
APPENDIX A: CAR PARK ALLOCATION

CAR PARK ALLOCATION SUMMARY

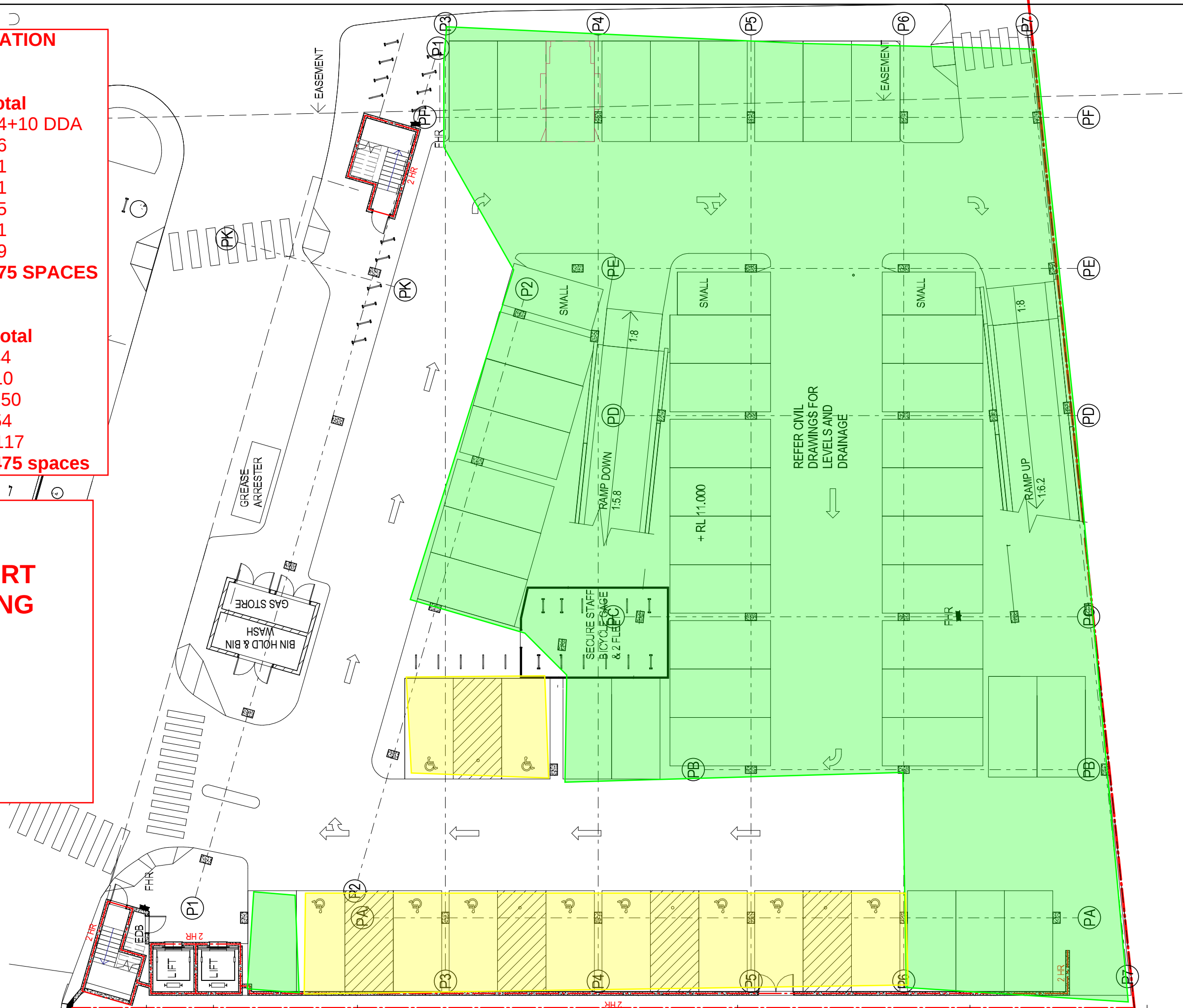
Level	Total
1	44+10 DDA
2	66
3	71
4	71
5	65
6	71
7	69
TOTAL	475 SPACES

Allocation	Total
Visitor/Short term	44
Accessible	10
Commuter	250
Fleet	54
Staff	117
TOTAL	475 spaces

LEVEL 1

VISITOR/SHORT TERM PARKING
(1 hour Limit)
44 Spaces

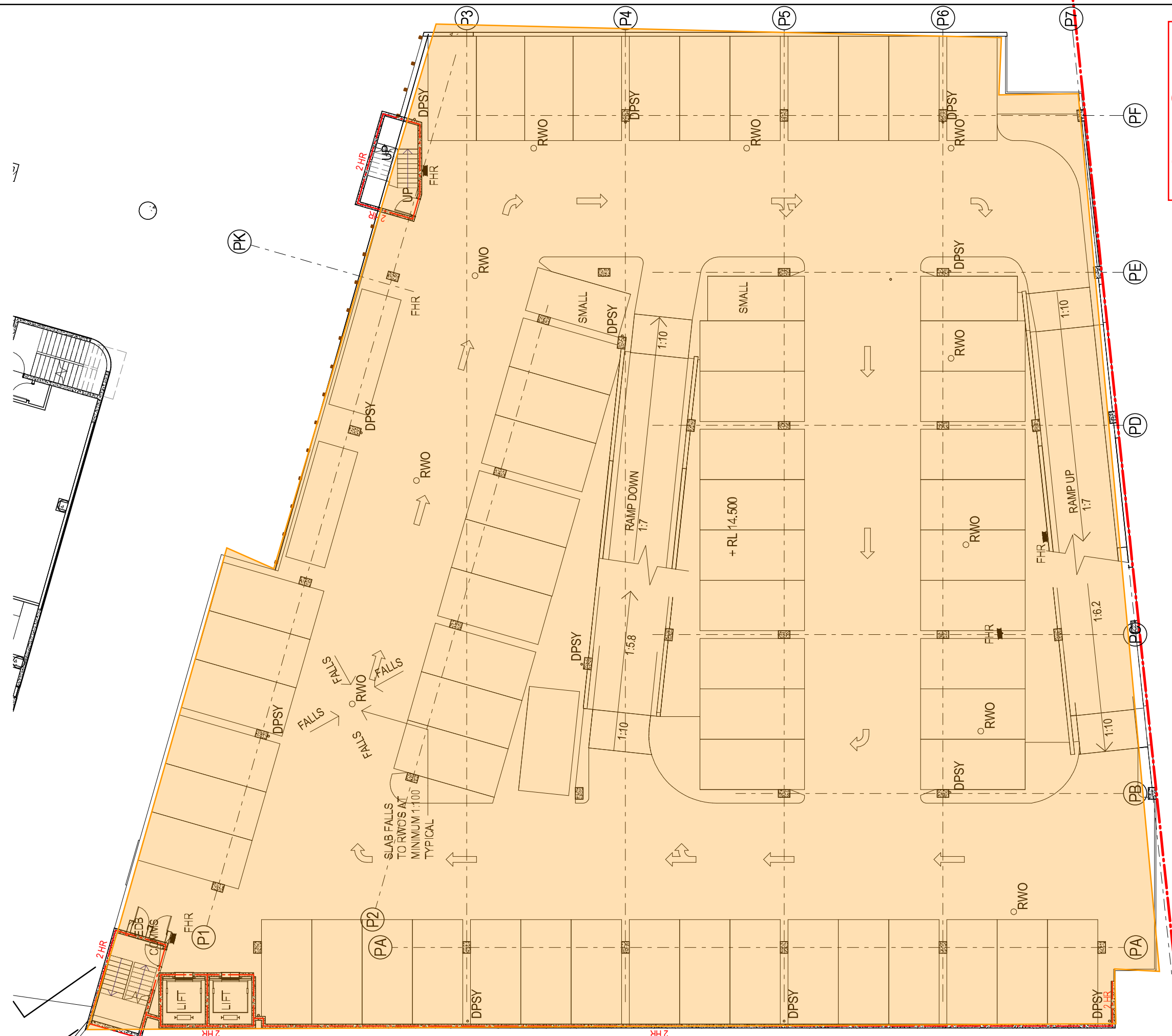
ACCESSIBLE PARKING
10 Spaces



PARKING SCHEDULE	
CARPARK LEVEL 1	
5000 x 2300 small car	3
5400 x 2600 (Disabled) 2	10
5400 x 2600 (Standard) 2	41
	54
CARPARK LEVEL 2	
5000 x 2300 small car	3
5400 x 2500 (Standard)	4
5400 x 2600 (Standard) 2	57
6200 x 2100 (Parallel)	2
	66
CARPARK LEVEL 3	
5000 x 2300 small car	3
5400 x 2500 (Standard)	4
5400 x 2600 (Standard) 2	64
	71
CARPARK LEVEL 4	
5000 x 2300 small car	3
5400 x 2500 (Standard)	4
5400 x 2600 (Standard) 2	64
	71
CARPARK LEVEL 5	
5000 x 2300 small car	2
5400 x 2500 (Standard)	4
5400 x 2600 (Standard) 2	59
	65
CARPARK LEVEL 6	
5000 x 2300 small car	3
5400 x 2500 (Standard)	4
5400 x 2600 (Standard) 2	64
	71
CARPARK LEVEL 7	
5000 x 2300 small car	8
5400 x 2500 (Standard)	4
5400 x 2600 (Standard) 2	65
	77
Grand total	475

**COMMUTER
PARKING**
66 Spaces

PARKING SCHEDULE		
CARPARK LEVEL 1		
5000 x 2300 small car		3
5400 x 2600 (Disabled) 2		10
5400 x 2600 (Standard) 2		41
		54
CARPARK LEVEL 2		
5000 x 2300 small car		3
5400 x 2500 (Standard)		4
5400 x 2600 (Standard) 2		57
6200 x 2100 (Parallel)		2
		66
CARPARK LEVEL 3		
5000 x 2300 small car		3
5400 x 2500 (Standard)		4
5400 x 2600 (Standard) 2		64
		71
CARPARK LEVEL 4		
5000 x 2300 small car		3
5400 x 2500 (Standard)		4
5400 x 2600 (Standard) 2		64
		71
CARPARK LEVEL 5		
5000 x 2300 small car		2
5400 x 2500 (Standard)		4
5400 x 2600 (Standard) 2		59
		65
CARPARK LEVEL 6		
5000 x 2300 small car		3
5400 x 2500 (Standard)		4
5400 x 2600 (Standard) 2		64
		71
CARPARK LEVEL 7		
5000 x 2300 small car		8
5400 x 2500 (Standard)		4
5400 x 2600 (Standard) 2		65
		77
Grand total		475



Principal Consultant



Project
Manager



Client



BROOKVALE COMMUNITY HEALTH CENTRE

612-624 PITTWATER ROAD, BROOKVALE, NSW.

Drawing

CARPARK LEVEL 2 FLOOR PLAN

Drawing No

CHC-BV-AR-SSD-302

Rev

10

| Issue Date |

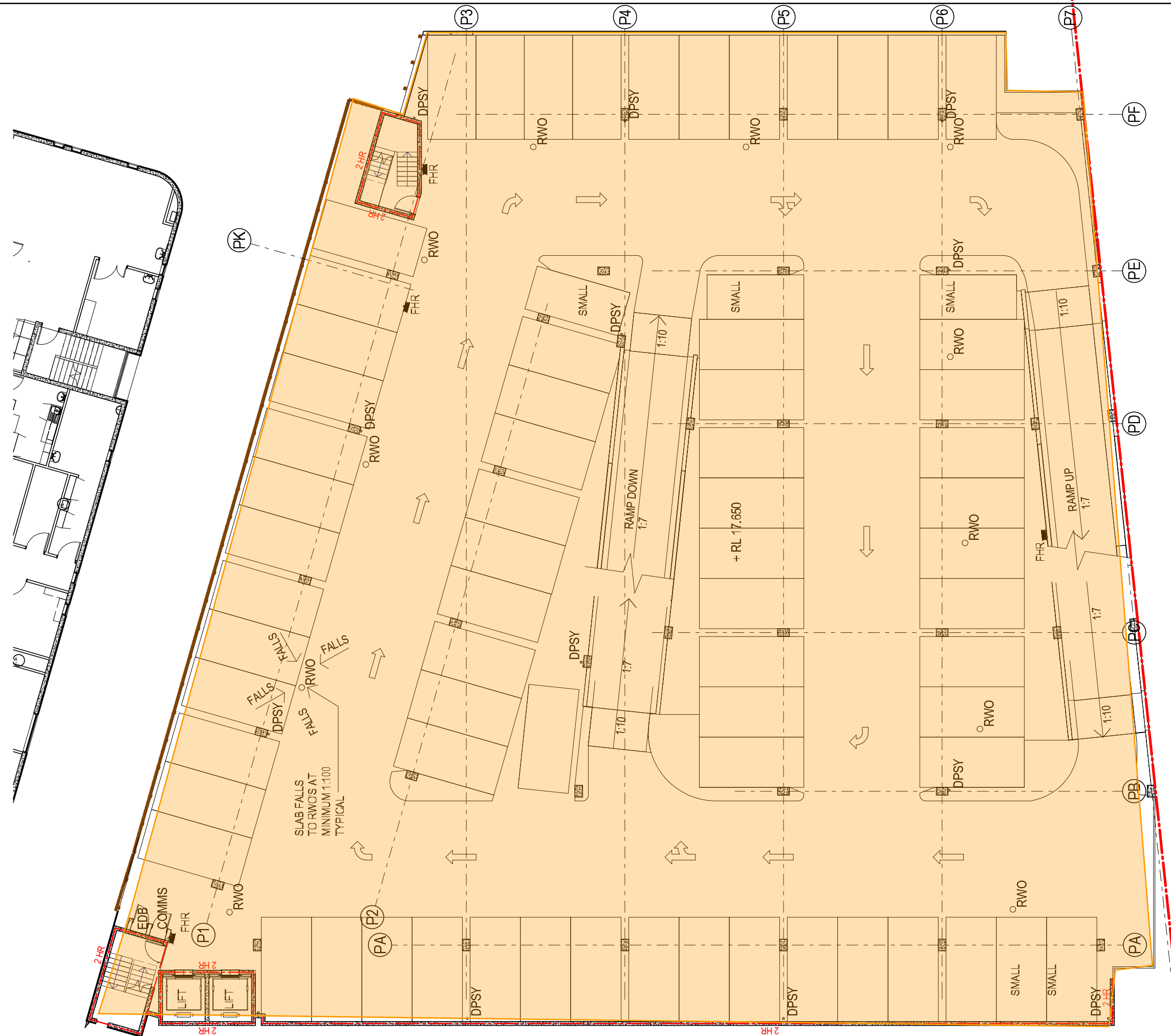
29/09/15

Scale

1:200
AT A3 SIZE

**COMMUTER
PARKING**
71 Spaces

PARKING SCHEDULE		
CARPARK LEVEL 1		
5000 x 2300 small car		3
5400 x 2600 (Disabled) 2		10
5400 x 2600 (Standard) 2		41
		54
CARPARK LEVEL 2		
5000 x 2300 small car		3
5400 x 2500 (Standard)		4
5400 x 2600 (Standard) 2		57
6200 x 2100 (Parallel)		2
		66
CARPARK LEVEL 3		
5000 x 2300 small car		3
5400 x 2500 (Standard)		4
5400 x 2600 (Standard) 2		64
		71
CARPARK LEVEL 4		
5000 x 2300 small car		3
5400 x 2500 (Standard)		4
5400 x 2600 (Standard) 2		64
		71
CARPARK LEVEL 5		
5000 x 2300 small car		2
5400 x 2500 (Standard)		4
5400 x 2600 (Standard) 2		59
		65
CARPARK LEVEL 6		
5000 x 2300 small car		3
5400 x 2500 (Standard)		4
5400 x 2600 (Standard) 2		64
		71
CARPARK LEVEL 7		
5000 x 2300 small car		8
5400 x 2500 (Standard)		4
5400 x 2600 (Standard) 2		65
		77
Grand total		475



McConel Smith & Johnson
ARCHITECTS

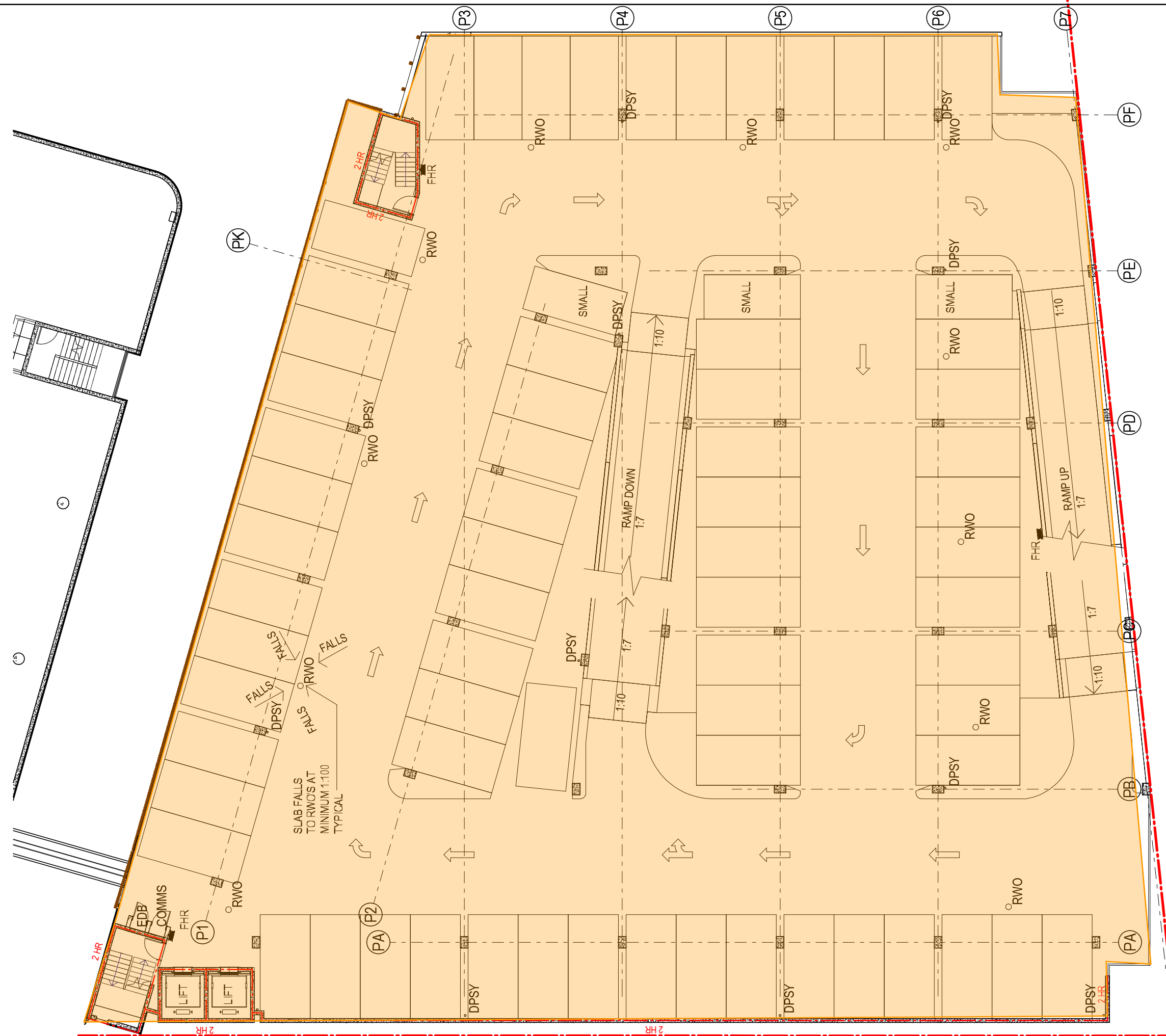


BROOKVALE COMMUNITY HEALTH CENTRE
612-624 PITTWATER ROAD, BROOKVALE,NSW.

Drawing
CARPARK LEVEL 3 FLOOR PLAN

Drawing No
CHC-BV-AR-SSD-303

Rev	Issue Date	Scale
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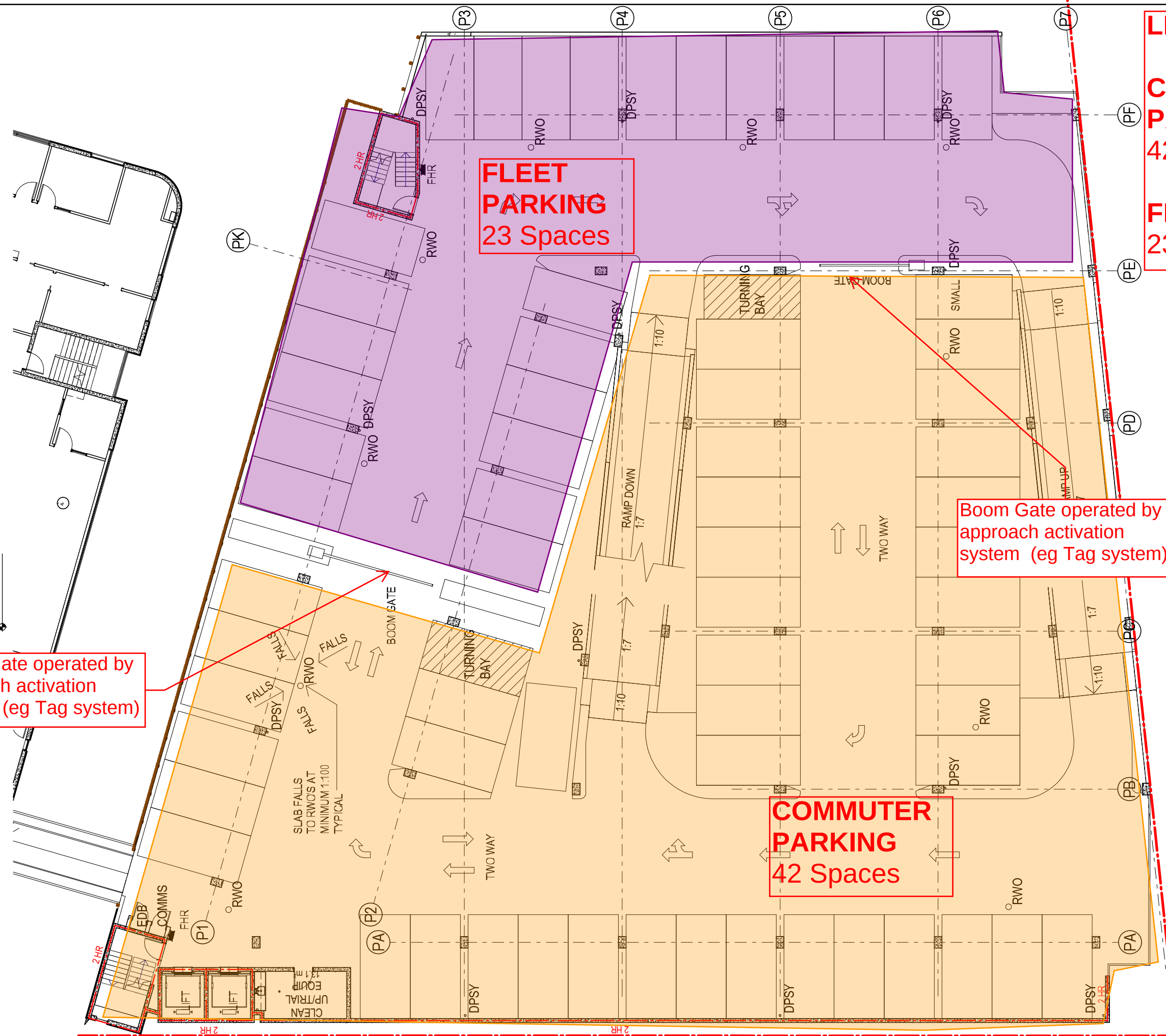


LEVEL 4

COMMUTER PARKING

71 Spaces

PARKING SCHEDULE		
CARPARK LEVEL 1		
5000 x 2300 small car	3	
5400 x 2600 (Disabled) 2	10	
5400 x 2600 (Standard) 2	41	
	54	
CARPARK LEVEL 2		
5000 x 2300 small car	3	
5400 x 2500 (Standard)	4	
5400 x 2600 (Standard) 2	57	
6200 x 2100 (Parallel)	2	
	66	
CARPARK LEVEL 3		
5000 x 2300 small car	3	
5400 x 2500 (Standard)	4	
5400 x 2600 (Standard) 2	64	
	71	
CARPARK LEVEL 4		
5000 x 2300 small car	3	
5400 x 2500 (Standard)	4	
5400 x 2600 (Standard) 2	64	
	71	
CARPARK LEVEL 5		
5000 x 2300 small car	2	
5400 x 2500 (Standard)	4	
5400 x 2600 (Standard) 2	59	
	65	
CARPARK LEVEL 6		
5000 x 2300 small car	3	
5400 x 2500 (Standard)	4	
5400 x 2600 (Standard) 2	64	
	71	
CARPARK LEVEL 7		
5000 x 2300 small car	8	
5400 x 2500 (Standard)	4	
5400 x 2600 (Standard) 2	65	
	77	
Grand total	475	



LEVEL 5

COMMUTER PARKING
42 Spaces

FLEET PARKING
23 Spaces

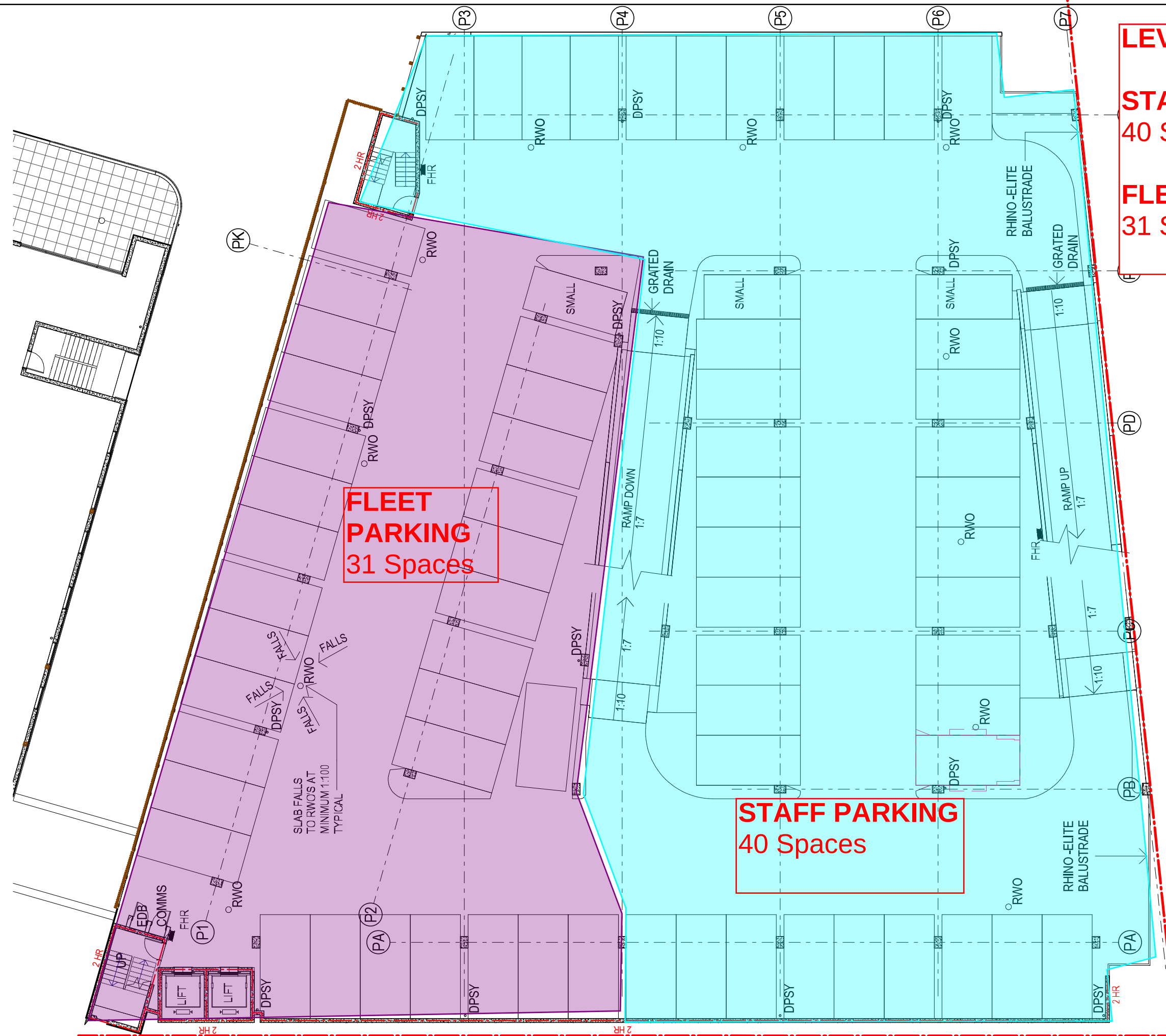
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CARPARK LEVEL 1	
5000 x 2300 small car	3
5400 x 2600 (Disabled) 2	10
5400 x 2600 (Standard) 2	41
	54
CARPARK LEVEL 2	
5000 x 2300 small car	3
5400 x 2500 (Standard)	4
5400 x 2600 (Standard) 2	57
6200 x 2100 (Parallel)	2
	66
CARPARK LEVEL 3	
5000 x 2300 small car	3
5400 x 2500 (Standard)	4
5400 x 2600 (Standard) 2	64
	71
CARPARK LEVEL 4	
5000 x 2300 small car	3
5400 x 2500 (Standard)	4
5400 x 2600 (Standard) 2	64
	71
CARPARK LEVEL 5	
5000 x 2300 small car	2
5400 x 2500 (Standard)	4
5400 x 2600 (Standard) 2	59
	65
CARPARK LEVEL 6	
5000 x 2300 small car	3
5400 x 2500 (Standard)	4
5400 x 2600 (Standard) 2	64
	71
CARPARK LEVEL 7	
5000 x 2300 small car	8
5400 x 2500 (Standard)	4
5400 x 2600 (Standard) 2	65
	77
Grand total	475

Boom Gate operated by approach activation system (eg Tag system)

Boom Gate operated by approach activation system (eg Tag system)

COMMUTER PARKING
42 Spaces

FLEET PARKING
23 Spaces

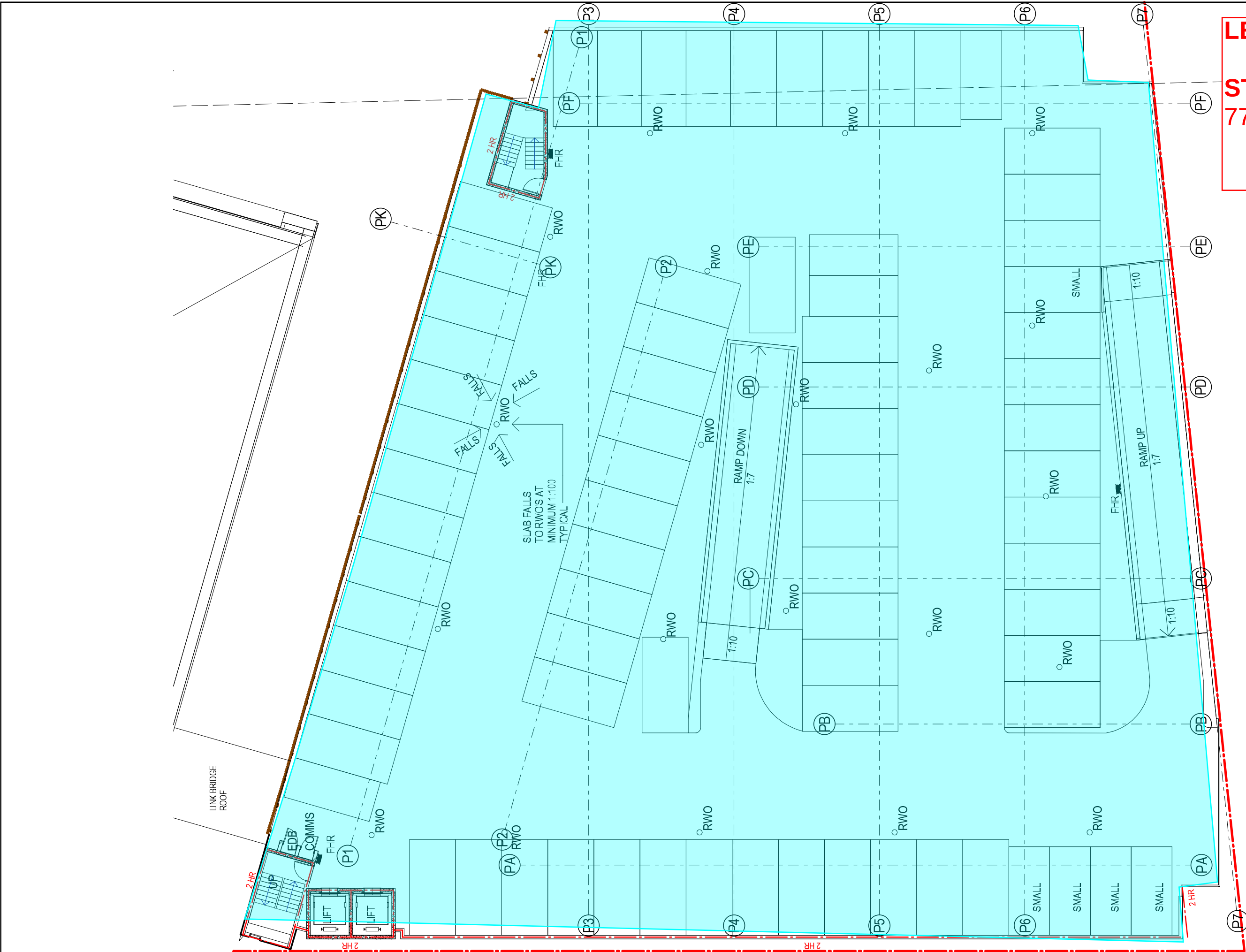


LEVEL 6

STAFF PARKING
40 Spaces

FLEET PARKING
31 Spaces

PARKING SCHEDULE		
CARPARK LEVEL 1		
5000 x 2300 small car	3	
5400 x 2600 (Disabled) 2	10	
5400 x 2600 (Standard) 2	41	
	54	
CARPARK LEVEL 2		
5000 x 2300 small car	3	
5400 x 2500 (Standard)	4	
5400 x 2600 (Standard) 2	57	
6200 x 2100 (Parallel)	2	
	66	
CARPARK LEVEL 3		
5000 x 2300 small car	3	
5400 x 2500 (Standard)	4	
5400 x 2600 (Standard) 2	64	
	71	
CARPARK LEVEL 4		
5000 x 2300 small car	3	
5400 x 2500 (Standard)	4	
5400 x 2600 (Standard) 2	64	
	71	
CARPARK LEVEL 5		
5000 x 2300 small car	2	
5400 x 2500 (Standard)	4	
5400 x 2600 (Standard) 2	59	
	65	
CARPARK LEVEL 6		
5000 x 2300 small car	3	
5400 x 2500 (Standard)	4	
5400 x 2600 (Standard) 2	64	
	71	
CARPARK LEVEL 7		
5000 x 2300 small car	8	
5400 x 2500 (Standard)	4	
5400 x 2600 (Standard) 2	65	
	77	
Grand total	475	



LEVEL 7

STAFF PARKING
77 Spaces

PARKING SCHEDULE		
CARPARK LEVEL 1		
5000 x 2300 small car	3	
5400 x 2600 (Disabled) 2	10	
5400 x 2600 (Standard) 2	41	
	54	
CARPARK LEVEL 2		
5000 x 2300 small car	3	
5400 x 2500 (Standard)	4	
5400 x 2600 (Standard) 2	57	
6200 x 2100 (Parallel)	2	
	66	
CARPARK LEVEL 3		
5000 x 2300 small car	3	
5400 x 2500 (Standard)	4	
5400 x 2600 (Standard) 2	64	
	71	
CARPARK LEVEL 4		
5000 x 2300 small car	3	
5400 x 2500 (Standard)	4	
5400 x 2600 (Standard) 2	64	
	71	
CARPARK LEVEL 5		
5000 x 2300 small car	2	
5400 x 2500 (Standard)	4	
5400 x 2600 (Standard) 2	59	
	65	
CARPARK LEVEL 6		
5000 x 2300 small car	3	
5400 x 2500 (Standard)	4	
5400 x 2600 (Standard) 2	64	
	71	
CARPARK LEVEL 7		
5000 x 2300 small car	8	
5400 x 2500 (Standard)	4	
5400 x 2600 (Standard) 2	65	
	77	
Grand total	475	

North



Principal Consultant



Project Manager



Client



BROOKVALE COMMUNITY HEALTH CENTRE

612-624 PITTWATER ROAD, BROOKVALE, NSW.

Drawing

CARPARK LEVEL 7 FLOOR PLAN

Drawing No

CHC-BV-AR-SSD-307

Rev

8

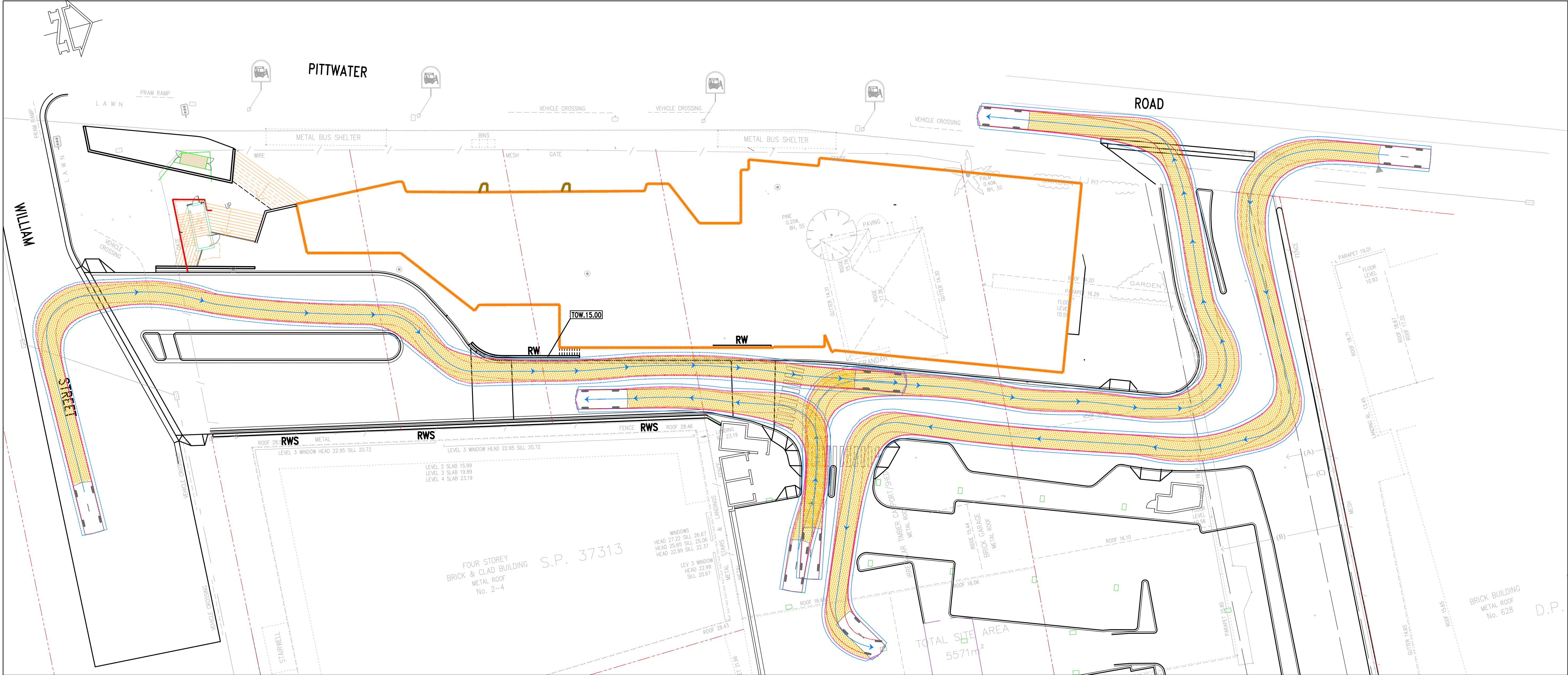
Issue Date

16/10/15

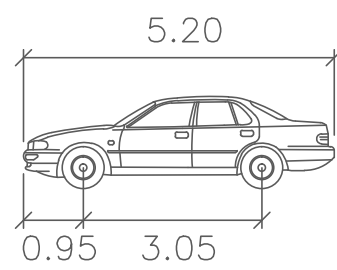
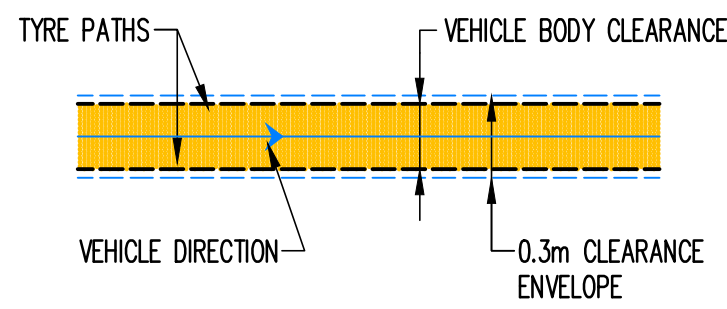
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AT A3 SIZE

APPENDIX B: VEHICLE TURNING PATH PLANS



SWEPT PATH LEGEND:



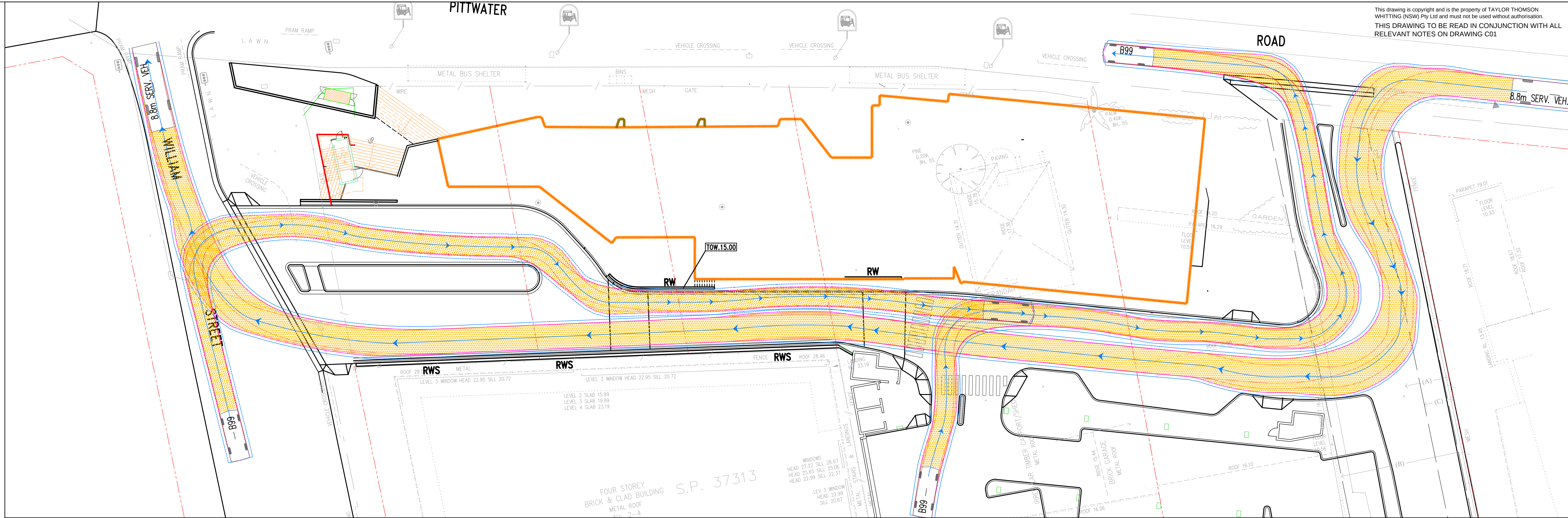
B99

meters

Width : 1.94
Track : 1.84
Lock to Lock Time : 6.0
Steering Angle : 37.2

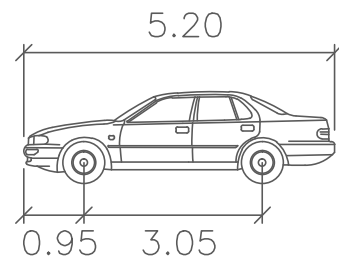
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																								TURNING PATHS				1:200				RP															
																												B99																			
																																Job No				Drawing No				Revision							
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																																				Plot File Created: Oct 16, 2015 - 4:08pm											

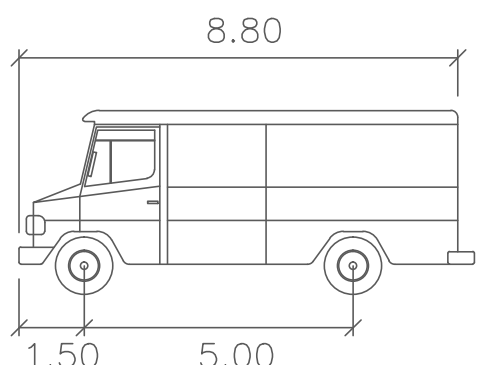
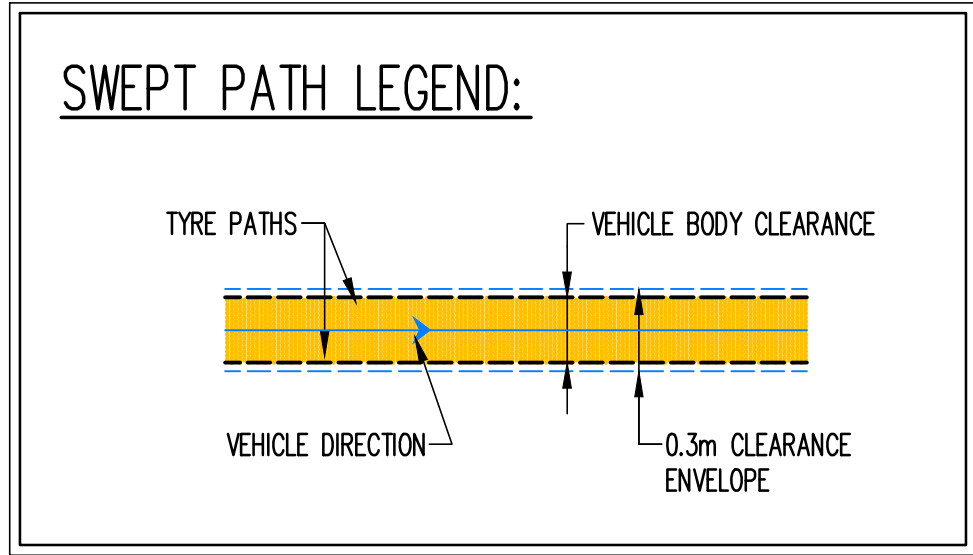


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THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT NOTES ON DRAWING C01

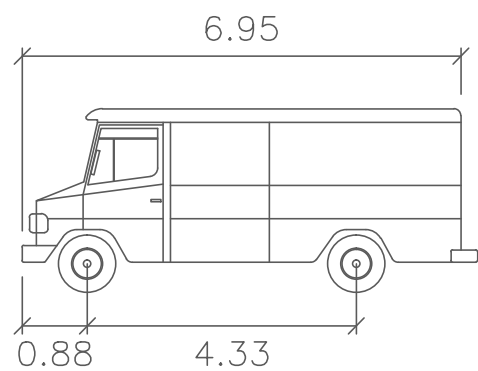
SERVICE VEHICLE & B99
SCALE 1: 200



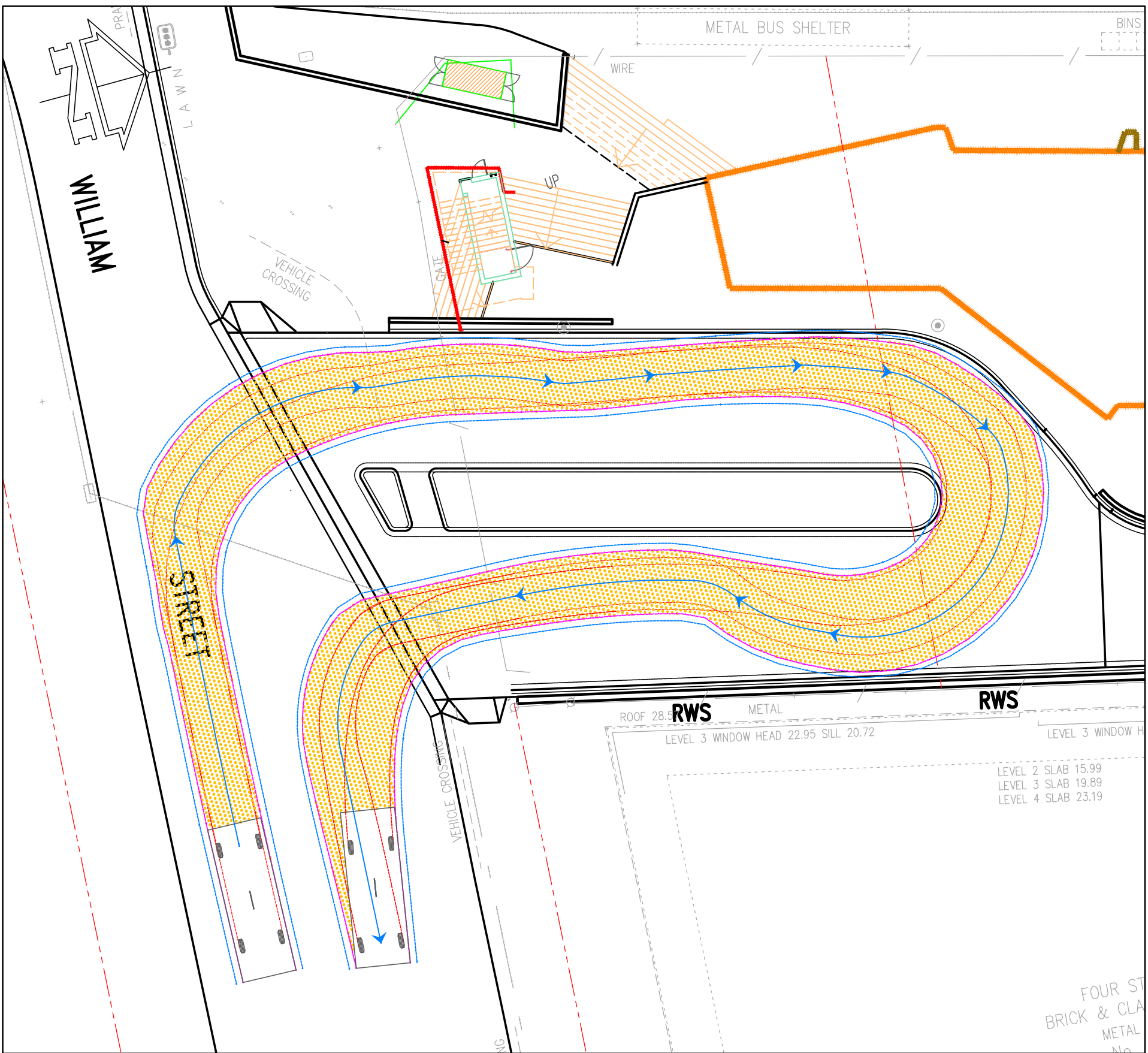
B99 meters
Width : 1.94
Track : 1.84
Lock to Lock Time : 6.0
Steering Angle : 37.2



SERVICE VEHICLE meters
Width : 2.50
Track : 2.50
Lock to Lock Time : 6.0
Steering Angle : 38.7



Bariatric meters
Width : 1.99
Track : 1.99
Lock to Lock Time : 6.0
Steering Angle : 38.2



BARIATRIC AMBULANCE
SCALE 1: 200

Filename: C17.dwg - USER: mcsweb - Plot File Created: Oct 16, 2015 - 4:08pm

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												BROOKVALE COMMUNITY HEALTH CENTRE 612-624 PITTWATER ROAD BROOKVALE NSW 2100		TURNING PATHS BARIATRIC GENERAL & SERVICE VEHICLE		1:200		RP			
				level 8, 77 Pacific Highway, North Sydney NSW 2060						level 8, 16 O'Connell Street Sydney NSW 2000 T +612 8256 0500 F +612 8256 0501 ABN 79 137 728 977											
				McConnell Smith & Johnson ARCHITECTS						Taylor Thomson Whitting (NSW) Pty Ltd A.C.N. 113 576 377											

APPENDIX C: SIDRA ANALYSIS RESULTS



TaylorThomsonWhitting

16 October 2015

121211

(Rev 2)

BROOKVALE COMMUNITY HEALTH CENTRE

SIDRA ANALYSIS BCHC

William Street/Pittwater Road/Condamine St Intersection

Objective

To review the provision of right turn from William Street onto Pittwater Road and removal of at grade pedestrian crossing on Pittwater Road northern arm.

Assumptions

- Peak period additional traffic flow = 450vph
- AM: 70% incoming (315 vph): 50% from North (158); 50% from South (158)
 30% incoming (135 vph): 50% from North (68); 50% from South (68)
- PM: visa versa
- All vehicles from north enter via Pittwater Road
- All vehicles from south enter via William Street
- Exiting vehicles site southbound distributed 50% onto Pittwater road directly and 50% onto Pittwater Road via William street
- As a sensitivity review on the intersection performance, an additional 200 vph (over the development traffic generation) was implemented into the right turn from William Street into Pittwater Road as a factor to include potential additional traffic that may utilise the proposed right turn from William Street that currently does not exist. This is estimated as a worse case scenario based on traffic data provide at other intersections north of William Street. Mitchell Road onto Pittwater Road traffic volume was in the order of some 150-160 veh during peak periods
- Existing model based on GHD Consultants model provided and reviewed. The following amendments we made:
 - o Provision of 240m lane length on Pittwater Road (North)
 - o Provision of 240m lane length on William Street (East)
 - o Removal of right turn from far left lane from Condamine Street into Pittwater street (North)
 - o Signal cycle time 140sec as requested by RMS

Structural

Civil

Traffic

Facade

Engineers

TTW Group

Directors

RT Green BE Hons MEngSc FIE Aust
 D Carolan BE Hons MEngSc MIEAust
 R Mackellar BE Hons MIEAust
 B Young BE Hons MIEAust
 M Eddy BE Hons MIEAust
 R McDougall BE MIEAust

Technical Directors

P Yannoulatos BE Hons Dip LGE MIEAust
 D Genner BE Hons MIEAust
 S Brain BE Hons MIEAust
 D Jeffree BE MIEAust
 N Burdon BE Hons ME MIEAust MIPENZ
 H Nguyen BScEng MIEAust
 R Pratikna BE MConstMgt MIEAust
 K Berry BE Hons MIEAust CPEng MIPENZ MICE

Associate Directors

S Schuetze BE Hons MIEAust
 M Rogers BSc Hons MIEAust
 D Taylor BE Hons MIEAust
 J Tropiano BE MIEAust
 P Lambley BE MIEAust
 J Haling BE Hons MIEAust
 D Mayne MEng Hons MIEAust
 G Fowle BE Hons MIEAust
 W Alexander BE Hons MIEAust
 R Milsted MEng Hons MIEAust
 N Hallam BE Hons BCom MIEAust
 S Nixon BE Hons MIEAust

Associates

N Bason BE MIEAust
 M King BE Hons MIEAust
 J Miles BE Hons
 G Bills BE Hons MIEAust
 G Petschack JP
 M Raddatz

Manager Facade

N McClelland BSc BE Hons MBA MIEAust

Summary of Results

Table 1: Pittwater Road/William Street Intersection Existing Analysis

Criteria	AM Peak Hour	PM Peak Hour
Level of Service	C	C
Average Delay (sec/veh)	34.0	29.2
Degree of Saturation	0.665	0.668

Table 2: Pittwater Road/William Street Intersection Post Development

Criteria	AM Peak Hour	PM Peak Hour
Level of Service	C	C
Average Delay (sec/veh)	36.0	28.8
Degree of Saturation	0.705	0.649

Table 3: Pittwater Road/William Street Intersection Post Development + 200 additional vehicles

Criteria	AM Peak Hour	PM Peak Hour
Level of Service	C	C
Average Delay (sec/veh)	38.4	37.3
Degree of Saturation	0.706	0.770

Conclusion

Based on the above assumptions and traffic generation of the BHCH, the intersection with the propose right turn facility from William Street onto Pittwater Road, in conjunction with the removal of the at grade pedestrian crossing across the northern arm of Pittwater Road, would continue to operate at a similar Levels of Service as the existing situation. In addition, an allowance of up to 200 vehicles turning right as a result of the additional turn facility provided has been modelled and indicates the intersection will to continue to operate at a similar Levels of Service as the existing situation.

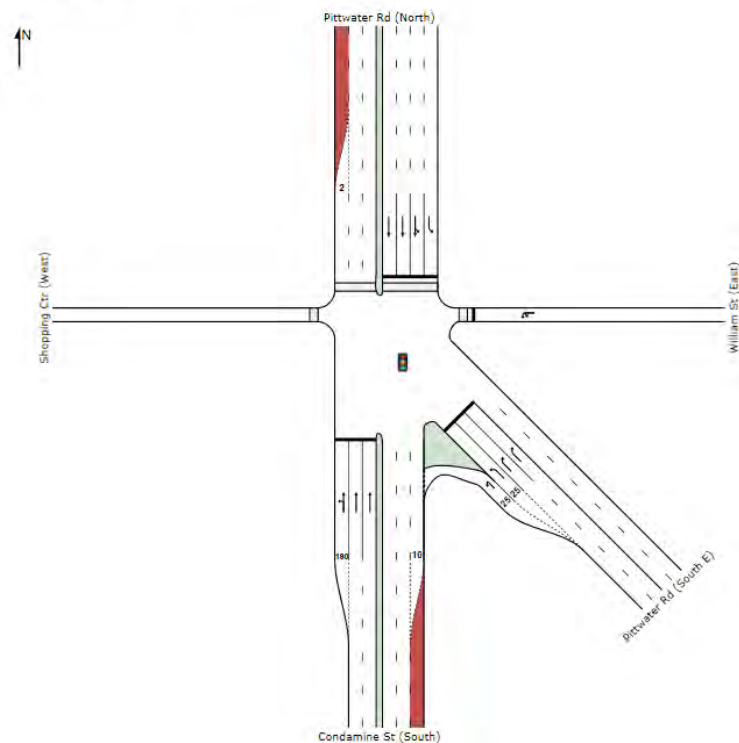
SIDRA RESULTS

Existing Intersection Layout

SITE LAYOUT

 Site: Pittwater Condamine Williams Weekday AM

Pittwater Condamine and William Street
Signals - Fixed Time

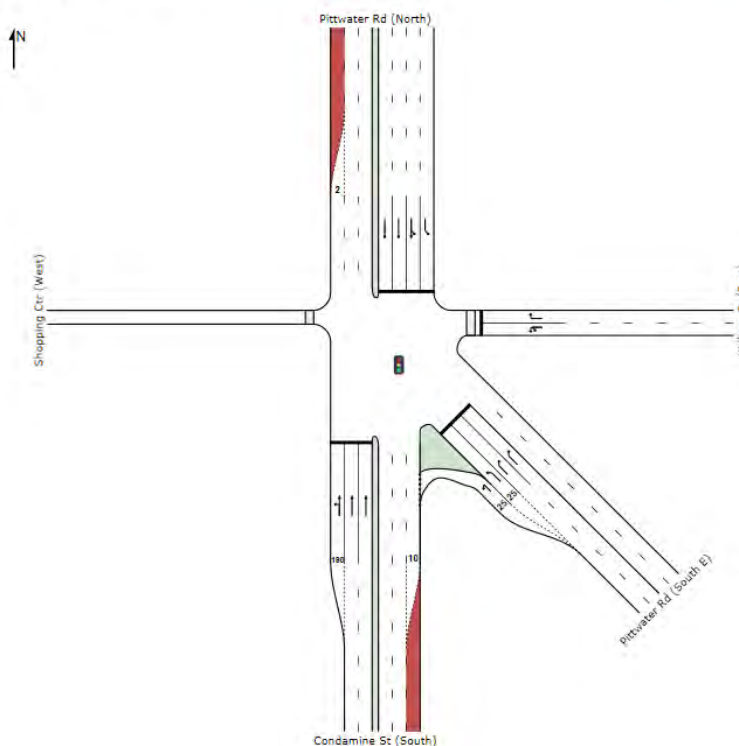


Proposed Intersection Layout

SITE LAYOUT

 Site: Pittwater Condamine Williams Weekday AM: Post Development (Right turn from William St)

Pittwater Condamine and William Street
Signals - Fixed Time



Existing Analysis Results

LANE SUMMARY



Site: Pittwater Condamine Williams Weekday AM (2011)

Pittwater Condamine and William Street

Signals - Fixed Time Isolated Cycle Time = 140 seconds (User-Given Cycle Time)

Lane Use and Performance

	Demand Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total	HV						Veh	Dist				
	veh/h	% veh/h	veh/h	v/c	%	sec			m		m	%	%
South: Condamine St (South)													
Lane 1	96	25.4	799	0.121	19 ⁵	23.2	LOS B	3.4	29.2	Short	190	0.0	NA
Lane 2	581	6.1	924	0.629	100	27.6	LOS B	28.7	211.6	Full	500	0.0	0.0
Lane 3	581	6.1	924	0.629	100	27.6	LOS B	28.7	211.6	Full	500	0.0	0.0
Approach	1259	7.6		0.629		27.3	LOS B	28.7	211.6				
SouthEast: Pittwater Rd (South E)													
Lane 1	143	5.0	598	0.240	100	21.2	LOS B	4.7	34.6	Short	25	0.0	NA
Lane 2	62	2.0	337	0.184	100	57.1	LOS E	3.6	25.7	Short	25	0.0	NA ⁸
Lane 3	190	1.0	292 ¹	0.650	100	61.5	LOS E	12.0	84.6	Full	500	0.0	0.0
Lane 4	220	1.0	339	0.650	100	62.6	LOS E	14.2	99.9	Full	500	0.0	0.0
Approach	616	2.0		0.650		52.1	LOS D	14.2	99.9				
East: William St (East)													
Lane 1	229	4.6	355	0.646	100	61.6	LOS E	14.6	105.8	Full	240	0.0	0.0
Approach	229	4.6		0.646		61.6	LOS E	14.6	105.8				
North: Pittwater Rd (North)													
Lane 1	13	100.0	555	0.023	3 ⁵	24.1	LOS B	0.4	5.8	Full	240	0.0	0.0
Lane 2	356	3.6	919	0.387	58 ⁵	28.0	LOS B	14.9	107.8	Full	240	0.0	0.0
Lane 3	630	2.1	948	0.665	100	28.4	LOS B	31.9	227.7	Full	240	0.0	0.2
Lane 4	592	12.2	890	0.665	100	28.4	LOS B	30.1	232.4	Full	240	0.0	2.1
Approach	1591	7.0		0.665		28.2	LOS B	31.9	232.4				
Intersecti	3695	6.2		0.665		34.0	LOS C	31.9	232.4				

¹ Reduced capacity due to a short lane effect.

⁵ Lane under-utilisation found by the program

⁸ Probability of Blockage has been set on the basis of a queue that overflows from an adjacent short lane.

PHASING SUMMARY



Site: Pittwater Condamine Williams Weekday AM (2011)

Pittwater Condamine and William Street

Signals - Fixed Time Isolated Cycle Time = 140 seconds (User-Given Cycle Time)

Phase times determined by the program

Sequence: Two-Phase

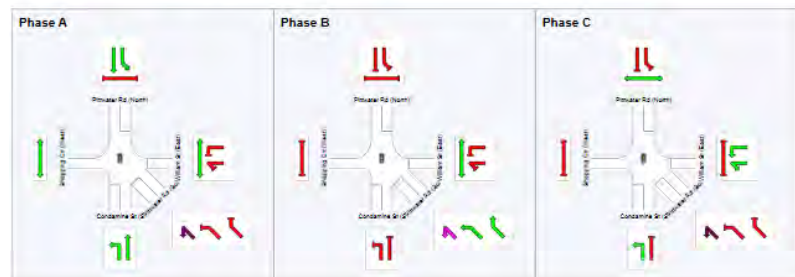
Movement Class: All Movement Classes

Input Sequence: A, B, C

Output Sequence: A, B, C

Phase Timing Results

Phase	A	B	C
Reference Phase	Yes	No	No
Phase Change Time (sec)	0	75	106
Green Time (sec)	69	25	28
Yellow Time (sec)	4	4	4
All-Red Time (sec)	2	2	2
Phase Time (sec)	75	31	34
Phase Split	54 %	22 %	24 %



LANE SUMMARY



Site: Pittwater Condamine Williams Weekday PM (2011)

Pittwater Condamine and William Street

Signals - Fixed Time Isolated Cycle Time = 140 seconds (User-Given Cycle Time)

Lane Use and Performance

	Demand Flows Total veh/h	Cap. HV % veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue		Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
							Veh	Dist m				
South: Condamine St (South)												
Lane 1	99	36.5	0.121	18 ⁵	19.2	LOS B	3.2	29.7	Short	190	0.0	NA
Lane 2	707	2.6	0.688	100	25.3	LOS B	34.9	249.3	Full	500	0.0	0.0
Lane 3	707	2.6	0.688	100	25.3	LOS B	34.9	249.3	Full	500	0.0	0.0
Approach	1513	4.8	0.688		24.9	LOS B	34.9	249.3				
SouthEast: Pittwater Rd (South E)												
Lane 1	55	0.0	0.077	100	13.3	LOS A	1.1	7.9	Short	25	0.0	NA
Lane 2	38	0.0	0.154	100	63.3	LOS E	2.3	16.3	Short	25	0.0	NA
Lane 3	148	6.0	0.685	100	69.1	LOS E	9.9	73.1	Full	500	0.0	0.0
Lane 4	162	6.0	0.685	100	69.5	LOS E	10.9	80.5	Full	500	0.0	0.0
Approach	402	4.6	0.685		61.1	LOS E	10.9	80.5				
East: William St (East)												
Lane 1	107	0.9	0.286	100	56.1	LOS D	6.2	43.7	Full	240	0.0	0.0
Approach	107	0.9	0.286		56.1	LOS D	6.2	43.7				
North: Pittwater Rd (North)												
Lane 1	710	100.0	0.011	2 ⁵	20.8	LOS B	0.2	2.7	Full	240	0.0	0.0
Lane 2	450	5.4	0.455	100	25.2	LOS B	18.5	135.7	Full	240	0.0	0.0
Lane 3	589	1.5	0.569	100	22.9	LOS B	26.4	187.0	Full	240	0.0	0.0
Lane 4	589	1.5	0.569	100	22.9	LOS B	26.4	187.0	Full	240	0.0	0.0
Approach	1635	3.0	0.569		23.5	LOS B	26.4	187.0				
Intersection	3657	3.9	0.688		29.2	LOS C	34.9	249.3				

¹ Reduced capacity due to a short lane effect.

⁵ Lane under-utilisation found by the program

PHASING SUMMARY



Site: Pittwater Condamine Williams Weekday PM (2011)

Pittwater Condamine and William Street

Signals - Fixed Time Cycle Time = 140 seconds (User-Given Cycle Time)

Phase times determined by the program

Sequence: Two-Phase

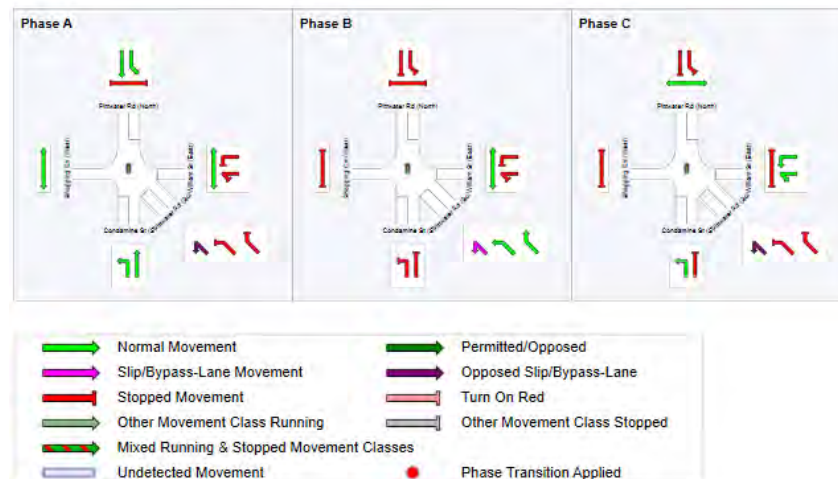
Movement Class: All Movement Classes

Input Sequence: A, B, C

Output Sequence: A, B, C

Phase Timing Results

Phase	A	B	C
Reference Phase	Yes	No	No
Phase Change Time (sec)	0	81	105
Green Time (sec)	75	18	29
Yellow Time (sec)	4	4	4
All-Red Time (sec)	2	2	2
Phase Time (sec)	81	24	35
Phase Split	58 %	17 %	25 %



LANE SUMMARY



Site: Pittwater Condamine Williams Weekday AM: Post Development (Right turn from William St)

Pittwater Condamine and William Street

Signals - Fixed Time Isolated Cycle Time = 140 seconds (User-Given Cycle Time)

Lane Use and Performance

	Demand Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total	HV						Veh	Dist				
	veh/h	% veh/h											
South: Condamine St (South)													
Lane 1	96	25.4	775	0.124	19 ⁵	24.4	LOS B	3.5	30.0	Short	190	0.0	NA
Lane 2	581	6.1	897	0.648	100	29.2	LOS C	29.6	217.8	Full	500	0.0	0.0
Lane 3	581	6.1	897	0.648	100	29.2	LOS C	29.6	217.8	Full	500	0.0	0.0
Approach	1259	7.6		0.648		28.9	LOS C	29.6	217.8				
SouthEast: Pittwater Rd (South E)													
Lane 1	143	5.0	568	0.252	100	24.0	LOS B	5.2	37.7	Short	25	0.0	NA
Lane 2	62	2.0	323	0.192	100	58.1	LOS E	3.6	26.0	Short	25	0.0	NA ⁸
Lane 3	190	1.0	280 ¹	0.678	100	63.0	LOS E	12.2	86.0	Full	500	0.0	0.0
Lane 4	221	1.0	325	0.678	100	63.8	LOS E	14.4	101.3	Full	500	0.0	0.0
Approach	616	2.0		0.678		53.7	LOS D	14.4	101.3				
East: William St (East)													
Lane 1	265	4.5	388	0.684	100	59.9	LOS E	16.8	121.8	Full	240	0.0	0.0
Lane 2	72	1.0	402	0.178	100	53.0	LOS D	4.0	27.9	Full	240	0.0	0.0
Approach	337	3.7		0.684		58.5	LOS E	16.8	121.8				
North: Pittwater Rd (North)													
Lane 1	13	100.0	539	0.024	3 ⁵	25.1	LOS B	0.5	5.9	Full	240	0.0	0.0
Lane 2	356	3.6	892	0.398	57 ⁵	29.3	LOS C	15.4	111.0	Full	240	0.0	0.0
Lane 3	649	2.1	921	0.705	100	30.4	LOS C	34.3	244.7	Full	240	0.0	6.7
Lane 4	609	12.2	865	0.705	100	30.5	LOS C	32.3	249.8	Full	240	0.0	8.6
Approach	1626	7.0		0.705		30.2	LOS C	34.3	249.8				
Intersection	3838	6.1		0.705		36.0	LOS C	34.3	249.8				

¹ Reduced capacity due to a short lane effect.

⁵ Lane under-utilisation found by the program

⁸ Probability of Blockage has been set on the basis of a queue that overflows from an adjacent short lane.

PHASING SUMMARY



Site: Pittwater Condamine Williams Weekday AM: Post Development (Right turn from William St)

Pittwater Condamine and William Street

Signals - Fixed Time Isolated Cycle Time = 140 seconds (User-Given Cycle Time)

Phase times determined by the program

Sequence: Two-Phase

Movement Class: All Movement Classes

Input Sequence: A, B, C

Output Sequence: A, B, C

Phase Timing Results

Phase	A	B	C
Reference Phase	Yes	No	No
Phase Change Time (sec)	0	73	103
Green Time (sec)	67	24	31
Yellow Time (sec)	4	4	4
All-Red Time (sec)	2	2	2
Phase Time (sec)	73	30	37
Phase Split	52 %	21 %	26 %



LANE SUMMARY



Site: Pittwater Condamine Williams Weekday PM: Post Development (Right turn from William St)

Pittwater Condamine and William Street

Signals - Fixed Time Isolated Cycle Time = 140 seconds (User-Given Cycle Time)

Lane Use and Performance

	Demand Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total	HV						Veh	Dist				
	veh/h	%											
South: Condamine St (South)													
Lane 1	99	36.5	878	0.113	18 ⁵	16.7	LOS B	3.0	27.4	Short	190	0.0	NA
Lane 2	707	2.6	1096	0.645	100	21.5	LOS B	32.1	229.8	Full	500	0.0	0.0
Lane 3	707	2.6	1096	0.645	100	21.5	LOS B	32.1	229.8	Full	500	0.0	0.0
Approach	1513	4.8		0.645		21.2	LOS B	32.1	229.8				
SouthEast: Pittwater Rd (South E)													
Lane 1	55	0.0	587	0.093	100	16.0	LOS B	1.4	9.5	Short	25	0.0	NA
Lane 2	38	0.0	259	0.146	100	62.3	LOS E	2.3	16.1	Short	25	0.0	NA
Lane 3	148	6.0	228 ¹	0.649	100	67.3	LOS E	9.8	71.8	Full	500	0.0	0.0
Lane 4	162	6.0	249	0.649	100	67.7	LOS E	10.7	79.0	Full	500	0.0	0.0
Approach	402	4.6		0.649		60.0	LOS E	10.7	79.0				
East: William St (East)													
Lane 1	191	0.9	296	0.645	100	65.4	LOS E	12.4	87.3	Full	240	0.0	0.0
Lane 2	166	1.0	298	0.558	100	64.4	LOS E	10.6	74.9	Full	240	0.0	0.0
Approach	357	1.0		0.645		65.0	LOS E	12.4	87.3				
North: Pittwater Rd (North)													
Lane 1	7	100.0	643	0.010	2 ⁵	18.3	LOS B	0.2	2.5	Full	240	0.0	0.0
Lane 2	452	5.7	1054	0.428	100	22.0	LOS B	17.1	125.9	Full	240	0.0	0.0
Lane 3	630	1.5	1103	0.571	100	20.1	LOS B	26.8	190.2	Full	240	0.0	0.0
Lane 4	630	1.5	1103	0.571	100	20.1	LOS B	26.8	190.2	Full	240	0.0	0.0
Approach	1718	3.0		0.571		20.6	LOS B	26.8	190.2				
Intersection	3989	3.7		0.649		28.8	LOS C	32.1	229.8				

¹ Reduced capacity due to a short lane effect.

⁵ Lane under-utilisation found by the program

PHASING SUMMARY



Site: Pittwater Condamine Williams Weekday PM: Post Development (Right turn from William St)

Pittwater Condamine and William Street

Signals - Fixed Time Isolated Cycle Time = 140 seconds (User-Given Cycle Time)

Phase times determined by the program

Sequence: Two-Phase

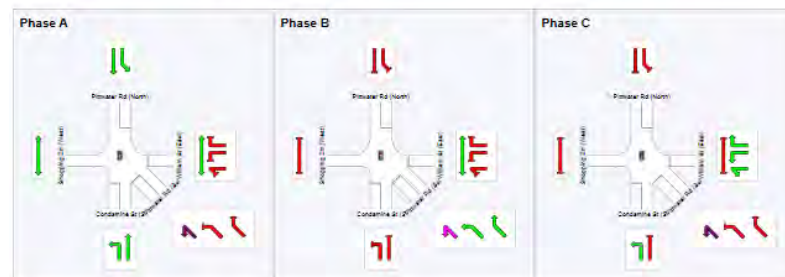
Movement Class: All Movement Classes

Input Sequence: A, B, C

Output Sequence: A, B, C

Phase Timing Results

Phase	A	B	C
Reference Phase	Yes	No	No
Phase Change Time (sec)	0	86	111
Green Time (sec)	80	19	23
Yellow Time (sec)	4	4	4
All-Red Time (sec)	2	2	2
Phase Time (sec)	86	25	29
Phase Split	61 %	18 %	21 %



LANE SUMMARY



Site: Pittwater Condamine Williams Weekday AM: Post Development (Right turn from William St) + 200 vehicle

Pittwater Condamine and William Street

Signals - Fixed Time Isolated Cycle Time = 140 seconds (User-Given Cycle Time)

Lane Use and Performance

	Demand Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total	HV						Veh	Dist				
	veh/h	%											
South: Condamine St (South)													
Lane 1	96	25.4	752	0.128	19 ⁵	25.5	LOS B	3.6	30.8	Short	190	0.0	NA
Lane 2	581	6.1	871	0.668	100	30.9	LOS C	30.4	223.9	Full	500	0.0	0.0
Lane 3	581	6.1	871	0.668	100	30.9	LOS C	30.4	223.9	Full	500	0.0	0.0
Approach	1259	7.6		0.668		30.5	LOS C	30.4	223.9				
SouthEast: Pittwater Rd (South E)													
Lane 1	143	5.0	568	0.252	100	24.4	LOS B	5.2	38.1	Short	25	0.0	NA
Lane 2	62	2.0	323	0.192	100	58.1	LOS E	3.6	26.0	Short	25	0.0	NA ⁸
Lane 3	190	1.0	280 ¹	0.678	100	63.0	LOS E	12.2	86.0	Full	500	0.0	0.0
Lane 4	221	1.0	325	0.678	100	63.8	LOS E	14.4	101.3	Full	500	0.0	0.0
Approach	616	2.0		0.678		53.8	LOS D	14.4	101.3				
East: William St (East)													
Lane 1	289	4.4	413	0.700	100	58.8	LOS E	18.2	132.5	Full	240	0.0	0.0
Lane 2	282	1.0	428	0.659	100	57.9	LOS E	17.5	123.7	Full	240	0.0	0.0
Approach	572	2.7		0.700		58.4	LOS E	18.2	132.5				
North: Pittwater Rd (North)													
Lane 1	13	100.0	523	0.025	3 ⁵	26.3	LOS B	0.5	6.1	Full	240	0.0	0.0
Lane 2	356	3.6	866	0.411	58 ⁵	30.7	LOS C	15.8	114.1	Full	240	0.0	0.0
Lane 3	630	2.1	893	0.706	100	31.7	LOS C	33.8	240.9	Full	240	0.0	5.3
Lane 4	592	12.2	839	0.706	100	31.7	LOS C	31.8	245.9	Full	240	0.0	7.2
Approach	1591	7.0		0.706		31.4	LOS C	33.8	245.9				
Intersection	4037	5.8		0.706		38.4	LOS C	33.8	245.9				

¹ Reduced capacity due to a short lane effect.

⁵ Lane under-utilisation found by the program

⁸ Probability of Blockage has been set on the basis of a queue that overflows from an adjacent short lane.

PHASING SUMMARY



Site: Pittwater Condamine Williams Weekday AM: Post Development (Right turn from William St) + 200 vehicle

Pittwater Condamine and William Street

Signals - Fixed Time Isolated Cycle Time = 140 seconds (User-Given Cycle Time)

Phase times determined by the program

Sequence: Two-Phase

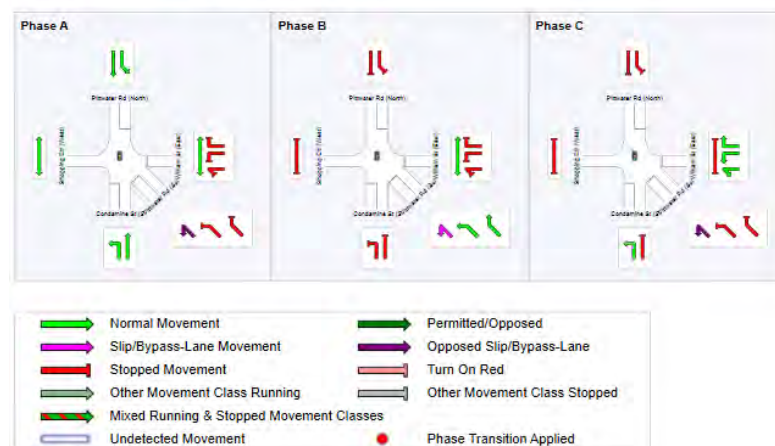
Movement Class: All Movement Classes

Input Sequence: A, B, C

Output Sequence: A, B, C

Phase Timing Results

Phase	A	B	C
Reference Phase	Yes	No	No
Phase Change Time (sec)	0	71	101
Green Time (sec)	65	24	33
Yellow Time (sec)	4	4	4
All-Red Time (sec)	2	2	2
Phase Time (sec)	71	30	39
Phase Split	51 %	21 %	28 %



LANE SUMMARY



Site: Pittwater Condamine Williams Weekday PM: Post Development (Right turn from William St) + 200 vehicle

Pittwater Condamine and William Street

Signals - Fixed Time Isolated Cycle Time = 140 seconds (User-Given Cycle Time)

Lane Use and Performance

	Demand Flows		Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue		Lane Config	Lane Length	Cap. Adj.	Prob. Block.
	Total	HV											
	veh/h	% veh/h						Veh	Dist				
			veh/h	v/c	%	sec			m		m	%	%
South: Condamine St (South)													
Lane 1	99	36.5	736	0.135	18 ⁵	23.6	LOS B	3.6	33.4	Short	190	0.0	NA
Lane 2	707	2.6	918	0.770	100	32.0	LOS C	39.3	280.9	Full	500	0.0	0.0
Lane 3	707	2.6	918	0.770	100	32.0	LOS C	39.3	280.9	Full	500	0.0	0.0
Approach	1513	4.8		0.770		31.4	LOS C	39.3	280.9				
SouthEast: Pittwater Rd (South E)													
Lane 1	55	0.0	661	0.083	100	18.2	LOS B	1.5	10.4	Short	25	0.0	NA
Lane 2	38	0.0	232	0.163	100	64.5	LOS E	2.3	16.4	Short	25	0.0	NA
Lane 3	148	6.0	203 ¹	0.726	100	71.1	LOS F	10.1	74.5	Full	500	0.0	0.0
Lane 4	162	6.0	223	0.726	100	71.5	LOS F	11.2	82.2	Full	500	0.0	0.0
Approach	402	4.6		0.726		63.4	LOS E	11.2	82.2				
East: William St (East)													
Lane 1	247	0.9	489	0.506	100	51.9	LOS D	14.3	100.6	Full	240	0.0	0.0
Lane 2	377	1.0	493	0.765	100	57.5	LOS E	24.2	170.8	Full	240	0.0	0.0
Approach	624	1.0		0.765		55.3	LOS D	24.2	170.8				
North: Pittwater Rd (North)													
Lane 1	7	100.0	539	0.012	2 ⁵	24.9	LOS B	0.2	3.0	Full	240	0.0	0.0
Lane 2	450	5.4	884	0.509	100	30.7	LOS C	20.9	152.9	Full	240	0.0	0.0
Lane 3	589	1.5	924	0.637	100	29.0	LOS C	29.7	210.6	Full	240	0.0	0.0
Lane 4	589	1.5	924	0.637	100	29.0	LOS C	29.7	210.6	Full	240	0.0	0.0
Approach	1635	3.0		0.637		29.5	LOS C	29.7	210.6				
Intersection	4174	3.5		0.770		37.3	LOS C	39.3	280.9				

¹ Reduced capacity due to a short lane effect.

⁵ Lane under-utilisation found by the program

PHASING SUMMARY



Site: Pittwater Condamine Williams Weekday PM: Post Development (Right turn from William St) + 200 vehicle

Pittwater Condamine and William Street

Signals - Fixed Time Isolated Cycle Time = 140 seconds (User-Given Cycle Time)

Phase times determined by the program

Sequence: Two-Phase

Movement Class: All Movement Classes

Input Sequence: A, B, C

Output Sequence: A, B, C

Phase Timing Results

Phase	A	B	C
Reference Phase	Yes	No	No
Phase Change Time (sec)	0	73	96
Green Time (sec)	67	17	38
Yellow Time (sec)	4	4	4
All-Red Time (sec)	2	2	2
Phase Time (sec)	73	23	44
Phase Split	52 %	16 %	31 %

