—A flood event with an AEP of 0.2% is the equivalent of a 500 year ARI flood event.

Note—Where a building has a combination of uses that includes a component of class 2, 3 or 9, the essential services for that building shall comply with the requirements of the building class with the greatest flood immunity requirement.

Note—Use classes for residential development also include basement storage.

Table 9.4.9.3.D—Flood planning levels for a new road

Flooding type(1)	**Minimum design levels at the crown of the road (m AHD) (2)**	
	Residential development	**Industrial or commercial development**
Waterway(A) or open channel	1% AEP flood level	2% AEP flood level
Overland flow flooding(B)	2% AEP flood level	2% AEP flood level

Notes—

(1) Where the site is subject to more than 1 type of flooding, the minimum flood planning level is the highest level determined from these sources. It should be noted that the flooding planning level in some older areas is often controlled by local ponding.

(2) Where flood levels are not available from Council's Floodwise Property Report, such as overland flow flooding, the applicant will need to engage a suitably qualified Registered Professional Engineer Queensland with expertise in undertaking flood studies to estimate the relevant flood level.

Note (A) A waterway including any indicated on the planning scheme maps is defined as any element of a river, creek, stream, gully or drainage channel, including the bed and banks typically with a catchment area greater than 30ha.

Note (B) Overland flow flooding usually occurs when the capacity of the underground piped drainage system is exceeded and/or when the overland flow path is blocked. Localised overland flow paths generally traverse along roadways, and in the older established areas, through private properties within existing low points and gullies. A localised overland flow path is not characterised by well-defined bed and banks and the contributing catchment is generally less than 30ha.

Note—A flood event with an AEP of 1% is the equivalent of a 100 year ARI flood event.

Note—A flood event with an AEP of 2% is the equivalent of a 50 year ARI flood event.

Note—A flood event with an AEP of 5% is the equivalent of a 20 year ARI flood event.

Table 9.4.9.3.E—Flood planning levels for essential community infrastructure

Type of essential community infrastructure	**Minimum design levels**

Emergency services	0.2% AEP flood
Emergency services, where for an emergency shelter	0.5% AEP flood
Emergency services, where for police facilities	0.5% AEP flood
Hospital and health care service, where associated with a hospital	0.2% AEP flood
Community facility where involving storage of valuable records or items of historic or cultural significance (e.g. galleries and libraries)	0.5% AEP flood
State-controlled roads Major or minor electricity infrastructure not otherwise listed in this table Utility installation where for rail transport services Air service Telecommunications facility	No specific recommended level but development proponents should ensure that the infrastructure is optimally located and designed to achieve suitable levels of service, having regard to the processes and policies of the administering government agency.
Power stations (as defined in the *Electricity Act 1994*) or renewable energy facility.	0.2% AEP flood
Major electricity infrastructure where a major switch yard	0.2% AEP flood
Substations	0.5% AEP flood
Utility installation where for a sewage treatment plant	DFE
Utility installation where for a water treatment plant	0.5% AEP flood

Note—A flood event with an AEP of 0.2% is the equivalent of a 500 year ARI flood event.

Note—A flood event with an AEP of 0.5% is the equivalent of a 200 year ARI flood event.

Table 9.4.9.3.F—Flood planning levels for reconfiguring a lot

Flooding type(1)	**Minimum lot levels (m AHD)(2)**	
	Residential	**Other than residential**
Waterway(A) or open channel	1% AEP flood level + 300mm	1% AEP flood level
Overland flow flooding(B)	1% AEP flood level + 300mm	2% AEP flood level

Notes—

(1) Where the site is subject to more than one type of flooding, the minimum flood immunity level is the highest level determined from these sources.

(2) Where flood levels are not available from Council's Floodwise Property Report such as overland flow flooding, the applicant will need to engage a suitably qualified Registered Professional Engineer Queensland with expertise in undertaking flood studies to estimate the relevant flood level.

Note (A) A waterway including any indicated on the planning scheme maps is defined as any element of a river, creek, stream, gully or drainage channel, including the bed and banks typically with a catchment area greater than 30ha.

Note (B) Overland flow flooding usually occurs when the capacity of the underground piped drainage system is exceeded or when the overland flow path is blocked. Localised overland flow paths generally traverse along roadways, and in the older established areas, through private properties within existing low points and gullies. A localised overland flow path is not characterised by well-defined bed and banks and the contributing catchment is generally less than 30ha.

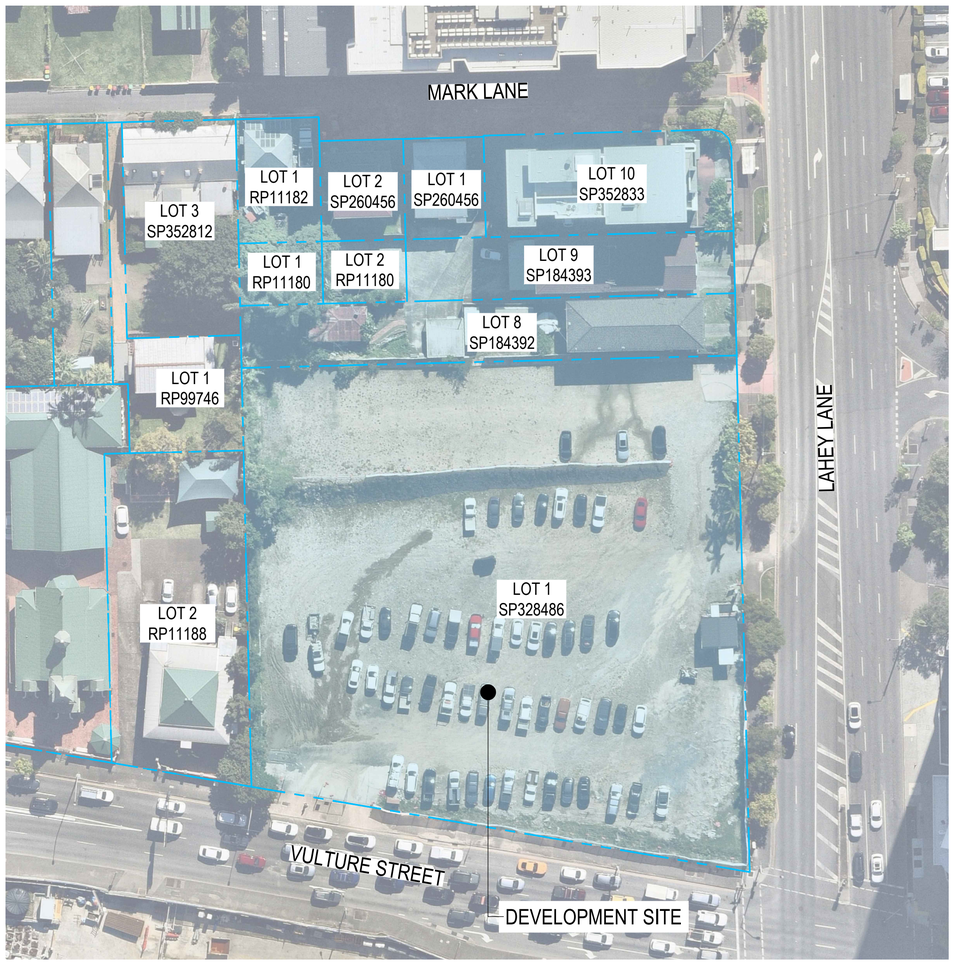
Note—A flood event with an AEP of 1% is the equivalent of a 100 year ARI flood event.

Note—A flood event with an AEP of 2% is the equivalent of a 50 year ARI flood event.

van der meer

MARK LANE PRECINCT 1

KANGAROO POINT, QLD 4169



LOCALITY PLAN
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DRAWING LIST

Sheet Number	Sheet Title
SK1	LOCALITY PLAN AND COVER SHEET
SK2	BULK EARTHWORKS LAYOUT
SK3	BULK EARTHWORKS SECTIONS
SK4	STORMWATER DRAINAGE LAYOUT PLAN
SK5	SERVICE LAYOUT PLAN

REFERENCED GUIDELINES & STANDARDS

BRISBANE CITY COUNCIL (BCC)	
BRISBANE CITY COUNCIL - PLANNING SCHEME POLICIES (PSPs) AND DEVELOPMENT CODES	
WATER SERVICES ASSOCIATION OF AUSTRALIA	
WATER SUPPLY CODE OF AUSTRALIA - SEQ SERVICE PROVIDERS EDITION V1.3	
GRAVITY SEWERAGE CODE OF AUSTRALIA - SEQ SERVICE PROVIDERS EDITION V2.0	
SEQ CODE FOR WATER SUPPLY AND SEWER DESIGN AND CONSTRUCTION	
SEQ WS&S D&C CODE - DESIGN CRITERIA	
SEQ WS&S D&C CODE - SEQ ACCEPTED INFRASTRUCTURE PRODUCTS AND MATERIALS (IPAM) LIST	
AUSTRALIAN STANDARDS (AS)	
AS 3798 - 2007	EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS
AS 1289.1.1	METHODS OF TESTING SOILS FOR ENGINEERING PURPOSES
AS 2890.1	OFFSTREET CARPARKING
AS 3500-2018	PLUMBING AND DRAINAGE
INTERNATIONAL EROSION CONTROL ASSOCIATION (IECA)	
IECA AUSTRALIA GUIDELINES AND STANDARD DRAWINGS	

REVISIONS:

No.	REVISION DESCRIPTION	DRAWN	DATE
B	FOR APPROVAL	JP	01.05.26
A	FOR APPROVAL	JP	24.04.26

SCALE BAR
0 10 20 30 40 50m
SCALE 1:500

N

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CLIENT: URBIS

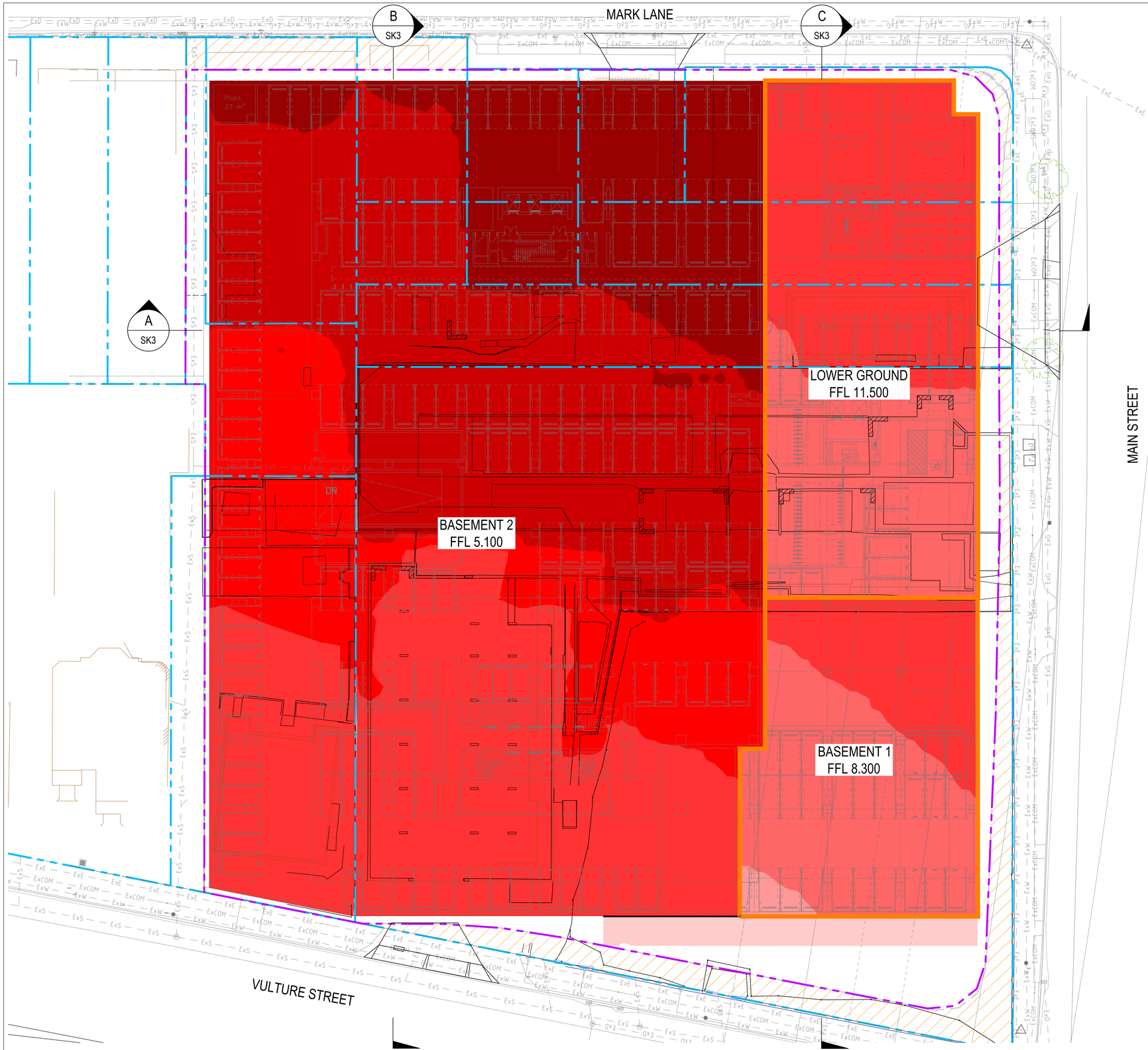
ARCHITECT: W—B WOODS BAGOT

PROJECT TITLE: MARK LANE PRECINCT 1
KANGAROO POINT, QLD 4169

DRAWING TITLE: LOCALITY PLAN AND COVER SHEET

DRAWING STATUS: **FOR APPROVAL**
NOT TO BE USED FOR CONSTRUCTION

PROJECT LEADER	DESIGNER	SIGNATURE	RPEQ: 19536
ML	JP	C. KIRK	NER: 3053220
DRAFTSPERSON	SCALE		SHEET SIZE
JP			A1
JOB No.		DRAWING No.	REVISION
BR262006		SK1	B



CONTRACTOR TO CONFIRM LOCATION OF ALL SERVICES TRAVERSING OR ADJACENT TO THE DEVELOPMENT SITE PRIOR TO UNDERTAKING WORKS.

REFER STRUCTURAL DRAWINGS PREPARED BY STRUCTURAL ENGINEER FOR FOOTING SLAB AND WALL DETAILS.

ANY DAMAGE TO EXISTING ROADWAYS WILL BE RECTIFIED BY THE CONTRACTOR AT HIS EXPENSE.

ANY DAMAGE TO EXISTING ROADWAYS WILL BE RECTIFIED BY THE CONTRACTORS AT THEIR EXPENSE.

REFER STRUCTURAL ENGINEER FOR DETAILS OF TEMPORARY SOIL RETENTION METHOD

LEGEND

- EXISTING PROPERTY BOUNDARY
- PROPOSED PROPERTY BOUNDARY
- PROPOSED CHANGE IN FLOOR LEVEL
- XX.XX EXISTING CONTOUR (0.5m)
- EXISTING CONTOUR (0.1m)
- PROPOSED EARTHWORKS CONTOURS MAJOR
- PROPOSED EARTHWORKS CONTOURS MINOR
- Ex W EXISTING WATER
- Ex SW EXISTING STORMWATER
- Ex S EXISTING SEWER
- ExD EXISTING STORMWATER
- ExCOM EXISTING COMMUNICATIONS
- ExE EXISTING ELECTRICAL

EARTHWORKS CUT AND FILL TABLE

COLOR	MIN ELEVATION (m)	MAX ELEVATION (m)
	-14.000	-4.000
	-4.000	-3.500
	-14.000	-3.000
	-12.000	-2.500
	-10.000	-2.000
	-8.000	-1.500
	-6.000	-1.000
	-4.000	-0.500
	-2.000	0.000

BULK EARTHWORKS QUANTITIES

TOTAL CUT VOLUME:	84,583m³
TOTAL FILL VOLUME:	0m³
TOTAL EXPORT VOLUME:	84,583m³

NOTE:

EXISTING HARDSTAND, CROSSOVERS AND STRUCTURES TO BE REMOVED

NOTE: SURVEY

1. ALL EXISTING SERVICES HAVE BEEN LOCATED USING DBYD AND COUNCIL MAPPING SERVICES OR AS SHOWN IN SURVEY. CONTRACTOR TO CONFIRM ALL EXISTING SERVICE LOCATIONS PRIOR TO COMMENCEMENT OF WORKS
2. STORMWATER INFRASTRUCTURE LOCATED WITHIN SITE AND EXTERNAL TO SITE WERE NOT CAPTURED IN DETAILED SITE SURVEY. INFORMATION SHOWN IS INDICATIVE ONLY AND BASED ON SITE MEASUREMENTS CAPTURED BY CONTRACTOR. CONTRACTOR TO CONFIRM LOCATION AND LEVELS ON SITE PRIOR TO CONSTRUCTION FOR STORMWATER ASSETS. IF IN DOUBT ASK.

THIS DEVELOPMENT MAY REQUIRE THE IMPLEMENTATION OF SOIL RETENTION METHODS DURING CONSTRUCTION. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THESE WORKS ARE CERTIFIED BY A SUITABLY QUALIFIED RPEQ AND INSTALLED PRIOR TO COMMENCING FILLING AND EXCAVATION WORKS AS INDICATED ON THIS PLAN

THE CONTRACTOR IS TO PRODUCE A MANAGEMENT PLAN FOR CONTROL OF DUST AND AIR EMISSIONS DURING WORKS.

NO DUST IS TO EXTEND BEYOND THE SITE BOUNDARY INCLUDING VEHICLES ENTERING AND LEAVING THE SITE.

ALL ENVIRONMENTAL MEASURES INCLUDING VEGETATION PROTECTION AND EROSION AND SEDIMENT CONTROL SHALL BE IN PLACE PRIOR TO THE COMMENCEMENT OF ANY WORK

REVISIONS:

No.	REVISION DESCRIPTION	DRAWN	DATE
B	FOR APPROVAL	JP	01.05.26
A	FOR APPROVAL	JP	24.04.26

SCALE BAR

0 1 2 3 4 5 10m 15 20m

SCALE 1:250

N

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CLIENT: URBIS

ARCHITECT: W—B WOODS BAGOT

PROJECT TITLE: MARK LANE PRECINCT 1
KANGAROO POINT, QLD 4169

DRAWING TITLE: BULK EARTHWORKS LAYOUT

DRAWING STATUS: **FOR APPROVAL**
NOT TO BE USED FOR CONSTRUCTION

PROJECT LEADER	DESIGNER	SIGNATURE	RPEQ: 19536 NER: 3053220
ML	JP	C. KIRK	
DRAFTSPERSON	SCALE		SHEET SIZE
JP			A1
JOB No.		DRAWING No.	REVISION
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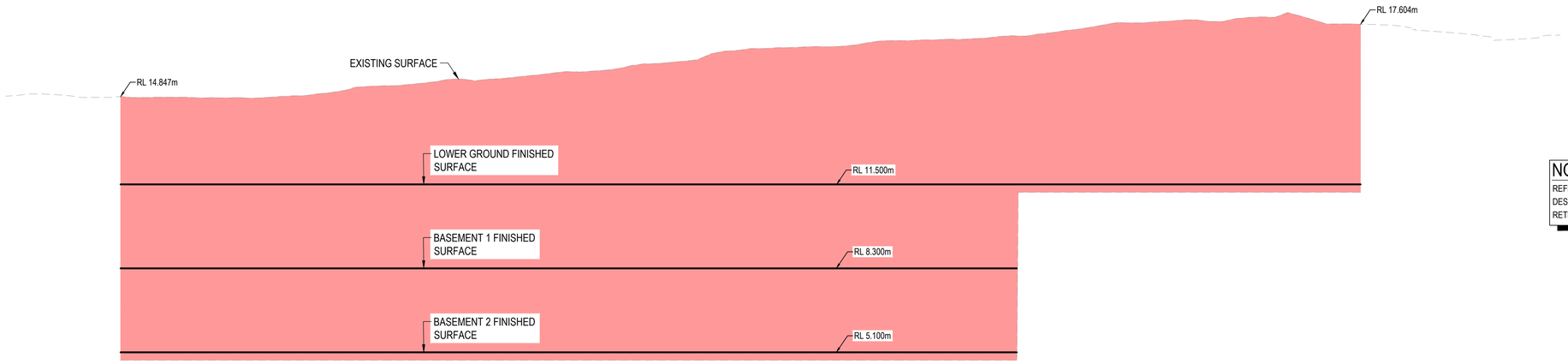

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Datum 4.000

NOTE:
REFER STRUCTURAL ENGINEER'S DRAWINGS FOR RETAINING WALL DESIGN, SUB SOIL DRAINS BEHIND WALLS AND TEMPORARY EARTH RETENTION METHODS

BEW SECTION A LONG SECTION

SECTION A
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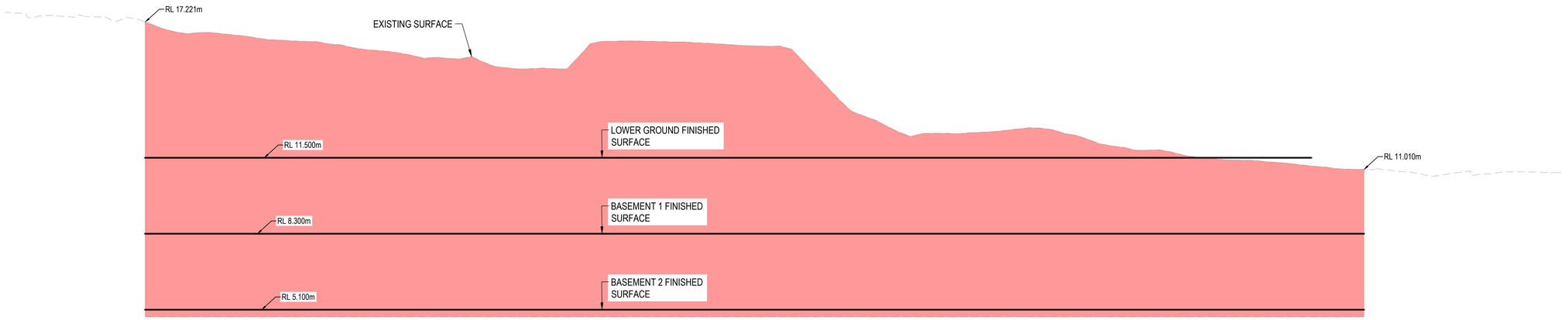

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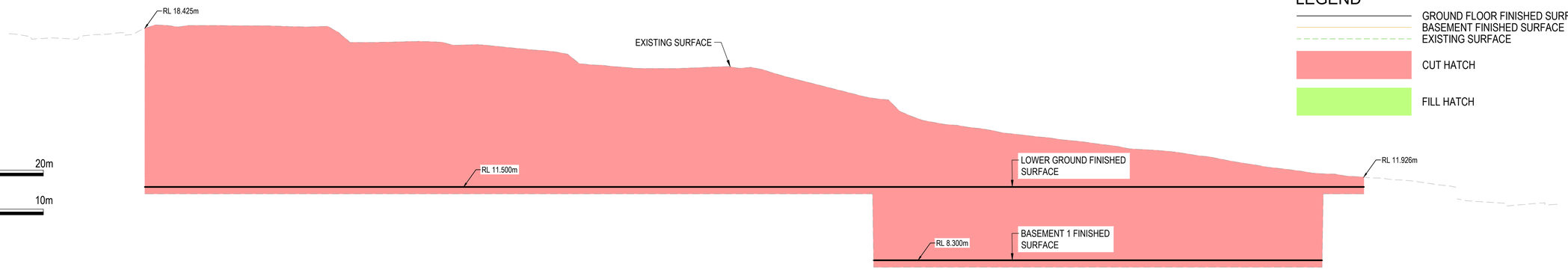
BEW SECTION B LONG SECTION

SECTION B
SCALE H 1:200 V 1:40 SK2



LEGEND
- GROUND FLOOR FINISHED SURFACE
- BASEMENT FINISHED SURFACE
- EXISTING SURFACE
- CUT HATCH
- FILL HATCH

0 1 2 3 4 5 10m 15 20m
SCALE 1:200 HORIZONTAL

0 1 2 3 4 5m 10m
SCALE 1:100 VERTICAL

VERT EXAG 1:2
Datum 4.000

BEW SECTION C LONG SECTION

SECTION C
SCALE H 1:200 V 1:40 SK2

REVISIONS:

No.	REVISION DESCRIPTION	DRAWN	DATE
B	FOR APPROVAL	JP	01.05.26
A	FOR APPROVAL	JP	24.04.26

SCALE BAR

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Telephone +61 7 3021 6600
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van der Meer (QLD) Pty Ltd
A.B.N. 63 609 812 615

CLIENT: URBIS

ARCHITECT: W—B WOODS BAGOT

PROJECT TITLE
MARK LANE PRECINCT 1
KANGAROO POINT, QLD 4169

DRAWING TITLE
BULK EARTHWORKS SECTIONS

DRAWING STATUS
FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION

PROJECT LEADER	DESIGNER	SIGNATURE	RPEQ: 19536
ML	JP	C. KIRK	NER: 3053220

DRAFTSPERSON	SCALE		SHEET SIZE
JP			A1

JOB No.	DRAWING No.	REVISION
BR262006	SK3	B

MARK LANE

PROPOSED CROSSOVER

PROPOSED CROSSOVER

MAIN STREET

VULTURE STREET

ENVIRO AUSTRALIS H65 (2.8m x 1.2m) TREATMENT SYSTEM

PIPE INLET FOR FUTURE INTERNAL CONNECTION - SUBJECT TO DETAILED DESIGN

PROPOSED CROSSOVER

EXISTING GULLY PITS AND DRAINAGE TO BE UPGRADED TO SUIT REVISED NETWORK CONFIGURATION

EXISTING SWMH (N16000121)
SL 10.552
IL 8.571

1:20.0
DN
1:10.0
DR
1:5.0

DN DN DN RAMP

LEGEND

- EXISTING PROPERTY BOUNDARY
- PROPOSED PROPERTY BOUNDARY
- EXISTING CONTOUR (0.5m)
- EXISTING CONTOUR (0.1m)
- PROPOSED CONTOUR (1.0m)
- PROPOSED CONTOUR (0.1m)
- EXISTING SEWER
- EXISTING COMMUNICATIONS
- EXISTING ELECTRICAL
- EXISTING GAS
- EXISTING STORMWATER
- EXISTING WATER
- PROPOSED STORMWATER LINE
- PROPOSED STORMWATER INLET
- PROPOSED KERB AND CHANNEL
- PROPOSED ROAD RESUMPTION

NOTE:
EXISTING HARDSTAND, CROSSOVERS AND STRUCTURES TO BE REMOVED

REVISIONS:			
B	FOR APPROVAL	JP	01.05.26
A	FOR APPROVAL	JP	24.04.26
No.	REVISION DESCRIPTION	DRAWN	DATE

SCALE BAR
0 1 2 3 4 5 10m 15 20m
SCALE 1:250

N

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CLIENT: URBIS

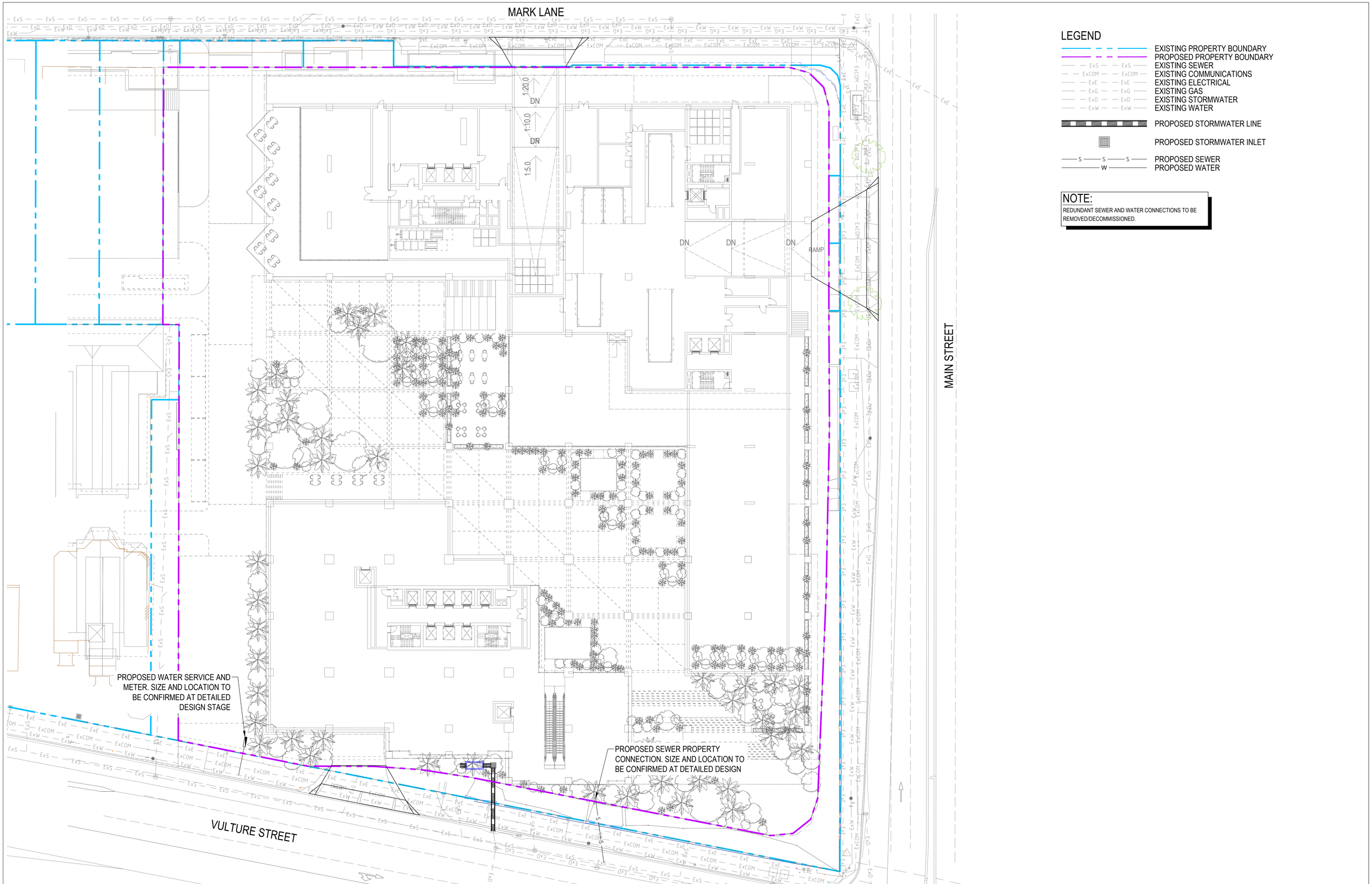
ARCHITECT: W—B WOODS BAGOT

PROJECT TITLE: MARK LANE PRECINCT 1
KANGAROO POINT, QLD 4169

DRAWING TITLE: STORMWATER DRAINAGE LAYOUT PLAN

DRAWING STATUS: **FOR APPROVAL**
NOT TO BE USED FOR CONSTRUCTION

PROJECT LEADER	DESIGNER	SIGNATURE	RPEQ: 19536
ML	JP	C. KIRK	NER: 3053220
DRAFTSPERSON	SCALE		SHEET SIZE
JP			A1
JOB No.		DRAWING No.	REVISION
BR262006		SK4	B



LEGEND

- EXISTING PROPERTY BOUNDARY
- PROPOSED PROPERTY BOUNDARY
- EXISTING SEWER
- EXISTING COMMUNICATIONS
- EXISTING ELECTRICAL
- EXISTING GAS
- EXISTING STORMWATER
- EXISTING WATER
- PROPOSED STORMWATER LINE
- PROPOSED STORMWATER INLET
- PROPOSED SEWER
- PROPOSED WATER

NOTE:

REDUNDANT SEWER AND WATER CONNECTIONS TO BE REMOVED/DECOMMISSIONED.

REVISIONS:

No.	REVISION DESCRIPTION	DRAWN	DATE
B	FOR APPROVAL	JP	01.05.26
A	FOR APPROVAL	JP	24.04.26

SCALE BAR

0 1 2 3 4 5 10m 15 20m

SCALE 1:250

N

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CLIENT: URBIS

ARCHITECT: W—B WOODS BAGOT

PROJECT TITLE: MARK LANE PRECINCT 1
KANGAROO POINT, QLD 4169

DRAWING TITLE: SERVICE LAYOUT PLAN

DRAWING STATUS: **FOR APPROVAL**
NOT TO BE USED FOR CONSTRUCTION

PROJECT LEADER	DESIGNER	SIGNATURE	RPEQ: 19536
ML	JP	C. KIRK	NER: 3053220
DRAFTSPERSON	SCALE		SHEET SIZE
JP			A1
JOB No.		DRAWING No.	REVISION
BR262006		SK5	B