LAMBERT & REHBEIN
ENGINEERS • MANAGERS • SCIENTISTS

DATE 24 March, 2014

CONTACT ALICIA HERITAGE

Proposed Multiple Unit Residential Development - 15 Anderson Street, Fortitude Valley

Traffic Report

For Propertylink

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Document Control Page

Revision	Date	Description	Author	Signature	Verifier	Signature	Approver	Signature
A	21/03/2014	Draft	AMH		SW		AMH	
B	24/03/2014	Final	AMH		SW		AMH	

1.0 INTRODUCTION

Lambert & Rehbein has been commissioned by Propertylink to undertake a traffic assessment of a proposed multiple unit development located at 15 Anderson Street, Fortitude Valley, formally known as Lot 10 on SP208752. The proposed development site has a total site area of 2,896m^2, and is bound by Anderson Street, Costin Street and Water Street. The site is located within the Bowen Hills Priority Development Area, formerly known as Bowen Hills Urban Development Area, and as such this Application is to be assessed by Economic Development Queensland (EDQ). The site is also located within Brisbane City Council's (BCC) City Frame, which reaffirms the site's proximity to alternative transport modes (i.e. public transport, cycling facilities, and pedestrian connectivity) and ultimately the CBD.

The proposed high density development is proposed to include 230 units, with a mix of studio, one bedroom and two bedroom units. Ancillary retail, with a total GFA of 323 m^2, has been included on the ground level, open to the community. The site layout plans, including all car parking levels has been included in Appendix A.

This report has been compiled in a clear and concise manner and is set out as follows.

Section 2 details the development context including the existing land use and traffic arrangements.

Section 3 details the proposed development and includes an assessment of the site access location, car park and cyclist provisions, car park layout, and proposed servicing arrangements in relation to EDQ specifications, the Brisbane City Council Planning Scheme, and Australian Standards.

Section 4 summarises the key outcomes of the traffic assessment.

Lambert & Rehbein has derived the data in this report primarily from the data provided by the Client, field inspections conducted in November 2013 and March 2014, and advice provided by EDQ. The passage of time, manifestation of latent conditions or impacts of future events may require further exploration at the site and subsequent data analysis, and re-evaluation of the findings, observations and conclusions expressed in this report.

2.0 CONTEXT OF THE DEVELOPMENT SITE

This section of the report describes the nature of the existing development site, the surrounding area including land uses, and describes the extent of the existing transport system.

2.1 THE DEVELOPMENT SITE

The development site is located at 15 Anderson Street, Fortitude Valley, formally known as Lot 10 on SP208752. The subject site has a total site area of 2,896m^2, and is bound by Anderson Street, Costin Street and Water Street, as depicted in Figure 2-1.

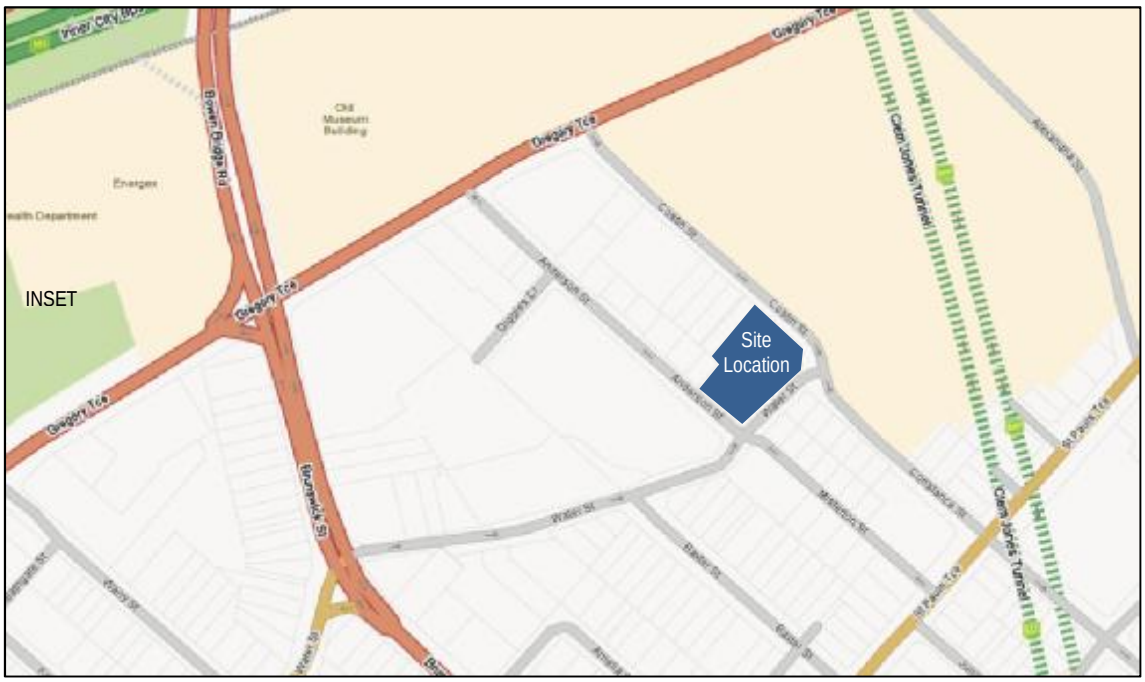

Figure 2-1 Site Location

The site is located within the Bowen Hills Priority Development Area, formerly known as Bowen Hills Urban Development Area, and as such this Application is to be assessed by Economic Development Queensland (EDQ). The site is also located within Brisbane City Council's (BCC) City Frame, which reaffirms the site's proximity to alternative transport modes (i.e. public transport, cycling facilities, and pedestrian connectivity) and ultimately the CBD.

Surrounding land uses are primarily a combination of commercial and medium density residential, with the RNA showgrounds located on Costin Street, opposite the subject site. The site forms part of the Bowen Hills Priority Development Area, formerly known as Bowen Hills Urban Development Area, which is intended to incorporate mixed residential and commercial uses in furture development.

The site currently gains access from a single driveway via Anderson Street.

2.2 ADJACENT ROAD NETWORK

2.2.1 ANDERSON STREET

Anderson Street is a single lane carriageway, which carries traffic in a north-westerly direction from Water Street to Gregory Terrace. The existing pavement width is approximately 6m, which sufficiently accommodates on-street parking along the south-western edge, as depicted in Figure 2-2.

Figure 2-2 Anderson Street – facing north-west of the Water Street intersection

Anderson Street has no specific designation under Brisbane City Council's Road Hierarchy and as such is considered function as a local street. With no posted speed limit, the automatic speed limit of 50km/h applies, however given the narrow road environment; the operating speed of most vehicles is well below 50km/h.

A commercial vehicle loading zone that is approximately 12m long, with a 20 minute limit, is located along the north-eastern edge of Anderson Street adjacent to the subject site, between the existing driveway and Water Street.

2.2.2 WATER STREET

Water Street is primarily a one way street that carries traffic from Brunswick Street to Costin Street. The only exception is the portion adjacent to the subject site, which has a two lane, two-way form. The existing pavement width is approximately 6m, with parking restrictions on both sides. The form of Costin Street is depicted in Figure 2-3.

Figure 2-3 Water Street – facing north-east of the Anderson Street intersection

Like Anderson Street, Water Street has no specific designation under Brisbane City Council's Road Hierarchy and as such is considered function as a local street. With no posted speed limit, the automatic speed limit of 50km/h applies.

It should be noted that the ultimate intent is for Water Street to be upgraded to accommodate two-way movement along the entire length. It is anticipated that the two-way portion of Water Street will be extended to the new Metro Development as part of the conditioned works for that development.

2.2.3 COSTIN STREET

Costin Street is a single lane carriageway, which carries traffic in a south-eastern direction from Gregory Terrace to Water Street. Current arrangements make the Costin Street and Constance Street the primary through route at the Water Street intersection. The existing pavement width is approximately 10m, which sufficiently accommodates on-street parking along the north-eastern edge, and intermittent loading zones along the south-western edge, as depicted in Figure 2-4.

Figure 2-4 Costin Street – facing north-west of the Water Street intersection

Costin Street has no specific designation under Brisbane City Council's Road Hierarchy and as such is considered function as a local street. With no posted speed limit, the automatic speed limit of 50km/h applies, and given the generous pavement width, it is expected that Costin Street would experience higher speeds than the other adjacent roads.

2.3 PROPERTY SETBACK REQUIREMENTS

Discussion with the relevant authorities has indicated that to accommodate the ultimate road and streetscape planning, the following site boundary and frontage works are required as part of the subject development. For clarity, the ground level setbacks (1 to 3) have been summarised in Figure 2-5.

1. Set back the Water Street boundary 3.75m, and incorporate a full verge with footpath and pavement widening to the new boundary;

2. Set back the Anderson Street boundary 2.0m to align with the current site boundary at 47 Anderson Street, and provide for a 3.75m verge, including footpath construction;

3. Set back the Costin Street boundary 1.25m and provide for a 3.75m verge, including footpath construction; and

4. Incorporate a 6m x 3m chord truncation at the corner of Water Street and Anderson Street (note this land can be used volumetrically where development is approximately 6m higher than the finished verge level).

Figure 2-5 Approximate Site Boundary Setback Requirements

2.4 PUBLIC TRANSPORT

The subject site is currently well serviced by public transport services in the form of bus and train services. The location of the closest bus stops and railway station are depicted in Figure 2-6.

Bus stops are located on both St Pauls Terrace and Brunswick Street, which provide a range of connections to/from the northern suburbs and the city. A summary table of the existing bus services that can be readily accessed from the subject site has been included in Table 2-1.

In addition, the site is well located in relation to the existing passenger rail station and Fortitude Valley. The primary entrance to this railway station on Brunswick Street is situated approximately 400m walk from the subject site and provides access to high standard line haul passenger rail.

Figure 2-6 Public Transport Facilities

Table 2-1 Bus Stop and Route Information

Bus Stop Number	Distance from Site	Routes
Saint Pauls Tce at Constance St - 6/10	209m	301,320
Saint Pauls Tce at Fortitude Valley - 240	243m	301,320,983
Brunswick Street - 6	325m	334, 346, 353, 360, 361, 364, 370, 375, 379
Brunswick Street - 6	355m	334, 346, 353, 360, 361, 364, 370, 375, 379, 397

3.0 DETAILS OF THE PROPOSED DEVELOPMENT

This section of the report provides details of the proposed development, including access arrangements, car park provision and layout, and service vehicle requirements.

3.1 THE PROPOSED DEVELOPMENT

The proposed high density development is proposed to include 230 units, with a mix of studio, one bedroom and two bedroom units. Ancillary retail, with a total GFA of 323 m^2, has been included on the ground level, open to the community.

It is our understanding that the intent is to deliver the project generally in two (2) stages with the first stage including one, 13 storey residential tower located on the Anderson Street side, and basement levels. Stage 2 will include the construction of the second, 15 storey residential tower, and retail tenancies on the ground level.

A summary of the development proposal in shown in Table 3-1 following.

Table 3-1 Table of Development

Development Component	Stage 1	Stage 2	Total
Studio	10 dwellings	12 dwellings	22 dwellings
One Bedroom	60 dwellings	82 dwellings	142 dwellings
Two Bedroom	28 dwellings	38 dwellings	66 dwellings
Total Dwellings	*98 dwellings*	*132 dwellings*	*230 dwellings*
Retail	-	323 m^2 GFA	323 m^2 GFA

The development layout plans, including only the basement, ground and levels 1 to 3, prepared by Nettleton Tribe Architects, have been extracted from the Architect Design Package Q3400, and included in Appendix A.

3.2 ACCESS ARRANGEMENTS

The proposed access is situated in the same location as the existing access as it has the potential to not be as flood affected as other locations, whilst also suitably located from the Water Street intersection.

The proposed access is a Brisbane City Council type B2 driveway with a width of 6.2m which accommodates the irregular entry and exit movements of a refuse collection vehicle (RCV) and medium rigid vehicle (MRV). A swept path assessment showing and the entry and exit movements of both vehicles has been included in Appendix B.

The sight splays for the proposed driveway have been assessed against BCC's minimum requirements and are summarised in Figure 3-1. Please note that until the Anderson Street boundary has been set back in line with the subject development, there is little point in assessing the sight lines to the right. It is anticipates that if/when the adjacent property boundary line is setback, the sightline will be considered when implementing fencing etc.

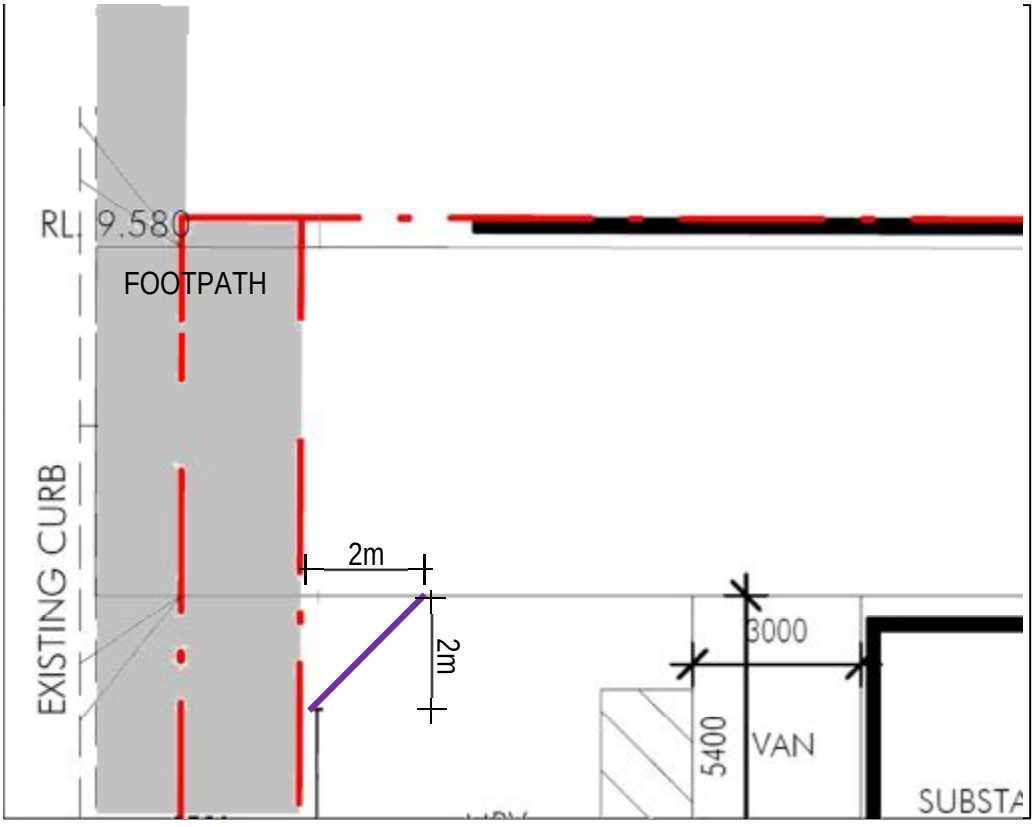

Figure 3-1 Pedestrian Sight Splays

3.3 SERVICING ARRANGEMENTS

The BCC *Transport, Access, Parking and Servicing* Planning Scheme Policy (TAPS PSP) requires one van space, and one Medium Rigid Vehicle (MRV) space for a retail development with 323m^2 in GFA.

Consideration also has to be given to refuse collection and the occasional access of a removalist truck similar in size to a Large Rigid Vehicle (LRV). Given the physical constraints caused by the on-street parking along Anderson Street, it is considered more likely that smaller vehicle than an LRV would be utilised by residents as removalist trucks. Despite this, the existing loading zone may be a more palatable option for LRVs than entering the site.

The servicing area located adjacent to the proposed access driveway accommodates for the required van and MRV spaces. The MRV loading area is required to have an overall length of 9m, which subsequently allows a 2.8m gap for the occasional vehicle to pass. We note that even though BCC requires provision for an MRV, the reality is that the small retail tenancies would more than likely only require deliveries from small rigid vehicles (SRV) and vans. As such, it is considered that the proposed arrangement for occasional servicing of an MRV is will have negligible impact on the daily operation of the subject development and the external road network.

A swept path assessment has been included in Appendix B, which demonstrates the MRV entering the site in a forward gear, reversing into the MRV space, and then driving out of the site in a forward gear.

Proposed Refuse Management Strategy

At the preliminary stages of this development, it is proposed that a private contractor be commissioned provide refuse collection services for the subject site. Currently the refuse management strategy involves the following:

- Refuse collected in B1 at the base of the bin shutes adjacent to each left shaft;
- An on-site manager collects the 1,100L bulky bins each day (to be confirmed by the contractor) to the ground floor for collection;
- The compact rear-left refuse truck enters the site in a forward gear, collects the waste, and then reverses out onto Anderson Street. According to BCC draft new City Plan, this type of arrangement is acceptable.
- The proposed servicing arrangements are considered appropriate for the subject development, and are anticipated to adequately service the site, while having a minimal impact on the safety and operation of the surrounding road network.

We note that the proposed compact rear lift RCV is a smaller vehicle, which only requires a 3.6m height clearance, which can be accommodated in the proposed development.

3.4 CAR PARKING REQUIREMENTS

Consideration has been given to the car parking requirements of both Brisbane City Council's Draft new Planning Scheme and EDQ's *Precinct 4: Development Build Form Requirements* of the Bowen Hill Development Area Development Scheme when developing the Proposal.

Key aspects of the development that have been taken into consideration include:

- The site is located within the City Frame, which requires car parking provided for commercial reasons, capped to a maximum of 1 space per 100m^2 gross floor area; and
- The proximity of the site to both bus and train routes.

The car parking requirements of both Authorities have been summarised in

Table 3-2 Car Parking Rates

Use		Car Parking Rate
BCC Requirements		
Multiple Dwelling	Resident Parking	Minimum 0.9 spaces per 1 bedroom dwelling Minimum 1.1 spaces per 2 bedroom dwelling
	Visitor Parking	Minimum 0.15 spaces per dwelling for visitor parking
Retail Use		maximum of 1 space per 100m^2 gross floor area
EDQ Requirements		
Residential Uses		1 space per dwelling (including visitor parking)
Retail		maximum of 1 space per 50m^2 gross floor area

The application of both sets of rates results in the following car parking requirements:

Table 3-3 Car Parking Requirements

Use		Car Parking Rate
BCC Requirements		
Multiple Dwelling	Resident Parking	220
	Visitor Parking	35
Retail Use		no minimum required
Total Required		255
EDQ Requirements		
Residential Uses		230
Retail		no minimum required
Total Required		230

Both Authorities have stipulated that parking spaces for vehicle occupants with a disability are to be provided at a rate of 1 space per 50 ordinary parking spaces and a minimum provision of 1 space is required.

3.5 CAR PARKING PROVISION

The proposed development incorporates 234 parking spaces, which equates to a provision of just over one space per dwelling. A breakdown of the proposed parking provision has been included in Table 3-4.

Table 3-4 Car Parking Provisions

Parking Type	Car Parking Provision		
	Stage 1	Stage 2	Total
Resident Car Spaces	156*	56	212
Resident Tandem Spaces	0	3	3
Motorcycle Spaces	8	0	8
Visitor Spaces	5	6	11
Total Spaces	*169*	*65*	*234*

* Includes 5 PWD spaces

The proposal satisfies the *Precinct 4: Development Build Form Requirements* of the Bowen Hill Development Area Development Scheme, which requires on average 1 space per dwelling (including visitor parking).

3.5.1 BICYCLE PARKING

Space for bicycle parking has been considered for the proposed development. Space for resident bicycle storage has been allowed for in Basement 1 and Basement 2 (refer Appendix A). It is envisaged that the proposed bicycle parking will be in the form of lockable wall racks.

Space for public bicycle racks has been allowed for retail precinct on the Water Street / Costin Street corner. These would be available to the public and visitors to the retail tenancies

At this stage of the development it is considered inappropriate to commit to a defined number of spaces when defined electrical and mechanical requirements have not been considered. We note that it is common for avid cyclists to prefer to park their bike(s) within their own apartment despite designated parking areas provided in residential developments. These factors will be taken into account when including bicycle parking in further design stages.

3.6 INTERNAL DESIGN

The design features for the developments on-site car parking area are considered to generally be in accordance with "*AS2890.1, Parking Facilities Part 1: Off Street Car Parking*" including the following key items:

- The car park driveways (i.e. not serving parking spaces) have a minimum roadway width of 5.5 metres between kerbs, with a minimum of 300mm clearance on each side of the road when adjacent to obstructions greater than 150mm in height;
- The lengths of the parking aisles are less than 100 metres, so speed reduction devices are not deemed necessary;
- Resident car parking bays and aisle sizes meet the requirements for Class 1A resident bays, which are at least 5.4 metres x 2.4 metres, with some spaces allocated as small bays;
- Where limited aisle extension is available the space has been made a small bay with the recognition that thos bays are allocated to specific residents;
- Visitor parking bays and aisle sizes meet the requirements for Class 3 short term bays, which are 5.4 metres x 2.6 metres, with a 6.2m parking aisle width;
- Motorcycle bays are at least 1.35 metres x 2.5 metres;
- The design of the parking module allows adequate space for parking manoeuvres;
- The internal ramps have been designed for two-way movement (except for level 3), with a minimum roadway width of 5.5 metres between kerbs, with a minimum of 300mm clearance on each side of the road when adjacent to obstructions greater than 150mm in height;
- Allowance has been made for columns to be located outside the vehicle envelope;
- Sufficient height clearance has been made to accommodate access to the PWD bays; and
- Ramp grades do not exceed 1:4, whilst transitions do not exceed the maximum 1:8.

We do note that limited sight distance may be available to vehicles entering and exiting the ramps; however given that the proposed car parking is for residents who will be familiar with the site, and that it is not anticipated that many conflicts would occur due to the low turnover of movements within the site, it is considered that the proposed car park provides the best solution that accommodates the required number of car parks in an efficient arrangement.

3.7 INTERNAL QUEUING

The proposed development provides a free queuing length of 18m (3 vehicles) within the revised site boundary to the first conflict point (the first visitor space). It is considered that this is sufficient queuing distance for a development that is anticipated to generate significantly low traffic particularly during commuter peaks. Further to the discussion regarding the proposed servicing arrangements, a vehicle standing in the loading dock is not anticipated to impede on the free queuing available.

3.7.1 SECURITY GATES

Security gates have been contemplated within the site. They have been placed at the base of each ramp and will be remotely controlled. A security gate is proposed just beyond the loading area. This is proposed to close around 10pm and will not reopen prior to 5am, unless opened from the inside via sensor. This aims to be a deterrent for undesirables to access the car park and / or building.

3.8 TRAFFIC GENERATION AND DISTRIBUTION

The Bowen Hill Traffic Study was undertaken by TTM for the Bowen Hills Urban Development Area to determine what road infrastructure upgrades would be required to accommodate the ultimate form of the Bowen Hills Urban Development Area.

Precinct 4: Development Build Form Requirements of the Bowen Hill Development Area Development Scheme contemplated up to 8 storeys of mixed use development which could for an example comprise of one level of retail, a couple of levels of commercial office space, the remaining being residential. We have been asked to assess any additional impacts resulting from the subject proposal extending beyond the 8 storey limit and the primary residential use.

The proposed development is primarily car parking on levels 1 through to 3, whilst the remaining 9-11 storeys are primarily residential.

Assuming the TTM model assesses 7 storeys of high density residential development with one level of retail, then the difference in traffic generated would be relative to 3 storeys of high density residential. One storey (over two towers) equates to 18 dwellings. Therefore the additional traffic associated with the increased height is equivalent to approximately 54 units. When applying the peak hour generation rate adopted by TTM for the Model of 0.29 vehicles per dwelling, the additional impacts equates to approximately 16 extra vehicles per hour.

The additional traffic associated with the proposed increase in development height is considered to be insignificant, particularly as the proposed development does not include any of the high trip generators such as commercial development as was originally contemplated by TTM in the Bowen Hill Traffic Study.

4.0 SUMMARY AND CONCLUSIONS

Lambert & Rehbein has been commissioned by Propertylink to undertake a traffic assessment of a proposed multiple unit development located at 15 Anderson Street, Fortitude Valley, formally known as Lot 10 on SP208752. The proposed development site has a total site area of 2,896m^{2,} and is bound by Anderson Street, Costin Street and Water Street. The site is located within the Bowen Hills Priority Development Area, formerly known as Bowen Hills Urban Development Area, and as such this Application is to be assessed by Economic Development Queensland (EDQ). The site is also located within Brisbane City Council's (BCC) City Frame, which reaffirms the site's proximity to alternative transport modes (i.e. public transport, cycling facilities, and pedestrian connectivity) and ultimately the CBD.

The proposed high density development is proposed to include 230 units, with a mix of studio, one bedroom and two bedroom units. Ancillary retail, with a total GFA of 323 m^2, has been included on the ground level, open to the community.

The proposal satisfies the car parking requirements stipulated in the *Precinct 4: Development Build Form Requirements* of the Bowen Hill Development Area Development Scheme, which requires on average 1 space per dwelling (including visitor parking).

The proposed servicing arrangements satisfy the Brisbane City Council Planning Scheme requirements.

The internal arrangements satisfy Australian Standards.

The additional traffic associated with the proposed increase in development height is considered to be insignificant, particularly as the proposed development does not include any of the high trip generators such as commercial development as was originally contemplated by TTM in the Bowen Hill Traffic Study.

No traffic and transport engineering matters have been identified that should preclude approval of the proposed residential development at this location.

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APPENDIX A

SITE LAYOUT PLAN

Development Summary

REAL PROPERTY DESCRIPTION:	LOT 10 ON SP208752 PARISH NORTH BRISBANE COUNTY STANLEY
SITE ADDRESS	15 ANDERSON STREET, FORTITUDE VALLEY
SITE AREA	2,896m2

STAGE 1

UNIT SUMMARY

LEVEL	STUDIO	1 BED	2 BED	2 BED TH	TOTAL
GROUND	0	2	1	0	3
1	0	2	1	0	3
2	1	2	3	1	7
3	1	2	3	0	6
4	2	4	2	0	8
5	1	5	2	0	8
6	1	5	2	0	8
7	1	5	2	0	8
8	1	5	2	0	8
9	1	5	2	0	8
10	1	5	1	1	8
11	0	6	1	0	7
12	0	6	2	0	8
13	0	6	2	0	8
TOTAL	10	60	26	2	98
%	10.20%	61.22%	28.57%		

STAGE 2

UNIT SUMMARY

LEVEL	STUDIO	1 BED	2 BED	2 BED TH	TOTAL
GROUND	0	0	0	0	0
1	0	0	0	0	0
2	0	5	1	1	7
3	0	5	1	0	6
4	1	6	3	0	10
5	1	6	3	0	10
6	1	6	3	0	10
7	1	6	3	0	10
8	1	6	3	0	10
9	1	6	3	0	10
10	1	6	3	0	10
11	1	6	2	1	10
12	1	6	2	0	9
13	1	6	3	0	10
14	1	6	3	0	10
15	1	6	3	0	10
16					
17					
18					
19					
TOTAL	12	82	36	2	132
%	9.09%	62%	29%		

DEVELOPMENT TOTAL					
			230	UNITS	
TOTAL	STUDIO		22	STUDIO	9.57%
TOTAL	1 BEDS		142	1 BEDS	61.74%
TOTAL	2 BEDS (INCL. TOWNHOUS		66	2 BEDS	28.70%

APPROX. GFA STAGE 1

LEVEL	RESIDENTIAL	RETAIL	SUBTOTAL
B2	0	0	0
B1	0	0	0
GROUND	204	0	204
1	245	0	245
2	499	0	499
3	499	0	499
4	562	0	562
5	562	0	562
6	562	0	562
7	562	0	562
8	562	0	562
9	562	0	562
10	528	0	528
11	528	0	528
12	562	0	562
13	562	0	562
	6999	0	6999 m2

APPROX. GFA STAGE 2

	RESIDENTIAL	RETAIL	SUBTOTAL	TOTAL RESIDENTIAL	TOTAL RETAIL
B2	0	0	0	0	0
B1	0	0	0	0	0
GROUND	30	323	353	234	323
1	30	0	30	275	0
2	475	0	475	974	0
3	475	0	475	974	0
4	714	0	714	1276	0
5	714	0	714	1276	0
6	714	0	714	1276	0
7	714	0	714	1276	0
8	714	0	714	1276	0
9	714	0	714	1276	0
10	714	0	714	1242	0
11	683	0	683	1211	0
12	683	0	683	1245	0
13	714	0	714	1276	0
14	714	0	714	714	0
15	714	0	714	714	0
	9516	323	9839	16515	323 m2

TOTAL DEVELOPMENT GFA (APPROX.) 16838 m2

SITE AREA 2,896m2 **PLOT RATIO** ≈5.8:1 **ALLOWABLE = 4:1**

CARPARK SUMMARY

STAGE 1 CARS

LEVELS	RES CARS	RES MOTOS	RES TANDEM	RES VIS		SUBTOTAL
B2	56	0	0	0		56
B1	68	8	0	0		76
GF	4	0	0	5		9
L1	9	0	0	0		9
L2	12	0	0	0		12
L3	7	0	0	0		7
TOTAL	156	8	0	5		169
TOTAL RES CARS	169					

STAGE 2 CARS

LEVELS	RES CARS	ES TANDE	RES VIS		SUBTOTAL
B2	0	0	0		0
B1	0	0	0		0
GF	8	0	6		14
L1	14	1	0		15
L2	18	1	0		19
L3	16	1	0		17
TOTAL	56	3	6		65
TOTAL RES CARS	65				

TOTAL RES CARS + MB 234

TOTAL TAN CARS 3

CARS REQUIRED:

RES @ 1 PER UNIT: 230 CARS

DRAWING LIST

DWG No.	DWG TITLE
DA--	COVER SHEET
DA01	DEVELOPMENT SUMMARY
DA02	PERSPECTIVE 1
DA03	PERSPECTIVE 2
DA04	HEIGHT & DENSITY - WIDER CONTEXT
DA05	HEIGHT & DENSITY - IMMEDIATE CONTEXT
DA06	SUPERIOR DESIGN OUTCOMES 1
DA07	SUPERIOR DESIGN OUTCOMES 2
DA08	SUPERIOR DESIGN OUTCOMES 3
DA09	SUPERIOR DESIGN OUTCOMES 4
DA10	SUPERIOR DESIGN OUTCOMES 5
DA11	SITE LOCATION
DA12	PERSPECTIVE TOWARDS BRISBANE CITY
DA13	SITE CONNECTIVITY
DA14	PUBLIC REALM
DA15	BASEMENT 2
DA16	BASEMENT 1
DA17	GROUND FLOOR
DA18	LEVEL 1
DA19	LEVEL 2
DA20	LEVEL 3
DA21	PODIUM
DA22	TYPICAL LEVEL
DA23	COMMUNAL LEVEL
DA24	TYPICAL UPPER LEVEL
DA25	ROOF PLAN
DA26	PWD UNIT TYPES
DA27	SHADOW ANALYSIS
DA28	ELEVATIONS - ANDERSON STREET
DA29	ELEVATIONS -WATER STREET
DA30	ELEVATIONS - COSTIN STREET
DA31	ELEVATIONS - NORTH-WEST
DA32	SITE SECTION
DA33	STREET EDGE SECTION - ANDERSON STREET
DA34	STREET EDGE SECTION - WATER STREET
DA35	STREET EDGE SECTION - COSTIN STREET
DA36	GFA MEASUREMENT PLANS
DA37	SURVEY PLAN
DA38	LANDSCAPE - GROUND
DA39	LANDSCAPE - PODIUM

Client: Propertylink thinking property

Project: Residential Development
15 Anderson Street, Fortitude Valley

Title: DEVELOPMENT SUMMARY
Scale: N/A
Date: 24/03/14
Number: 3400_DA01

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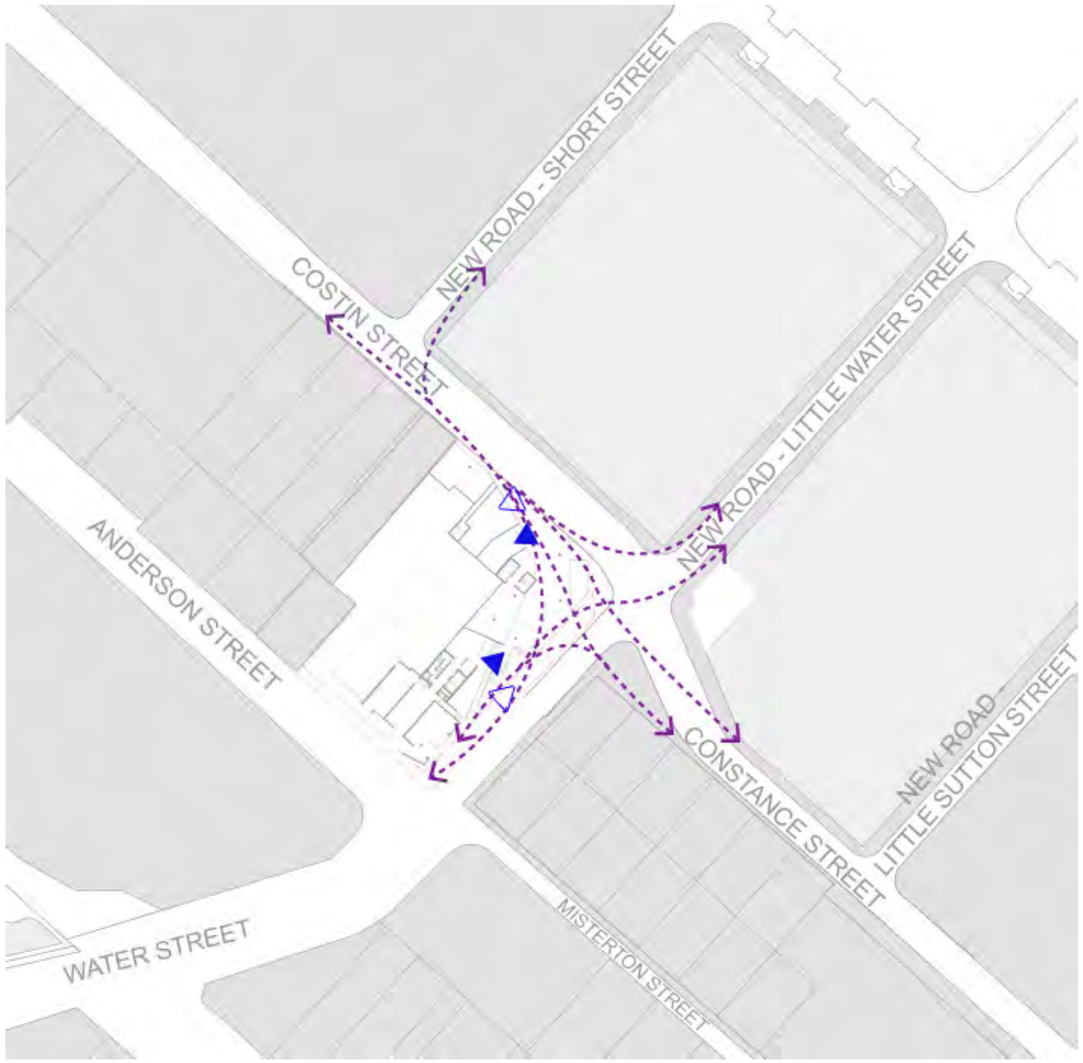
VEHICULAR MOVEMENT AROUND SITE

- Vehicle Traffic Flow
- New Two Way Streets
- Resident Vehicle Entry
- Service Vehicle Entry

PEDESTRIAN MOVEMENT AROUND SITE



- Pedestrian Movement and Main Thoroughfares
- Open to Green Square
- Residential Building Lobby Entrance
- Site Pedestrian Entry

Client
Propertylink
thinking property

Project
Residential Development
15 Anderson Street, Fortitude Valley

Title	SITE CONNECTIVITY
Scale	N/A
Date	24/03/14
Number	3400_DA13

Architectural Consultant

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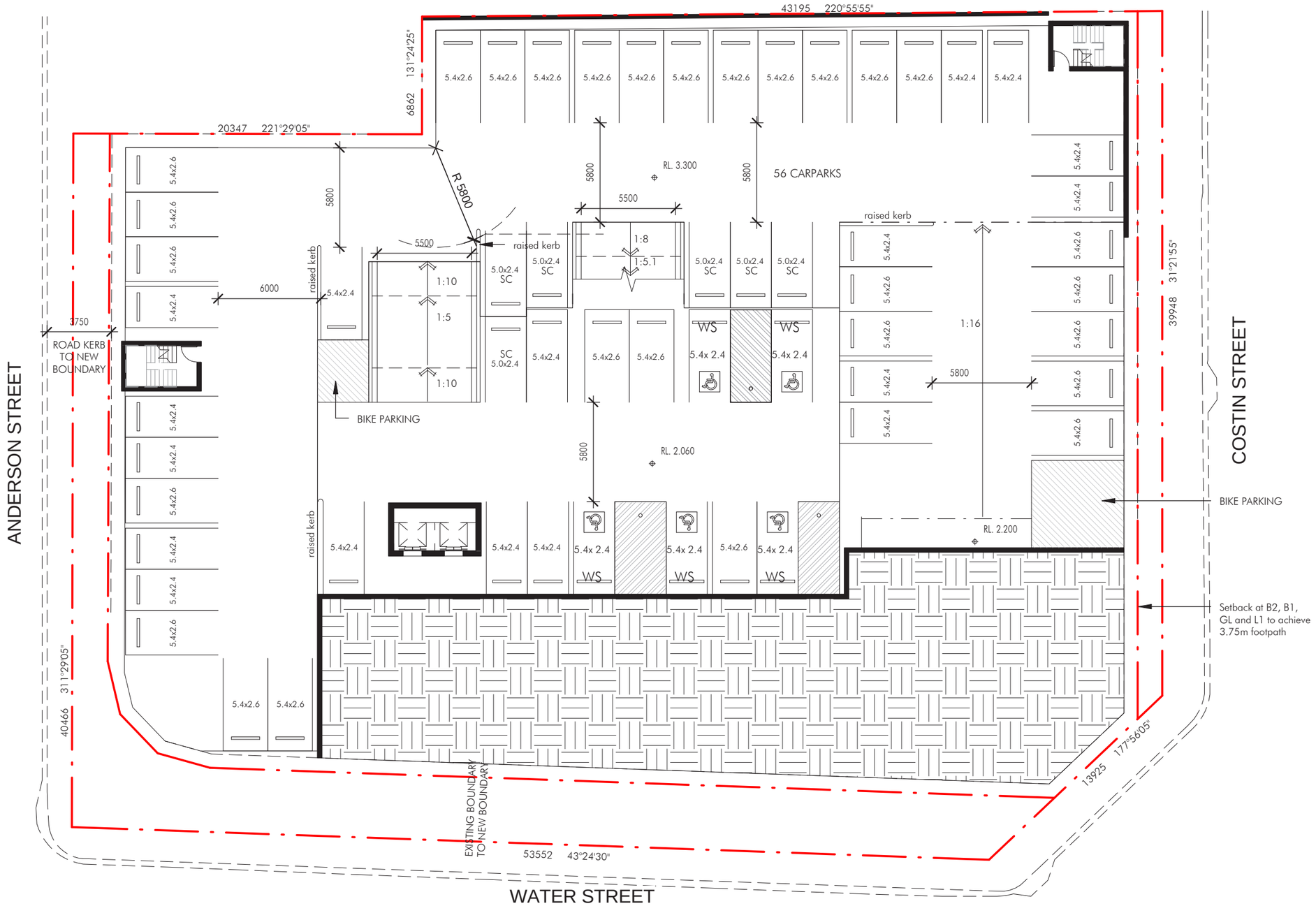

Client

Propertylink
thinking property

Project

Residential Development
15 Anderson Street, Fortitude Valley

Title	BASEMENT 2
Scale	1:250
Date	24/03/14
Number	3400_DA15

Architectural Consultant

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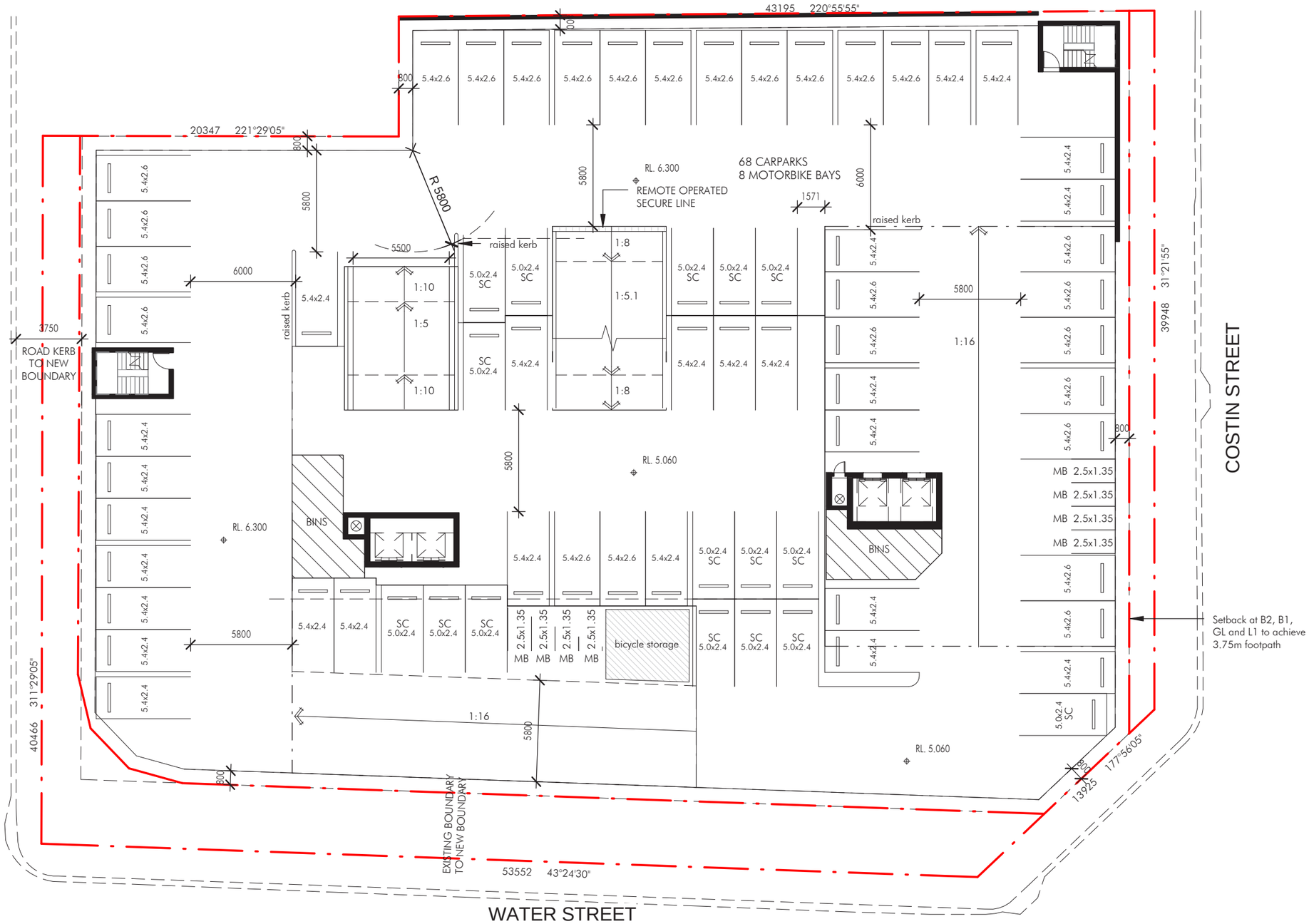

Client

Propertylink
thinking property

Project

Residential Development
15 Anderson Street, Fortitude Valley

Title	BASEMENT 1
Scale	1:250
Date	24/03/14
Number	3400_DA16

Architectural Consultant

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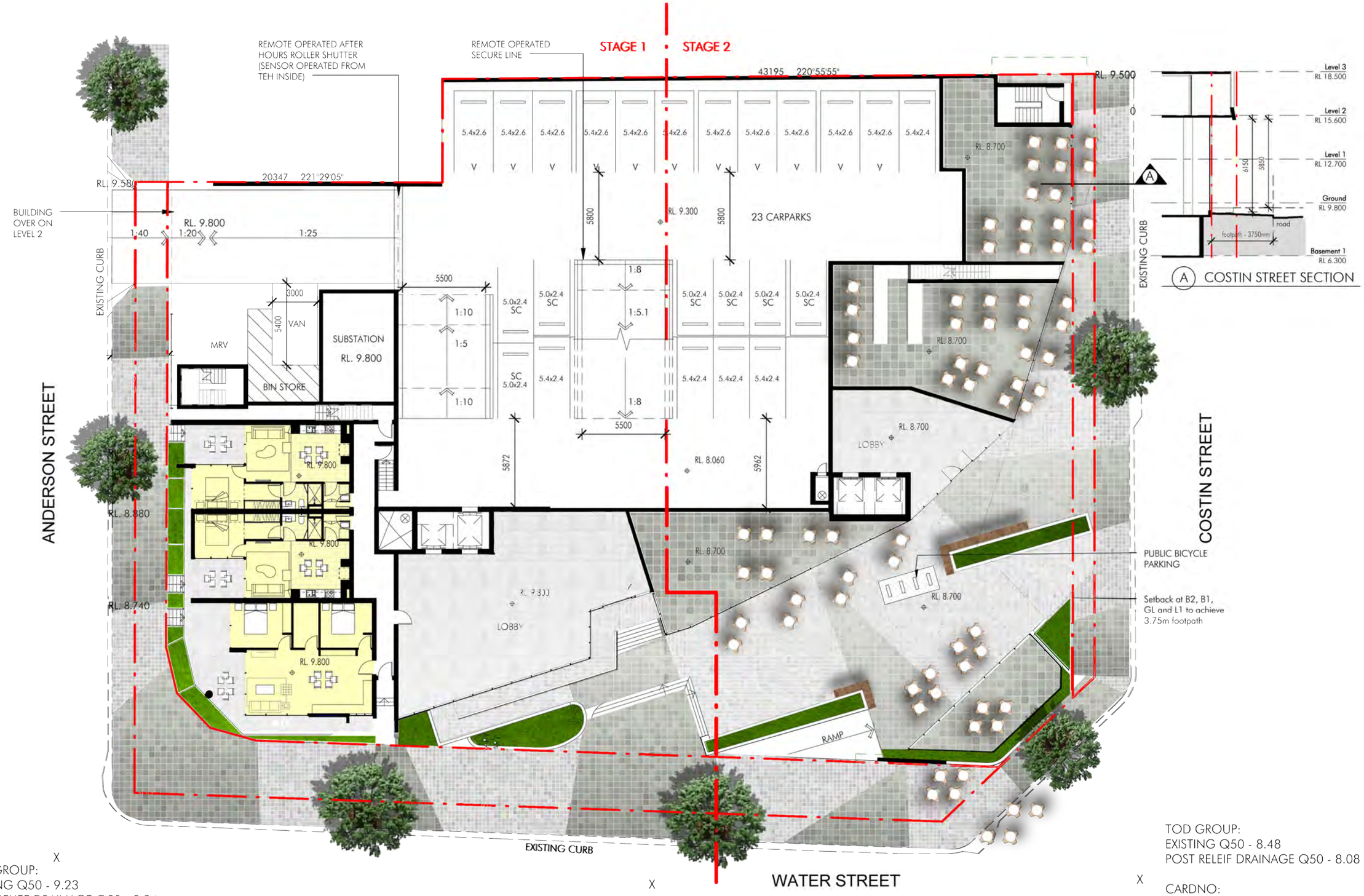

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TOD GROUP:
EXISTING Q50 - 9.23
POST RELIEF DRAINAGE Q50 - 8.24

CARDNO:
EXISTING Q50 - 8.68
EXISTING Q100 - 8.77
POST RNA Q50 - 8.61
POST RNA Q100 - 8.73

X

TOD GROUP:
EXISTING Q50 - 8.48
POST RELEIF DRAINAGE Q50 - 8.08

CARDNO:
EXISTING Q50 - 8.59
EXISTING Q100 - 8.71
POST RNA Q50 - 8.43
POST RNA Q100 - 8.68

X

Client
Propertylink
thinking property

Project
Residential Development
15 Anderson Street, Fortitude Valley

Title	GROUND FLOOR PLAN
Scale	1:250
Date	24/03/14
Number	3400_DA17

Architectural Consultant
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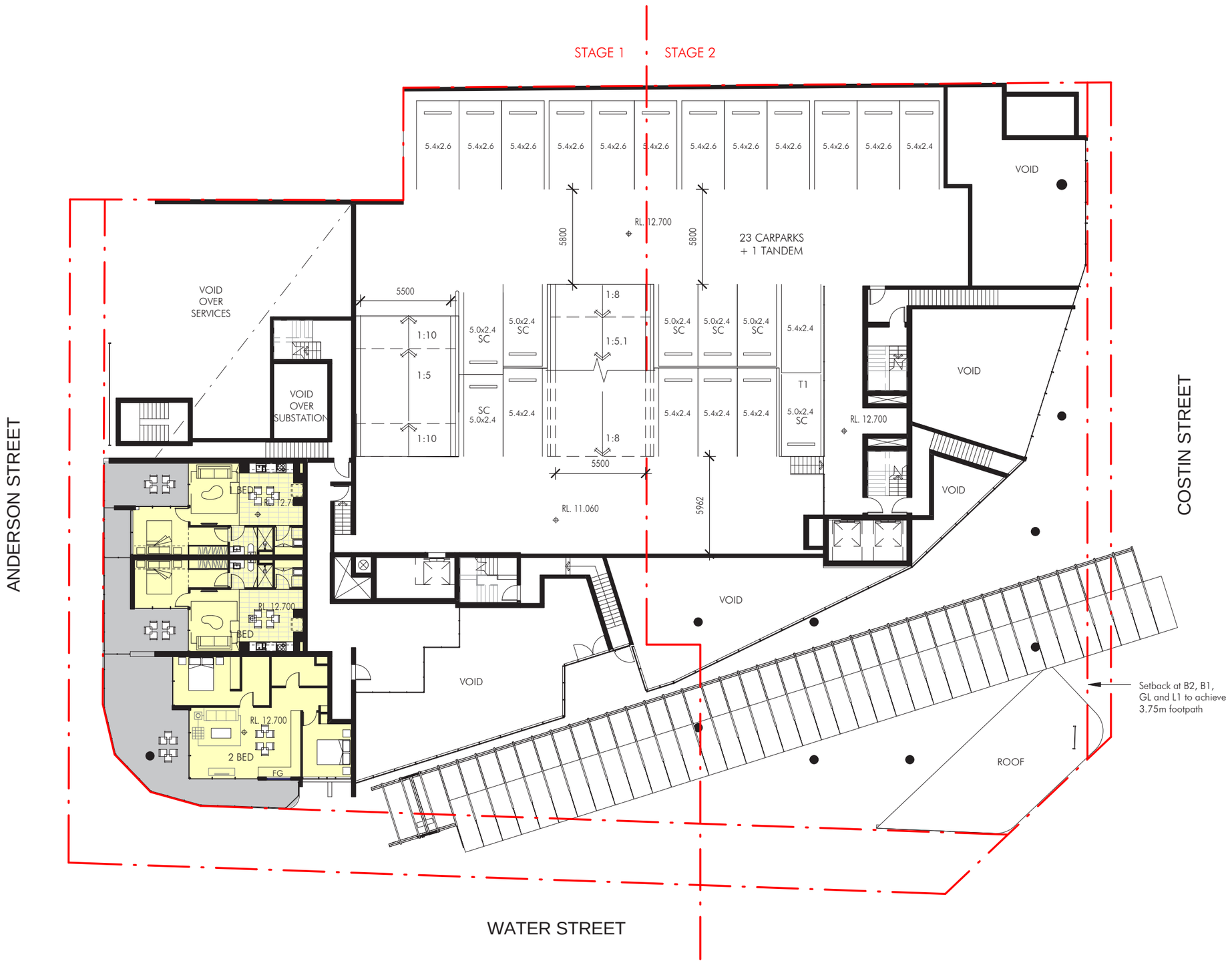

Client

Propertylink
thinking property

Project

Residential Development
15 Anderson Street, Fortitude Valley

Title	LEVEL 1
Scale	1:250
Date	24/03/14
Number	3400_DA18

Architectural Consultant

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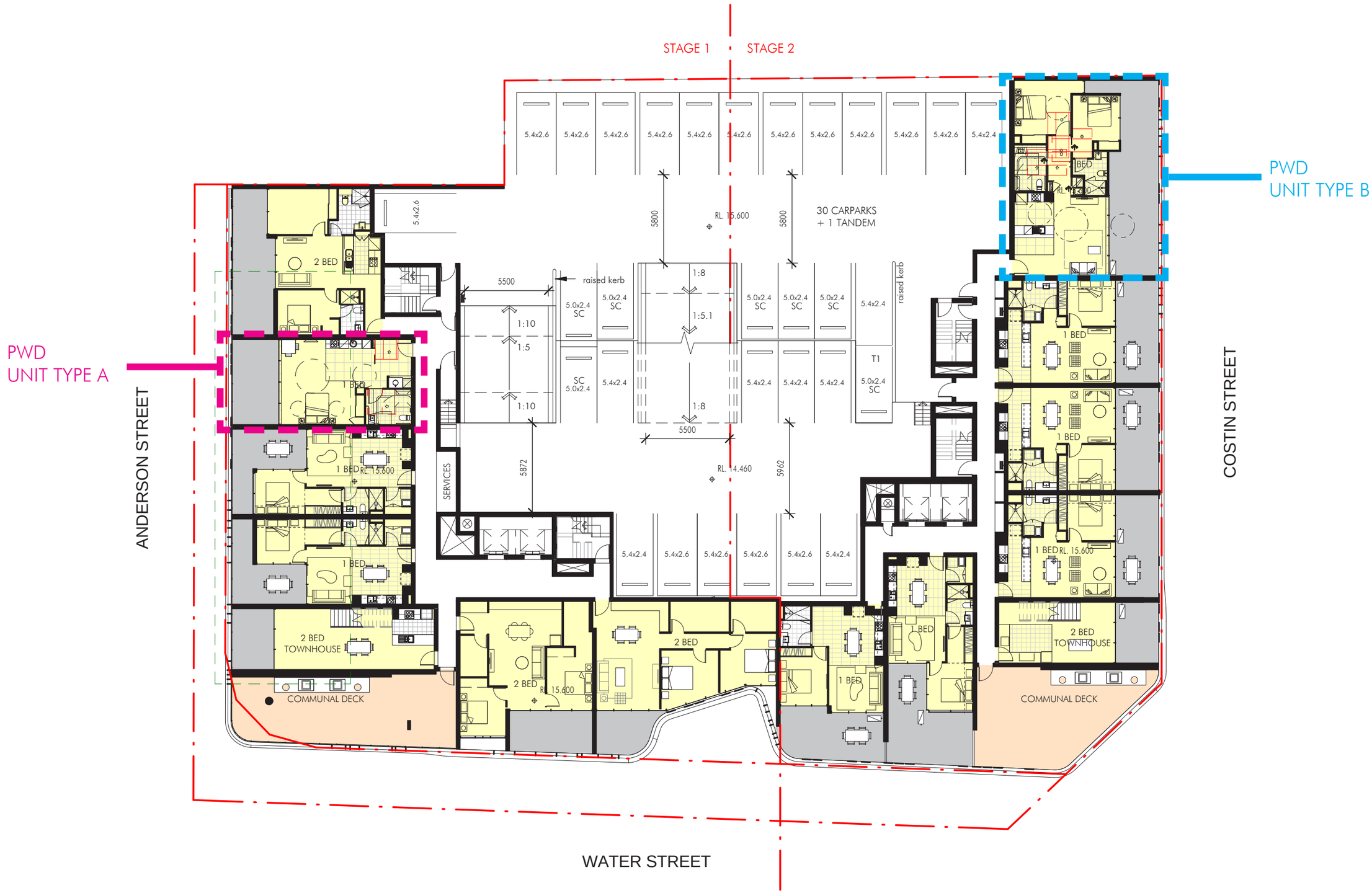

Client

Propertylink
thinking property

Project

Residential Development
15 Anderson Street, Fortitude Valley

Title	LEVEL 2
Scale	1:250
Date	24/03/14
Number	3400_DA19

Architectural Consultant

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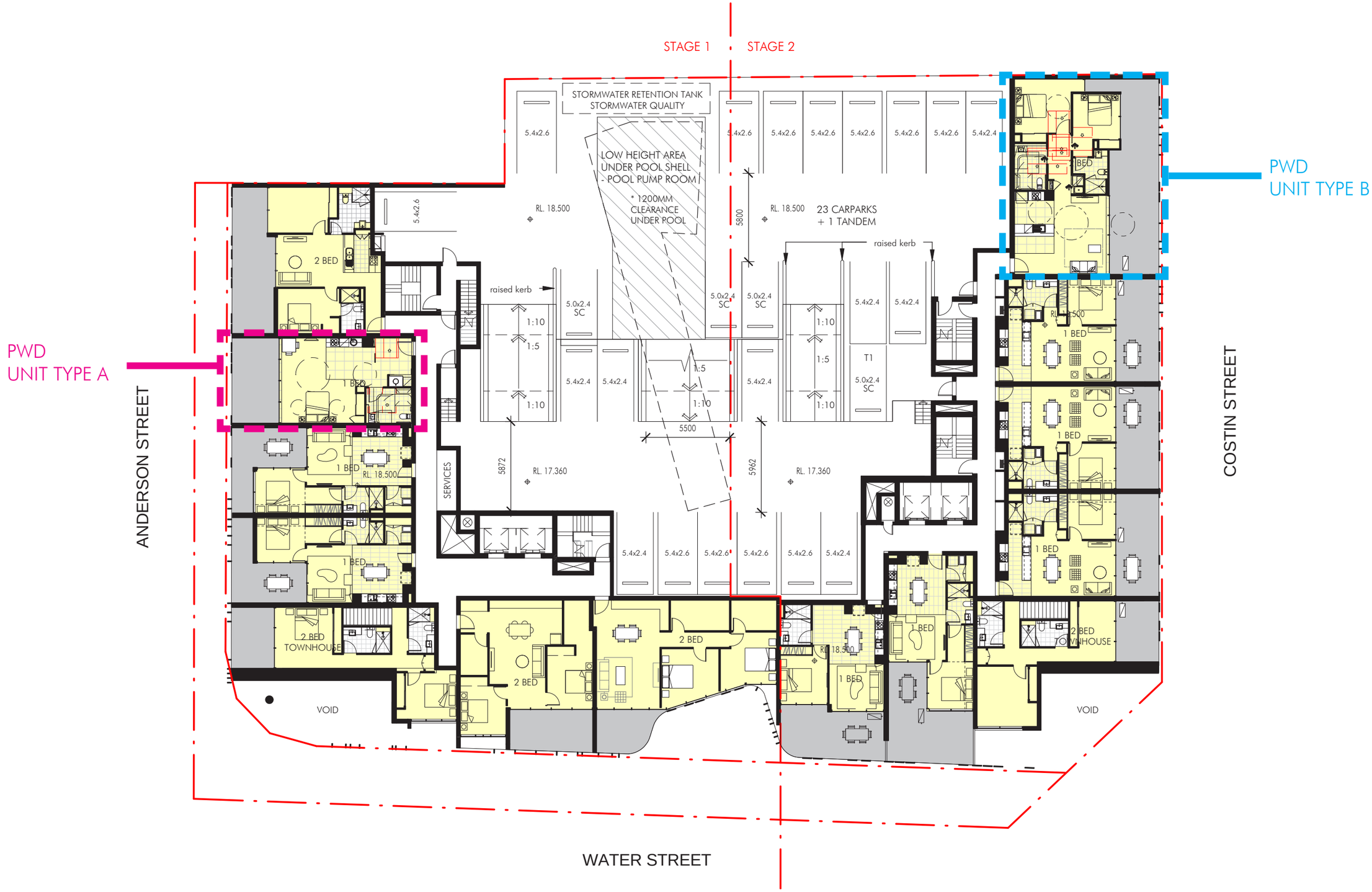

Client

Propertylink
thinking property

Project

Residential Development
15 Anderson Street, Fortitude Valley

Title	LEVEL 3
Scale	1:250
Date	24/03/14
Number	3400_DA20

Architectural Consultant

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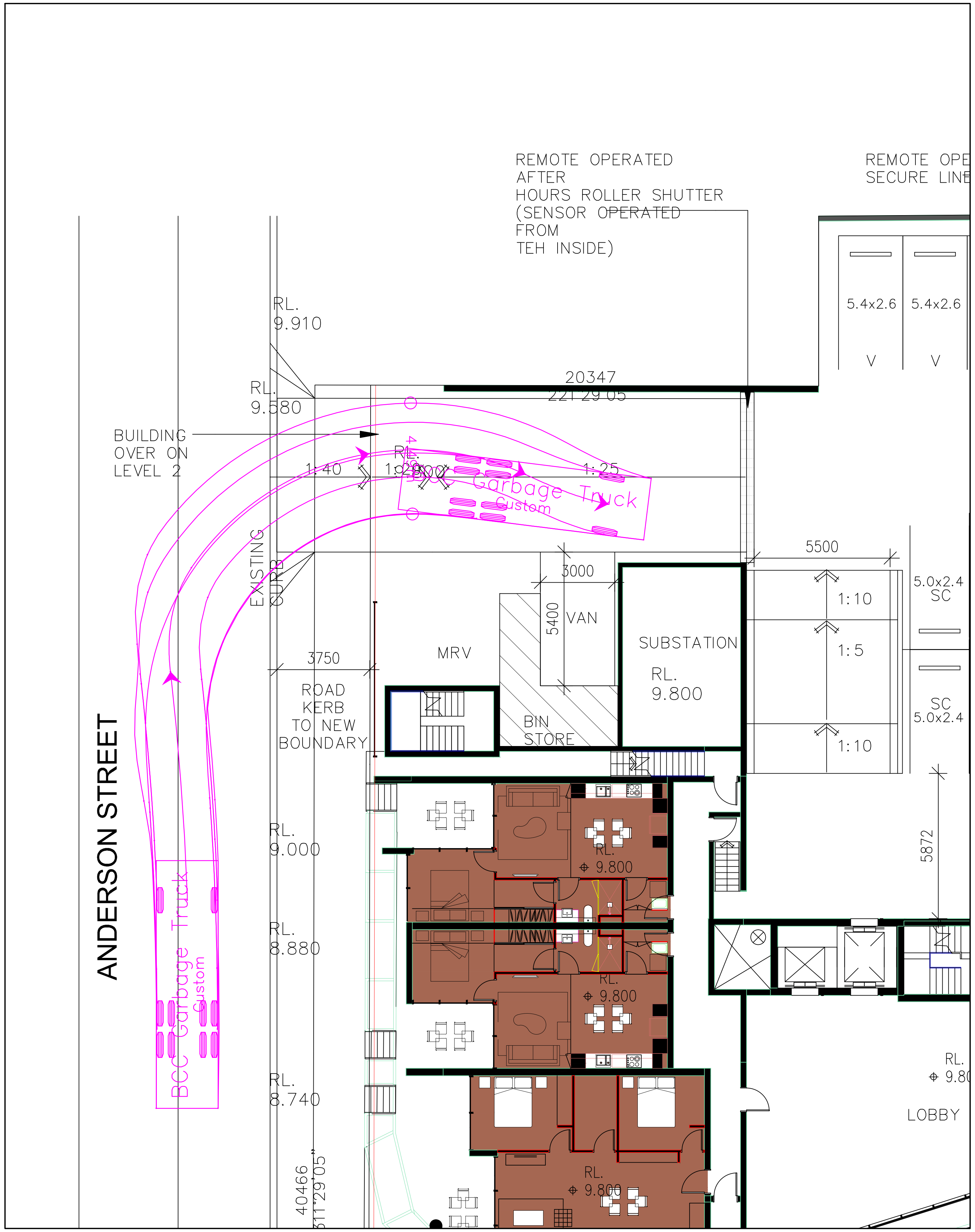
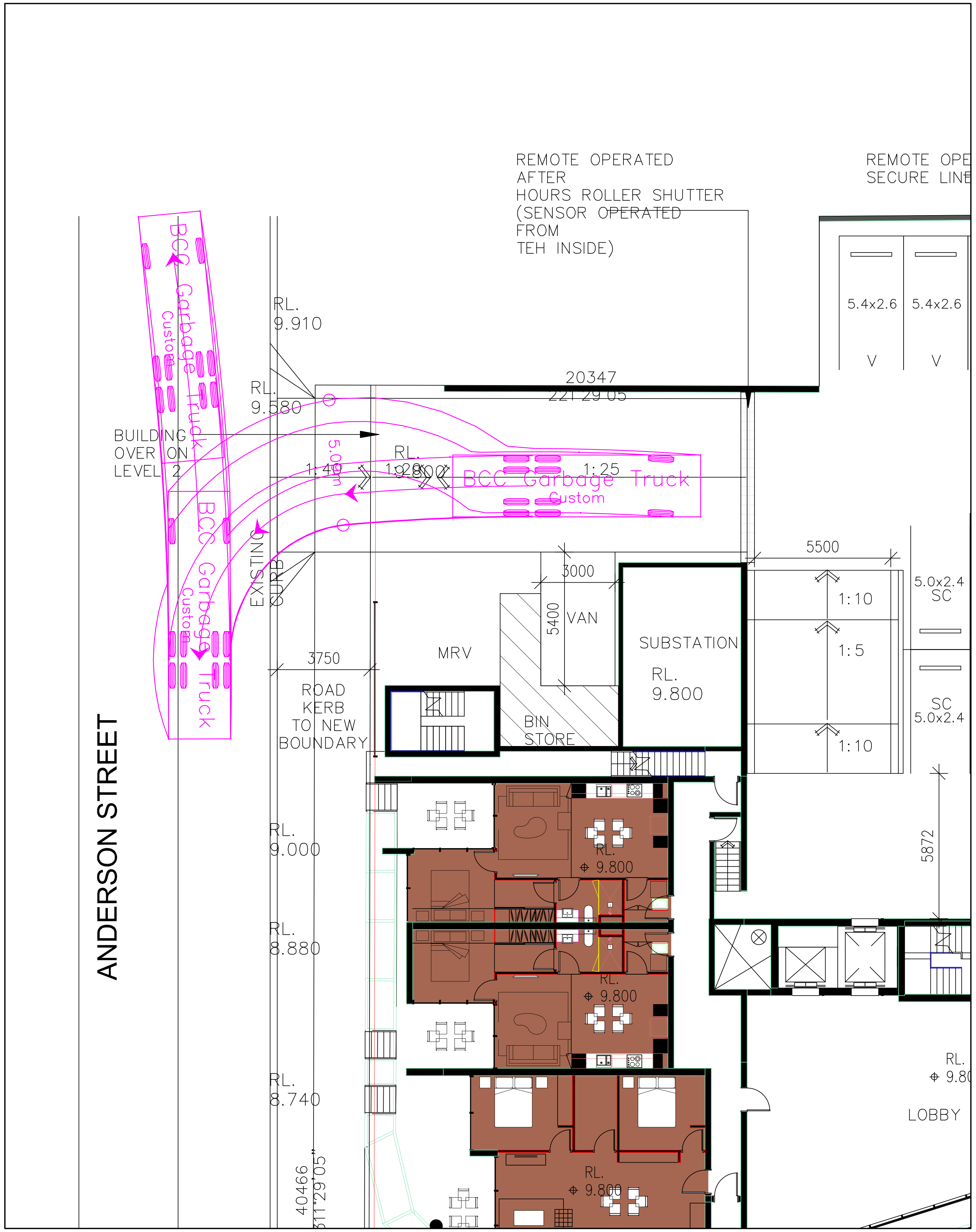
APPENDIX B

SWEPT PATH ASSESSMENT


REMOTE OPERATED AFTER HOURS ROLLER SHUTTER (SENSOR OPERATED FROM TEH INSIDE)
REMOTE OPE SECURE LINE
ANDERSON STREET
RL. 9.910
RL. 9.580
20347
221°29'05
BUILDING OVER ON LEVEL 2
1:40
1:25
BCC Garbage Truck
Custom
EXISTING CURB
5500
3000
5.4x2.6
5.0x2.4 SC
SC 5.0x2.4
1:10
1:5
VAN
5400
MRV
SUBSTATION
RL. 9.800
BIN STORE
3750
ROAD KERB TO NEW BOUNDARY
RL. 9.000
RL. 8.880
RL. 8.740
5872
LOBBY
40466
311°29'05"
10m BCC RCV INGRESS


REMOTE OPERATED AFTER HOURS ROLLER SHUTTER (SENSOR OPERATED FROM TEH INSIDE)
REMOTE OPE SECURE LINE
ANDERSON STREET
RL. 9.910
RL. 9.580
20347
221°29'05
BUILDING OVER ON LEVEL 2
1:40
1:25
BCC Garbage Truck
Custom
5.00m
EXISTING CURB
5500
3000
5.4x2.6
5.0x2.4 SC
SC 5.0x2.4
1:10
1:5
VAN
5400
MRV
SUBSTATION
RL. 9.800
BIN STORE
3750
ROAD KERB TO NEW BOUNDARY
RL. 9.000
RL. 8.880
RL. 8.740
5872
LOBBY
40466
311°29'05"
10m BCC RCV EGRESS

0 1 2 3 4m
SCALE 1:100 (A1)

Project:
RESIDENTIAL DEVELOPMENT
15 ANDERSON STREET, FORTITUDE VALLEY

Client:
PROPERTYLINK

Title:
VEHICLE SWEPT PATH ASSESSMENT
10m RCV

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Drawn: TG | Checked: AH | Approved:

Rev	Date
A	24/03/14

Figure No: B13372-SK-003
Scale: AS SHOWN | A1
File Ref: SEE BELOW

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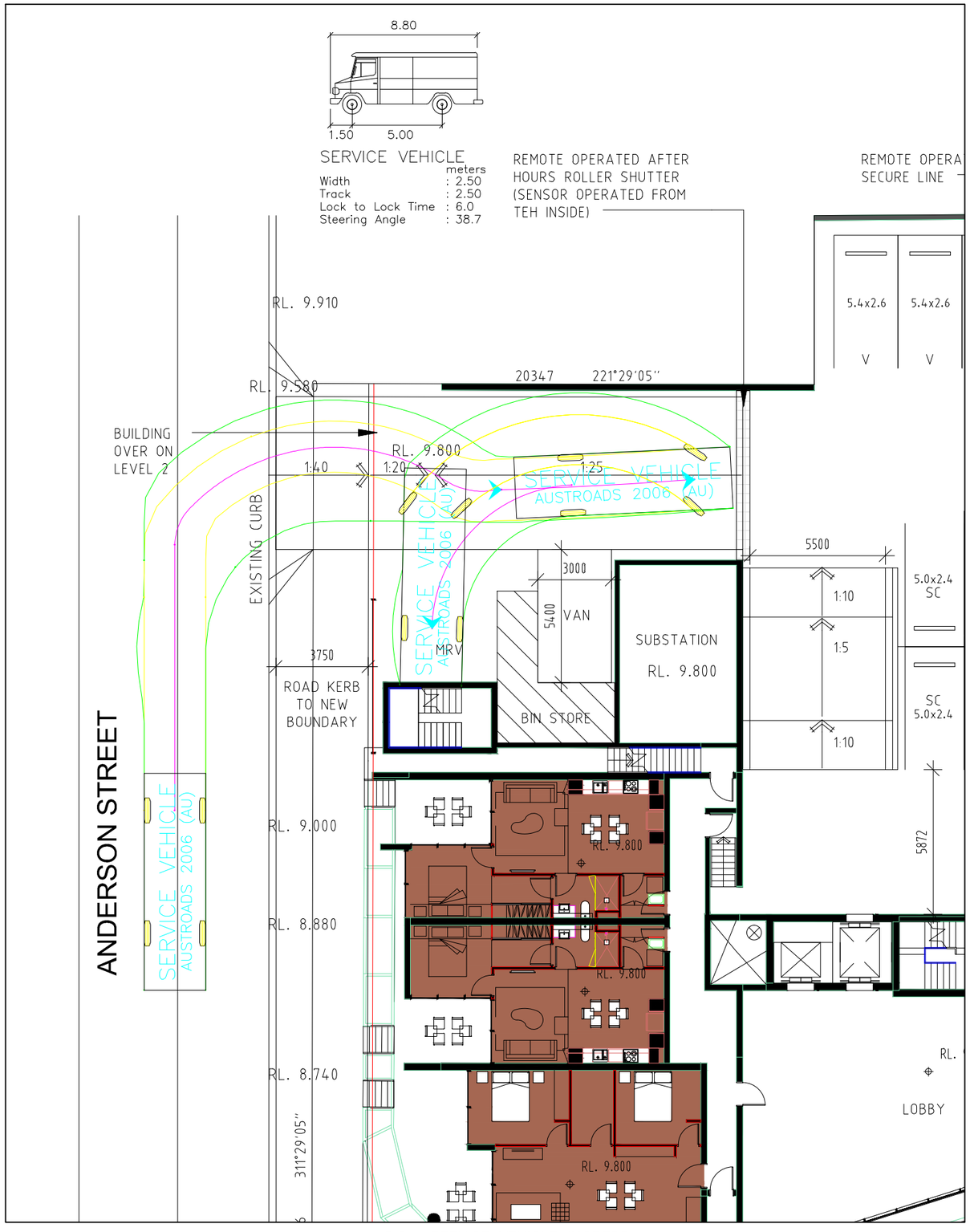
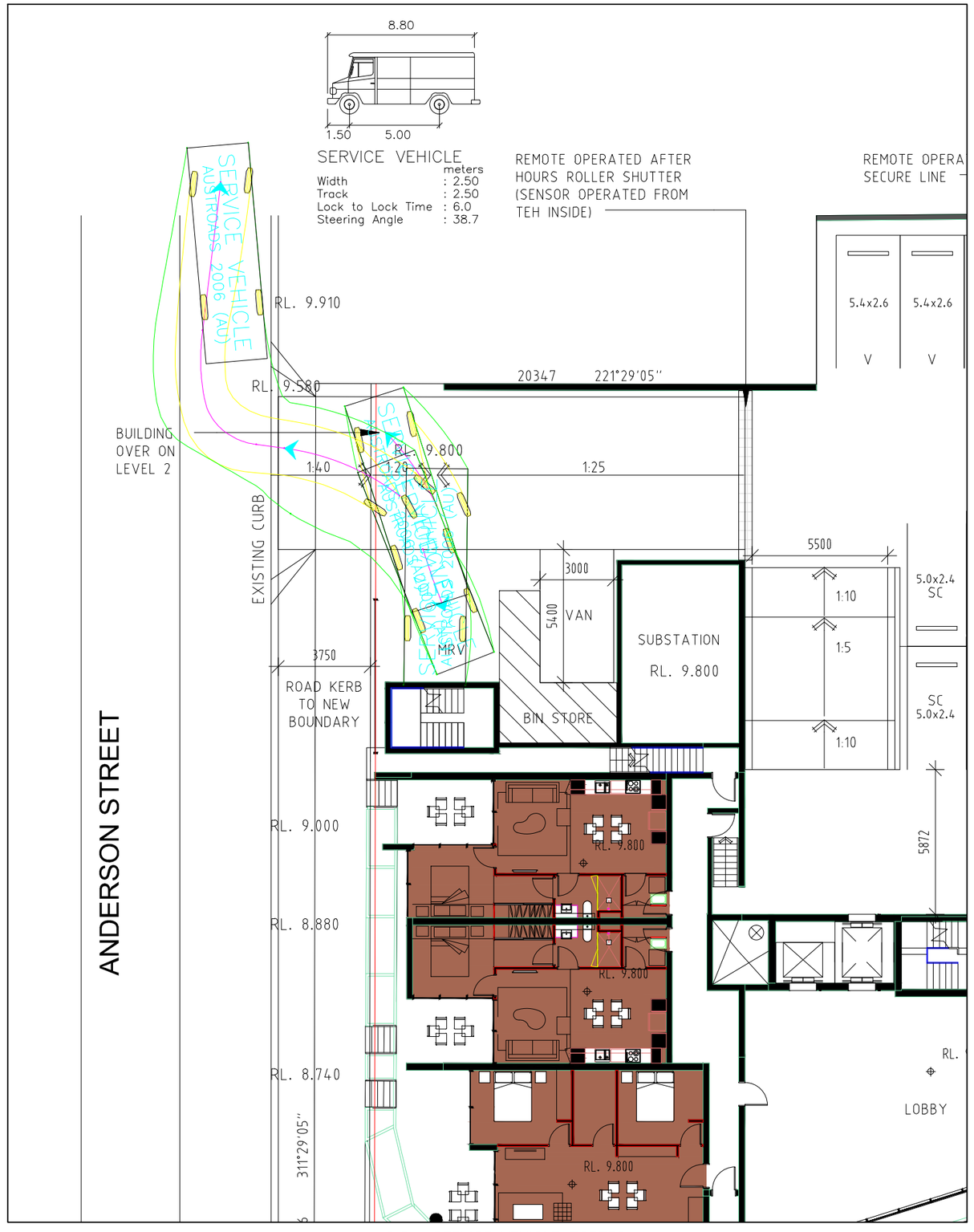


8.8m SERVICE VEHICLE INGRESS



8.8m SERVICE VEHICLE EGRESS

0 1 2 3 4m

SCALE 1:100 (A1)

Project:
RESIDENTIAL DEVELOPMENT
15 ANDERSON STREET, FORTITUDE VALLEY

Client:
PROPERTYLINK

Title:
VEHICLE SWEPT PATH ASSESSMENT
8.8m SERVICE VEHICLE - OPTION 1

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Drawn: CD | Checked: AH | Approved:

Rev. A | Date 4/12/13

Figure No: B13372-SK-001

Scale: AS SHOWN | Sheet Size A1

File Ref: SEE BELOW

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