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Ref: 301015-01385
File: Letter to DoP

21 February 2011

Mr Michael Woodland

Director, Metropolitan Projects

Department of Planning

23-33 Bridge Street,

Sydney 2000

Dear Michael,

S75W Request for Modification to Project Application Approval MP08_0087

1. Request for S75W Modification to Project Application Approval MP No. 08_0087

WorleyParsons acts on behalf of Parkview and has been instructed to prepare this application to modify MP No. 08_0087.

MP 08_0087 included approval to the subdivision of Lot A DP 431356 and Lot 1 DP 721721 into Lot 11 (4,215m²) and the road providing access to it (2,888m²) and Lot 12 (55,183m²) (refer **Appendix 1**).The Stage 1 project was on Lot 11.

The proposed modification does not increase the total amount of floorspace (6,521m²) approved in Schedule 1 Part A table.

The proposed S75W Modification comprises:

- an increase in the number of residential units from 58 (total 5,885m$^{2)}$ to 76 (total 5,939m$^{2)}$
- a reduction in the childcare centre from 636m² to 582m² and consequential changes to the layout;
- a minor increase in the building height from RL 39.5 AHD (MP_07_0106 as maximum storeys) to RL 40.89 whilst retaining 4 storeys (habitable levels);
- minor consequential changes landscape plan and re-location of services (including substation); and
- a Strata subdivision plan of the building.

The proposed modifications are of a minor nature in terms of the dimensions of the project and have been made to satisfy demand for lower priced good quality housing stock.

2. Background

On 4 February 2010 the Hon Tony Kelly MLC issued a Concept Approval for MP07_0106 pursuant to Section 75O of the *Environmental Planning and Assessment Act, 1979 (EP&A Act* to approve the Concept Plan referred to in Schedule 1, subject to the terms and modifications in Schedule 2 and the Statement of Commitments in Schedule 4.

The Minister for Planning in addition granted Project Application Approval to associated MP No. 08_0087 referred to in Schedule 1 Part A - Table subject to the terms and modifications in Schedule 2 and the Statement of Commitments in Schedule 3 (refer **Appendix 1**).

The gross total floor area (floorspace) of the combined residential flat building (5,885m²) and child care centre remains as approved (6,521m²) as the maximum under the Project Application Approval to MP No. 08_0087.

3. Approved Development

The approved MP 08_0087 included in Schedule 1 Part A Table the carrying out of demolition, remediation and Torrens Title subdivision; construction of associated roads and infrastructure and development of a four storey multiple unit residential building (with child care) – 6,521m², of which the child care was 636m². The 5,885m² floorspace is distributed amongst 58 residential apartments. There is a single basement car park (93 space capacity) accessed via Troy Street.

In summary:

Table 1: Approved MP 08_0087 Description of Key Elements

LOT 11					
Area Summary			**Car Parking**	**No.**	**Bicycles**
Child Care Centre	636m^2		**Child Care Staff Spaces**	**8**	**4**
Residential Floor Space	5,885m^2		**Units Spaces (including visitors spaces and disabled parking spaces)**	**85**	**12 + 1 per visitor**
Unit Type	**Quantity**	**m2 range**	**Total**	**93**	**17**
1 Bed	11	57-65m^2			
2 Bed	39	73-95m^2	**BCA Classification**		
3 Bed	8	101-121m^2	**Child Care Centre**		
Total No. of Dwellings	58		**Residential Apartments**	**Class 2**	
No. of Adaptable Dwellings			**Basement Car Park**	**Class 7A**	
Solar Access	42				
Cross Flows	36				

Source: Drawing Number DA1.02 dated 20 April 2009 (Marchese Partners International)

Note: Number of bedrooms does not include a Study.

4. Description of the Modification

The total floorspace for Lot 11 remains as approved in the Project Application (6,521m²). However, the residential floorspace increases marginally by 54m² to 5,939m² and the child care centre floorspace is reduced from 636m^2 to 582m², so that the total floorspace approved as a maximum on Lot 11 (6,521m²) is not exceeded.

Consequential changes arise from the decrease in the size and more efficient internal layout of the residential units including car parking spaces.

Table 2: Summary of Proposed Modification for proposed Lot 11

LOT 11					
Area Summary			**Car Parking**	**No.**	**Bicycles**
Child Care Centre	582m^2		**Child Care Staff Spaces**	**8**	**4**
Residential Floor Space	5,939m^2		**Units Spaces**	**87**	**15**
Total	6,521 m^2		**Visitors Spaces**	**15**	**8**
No. of Storeys	4 (RL 40.89)		***8 Disabled Parking Spaces included in total**		
Unit Type	**Quantity**	**m2 range**	**Total**	**110**	**27**
1 Bed	9	50-52m^2			
1 Bed	28	52-58m^2	**BCA Classification**		
2 Bed	19	73-79m^2	**Child Care Centre**		
2 Bed	20	73-82m^2	**Residential Apartments**	**Class 2**	
Total No. of Dwellings	76		**Basement Car Park**	**Class 7A**	
No. of Adaptable Dwellings	8				
Solar Access	58				
Cross Flows	46				

Source: Drawing Number S961.01 dated November 2010 (Marchese Partners International)

Note: Number of bedrooms does not include a Study.

The following reports have been prepared to support the amended application:-

Report /Plans	Prepared By	Date	Appendix
Architectural Plans	Marchese	20 January 2011	Appendix 2
SEPP 65 Statement	Marchese	21st January 2011	Appendix 3
Strata Subdivision Plan	Dunlop Thorpe & Co.	7 February 2011	Appendix 4
Landscape Plans	Habitation	9 December 2010	Appendix 5
BASIX Certificate,	Cundall	20 January 2011	Appendix 6
ABSA thermal performance certificates and ABSA certified drawings		21 December 2010 (stamped 21 October 2010)	Appendix 7
Traffic Statement	Traffix	17 February 2011	Appendix 8

5. Assessment

Unit Size and Numbers

The increase in number of units is a result of ongoing design development to increase the efficient utilization of space, provide good quality internal and balcony spaces, equivalent levels of solar access and cross flow for ventilation and amenity.

This has been achieved to deliver to the market an increased amount of housing stock at prices targeted to lower and middle income earners.

By more efficient utilisation of space, amenity and quality have been retained, the amount of stock is increased and the price per dwelling would be reduced through these efficiencies.

The number of three bedroom units with a study each with a floorspace of 100m² - 121m² have been substituted with more one bedroom units that have been carefully designed to achieve more efficient utilization of space (internal and balcony) areas and flexibility.

As such the proposed modification results in increased efficiency; meets environmental amenity requirements and delivers more housing stock at a lower price point. The 'rules of thumb' in the Residential Flat Design Code which suggest minimum areas for 1, 2 and 3 bedroom apartments in 2000 can be designed to satisfy the solar access and cross flow targets. Given rising 'housing mortgage stress' and housing prices rising at a greater rate than wage increases, achieving more efficient use of space and decreasing space per capital, retaining environmental quality (solar access and cross flows et al) and enhancing consumer utility is to be encouraged.

Furthermore, to increase the amount of housing stock within the maximum approved floorspace on Lot 11 does not have any significant adverse impact in the surrounding locality and are designed to provide high quality, high amenity outcomes for future residents within the project.

The Strata Subdivision Plan is **Appendix 4**. It aligns with the proposed modifications to the mix and number of units and other consequential changes and approval is sought to these plans not previously included in the Project Application.

Building Height

The proposed number of storeys (habitable area) remains at 4 storeys.

However, to achieve improved natural ventilations to the basement and reduce the extent of excavation, this basement area has been lifted and consequently the maximum RL 39.5 ADH (MP 07_0106 and MP 08_0087) is increased marginally to RL 40.89. There are no adverse impacts in terms overshadowing or visual amenity.

SEPP 65 Assessment

A SEPP 65 Assessment has been prepared by Marchese Architects in accordance with the provisions of State Environmental Planning Policy Number 65 – Design Quality of Residential Flat Development (refer **Appendix 3**).

The amended proposal satisfies the Residential Flat Design Code requirements for solar access and cross ventilation (refer to Table1 in **Appendix 3**).

Remediation

This S75 W does not seek to modify MP 08_0087 Schedule 2 Part B clause B11.

Landscaping

A Landscape Plan has been prepared for the amended proposal (refer **Appendix 5**). The minor consequential modifications as part of design development are as follows:

- Relocation of the substation;
- Minor modification to the number and location of trees, planting beds and hedges;
- Modification of fence height to 1.8m (both western and eastern sides);
- Installation of a herb garden (western side);
- Increased stone unit paving adjacent to the Child Care Centre and residential dwellings (ground level);
- Relocation of timber decking to one section on the western side;
- The construction of a 2m high sound mitigation wall (western side);
- Reconfiguration of play area including an additional soft fall play area on the western side and the removal of an Astroturf play surface area on the eastern side;
- Removal of concrete path around soft fall play area (western side);
- The addition of a 1:14 access ramp to the Child Care Centre.

The landscaping plan responds to the anticipated needs of the future residents in the project and has been designed to maintain the visual quality from the surrounding locality into the project. The landscaping has been designed to maintain and enhance the architectural and design quality of the project.

Traffic and Parking

An assessment of potential traffic and parking impacts of the proposed development has been prepared by Traffix (refer **Appendix 8**). Parking for the amended proposal has been assessed against the requirements of Canterbury Council's Development Control Plan No. 20 Car Parking. The change in the parking requirements and provisions are summarised in Table 3 below:

Table 3: Parking requirements

Type	Council Parking Rates	Number Approved	Number Now Proposed	Parking Approved	Parking Proposed	Difference
Residential						
1 bedroom	1.0 per unit	11 units	37 units	11	37	+26
2 bedroom	1.2 per unit	39 units	39 units	47	50	+3
3 bedroom	2.0 per unit	8 units	0 units	16	0	-16
Visitor	1.0 per 5 units	58 units	76 units	11	15	+4
Child Care	No Requirement	95 children	95 children	0	0	0
Child Care Staff	1 per 2 staff	15 staff	15 staff	8	8	0
TOTAL				**93**	**110**	**+17**

Source: Traffic and Parking Report dated 17 February 2011 (Traffix)

According to the report the parking allocation exceeds the requirements of Council's DCP by 2% and that the additional 3 spaces for the two bedroom units have been provided to allow flexibility in the design should additional disabled parking be required.

Overall, the proposed parking provision is considered satisfactory and will accommodate all parking requirements.

Traffic Generation

In relation to the generation of traffic associated with the revised development, the report prepared by Traffix states the following:

"The generation of the site for the approved Project Application was assessed as 28 veh/hr during the AM peak with 26 veh/hr during the PM peak period as outlined in the Traffix Impact Assessment report undertaken by Traffix dated October 2008. Under the revised application the development includes the provision of an additional 18 units which will increase the previously approved generation of the site by 7 vehicles per hour in both the AM and PM peak periods.

This increase is considered moderate and relates to one additional movement every 8-10 minutes. This will have no impact on the operation of key intersections in the vicinity of the site which will operate as outlined in our Project Application report dated October 2008. In fact, this level of generation is within the limits of daily fluctuations of traffic activity in the area and as such models are not sensitive to such small variations."

In relation to the internal design of the minor modifications in relation to parking and access, the report prepared by Traffix states the following:

"The internal design of the revised development has adopted the design principles previously approved. In particular all ramp widths and gradients comply with the requirements of AS28990.1 as do all visitor and resident car parks. A swept path analysis has been undertaken and is included in attachment 1 and demonstrates compliance with the standard."

There are no significant or increased adverse traffic and/or parking impacts associated with the modifications.

Advice from our Traffic engineer is that the proposed modification does not require referral to RTA under Schedule 3 of the State Environmental Planning Policy (Infrastructure) 2007.

Waste

Waste storage area satisfies the requirements of Council's Development Control Plan No. 48 - Waste Management and the requirements of the Project Recommended Conditions of Approval B35 - Waste Management.

ESD

A BASIX Certificate has been prepared for the amended proposal (refer **Appendix 6**). The project score for the amended proposal is reproduced in Table 4 below:-

Table 4: BASIX certificate ratings

Project Score		
Water	√ 45	Target 40
Thermal Comfort	√ Pass	Target Pass
Energy	√ 31	Target 30

Source: BASIX Certificate dated 20 January 2011 (Cundall)

The ABSA Thermal Performance Certificates and ABSA Certified drawings are included in **Appendix 7.**

6. Conditions of the Project Application which require modification

Six Conditions in the Project Application Approval require modification (refer Table 5 below and Table 1 in **Appendix 9**). The Advisory Notes (AN1 – AN25) have been considered and no changes have been proposed.

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Table 5: Project Application Conditions to be amended

Condition	Name	Description of Modification	Appendix
A2	**Development in Accordance with Plans and Documentation**	Modification of Architectural Plans prepared by Marchese Partners (dated Nov 2010) to amend part of Project Application MP No. 08_0087. Modification of Precinct B Landscape Plans prepared by Habitation (dated 9 December 2010).to amend Project Application MP No. 08_0087.	Refer to Architectural Plans (Appendix 2) Refer to Landscape Plans (Appendix 5)
B3	**Monetary Contributions**	To be calculated in accordance with the method applied to approved MP08_0087 and the Canterbury City Council's Section 94 Contributions Plan 2005 referred to therein.	
B19	**Number of Car Spaces**	The maximum number of residential car spaces will increase from 93 spaces to 87 spaces.	Refer to Architectural Plans (Appendix 2)
B20	**Number of Bicycle Spaces**	The minimum number of bicycle spaces to be provided will increase from 17 spaces to 27 spaces.	Refer to Architectural Plans (Appendix 2)
B23	**BASIX Certificate requirements**	A revised BASIX Certificate has been prepared for the amended proposal (No. 216340M_02). It is now accompanied by the ABSA Thermal Rating Certificate (dated 21 December 2010).	Refer to BASIX Certificate (Appendix 6) Refer to ABSA Certificate (Appendix 7)
B34	**Privacy**	Requirements to apply only to corner units on the northern side. Remaining north facing units have generous setbacks (approx. 18m) and there is significant landscaping along the perimeter which will ensure privacy for units within the site as well as any adjoining properties.	N/A
E15	**Strata Subdivision**	Request deletion. Draft Stage 1 Strata Subdivision Plan prepared by Dunlop Thorpe & Co. (dated 7 February 2011) is now sought as apart of the Section 75W Modification.	Refer to Strata Plan (Appendix 4)

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7. Conclusion

We have considered the consequences including impacts in the surrounding locality. The modifications are proposed to enhance the efficiency, utility and affordability whilst achieving environmental targets including solar access, cross ventilation, improving natural ventilation to the basement and reducing the extent of excavation.

There is no significant increase in any adverse impacts in the surrounding locality arising from the proposed modifications contained in the S75W application based on the information provided by the architects and relevant specialist consultants as per their appended reports.

Yours faithfully,

Sonja Lyneham

ANZ Director Strategy and Approvals

WorleyParsons

APPENDICES

APPENDIX 1	**MP No. 08_0087 Project Application Approval**
APPENDIX 2	**Architectural Plans**
APPENDIX 3	**SEPP 65 Statement**
APPENDIX 4	**Strata Subdivision Plan**
APPENDIX 5	**Landscape Plan**
APPENDIX 6	**BASIX Certificate**
APPENDIX 7	**ABSA Thermal Performance Certificates and ABSA Certified drawings**
APPENDIX 8	**Traffic and Parking Report**
APPENDIX 9	**Conditions of the Project Application which require modification**

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APPENDIX 1

MP No. 08_0087 Project Application Approval

PROJECT APPLICATION APPROVAL

ENVIRONMENTAL PLANNING & ASSESSMENT ACT 1979

DETERMINATION OF A PROJECT APPLICATION FOR MIXED USE DEVELOPMENT AT 60 CHARLOTTE STREET, CAMPSIE

(MP No. 08_0087)

I, the Minister for Planning, under Section 75J of the *Environmental Planning & Assessment Act, 1979*, approve the project referred to in Schedule 1 subject to the conditions of approval in Schedule 2 and the Proponent's Statement of Commitments in Schedule 3.

The reasons for the conditions are:

(1) To ensure the site is appropriately managed for the proposed use;

(2) To adequately mitigate the environmental impacts of the development;

(3) To reasonably protect the amenity of the local area; and

(4) To protect the public interest

Tony Kelly

The Hon. Tony Kelly MLC
Minister for Planning

Sydney, 4 FEB 2010 2009

SCHEDULE 1

PART A — TABLE

Application made by:	Parkview Sydney Developments Pty Ltd
Application made to:	Minister for Planning
Major Project Application:	MP 08_0087
On land comprising:	Lot 1 DP 721721 and Lot A DP 431356, 60 Charlotte Street, Campsie
Local Government Area	Canterbury Council
For the carrying out of:	• Demolition, remediation and Torrens Title subdivision. • Construction of associated roads, landscaping and infrastructure. • Development of proposed Lot 11: - Four (4) storey multiple-unit residential building (with child care centre) – 6,521m^2 - Child care centre - 636m^2
Estimated Cost of Works	$23,392,000
Type of development:	Major Project under Part 3A of the Act.
Determination made on:	4 February 2010
Date approval is liable to lapse:	5 years from the date of determination unless the development has been physically commenced.

PART B—NOTES RELATING TO THE APPROVAL OF MP NO. MP08_0087

Responsibility for other consents / agreements

The Proponent is responsible for ensuring that all additional consents and agreements are obtained from other authorities, as relevant.

Appeals

The Proponent has the right to appeal to the Land and Environment Court in the manner set out in the *Environmental Planning and Assessment Act, 1979* and the *Environmental Planning and Assessment Regulation, 2000* (as amended).

Legal notices

Any advice or notice to the approval authority shall be served on the Director-General.

PART C—DEFINITIONS

In this approval,

Act means the *Environmental Planning and Assessment Act 1979* (as amended).

Advisory Notes means advisory information relating to the approved development but do not form a part of this approval.

BCA means the Building Code of Australia.

Certifying Authority has the same meaning as Part 4A of the Act.

Council means City of Canterbury Council.

CPI means Consumer Price Index.

Department means the Department of Planning or its successors.

Director-General means the Director-General of the Department or his nominee.

Environmental Assessment (EA) means the Environmental Assessment prepared by Planning Workshop Australia and dated 23 October 2008.

Minister means the Minister for Planning.

MP No. MP07_106 means the Major Project described in the Proponent's Environmental Assessment.

PCA means a Principal Certifying Authority and has the same meaning as Part 4A of the Act.

Preferred Project Report (PPR) means Preferred Project Report prepared by Worley Parsons and dated 15 April 2009.

Proponent means Parkview Sydney Developments Pty Ltd or any party acting upon this approval.

Regulation means the *Environmental Planning and Assessment Regulation 2000* (as amended).

Subject Site has the same meaning as the land identified in Part A of this schedule.

End of Section

SCHEDULE 2

RECOMMENDED CONDITIONS OF APPROVAL

MAJOR PROJECT NO. 08_0087

PART A - ADMINISTRATIVE CONDITIONS

A1 Development Description

(1) Development approval is granted only to carrying out the development described in detail below:

(a) Demolition, remediation and Torrens Title Subdivision.
(b) Development of proposed Lot 11:
  i. Four (4) storey multiple-unit residential building (with child care centre) – 6,521m^2
  ii. Child care centre - 636m
(c) Construction of associated roads, landscaping and infrastructure.

(2) Notwithstanding any other conditions of this approval, nothing in this instrument approves development on land referred to as proposed Lot 42, except development for the purpose of subdivision and for the purpose of remediation of land.

A2 Development in Accordance with Plans and Documentation

The development will be undertaken in accordance with MP No. MP08_086 and the Environmental Assessment dated 23 October 2008 prepared by Planning Workshop Australia, except where amended by the Preferred Project Report and additional information to the Preferred Project Report, and the following drawings:

Architectural (or Design) Drawings prepared for the Preferred Project Report by Marchese + Partners International – proposed Lot 11 (formerly proposed as Lot 3)			
Drawing No.	**Revision**	**Name of Plan**	**Date**
DA 1.02	N/A	LOT 3 Coversheet	20-04-09
DA 2.11	C	LOT 3 Site Plan	20-04-09
DA 2.12	B	LOT 3 Level B	20-04-09
DA 2.13	C	LOT 3 Level 1	20-04-09
DA 2.14	B	LOT 3 Level 2	20-04-09
DA 2.15	B	LOT 3 Level 3	20-04-09
DA 2.16	B	LOT 3 Level 4	20-04-09
DA 2.17	B	LOT 3 Roof Level	20-04-09
DA 3.03	C	LOT 3 Sections	20-04-09
DA 4.01	C	LOT 3 Elevations	20-04-09

Landscape Plans prepared by Habitation		
Drawing No.	**Name of Plan**	**Date**
08-062 L02	Precinct B Landscape Plan - Project Application Plan	27-04-09
08-062 L03	Precinct A Landscape Plan - Project Application Plan	27-04-09

Subdivision Drawings prepared by Dunlop Thorpe and Co. Pty Ltd		
Drawing No.	**Name of Plan**	**Date**
14200_1ST1	Plan of proposed subdivision of Lot A DP 431356 & Lot 1 DP 721721 – Stage 1	21-05-09
14200_1ST2	Plan of proposed subdivision of Lot 12 DP __ (Being part of Lot A DP 431356 & Lot 1 DP 721721) – Stage 2	21-05-09
14200_1ST3	Plan of proposed subdivision of Lot 22 DP __ (Being part of Lot A DP 431356 & Lot 1 DP 721721) – Stage 3	21-05-09
14200_1ST4	Plan of proposed subdivision of Lot 32 DP __ (Being part of Lot A DP 431356 & Lot 1 DP 721721) – Stage 4	21-05-09

except for:

(1) any modifications which are 'Exempt and Complying Development' as identified in City of Canterbury Development Control Plan 2001 or as may be necessary for the purpose of compliance with the BCA and any Australian Standards incorporated in the BCA; and

(2) otherwise provided by the conditions of this approval.

A3 Inconsistency between documents

In the event of any inconsistency between conditions of this approval, the drawings/documents referred to above and/or the Statement of Commitments, the conditions of this approval prevail.

A4 Prescribed Conditions

The Proponent shall comply with the prescribed conditions of approval under Clause 98 of the *Environmental Planning and Assessment Regulation 2000* in relation to the requirements of the *Building Code of Australia* (BCA).

A5 Construction Certificate

This Determination Notice does not constitute permission to begin works associated with the development. A Construction Certificate (where applicable) must be obtained prior to the commencement of any development works.

End of Section

PART B - PRIOR TO ISSUE OF A CONSTRUCTION CERTIFICATE

B1 Compliance with the Building Code of Australia (BCA)

Details shall be provided to the satisfaction of the Certifying Authority, with the application for a Construction Certificate, which demonstrate that the proposal complies with the prescribed conditions of approval under Clause 98 of the *Environmental Planning and Assessment Regulation* in relation to the requirements of the *Building Code of Australia* (BCA).

B2 Structural Details

Prior to the issue of a Construction Certificate, the Proponent shall submit to the satisfaction of the Certifying Authority, structural drawings prepared and signed by a suitably qualified practising Structural Engineer that complies with:

(1) the relevant clauses of the BCA;

(2) the relevant approval;

(3) drawings and specifications comprising the Construction Certificate; and

(4) the relevant Australian Standards listed in the BCA (Specification A1.3).

B3 Monetary Contributions

(1) Prior to physical commencement of any building, engineering or construction work or the issue of a construction certificate (whichever is the earlier) on proposed Lot 11, a total monetary contribution of $469,453.02 must be paid to Canterbury City Council for Open Space Acquisition, Recreation Facilities, Monitoring, and Research and Administration and Community Facilities as calculated in accordance with Canterbury City Council's Section 94 Contributions Plan 2005. The amount payable is currently calculated as follows but will be adjusted at the time of payment in accordance with the contributions plan if it is not paid within the current quarterly period:

Open Space Acquisition	$263,486.40
Recreation Facilities	$44,219.50
Monitoring, Research and Administration	$21,539.40
Community Facilities	$140,207.72
Total	**$469,453.02**

A copy of Canterbury City Council's Section 94 Contributions Plan 2005 may be inspected at Council's Administration Centre 137 Beamish Street, Campsie or on the Council's Website www.canterbury.nsw.gov.au.

B4 Long Service Levy

Prior to the issue of the Construction Certificate, receipt of payment to the Long Service Payments Corporation in accordance with Section 34 of the Building Construction Industry Payments Act 1986 must be presented to the Certifying Authority.

B5 Flooding

Further investigation is to be undertaken into the likely ponding to be experienced in new Troy Street during a 100 year storm event, and its impact upon future development on Lot 42. Details for the resolution of the issue are to be submitted to the Certifying Authority prior to the issue of a Construction Certificate.

B6 Stormwater

Prior to the issue of a Construction Certificate detailed stormwater plans are to be submitted to the Certifying Authority for the proposed development. The plans are to be prepared in accordance with Australian Standard AS 3500.3-2003 Stormwater Drainage, Council's Stormwater Management Manual ~ Specification 9 and AUS-SPEC 0074 Stormwater drainage (Design). The plans are to include the provision of on-site detention. Permissible site discharge is to be limited to 150 litres per second per hectare. Calculations are to be provided supporting the proposed site storage volume, orifice diameter and permissible site discharge. The plans must be prepared by a practicing Civil Engineer and include levels reduced to Australian Height Datum (AHD). The submitted plan is to include details of sediment/silt arrestor pits, surface inlet pits, grated drains, pipe lengths, grades and diameters, surface and invert levels of all elements of the system and location, dimensions and details for the on-site detention system. The location and size of any orifice plate required is to be clearly noted on the plans.

B7 Details of Materials, Colours and Finishes

Final design details of the proposed external materials and finishes, including schedules and a sample board of materials and colours, shall be submitted to and approved by the Certifying Authority prior to the issue of a Construction Certificate.

B8 Reflectivity

The visible light reflectivity from building materials used on the facades of the buildings shall not exceed 20% and shall be designed so as not to result in glare that causes any nuisance or interference to any person or place. A report demonstrating compliance with these requirements is to be submitted to the satisfaction of the Certifying Authority prior to the issue of a Construction Certificate.

B9 Outdoor Lighting

All outdoor lighting shall comply with, where relevant, AS/NZ1158.3: 1999 *Pedestrian Area (Category P) Lighting* and AS4282: 1997 *Control of the Obtrusive Effects of Outdoor Lighting*. Details demonstrating compliance with these requirements are to be submitted to the satisfaction of the Certifying Authority prior to the issue of a Construction Certificate.

B10 Disabled Access

Access and facilities for people with disabilities shall be provided in accordance with Part D3 of the BCA's Access Policy. Prior to the issue of a Construction Certificate, a certificate certifying compliance with this condition from an appropriately qualified person shall be provided to the Certifying Authority.

B11 Remediation of Land

(1) Prior to the issue of a Construction Certificate, the Proponent shall submit to the Certifying Authority an Evaluation and Assessment Plan, a Hazardous Materials Survey and where necessary, undertake additional assessments to meet the current DECC Guidelines. If the assessments identify contamination levels which trigger the need for remediation, the Remedial Action Plan (RAP) by URS is to be reviewed and modified as necessary to produce a RAP which reflects the remediation requirements for the entire development site. Remediation is then to be undertaken for Lot 1 DP 721721 and Lot A DP 431356 prior to the commencement of construction, or the release of a Subdivision Certificate.

(2) Upon completion of the remediation works, the Proponent shall submit a detailed Site Audit Summary Report and Site Audit Statement and Validation Report to the Certifying Authority and the Department of Environment, Climate Change and Water (DECCW).

The site audit must be prepared in accordance with the *Contaminated Land Management Act 1997* and completed by a site auditor accredited under the *Contaminated Land Management Act 1997* to issue site audit statements. The site audit must verify that the land is suitable for the proposed uses.

B12 Erosion and Sedimentation Control

(1) Submission of a Soil and Water Management Plan to the Certifying Authority, including details of:
   (a) property details (location, Proponent, drawn by, date, scale)
   (b) accurate property description (property boundary)
   (c) contours
   (d) access point and access control measures
   (e) location and type of all sediment control measures
   (f) location of existing vegetation to be retained and undisturbed ground
   (g) any existing watercourse or drainage
   (h) material stockpile areas and storage and control methods
   (i) location of new drainage features (stormwater inlet pits)
   (j) revegetation proposals, including specifications on materials used and methods of application
   (NOTE: For guidance on the preparation of the Plan refer to the Soil and Water Management for Urban Development guidelines produced by the Southern Sydney Regional Organisation of Councils.)

(2) Soil erosion and sediment control measures shall be designed in accordance with the document *Managing Urban Stormwater – Soils & Construction Volume 1 (2004) by Landcom.* Details are to be submitted to the satisfaction of the Certifying Authority prior to the issue of the Construction Certificate.

(3) The capacity and effectiveness of erosion and sediment control devices must be maintained at all times.

B13 Pre-Construction Dilapidation Reports

The Proponent is to engage a qualified structural engineer to prepare a Pre-Construction Dilapidation Report detailing the current structural condition of all existing and adjoining buildings, infrastructure and roads. The report shall be submitted to the satisfaction of the Certifying Authority prior to the issue of the Construction Certificate. A copy of the report is to be forwarded to the Department and Council.

B14 Construction Management Plan

Prior to the issue of a Construction Certificate, a Construction Management Plan shall be submitted to and approved by the Certifying Authority. The Plan shall address, but not be limited to, the following matters where relevant:

(1) hours of work,

(2) contact details of site manager,

(3) traffic management (see also B19 below),

(4) noise and vibration management (see also B17 below),

(5) waste management (see also B18 below),

(6) erosion and sediment control (see also B14),

(7) flora and fauna management, and

The Proponent shall submit a copy of the approved plan to the Department and Council.

B15 Noise and Vibration Management Plan

Prior to the issue of a Construction Certificate, a Noise and Vibration Management Plan prepared by a suitably qualified person shall be submitted to and approved by the Certifying Authority. The Plan shall address, but not be limited to, the following matters:

(1) Identification of the specific activities that will be carried out and associated noise sources,

(2) Identification of all potentially affected sensitive receivers including residences, schools, and properties containing noise sensitive equipment,

(3) The construction noise objective specified in the conditions of this approval,

(4) The construction vibration criteria specified in the conditions of this approval,

(5) Determination of appropriate noise and vibration objectives for each identified sensitive receiver,

(6) Noise and vibration monitoring, reporting and response procedures,

(7) Assessment of potential noise and vibration from the proposed construction activities including noise from construction vehicles and any traffic diversions,

(8) Description of specific mitigation treatments, management methods and procedures that will be implemented to control noise and vibration during construction

(9) Justification of any proposed activities outside the construction hours specified in the conditions of this approval.

(10) Construction timetabling to minimise noise impacts including time and duration restrictions, respite periods, and frequency,

(11) Procedures for notifying residents of construction activities that are likely to affect their amenity through noise and vibration,

(12) Contingency plans to be implemented in the event of non-compliances and/or noise complaints,

The Proponent shall submit a copy of the approved plan to the Department and Council.

B16 Construction Waste Management Plan

Prior to the issue of a Construction Certificate, the Proponent shall submit to the satisfaction of the Certifying Authority a Waste Management Plan prepared by a suitably qualified person in accordance with Canterbury Council's Policy. The Proponent shall submit a copy of the plan to the Department and Council.

B17 Traffic Management Works

The following traffic management works are required as a result of this development:

(1) The road and lane configuration in Alfred Street between Harp Street and Jarrett Street is to be assessed for its capacity to accommodate the proposed traffic flow and parking requirements. The Proponent is to demonstrate that the existing road and footpath widths comply with the minimum requirements of AMCORD, AUSTROADS, RTA guidelines and NSW Manual for the Design of Safer Streets (The Streets Where We Live). Should compliance with AMCORD, AUSTROADS and RTA guidelines and NSW Manual for the Design of Safer Streets (The Streets Where We Live) be unachievable with the current road and lane configuration, the Proponent is to prepare a report investigating the closure of Alfred Street at Harp Street. Such a report is to include the effect a closure would have on traffic in surrounding streets and the intersections. The report is to be submitted to the Director of City Works at the City of Canterbury for consideration by the Canterbury Traffic Committee prior to the issue of a Construction

Certificate.. The Proponent shall be responsible for implementing any traffic control measures approved by Council following consideration of the report by the Canterbury Traffic Committee. The cost of any works arising from this approval is to be borne by the Proponent.

a) If the additional traffic studies reveal that Alfred Street does not need to be closed at Harp Street, a round-a-bout incorporating the raised pedestrian crossings is to be constructed at this intersection in accordance with RTA guidelines.

(2) The analysis of the impact on the intersection of Alfred Street and William Street by the additional traffic generated by the development is required. Should the projected traffic volumes impact on the current level of service for this intersection, appropriate treatments are to be recommended to the Canterbury Traffic Committee for consideration prior to the issue of a Construction Certificate. The Alfred Street/William Street intersection shall be modified in accordance with the requirements of the Canterbury Traffic Committee and the RTA. All costs in relation to the modification shall be borne by the Proponent.

(3) The Proponent shall liaise with the RTA and undertake community consultation with the affected residents (Kingsgrove Road/Moncur Avenue) on the proposed change to the intersection of Harp Street and Kingsgrove Road. The results of the community consultation and proposed changes to the intersection are to be forwarded to the Director of City Works at the City of Canterbury and the Canterbury Traffic Committee, prior to the issue of a Construction Certificate. Following consideration by the Canterbury Traffic Committee, any works required for the intersection (i.e extension of right-turn bay and installation of "No Stopping" signs and linemarking) shall be undertaken at the Proponent's cost.

(4) The Proponent shall liaise with the RTA and undertake community consultation with the affected residents (Charlotte Street/Canterbury Road) on the proposed change to the intersection of Charlotte Street at Canterbury Road. The results of the community consultation and proposed changes to the intersection are to be forwarded to the Director of City Works at the City of Canterbury and the Canterbury Traffic Committee, prior to the issue of a Construction Certificate. Following consideration by the Canterbury Traffic Committee, any works required for the intersection shall be undertaken at the Proponent's cost.

(5) The Proponent shall undertake community consultation with the affected residents (Charlotte Street/Troy Street) on the proposed change to the intersection of Charlotte Street at Troy Street. The results of the community consultation and proposed changes to the intersection are to be forwarded to the Director of City Works at the City of Canterbury and the Canterbury Traffic Committee, prior to the issue of a Construction Certificate. Following consideration by the Canterbury Traffic Committee, any works required for the intersection (i.e. installation of "No Stopping" signs and linemarking) shall be undertaken at the Proponent's cost.

(6) Charlotte Street, which is a residential street situated between Canterbury Road and Harp Street, will be subject to additional traffic volumes/speed from the proposed development and may require a traffic calming scheme to be proposed for installation in the street. The Proponent is to prepare a report, investigating as to whether or not installation of a traffic calming scheme is warranted in Charlotte Street and submit the proposal to the Director of City Works at the City of Canterbury for consideration by the Canterbury Traffic Committee prior to the issue of a Construction Certificate. If considered warranted, the Proponent will be responsible for implementing any proposed traffic calming scheme, as recommended by the Traffic Committee, and the costs of any works arising from this approval are to be borne by the Proponent.

(7) The Proponent shall undertake community consultation and provide a Traffic Management Plan (TMP) to the RTA on the proposed closure of Troy St at New Troy St. The results of the community consultation and the proposed closure are to be

forwarded to Director of City Works at the City of Canterbury for consideration by the Canterbury Traffic Committee prior to the issue of a Construction Certificate.

Detailed design of the below traffic management requirements are to be carried out for the approval of the RTA prior to the issue of a Construction Certificate:

(8) The kerb return on the north-western corner of the intersection of Harp Street and Charlotte Street shall be modified to improve access from Harp Street into Charlotte Street for heavy vehicles, including 14.5m STA buses. The detailed design of this work is to be submitted to Council's Director of City Works for approval. All costs in relation to the modification shall be borne by the Proponent.

(9) New raised platform pedestrian crossings are to be constructed at the following locations:
   (a) Crossing New Harp Street, on the eastern side of the Alfred Street intersection.
   (b) Crossing Harp Street on the eastern side of the Charlotte Street intersection.
   (c) Crossing Charlotte Street on the northern side of the Harp Street intersection.
   (d) Crossing New Troy Street on the eastern side of the Charlotte Street intersection.
   (e) Crossing Charlotte Street on the southern side of the New Troy Street intersection.
   (f) Crossing Alfred Street on the southern side of the Harp Street intersection.
   (g) Two (2) crossings in New Alfred Street between New Troy Street and New Harp Street.

Details are to be submitted on the staging of the above conditions 8 and 9. Such staging is to be relevant to the proposed subdivision staging. The traffic management works shall be carried out at no cost to Canterbury Council or the RTA.

(10) Disabled parking facilities are to be provided along New Harp Street.

(11) The proponent shall enter into discussions with Canterbury Council regarding extending the right hand movement lane out of Charlotte Street onto Canterbury Road by 40m to the South, to cater for additional traffic as a result of the development.

(12) The proponent shall demonstrate that the proposed road and footpath widths comply with the minimum requirements of AMCORD, AUSTROADS, RTA guidelines and NSW Manual for the Design of Safer Streets (The Streets Where We Live).

B18 Road Design

Kerb and gutter, stormwater drainage, full road width pavement including traffic facilities (roundabouts, median islands etc.) and paved footpaths shall be constructed along the full length of the new roads. All Roads shall be designed in consultation with the relevant requirements of Canterbury City Council and the RTA. Final road design plans shall be prepared by a qualified practising Civil Engineer and submitted to the Certifying Authority prior to the issue of a Construction Certificate.

B19 Number of Car Spaces

The maximum number of car spaces to be provided for the development shall comply with the table below. Details confirming the parking numbers shall be submitted to the satisfaction of the Certifying Authority prior to the issue of a Construction Certificate.

Car parking allocation	Number
Residential car parking spaces	85
Childcare car parking spaces	8

Disabled Parking is to be provided in accordance with the Building Code of Australia, Section D.

B20 Number of Bicycle Spaces

A minimum of 22 bicycle spaces are to be provided for proposed Lot 11. Details shall be submitted to the satisfaction of the Certifying Authority prior to the issue of a Construction Certificate.

B21 Car Park and Service Vehicle Layout

(1) The layout of the car park shall comply with Australian Standard AS2890.1: 1993 *Parking Facilities Part 1: Off Street Parking*. All parking spaces are to be linemarked.

(2) The layout of the service vehicle area shall comply with Australian Standard AS2890.2: 1989 *Off Street Parking Part 2 – Commercial Vehicles Facilities*.

(3) Details demonstrating compliance with these requirements shall be submitted to the satisfaction of the Certifying Authority prior the issue of a Construction Certificate.

B22 Energy Star Ratings

All classes of appliances that are available with an energy label or a Minimum Energy Performance Standard to be installed within the premises are to have an energy star rating of 3 stars or more (excluding clothes dryers which are to have a rating of 2 stars or more). The Proponent shall submit to the Certifying Authority a statement demonstrating compliance with the requirements of this condition.

B23 BASIX Certificate requirements

Prior to the issue of a Construction Certificate, details of all amendments and treatments outlined in the *BASIX Certificate No. 211296M*, to achieve satisfactory levels of thermal comfort, and satisfactory water and energy ratings, shall be incorporated into the proposed development and provided to the PCA.

B24 Water Ratings

All water fixtures installed within the premises are to have a AAA water rating or more. The Proponent shall submit to the Certifying Authority a statement demonstrating compliance with the requirements of this condition.

B25 Sydney Water

Prior to the issue of a Construction Certificate, a Notice of Requirements under Part 6, Division 9 of the Sydney Water Act 1994 shall be obtained and a copy must be submitted to the Certifying Authority (Council or a private accredited certifier).

B26 Stormwater and Drainage Works Design

(1) Final design plans of the stormwater drainage systems within the proposed subdivision, prepared by a qualified practicing Civil Engineer and in accordance with the requirements of Canterbury City Council shall be submitted to and approved by the PCA prior to issue of a Construction Certificate. The hydrology and hydraulic calculations shall be based on models described in the current edition of Australian Rainfall and Runoff.

(2) The development should include Water Sensitive Urban Design practices such as:
(a) Treating stormwater runoff to NSW EPA draft best practice treatment objectives:
- 85% reduction in Total Suspended Solids
- 65% reduction in Total Phosphorus
- 45% reduction in Total Nitrogen

(b) Maximising stormwater reuse through integrated water cycle management, which can reduce potable water demand and assist in achieving the above pollutant load reduction objectives.

B27 Compliance Report

Prior to the issue of a Construction Certificate, the Proponent, or any party acting upon this approval, shall submit to the Certifying Authority a report addressing compliance with all relevant conditions of this Part.

B28 GFA Certification

A Registered Surveyor is to certify that the Gross Floor Area (GFA) of the development at the subject site does not exceed 6,521m^2 on proposed Lot 11. Details shall be provided to the Certifying Authority demonstrating compliance with this condition prior to the issue of a Construction Certificate.

B29 Electricity

The Proponent shall consult Energy Australia to determine the need for an electricity substation prior to the submission of a Construction Certificate and, if a site is required, it being situated adjacent to the street alignment with the size, location and area being in accordance with the requirements of Council and Energy Australia. The land required being dedicated without cost as a public roadway to enable Energy Australia to establish the substation.

B30 Driveways

(1) The levels of the street alignment are to be obtained by payment of the appropriate fee to Council. These levels are to be incorporated into the designs of the internal pavements, carparks, landscaping and stormwater drainage. Evidence must be provided that these levels have been adopted in the design. As a site inspection and survey by Council is required to obtain the necessary information, payment is required at least 14 days prior to the levels being required.

(2) A qualified practicing Civil Engineer shall design the pavements and certify that all driveways, parking and service areas have been constructed in accordance with the approved specifications. Design to be carried out in accordance with AUS-SPEC 0042 Pavement. Construction is to be carried out in accordance with appropriate AUS-SPEC 0161 Quality (Construction), 0271 Pavement base and subbase, 0272 Asphaltic Concrete, 0273 Sprayed bituminous surfacing, 0274 Concrete pavement, 0275 segmental pavers – mortar bed, 0276 Segmental pavers – sand bed, 0277 Pavement ancillaries, 0310 Concrete – combined, 0310 Minor Concrete Works, 0311 Concrete formwork, 0312 Concrete reinforcement, 0314 Concrete in situ, 0315 Concrete finishes, 1131 Rolled concrete subbase, 1132 Mass concrete subbase, 1133 Plain and reinforced concrete base, 1134 steel fibre reinforced concrete base, 1135 Continously reinforced concrete base, 1136 cold milling of asphalt and base course, 1141 Flexible pavements, 1142 Bituminous cold mix, 1143 Sprayed bituminous surfacing, 1144 Asphaltic concrete (roadways) 1145 Segmental paving, 1146 Bituminous microsurfacing.

(3) A driveway longsection scaled at 1:25 (both vertical & horizontal) is to be submitted indicating the appropriate grades, lengths, transitions and height clearances above the driveway. The existing street levels are to be included in the design of the driveway (The existing street levels include kerb & gutter, footpath and boundary line levels which cannot be altered). The driveway widths and grades shall be in accordance with Australian Standard AS 2890.1 - 2004 "Off-street Parking Part 1 - Carparking Facilities".

B31 Groundwater

Should groundwater/seepage water be encountered within the depth of excavation the basement is to be suitably tanked and waterproofed. No subsoil drainage is to be discharged from the site. Provision is to be made to direct any subsurface flows around subterranean obstructions. All earth retaining structures are to be designed to withstand hydrostatic loading generated by subterranean water and the basement walls are to be adequately tanked and waterproofed.

B32 Childcare Centre

(1) The proposed development is to comply with the *Children's Services Regulation 2004*.

(2) Access for people with disabilities must be provided to the child care centre with doorways of sufficient width to accommodate a person who uses a wheelchair and clear and unobstructed pathways of travel provided to all public areas within.

(3) An accessible toilet must be provided for staff that have a disability who may be employed in the child care centre.

B33 Disabled Access

(1) Access for people with disabilities must be provided to all levels of the multiple unit residential building with lifts to comply with the disability access requirements contained in AS 1735.12.

(2) At least 10% of residential units are to be adaptable dwellings to meet the performance requirements set out in Clause 2.2 of Australian Standard 4299.

(3) All non-residential uses on the site must be accessible by disabled persons in accordance with the relevant Australian Standards.

B34 Privacy

Fixed upward facing louvres must be attached to the top of the balustrade of all of the balconies on the northern elevation of the building on proposed Lot 11. The louvres must extend to the underside of the ceiling of the balcony, and must be sliding to cover a minimum 50% of the width of each balcony of the building to protect neighbours' privacy.

B35 Waste Management

Garbage bin storage areas and bin presentation areas are to be designed and constructed in accordance with Council's DCP 48 – Waste Management.

B36 Lighting

Adequate lighting (to AS 1158.3.1:1999 standards) is to be provided and maintained in the car parks.

B37 Storage Facilities

Further provision of storage facilities is to be provided within each unit on proposed Lot 11 to meet the storage requirements of the Residential Flat Design Code. Details of such are to be submitted to the Certifying Authority for determination prior to the issue of a Construction Certificate.

End of Section

PART C - PRIOR TO COMMENCEMENT OF WORKS

C1 Commencement of Works

Demolition, excavation, clearing, construction, subdivision or associated activities must not commence until a Construction Certificate has been issued for the proposed development pursuant to the Act.

C2 Commencement

The erection of a building / subdivision works in accordance with this development consent must not be commenced until:

(1) Detailed plans and specifications have been endorsed with a Construction Certificate (by the consent authority or an accredited certifier), and

(2) The person having benefit of the Development Consent has appointed a PCA, and has notified the consent authority and the Council (if Council is not the consent authority) of the appointment, and

(3) The person having benefit of the development consent has given at least 2 days notice to the Council of their intention to commence the development works the subject of this consent.

C3 Statement of Compliance with Australian Standards

The demolition work shall comply with the provisions of Australian Standard AS2601: 2001 *The Demolition of Structures.* The work plans required by AS2601: 2001 shall be accompanied by a written statement from a suitably qualified person that the proposals contained in the work plan comply with the safety requirements of the Standard. The work plans and the statement of compliance shall be submitted to the satisfaction of the PCA prior to the commencement of works.

C4 Notice to be Given Prior to Excavation

The PCA and Council shall be given written notice, at least 48 hours prior to the commencement of excavation, shoring or underpinning works on the site.

C5 Contact Telephone Number

Prior to the commencement of the works, the Proponent shall forward to Council a 24 hour telephone number to be operated for the duration of the construction works.

C6 Archival Record

An archival recording of the site must be prepared by a suitably qualified person prior to any demolition, and a commemorative plaque and interpretive display should be erected at an appropriate location where it will receive maximum exposure, informing employees and visitors of the above facts of the history of the site. The location and specifications of the plaque is to be approved by Canterbury Council's Director of City Planning prior to installation.

C7 Removal of Hazardous Materials

All hazardous materials shall be removed from the site and shall be disposed of at an approved waste disposal facility in accordance with the requirements of the relevant

legislation, codes, standards and guidelines, prior to the commencement of any building works. Details demonstrating compliance with the relevant legislative requirements, particularly the method of containment and control of emission of fibres to the air, are to be submitted to the satisfaction of the PCA prior to the removal of any hazardous materials.

C8 Site Audit

Prior to the commencement of building works, a Site Audit conducted by a suitably qualified person shall be undertaken to ascertain that all identified hazardous materials have been removed from the site and shall be submitted to the PCA.

C9 Compliance Report

Prior to the commencement of works, the Proponent, or any party acting upon this approval, shall submit to the PCA a report addressing compliance with all relevant conditions of this Part.

C10 Public Utilities

The Proponent to arrange with the relevant public utility authority the alteration or removal of any affected services in connection with the development. Any such work being carried out at the Proponent's cost.

End of Section

PART D - DURING CONSTRUCTION

D1 Hours of Work

The hours of construction, including the delivery of materials to and from the site, shall be restricted as follows:

(1) between 7:00 am and 6:00 pm, Mondays to Fridays inclusive;

(2) between 8:00 am and 1:00 pm, Saturdays;

(3) no work on Sundays and public holidays.

Works may be undertaken outside these hours where:

(1) the delivery of materials is required outside these hours by the Police or other authorities; and

(2) it is required in an emergency to avoid the loss of life, damage to property and/or to prevent environmental harm.

D2 Erosion and Sediment Control

All erosion and sediment control measures, as designed in accordance with Condition B14, are to be effectively implemented and maintained at or above design capacity for the duration of the construction works and until such time as all ground disturbed by the works has been stabilised and rehabilitated so that it no longer acts as a source of sediment.

D3 Disposal of Seepage and Stormwater

Any seepage or rainwater collected on-site during construction shall not be pumped to the street stormwater system unless separate prior approval is given in writing by Council.

D4 Setting Out of Structures

The buildings shall be set out by a registered surveyor to verify the correct position of each structure in relation to property boundaries and the approved alignment levels. The registered surveyor shall submit a plan to the PCA certifying that structural works are in accordance with the approved development application.

D5 Approved Plans to be On-site

A copy of the approved and certified plans, specifications and documents incorporating conditions of approval and certification shall be kept on the site at all times and shall be readily available for perusal by any officer of the Department, Council or the PCA.

D6 Site Notice

A site notice(s) shall be prominently displayed at the boundaries of the site for the purposes of informing the public of project details including, but not limited to the details of the Builder,, PCA and Structural Engineer. The notice(s) is to satisfy all but not be limited to, the following requirements:

(1) Minimum dimensions of the notice are to measure 841mm x 594mm (A1) with any text on the notice to be a minimum of 30 point type size;

(2) The notice is to be durable and weatherproof and is to be displayed throughout the works period;

(3) The approved hours of work, the name of the site/project manager, the responsible managing company (if any), its address and 24 hour contact phone number for any inquiries, including construction/noise complaint are to be displayed on the site notice; and

(4) The notice(s) is to be mounted at eye level on the perimeter hoardings/fencing and is to state that unauthorised entry to the site is not permitted.

D7 Contact Telephone Number

The Proponent shall ensure that the 24 hour contact telephone number is continually attended by a person with authority over the works for the duration of the development.

D8 External Lighting

External Lighting shall comply with AS4282: 1997 *Control of the Obtrusive Effects of Outdoor Lighting.* Upon installation of lighting, but before it is finally commissioned, the Proponent shall submit to the approval authority evidence from an independent qualified practitioner demonstrating compliance in accordance with this condition.

D9 Protection of Trees – Street Trees

All street trees shall be protected at all times during construction. Any tree on the footpath, which is damaged or removed during construction, shall be replaced, to the satisfaction of Council.

D10 Protection of Trees – On-site Trees

All trees on the site that are not approved for removal are to be suitably protected by way of tree guards, barriers or other measures as necessary are to be provided to protect root system, trunk and branches, during construction.

D11 Dust Control Measures

Adequate measures shall be taken to prevent dust from affecting the amenity of the neighbourhood during construction. In particular, the following measures must be adopted:

(1) Physical barriers shall be erected at right angles to the prevailing wind direction or shall be placed around or over dust sources to prevent wind or activity from generating dust emissions,

(2) Earthworks and scheduling activities shall be managed to coincide with the next stage of development to minimise the amount of time the site is left cut or exposed,

(3) All materials shall be stored or stockpiled at the best locations,

(4) The surface should be dampened slightly to prevent dust from becoming airborne but should not be wet to the extent that run-off occurs,

(5) All vehicles carrying spoil or rubble to or from the site shall at all times be covered to prevent the escape of dust or other material,

(6) All equipment wheels shall be washed before exiting the site using manual or automated sprayers and drive-through washing bays,

(7) Gates shall be closed between vehicle movements and shall be fitted with shade cloth, and

(8) Cleaning of footpaths and roadways shall be carried out regularly.

D12 Impact of Below Ground (Sub-surface) Works – Non-Aboriginal Objects

If any archaeological relics are uncovered during the course of the work, then all works shall cease immediately in that area and the NSW Heritage Office contacted. Depending on the possible significance of the relics, an archaeological assessment and an excavation permit under the NSW *Heritage Act 1977* may be required before further works can continue in that area.

D13 Impact of Below Ground (Sub-surface) Works – Aboriginal Objects

If any Aboriginal archaeological objects are exposed during construction works, the Proponent shall immediately notify the National Parks and Wildlife Service and obtain any necessary approvals to continue the work. The Proponent shall comply with any request made by the NPWS to cease work for the purposes of archaeological recording.

D14 Water Conservation

Water saving showerheads shall be fitted to all showers within the development to reduce water consumption and promote energy efficiency.

D15 Recycling of Concrete

Any existing concrete of suitable volume, which is not used as fill, shall be taken to a concrete recycling works and evidence that this has occurred shall be provided to the PCA.

D16 Compliance Report

The Proponent, or any party acting upon this approval, shall, for the duration of construction period, submit to the Department a three monthly report addressing compliance with all relevant conditions of this Part.

D17 Services to be Underground

All services associated with the development are to be located underground and works associated with this are to be fully born by the Proponent, within the development and along all street frontages for the length of the development.

D18 Anti Graffiti

All ground level surfaces are to be treated with anti-graffiti coating to minimise the potential of defacement. In addition, any graffiti evident on the exterior facades and visible from a public place is to be removed within 24 hours.

D19 Vehicular Crossing

All new vehicular crossings are to be constructed in accordance with Council's specifications.

D20 Removal of redundant crossings

The proponent shall remove all redundant crossings together with any necessary reinstatement of the footpath, nature strip, kerb and gutter. Such work shall be carried out in accordance with Council's specification.

D21 Construction of Kerb & Gutter

The Proponent shall construct new kerb and gutter and associated roadwork/pavement unless otherwise determined by Council in accordance with Council's specification for the full frontage of the development

D22 Soil and Water Management

(1) Any fill imported on to the site shall be validated to ensure the imported fill is suitable for the proposed land use from a contamination perspective. Imported fill should be accompanied by documentation from the supplier which certifies that the material is not contaminated.

(2) Council's warning sign for Soil and Water Management must be displayed on the most prominent point on the building site, visible to both the street and site workers. The sign must be displayed throughout construction.

(3) The construction site must have soil and water management controls implemented as described in Specifications S1 and S2 of Council's Stormwater Management Manual.

(4) Materials must not be deposited on Council's roadways as a result of vehicles leaving the building site.

(5) Drains, gutters, roadways and access ways must be maintained free of soil, clay and sediment. Where required, gutters and roadways must be swept regularly to maintain them free from sediment. Do not hose down.

D23 Vehicle Washdown Area

The site must be provided with a vehicle washdown area at the exit point of the site. The area must drain to an approved silt trap prior to disposal to the stormwater drainage system in accordance with the requirements of Specification S2 of Canterbury City Council's Stormwater Management Manual. Vehicle tyres must be clean before leaving the site.

D24 Erosion and Sediment Control

All disturbed areas must be stabilised against erosion within 14 days of completion, and prior to removal of sediment controls.

D25 Site Entry

A single entry/exit point must be provided to the site which will be constructed of a minimum of 40mm aggregate of blue metal or recycled concrete. The depth of the entry/exit point must be 150mm. The length will be no less than 15m and the width no less than 3m. Water from the area above the entry/exit point shall be diverted to an approved sediment filter or trap by a bund or drain located above.

D26 Site Fencing

(1) Erection of a hoarding/fence (for the class 2 - 9 building) or other measure to restrict public access to the site and to building works, materials or equipment when building work is not in progress or the site is otherwise unoccupied.

(2) Where erection or demolition of a building involves the closure of a public place, or where pedestrian or vehicular access is to be obstructed or rendered inconvenient, the premises is to be provided with a hoarding and or sufficient awning to be erected to prevent any substance from, or in connection with the work falling onto the public place. The site is also to be kept illuminated between sunset and sunrise where it is likely to be dangerous for people using the public place.

(3) During the demolition or erection of a building, a sign must be provided in a prominent position stating that unauthorised entry to the premises is prohibited and contain all relevant details of the responsible person/company including a contact number outside working hours. A sign is not required where work is being carried out inside, or where the premises are occupied during the works (both during and outside working hours).

D27 Stormwater

(1) All downpipes, pits and drainage pipes shall be installed and/or repaired and/or cleaned out to ensure that stormwater is conveyed from the site to Council's stormwater system in accordance with AUS-SPEC Specification D5 "Stormwater Drainage Design" and Clause 8 of Council's Stormwater Management Manual - Specification 9 "A Guide for Stormwater Drainage Design". Note: On site detention will not be required if the total impervious area for the development is less than 70% of the total site area.

(2) The stormwater drainage system is to be constructed in accordance with AUS-SPEC 1351 Stormwater Drainage (Construction) and 1352 Pipe Drainage. The stormwater drainage works are to be inspected during construction by the Certifying Authority at the following stages:
   (a) Prior to backfilling of trenches,
   (b) Prior to pouring concrete in OSD areas,
   (c) Prior to landscaping of detention basins,
   (d) On completion of drainage works,

   All work being carried out by an approved contractor, at the Proponent's cost.

D28 Existing Street Trees

The existing street trees, Lophostemon confertus (common name Brushbox), adjacent to the development site in Charlotte Street and Harp Street are to be retained and protected during construction. A tree protection zone (TPZ) of minimum 6 m radius must be observed. A tree protection barrier is to be erected around the perimeter of the TPZ prior to the commencement of any site works. This barrier must be a minimum 1800mm high chain link fabric (with standard 50mm pitch) on 2400mm star pickets driven 600mm into the ground so that the fencing cannot be breached. A 600mm x 450mm prohibition sign complying with AS1319, and stating 'TREE PROTECTION ZONE - KEEP OUT' must be attached to the barrier. The barrier is to be well maintained during construction. No building material storage or construction activity shall be allowed to encroach within this TPZ.

End of Section

PART E - PRIOR TO SUBDIVISION OR STRATA SUBDIVISION

E1 Demolition

Demolition of all existing buildings on Lot 1 DP 721721 and Lot A DP 431356 is to be undertaken prior to the issue of a Construction Certificate for building works.

E2 Access

Documentary easements for access must be created over the appropriate lots in the subdivision to provide for public access and access to lifts, lobbies, fire stairs, service areas, loading areas and car parking areas, and created pursuant to Section 88B of the *Conveyancing Act 1919.*

E3 Easements

Documentary easements for services, drainage, support and shelter, use of plant, equipment, loading areas and service rooms, repairs, maintenance or any other encumbrances and indemnities required for joint or reciprocal use of part or all of the proposed lots as a consequence of the subdivision, must be created over the appropriate lots in the subdivision pursuant to Section 88B of the *Conveyancing Act 1919.*

E4 Stormwater

Prior to the issue of the Subdivision Certificate the following detailed plans of the site stormwater system, street/trunk drainage system and the flood detention storage tanks (FDSTs) are to be submitted for approval to Council's Director City Works.

(1) The proposed flood detention storage tank as shown on the plans within proposed Lot 42 is to be relocated from the proposed development lot to within the proposed road reserve. Details of the proposed amendment are to be submitted prior to the issue of the first Subdivision Certificate.

(2) The detailed stormwater plans for each stage are to be submitted prior to the issue of the Subdivision Certificate, and accompanied by detailed calculations demonstrating that the performance of all new and existing trunk/street drainage lines will be satisfactory. Calculations are to include a catchment analysis detailing the expected overland flow to be directed to the flood detention storage tanks (FDST) for the design storm. Calculations are also to be provided to demonstrate that the proposed kerb inlet pits will be adequate to capture and direct the previously determined overland flow to the flood storage tank (FDST). Evidence shall be provided to show that freeboard above any ponding levels satisfies Council, NSW Floodplain Management Manual and Australian Standard AS 3500.3 requirements.

(3) The location of infrastructure including street alignment, traffic calming devices, services and driveways may influence the design of the street drainage system and FTSDs. The plans and calculations for the FDSTs and street/trunk drainage system are to be in accordance with Australian Standard AS 3500.3-2003 Stormwater Drainage, NSW Floodplain Management Manual, AUS-SPEC 0074 Stormwater drainage (Design) and City of Canterbury's Stormwater Management Manual ~ Specification 9. Details of such are to be submitted prior to the issue of the Subdivision Certificate for the relevant stage.

(4) Not withstanding conditions set by Sydney Water, the minimum design storm shall be 1 in 10 year, subject to overland flow routes. Details of such are to be submitted prior to the issue of the Subdivision Certificate for the relevant stage.

(5) Provision is to be made in the street/trunk drainage design for the connection of the proposed bioretention street tree pits detailed on the concept landscaping plan. Details

of such are to be submitted prior to the issue of the Subdivision Certificate for the relevant stage.

(6) The street/trunk drainage system is to be constructed in accordance with the plans, details and specifications submitted for the Construction Certificate. The street/trunk drainage system is to be constructed in accordance with AUS-SPEC 1351 Stormwater Drainage (Construction), 1352 Pipe Drainage, Australian Standard AS 3500.3-2003 Stormwater Drainage, and other relevant standards and specifications. All street/trunk drainage pipe work is to be constructed of rubber ring jointed pipes. All work being carried out by an approved contractor, at the Proponent's cost.

(7) Construction of the flood detention storage tank (FDST) and associated street/trunk drainage system for each stage is to be undertaken prior to any other civil works commencing for that stage.

(8) Construction of the proposed FDSTs are to be undertaken in accordance with AUS-SPEC 1351 Stormwater Drainage (Construction), 1352 Pipe Drainage, Australian Standard AS 3500.3-2003 Stormwater Drainage, AUS-SPEC 041 Tanking and Damp-proofing, and other relevant standards and specifications. All work is to be carried out by an approved contractor, at the Proponent's cost and details of such are to be submitted prior to the issue of the Subdivision Certificate for the relevant stage.

(9) Following the completion of the new drainage system, the Proponent shall demolish and remove the existing Sydney Water pipeline traversing the site.

(10) Final Works-As-Executed plans for the flood detention storage, street/trunk drainage, roads, footpaths are to be submitted to Council's Director of City Works, for each stage. The plan shall be prepared by a registered surveyor or an engineer. The plan shall record all the relevant design and finished levels and dimensions of the works. The Works-As-Executed plans are to be accompanied by a certification from a suitably qualified and experienced engineer stating that the works have been inspected and comply with the approved plans, specification and standards.

E5 Internal Road Construction

Prior to the release of the Subdivision Certificate for each stage the proposed roads relevant to that stage are to be constructed. The works are to include the construction of kerb and gutter, road pavement, dish drains and services. All work being carried out by an approved contractor, at the Proponent's cost.

E6 Public Domain

(1) Prior to the release of the Subdivision Certificate for Stage 1, the proposed footpaths, street furniture and street landscaping on the northern side of New Troy Street between Charlotte Street and New Alfred Street are to be constructed. All work is to be carried out by an approved contractor, at the Proponent's cost.

(2) Prior to the issue of a Subdivision Certificate for each stage, a detailed planting plan is to be submitted for approval to Council's Director of City Works for all landscaping works in public spaces.

(3) All street bins are to conform to Council's standard 240l stainless steel bin enclosure. The location and details of the proposed street bins for each stage are to be approved by Council's Manager Waste Services.

(2) The location and specifications of the proposed seating along Harp Street, Charlotte Street, New Wade Street, New Troy Street, New Harp Street and New Alfred Street is to be approved by Council's Director City Works for each stage.

E7 Driveway/Footpath Maintenance

Prior to the release of the subdivision certificate the reconstruction of any existing driveways and concrete footpath located in Troy Lane and Troy Street affected by the new road

alignment is required. New driveways are to be light duty construction with width complying with the approved driveway locations and dimensions. All work being carried out by an approved contractor, at the Proponent's cost.

E8 Civil Works

Prior to the issue of any subdivision certificate, detailed designs and documentation are to be submitted to Council for approval for the proposed road construction works. The design is to include the kerb and gutter, pavement, dish drains, footpath, pedestrian and cycle facilities required for each new street. The detailed design is to be undertaken in accordance with AUS-SPEC, AUSTROADS, Australian Standard HB 153:2002 : Urban Road Design: A Guide to the Geometric Design of Major Urban Roads and RTA Road Design Guide.

E9 Underground Services

All services are to be provided underground, including water and sewer supply, telecommunications, electricity, gas and the like, and are to be constructed in conjunction with the construction of the new roads New Troy Street, New Alfred Street, New Harp Street and New Wade Street. Services are to be located under the footpath in accordance with the proposed Services Plan project code AA001875 drawing number C061 issue 2 by Hyder Consulting Pty Ltd. Service provision is to be in accordance with the requirements of each Service Authority. All electricity distribution infrastructure shall be located underground in accordance with Energy Australia requirements. Street light poles and fixtures are to be in accordance with the requirements of Energy Australia and City of Canterbury. All work being carried out by an approved contractor, at the Proponent's cost prior to the issue of any subdivision certificate.

E10 General/Construction

(1) All civil works for the proposed new roads, footpaths, kerb and gutter and traffic facilities are to be constructed in accordance with the following specifications:

AUS-SPEC:

- 0161 Quality (Construction),
- 0271 Pavement base and subbase,
- 0272 Asphaltic Concrete,
- 0273 Sprayed bituminous surfacing,
- 0274 Concrete pavement,
- 0275 Segmental pavers – mortar bed,
- 0276 Segmental pavers – sand bed,
- 0277 Pavement ancillaries,
- 0310 Concrete – combined,
- 0310 Minor Concrete Works,
- 0311 Concrete formwork,
- 0312 Concrete reinforcement,
- 0314 Concrete in situ,
- 0315 Concrete finishes,
- 1101 Control of Traffic,
- 1102 Control of erosion and sedimentation,
- 1112 Earthworks (roadways),
- 1113 Stabilisation,
- 1121 Open drains including kerb and channel gutter,
- 1131 Rolled concrete subbase,
- 1132 Mass concrete subbase,
- 1133 Plain and reinforced concrete base,
- 1134 steel fibre reinforced concrete base,
- 1135 Continuously reinforced concrete base,
- 1136 cold milling of asphalt and base course,

- 1141 Flexible pavements,
- 1142 Bituminous cold mix,
- 1143 Sprayed bituminous surfacing,
- 1144 Asphaltic concrete (roadways),
- 1145 Segmental paving,
- 146 Bituminous microsurfacing,
- 1171 subsurface drainage,
- 1172 Subsoil and foundation drains,
- 1173 Pavement drains,
- 1174 Drainage mats,
- 1191 Pavement markings,
- 1192 signposting,
- 1193 Guide posts,
- 1194 Non-rigid road safety barrier systems (Public domain),
- 1195 Boundary fences for road reserves and

City of Canterbury standard drawings:

- SD100 Standard Grated Gully Pit with Kerb Inlet
- SD101 Standard Surface Inlet Pit
- SD624 Standard Light Duty Vehicular Crossing
- SD625 Standard Heavy Duty & Extra Heavy Duty Vehicular Crossing
- SD627 Standard Kerb & Gutter, Dish Crossing & Gutter Profiles
- SD633 Standard Concrete Footpath Paving
- SD643 Standard Kerb Ramp Details
- SD645 Standard Raised Threshold.

All work being carried out by an approved contractor, at the Proponent's cost.

(2) All civil works are to be designed in accordance with AUS-SPEC 0160 Quality (Design).

E11 Certificates

Prior to the release of the subdivision certificate all certificates for inspections, fill, subbase, base, wearing surface, compaction and stabilisation for the civil works are to be submitted to Council.

E12 Street Lighting

Street lighting in New Troy Street, New Harp Street, New Alfred Street and New Wade Street, adjacent to the development site is to be provided to meet the current Australian Standard AS/NZS 1158.3.1 Road lighting Part 3.1: Pedestrian area lighting - Performance and installation design requirements. All cabling and electrical connections are to be installed underground for each stage prior to issue of the Subdivision Certificate for that stage.

E13 Subsoil Drainage

No subsoil drainage is to be discharged from the site. Provision is to be made to direct any subsurface flows around subterranean obstructions. All earth retaining structures are to be designed to withstand hydrostatic loading generated by subterranean water and the basement walls are to be adequately tanked and waterproofed.

E14 Street Naming

(1) Proposed street names are to be referred to Council's Director of Corporate Services for approval prior to adoption by the Geographical Names Board, prior to the issue of a Subdivision Certificate for Stage 1.

(2) Street name signs are to be installed at both ends of each new street. Street name signs are to comply with Council's Specification for the Manufacture and Installation of Street Name Signs & Posts. The cost of manufacture and installation is to be borne by the Proponent.

E15 Strata Subdivision

No Strata Subdivision approval is given as part of this Project Application.

End of Section

PART F - PRIOR TO OCCUPATION OR COMMENCEMENT OF USE

F1 Fire Safety Certificate

A Fire Safety Certificate shall be furnished to the PCA for all the Essential Fire or Other Safety Measures forming part of this approval prior to issue of any Occupation Certificate. A copy of the Fire Safety certificate must be submitted to the approval authority and Council by the PCA.

F2 Annual Fire Safety Statement

An Annual Fire Safety Statement must be provided to Council and the NSW Fire Brigade commencing within 12 months after the date on which the approval authority initial Fire Safety Certificate is received.

F3 Hydrant Installation

The Proponent shall comply with the requirements of the NSW Fire Brigade in relation to hydrant installation details of which are to be submitted with the Construction Certificate Application.

F4 Mechanical Ventilation

Following completion, installation and testing of all the mechanical ventilation systems, the Proponent shall provide evidence to the satisfaction of the PCA, prior to the issue of any Occupation Certificate, that the installation and performance of the mechanical systems complies with:

(1) The Building Code of Australia;

(2) Australian Standard AS1668 and other relevant codes;

(3) The development approval and any relevant modifications; and,

(4) Any dispensation granted by the New South Wales Fire Brigade.

F5 Structural Inspection Certificate

A Structural Inspection Certificate or a Compliance Certificate must be submitted to the satisfaction of the PCA prior to the issue of any Occupation Certificate and/or use of the premises. A copy of the Certificate with an electronic set of final drawings (contact approval authority for specific electronic format) shall be submitted to the approval authority and the Council after:

(1) The site has been periodically inspected and the Certifier is satisfied that the Structural Works is deemed to comply with the final Design Drawings; and,

(2) The drawings listed on the Inspection Certificate have been checked with those listed on the final Design Certificate/s.

F6 Road Damage

(1) The cost of repairing any damage caused to Council or other Public Authority's assets in the vicinity of the subject site as a result of construction works associated with the approved development, is be met in full by the Proponent prior to the issue of any Occupation Certificate.

Note: Should the cost of damage repair work not exceed the road maintenance bond, Council will automatically call up the bond to recover the costs. Should the repair costs exceed the bond amount, a separate invoice will be issued.

(2) The reconstruction of any cracked or damaged sections of the kerb and gutter along areas of the site fronting New Troy Street, New Alfred Street and New Harp Street is required. Work to be carried out by Council or an approved contractor, at the Proponent's cost. The work is to be carried out in accordance with Council's "Specification for the Construction by Private Contractors of: a) Vehicle Crossings, b) Concrete Footpath, c) Concrete Kerb & Gutter".

F7 Registration of Easements

Prior to the issue of any Occupation Certificate, the Proponent shall provide to the PCA evidence that all easements required by this approval, approvals, and other consents have been or will be registered on the certificates of title.

F8 Sydney Water

A Section 73 Compliance Certificate under the Sydney Water Act 1994 must be obtained from Sydney Water Corporation.

Application must be made though an authorised Water Servicing Coordinator. Please refer to the "Your Business" section of the web site http://www.sydneywater.com.au/ then follow the "e-Proponent" icon or telephone 13 20 92 for assistance.

Following application a "Notice of Requirements" will advise of water and sewer extensions to be built and charges to be paid. Please make early contact with the Coordinator, since building of water/sewer extensions can be time consuming and may impact on other services and building, driveway or landscape design.

The Section 73 Certificate must be submitted to the PCA prior to occupation of the development or release of the plan of subdivision.

F9 Post-construction Dilapidation Report

(1) The Proponent shall engage a suitably qualified person to prepare a post-construction dilapidation report at the completion of the construction works. This report to ascertain whether the construction works created any structural damage to adjoining buildings, infrastructure and roads.

(2) The report is to be submitted to the PCA. In ascertaining whether adverse structural damage has occurred to adjoining buildings, infrastructure and roads, the PCA must:

(a) compare the post-construction dilapidation report with the pre-construction dilapidation report required by Condition B15, and

(b) have written confirmation from the relevant authority that there is no adverse structural damage to their infrastructure and roads.

(3) A copy of this report is to be forwarded to the Director and Council.

F10 Shop/Premise Occupation

The specific use of each shop/premise shall be subject to a separate development application to Council.

F11 Street Numbers

Buildings are to be clearly identified from the street/internal road by street numbering.

F12 Works As Executed Plans

A Works-as-Executed plan must be submitted at the completion of the work to the PCA, and City of Canterbury if Council is not the PCA, indicating all the site drainage and the OSD system. The plan shall be prepared by a registered surveyor or an engineer. The plan shall record all the relevant design levels and dimensions of the OSD system. Certification from an accredited engineer must be provided to certify that all work has been carried out in accordance with the approved plans and relevant codes and standards. An appropriate instrument must be registered on the title of the property, concerning the presence and ongoing operation of the OSD system as specified in appendix 7.5 of Council's Stormwater Management Manual – Specification 9.

F13 Access

A full width heavy duty vehicular crossing shall be provided at each vehicular entrance to the site, with a maximum width in accordance with AS 2890.1-2004 Off-Street Carparking and AS 2890.2-2002 Off-Street commercial vehicle facilities at the boundary line. This work to be carried out by Council or an approved contractor, at the Proponent's cost. The work is to be carried out in accordance with Council's "Specification for the Construction by Private Contractors of: a) Vehicle Crossings, b) Concrete Footpath, c) Concrete Kerb & Gutter".

F14 Kerb and Gutter

The reconstruction of the kerb and gutter along areas of the site fronting Charlotte Street is required. Work to be carried out by Council or an approved contractor, at the Proponent's cost. The work is to be carried out in accordance with Council's "Specification for the Construction by Private Contractors of: a) Vehicle Crossings, b) Concrete Footpath, c) Concrete Kerb & Gutter".

F15 Footpaths and Reserves

(1) The construction of concrete footpath paving and associated works along all areas of the site fronting New Troy Street, New Alfred Street and New Harp Street is required. Work being carried out by Council or an approved contractor, at the Proponent's cost. The work is to be carried out in accordance with Council's "Specification for the Construction by Private Contractors of: a) Vehicle Crossings, b) Concrete Footpath, c) Concrete Kerb & Gutter" and the approved streetscape treatments. The paving material, pattern and construction specification is to be in accordance with the requirements adopted by Council for the Campsie town centre and is to be carried out to the satisfaction of Council's Director of City Works.

(2) The reconstruction of concrete footpath paving and associated works along all areas of the site fronting Charlotte Street is required. Work being carried out by Council or an approved contractor, at the Proponent's cost. The work is to be carried out in accordance with Council's "Specification for the Construction by Private Contractors of: a) Vehicle Crossings, b) Concrete Footpath, c) Concrete Kerb & Gutter" and the approved streetscape treatments

(3) The nature strip outside the property shall be repaired as necessary. Work to be carried out by Council or an approved contractor, at the Proponent's cost. The work is to be carried out in accordance with AUS-SPEC 0257 Landscape - roadways and street trees.

(4) The provision of footpath, landscaping, street furniture and street trees in accordance with the approved landscaping plan for the whole site and adjoining public areas is required.

(5) All ground covers and shrubs proposed for street planting adjacent to carriageways and vehicular accesses are to have a maximum expected height of 600mm.

F16 Childcare Centre

(1) Boundary fencing shall be lapped and capped timber fencing at the Proponent's cost.

(2) With the concurrence of the adjoining owners 600mm of lattice shall be provided on top of the boundary fences so as to maintain privacy for adjoining owners.

(3) A "drop off/pick up" zone is to be provided at the Proponent's cost along the frontage of the site on Troy Street and for three vehicle spaces closest to the childcare centre on New Troy Street . A sign is to be installed indicating a maximum time limit for the zone of 10 minutes, between 7.00am and 9.00am in the morning, and 4.00pm and 6.00pm in the afternoon. The work is to be undertaken in consultation with and to the satisfaction of Council's Director of City Works prior to the occupation of the building.

F17 External Road Construction

Following construction of all lots the resheeting of the full width of Harp Street, Alfred Street and Charlotte Street adjacent to the development site is to be undertaken. The surface is to be milled and paved with 45mm of AC14 and 30mm of AC10 overlay.

End of Section

PART G - POST OCCUPATION

G1 Annual Fire Safety Certification

The owner of the building shall certify to Council every year that the essential services installed in the building for the purpose of fire safety have been inspected and at the time of inspection are capable of operating to the required minimum standard. This purpose of this condition is to ensure that there is adequate safety of persons in the building in the event of fire and for the prevention of fire, the suppression of fire and the prevention of spread of fire.

G2 Loading and Unloading

All loading and unloading of service vehicles in connection with the use of the premises shall be carried out wholly within the site at all times.

G3 Unobstructed Driveways and Parking Areas

All driveways and parking areas shall be unobstructed at all times. Driveways and car spaces shall not be used for the manufacture, storage or display of goods, materials or any other equipment and shall be used solely for vehicular access and for the parking of vehicles associated with the use of the premises.

G4 Noise Control

Noise associated with the operation of any plant, machinery, internal or external public address systems or other equipment on the site, shall not exceed 5dB(A) above the background noise level when measured at the boundary of the site.

G5 Amenity

All activity must be conducted so that it causes no interference to the existing and future amenity of the adjoining occupations and the neighbourhood in general by the emission of noise, smoke, dust, fumes, grit, vibration, smell, vapour, steam, soot, ash, waste water, waste products, oil, electrical interference or otherwise.

G6 Storage of Hazardous or Toxic Material

Any hazardous or toxic materials must be stored in accordance with Workcover Authority requirements and all tanks, drums and containers of toxic and hazardous materials shall be stored in a bunded area. The bund walls and floors shall be constructed of impervious materials and shall be of sufficient size to contain 110% of the volume of the largest tank plus the volume displaced by any additional tanks within the bunded area.

G7 Public Way to be Unobstructed

The public way must not be obstructed by any materials, vehicles, refuse, skips or the like, under any circumstances.

G8 Child Care Centre

(1) Any security lighting to be installed not to affect the amenity of the adjoining residences.

(2) The hours of operation being confined to between 7.00 a.m. and 6.00 p.m. Mondays to Fridays.

End of Section

ADVISORY NOTES

AN1 Sydney Water

An application shall be made to Sydney Water for a Certificate under Part 6, Division 9, Section 73 of the *Sydney Water Act, 1994* (Compliance Certificate). Evidence that a Compliance Certificate has been applied for (i.e. Notice of Requirements) shall be produced to the satisfaction of the PCA prior to the issue of a Construction Certificate. The Section 73 Certificate shall be submitted to the PCA prior to the occupation of the development or release of the linen plan.

AN2 Compliance Certificate, Water Supply Authority Act, 2000

Prior to issuing a subdivision certificate, a Compliance Certificate shall be provided to the approval authority showing that the development has met with the detailed requirements of the relevant water supply authority for the region that the subject site is located within.

The Proponent shall obtain the Compliance Certificate from the relevant local water supply authority and produce this to the satisfaction of:

(1) the certifying authority before release of the Construction Certificate,

(2) the approval authority before the release of the subdivision certificate, and

(3) the principal certifying authority prior to occupation.

AN3 Requirements of Public Authorities for Connection to Services

The Proponent shall comply with the requirements of any public authorities (e.g. Energy Australia, Sydney Water, Telstra Australia, AGL, etc) in regard to the connection to, relocation and/or adjustment of the services affected by the construction of the proposed structure. Any costs in the relocation, adjustment or support of services shall be the responsibility of the Proponent. Details of compliance with the requirements of any relevant public authorities are to be submitted to the satisfaction of the PCA prior to the issue of the Construction Certificate.

AN4 Compliance with Building Code of Australia

(1) The Proponent is advised to consult with the PCA about any modifications needed to comply with the BCA prior to submitting the application for a Construction Certificate.

(2) Compliance with the Building Code of Australia does not guarantee protection from prosecution under "The Disability Discrimination Act". Further information is available from the Human Rights and Equal Opportunity Commission on 1800 021 199.

AN5 Structural Capability for Existing Structures

The structural capabilities of an existing structure will need to meet the requirements of the BCA and may require engaging a structural engineer.

AN6 Application for Hoardings and Scaffolding

A separate application shall be made to Council for approval under State Environmental Planning Policy (Temporary Structures and Places of Public Entertainment) 2007, to erect a hoarding or scaffolding in a public place. Such an application shall include:

(1) Architectural, construction and structural details of the design in accordance with Canterbury City Council's Policy requirements,

(2) Structural certification prepared and signed by a suitably qualified practising structural engineer.

The Proponent shall provide evidence of the issue of a Structural Works Inspection Certificate and structural certification shall be submitted to the satisfaction of the PCA prior to the commencement of works.

AN7 Use of Mobile Cranes

The Proponent shall obtain all necessary permits required for the use of mobile cranes on or surrounding the site, prior to the commencement of works. In particular, the following matters shall be complied with to the satisfaction of the PCA:

(1) For special operations including the delivery of materials, hoisting of plant and equipment and erection and dismantling of on site tower cranes which warrant the on street use of mobile cranes, permits must be obtained from Council:

  (a) at least 48 hours prior to the works for partial road closures which, in the opinion of Council will create minimal traffic disruptions, and

  (b) at least 4 weeks prior to the works for full road closures and partial road closures which, in the opinion of Council, will create significant traffic disruptions.

(2) The use of mobile cranes must comply with the approved hours of construction and shall not be delivered to the site prior to 7.30am without the prior approval of Council.

AN8 Movement of Trucks Transporting Waste Material

The Proponent shall notify the Roads and Traffic Authority's Traffic Management Centre (TMC) of the truck route(s) to be followed by trucks transporting waste material from the site, prior to the commencement of the removal of any waste material from the site.

AN9 Construction Inspections

Compliance certificate/s shall be issued by the Certifying Authority and submitted to Council in accordance with the mandatory inspection requirements of the *Building Legislation Amendment—Quality of Construction Act, 2002* for each stage of construction, such as the following:

(1) Foundations,

(2) Footings,

(3) Damp proof courses and waterproofing installation,

(4) Structural concrete, including placing of reinforcement and formwork prior to pouring,

(5) Structural beam and column framing,

(6) Timber wall and roof framing, and

(7) Stormwater disposal.

Any Compliance Certificate issued for the above stages of construction shall certify that all relevant ancillary or dependent work has been undertaken in accordance with the Building Code of Australia and any other conditions of approval.

AN10 Noise Generation

Any noise generated during the construction of the development shall not exceed limits specified in any relevant noise management policy prepared pursuant to the *Protection of the Environment Operations Act, 1997* or exceed approved noise limits for the site.

AN11 Excavation – Aboriginal Objects

Should any Aboriginal objects be unexpectedly discovered then all excavations or disturbance to the area is to stop immediately and the National Parks and Wildlife Service shall be informed in accordance with Section 91 of the *National Parks and Wildlife Act, 1974.*

AN12 Excavation – Historical Relics

Should any historical relics be unexpectedly discovered then all excavations or disturbance to the area is to stop immediately and the Heritage Council of NSW shall be informed in accordance with Section 146 of the *Heritage Act, 1977.*

AN13 Application under Part 4A of the Act

An application under Part 4A of the Act shall be submitted to the approval authority or the Council along with a plan of subdivision prepared by a registered surveyor, for certification prior to the issue of the Subdivision Certificate.

AN14 Remediation and Validation Report

Following the completion of remediation works on the site a Remediation and Validation Report is to be prepared by a suitably qualified environmental consultant. This report, together with a final site audit statement by an Environmental Protection Agency accredited environmental consultant, including Notice of Completion statement, pursuant to clauses 17(2) and 18 of *State Environmental Planning Policy No.55—Remediation of Land*, is to be submitted to the satisfaction of the approval authority prior to occupation of the building.

AN15 Street Numbering

Street numbers and the building name(s), if any, will need to be clearly displayed at either end of the ground level frontages in accordance with Canterbury City Council's Requirements, prior to the occupation of the building(s) or commencement of the use.

If street numbers or a change to street numbers are required, a separate application shall be made to Council.

AN16 Stormwater drainage works or effluent systems

A construction certificate for works that involve any of the following:

(1) water supply, sewerage and stormwater drainage work

(2) management of waste

as defined by Section 68 of the Local Government Act, 1993 will not be issued until prior separate approval to do so has been granted by Council under Section 68 of that Act. Applications for these works must be submitted on Council's standard Section 68 application form accompanied by the required attachments and the prescribed fees.

AN17 Temporary Structures

An approval under State Environmental Planning Policy (Temporary Structures and Places of Public Entertainment) 2007 must be obtained from the Council for the erection of the temporary structures. The application must be supported by a report detailing compliance with the provisions of the Building Code of Australia.

Structural certification from an appropriately qualified practicing structural engineer must be submitted to the Council with the application under State Environmental Planning Policy (Temporary Structures and Places of Public Entertainment) 2007 to certify the structural adequacy of the design of the temporary structures.

AN18 Disability Discrimination Act

This application has been assessed in accordance with the Environmental Planning and Assessment Act 1979. No guarantee is given that the proposal complies with the Disability Discrimination Act 1992. The Proponent/owner is responsible to ensure compliance with this and other anti-discrimination legislation. The Disability Discrimination Act 1992 covers disabilities not catered for in the minimum standards called up in the Building Code of Australia which references AS 1428.1 - Design for Access and Mobility. AS1428 Parts 2, 3 & 4 provides the most comprehensive technical guidance under the Disability Discrimination Act 1992 currently available in Australia.

AN19 Roads Act, 1993

A separate application shall be made to RTA for approval under Section 138 of the *Roads Act, 1993* to undertake any of the following:

(1) erect a structure or carry out a work in, on or over a public road, or

(2) dig up or disturb the surface of a public road, or

(3) remove or interfere with a structure, work or tree on a public road, or

(4) pump water into a public road from any land adjoining the road, or

(5) connect a road (whether public or private) to a classified road.

AN20 Asbestos Removal

All excavation works involving the removal and disposal of asbestos must only be undertaken by contractors who hold a current WorkCover Asbestos or "Demolition Licence" and a current WorkCover "Class 2 (Restricted) Asbestos Licence and removal must be carried out in accordance with NOHSC: "Code of Practice for the Safe Removal of Asbestos".

AN21 Flooding

No claims are to be made against Council for disruption to business or damage to stock or machinery due to flooding of the premises.

AN22 Subdivision

(1) Prior to the release of the subdivision certificate Council will undertake Works-As-Executed/handover inspections of all infrastructure to be handed over to Council.

(2) Each lot created by the proposed Torrens Title subdivision, with the exception of proposed Lot 31, will be required to provide on-site stormwater detention within the lot created as part of the redevelopment of the lot.

(3) Each lot created by the proposed Torrens Title subdivision will be required to provide street furniture, footpath and streetscape landscaping as part of the redevelopment of the lot. The paving material and construction specification is to be in accordance with Council's standard drawing SD 650 – Segmental Paving Details for Shopping Centres. The paving is to be in accordance with the materials adopted by Council for the Town Centres. Paving is to be carried out to the satisfaction of Council's Director of City Works.

AN23 Certifying Authority

The Certifying Authority shall coordinate and collate all certificates required by AUS-SPEC to enable compliance with this consent.

AN24 Road Closure

A temporary road closure permit is to be obtained by Council/RTA prior to the closure of any roads. Any works to be carried out by Council at the Proponent's cost need to be applied for in advance.

AN25 Advertising Signage

Advertising signage is to be provided in accordance with *State Environmental Planning Policy No 64 – Advertising and Signage.* Approval of advertising signage is to be obtained from Council.

End of Section

SCHEDULE 3

MP 08_0087

CONCEPT PLAN AND PROJECT APPLICATION FOR MIXED USE DEVELOPMENT

60 CHARLOTTE STREET, CLEMTON PARK

STATEMENT OF COMMITMENTS

(SOURCE: ENVIRONMENTAL ASSESSMENT)

FINAL STATEMENT OF COMMITMENTS – FORMER SUNBEAM SITE CAMPSIE

A – GENERAL

1. The project will be carried out generally in accordance with the plans and material submitted as part of the Environmental Assessment for Major Project No. 07_0106 as described in:

   a) Environmental Assessment Report and associated appendices dated 27 October 2008 as amended by the Preferred Project Report dated May 2009;
   b) **Amended** Architectural Drawings for Lots 2; 3; 4 and 5 prepared by Marchese and Partners dated 20 April 2009;
   c) **Amended** Architectural Drawings for Lot 1 prepared by Buchan Group dated 24 April 2009;
   d) **Amended** Landscape Plans prepared by Habitation dated 24 April 2009;
   e) **Amended** subdivision plans prepared by Dunlop Thorpe dated 1 June 2009;
   f) BASIX Assessment, BASIX Certificate prepared by Cundall;
   g) **Amended** Traffic Impact Assessment (TMAP) prepared by Traffix (Version 10) dated 24 April 2009;
   h) Stormwater and Flood Management Report prepared by Hyder consulting dated April 2009;
   i) Infrastructure Report and Plan prepared by Hyder consulting dated October 2008;
   j) Utilities Investigation Report prepared by Hyder Consulting dated September 2008
   k) Waste Management Plan prepared by JD Macdonald dated October 2008;
   l) Construction Management Plan prepared by DavidsGroup dated October 2008;
   m) Demolition Management Plan prepared by Metropolitan Demolitions dated 27 March 2009; and
   n) Amended Draft Voluntary Planning Agreement prepared by Maddocks dated April 2009.

2. The Proponent (Parkview Sydney Development) will ensure that all contractors engaged to carry out work are aware of and will comply with relevant conditions of consent issued under Major Project No. 07_0106.

1. STATEMENT OF COMMITMENTS

Except as provided elsewhere in this Statement of Commitments, these commitments in this Section A - General are made in respect of the carrying out of the project (mixed use retail, commercial, residential and seniors living) on the site known as No. 60 Charlotte Street, Clemton Park.

2. HERITAGE

2.1 Prior to the commencement of any demolition of the structures a report detailing the manufacturing process should be maintained together with an oral history, flow diagrams of the manufacturing process, photographic records and documentation including scale drawings in accordance with the Heritage Information Series Guidelines "*How to prepared archival records of heritage items*" and "*Photographic recording of heritage items using film or digital capture*" issued by the NSW Heritage Office. A copy of the Archival recording is to be submitted to the Council for its records by the proponent to the satisfaction of the consent authority.

2.2 A commemorative plaque and interpretative display will be erected, informing employees and visitors alike about the history of the site.

3. TRANSPORT AND TRAFFIC

3.1 The access and internal design arrangements shall comply with the requirements of AS 2890.1 and AS 2890.2.

3.2 Parking to be generally in accordance with Council's requirements with concessions to promote alternate travel modes as appropriate.

3.3 Construction of New Troy Street between Charlotte Street and Troy Street which includes

the adjustment to the road reserve boundary so that New Troy Street is wholly within a new lot to be dedicated to council.

3.4 Landscaping between the existing property boundaries on the northern side of existing Troy Lane to the new kerb alignment of New Troy Street including construction of a concrete footpath.

3.5 Construction of new concrete vehicle crossings from new kerb alignments to existing property boundaries to replace existing vehicle crossings to two properties.

4. NOISE IMPACT

4.1 Construction noise activity in respect of any stage is to comply with the requirements set out in Chapter 171 of the EPA Environmental Noise Control Guideline.

4.2 Best practice management noise control procedures outlined in AS 2436-1981 "Guide to Noise Control on Construction, Maintenance and Demolition Sites" are to be applied in controlling construction noise to the recommended noise levels.

4.3 All mechanical plant and other related equipment is to be designed to satisfy the requirements of the NSW Industrial Noise Policy.

4.4 Noise levels for vehicular traffic are to comply with the Environmental Noise assessment prepared by Acoustic Logic dated 9 September 2008.

4.5 Management and acoustic treatment for the child care center will include:

a) Children are not allowed access to the external play area after 6pm.
b) Continuous monitoring of children activities within the external play area.
c) Keep external façade closed and install upgraded single glazing with acoustic seals.
d) Install automatic door closers to external doors.

4.6 "Install acoustic insulation (typically 75mm thick and 20kg/m3 to a minimum of 50% of the underside of the soffit of the loading dock. Alternatively install envirospray to a similar area of the soffit.

4.7 Install a solid entry door/shutter which is kept closed during periods of loading and unloading of trucks.

4.8 Install a 600mm deep acoustic louver to the external openings in the loading dock walls with a minimum acoustic performance as detailed in the table below.

Table 1 – Minimum Louver/Silencer Insertion Loss

63 Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz
4	7	10	12	15	15	15	14

4.9 Additionally the following management controls are required to be implemented:

- Trucks not to be kept waiting on public roads prior to entry to the loading dock.
- Trucks to turn engines off during periods when they are loading and unloading".

4.10 Delivery Hours

No deliveries, loading or unloading associated with the premises at Lot 1 are to take place between the hours of 6am and 9pm on any day.

5. FLOODING

5.1 Habitable floor levels will be a minimum of 0.5m above the Council's 'Standard Flood Level' (typically 100 year ARI flood levels).

5.2 An appropriate Flood Emergency and Evacuation Plan will be prepared for the Lot 5 development Evacuation will allow people a safe haven or a flood free route to higher ground in times of floodwaters surrounding the building. The plan is to include details of flood warning systems and protocols. It should also detail how this information will be distributed to users of the site.

5.3 The development will provide detention storage to mitigate potential adverse flood impacts. The proposed storage will be provided and configured in a manner such that the proposed development will not adversely impact on neighbouring/downstream flooding.

6. ENVIRONMENTAL SUSTAINABILITY

Energy

6.1 Hallways and lobbies will be partially naturally ventilated. Car park ventilation will be fitted with CO monitoring and VSD control;

6.2 Enclosed car park areas should be designed with Variable Speed Drive (VSD) and carbon monoxide (CO) monitoring, as well as passive supply or passive exhaust where possible;

6.3 A highly efficient lighting design and control strategy will reduce artificial lighting energy consumption and allow maximum advantage to be taken of daylight;

6.4 Fluorescent lighting to the car park, common areas, hallways and plants rooms;

6.5 Efficiency controls including timers and motions sensors to car park, common areas and plant rooms;

6.6 Where air-conditioning is provided to residential units, efficient AC units will be installed;

6.7 Residential bathrooms and laundries will be individually ducted to the façade, with efficiency controls, to avoid excessive fan use from central systems;

6.8 Roof-mounted solar panels will provide hot water for all residential domestic hot water needs, as well as pool heating for the seniors living. These systems will typically deliver approximately 60% of yearly water heating energy, with a gas back-up for security of supply during night-time or cloudy periods;

6.9 Building form and fabric have been carefully considered to balance solar heat gains, daylight, glare and views to outside. Passive design strategies include external shading, insulation for walls and ceilings, and high-performance glazing where necessary;

6.10 All residential apartments to have energy-efficient fluorescent lighting for bedrooms, bathrooms, laundries, toilets and hallways;

6.11 Gas cooktop with electric oven;

6.12 3.5 star rated dishwashers;

6.13 3.5 star rated clothes washers;

6.14 2.0 star rated clothes dryers.

Water

6.15 Water efficient fittings will be installed across the development, including:

- 4 star wash hand basins & kitchen taps;
- 4 star WC's;
- 3 star showerheads;
- Low-flush urinals.

6.16 4-Star water efficient dishwashers;

6.17 4-Star water-efficient clothes washing machines;

6.18 Where utilised, cooling towers to have 6 cycles of concentration or greater, reducing water consumed in air-conditioning by up to 50%, as well as reducing chemical use in treatment;

6.19 Rainwater will be harvested from all residential rooftops for use in the following applications:

- Common area landscape irrigation;
- Private landscape irrigation;
- Car-washing & wash-down.

6.20 Native, drought-resistant planting will be maximised to reduce water consumption used in irrigation.

6.21 Rainwater capture from rooftops for reuse in buildings will reduce stormwater runoff as well as mains potable water use;

6.22 Extensive stormwater detention will minimise runoff quantities. The use of permeable surfaces will be considered where suitable - An area of planting between Precinct E and

the culvert has been identified as a suitable location for a bioswale, to be further developed. There may also be potential for such an approach in other locations.

Amenity & IEQ

6.23 Wall and roof insulation not only reduce heat gain and loss, but will also moderate radiant temperatures from the walls, floor and ceiling;

6.24 Building facades with large areas of glazing will have a combination of external shading and high-performance glass to reduce heat transfer and radiant temperatures in proximity to the windows. Balcony overhangs provide effective external shading for residential buildings;

6.25 Internal noise will be restricted to acceptable levels in accordance with Australian Standard AS/NZS 2107:2000, including general building and services noise;

6.26 Indoor air quality will be maximised by selecting finishes with a low impact on indoor air quality including paints, carpets and adhesives with low VOC emissions and low-formaldehyde emissions in composite wood products.

Transport

6.27 Bicycle facilities will be provided throughout the site to encourage active zero-emission means of transport. These are shown for the concept plan in the Basements of Lots 1 and 3;

6.28 Improved pedestrian and bicycle accessibility external to the site to maximise accessibility.

6.29 Car-parking has been minimised on-site to discourage the use of emissions-intensive private vehicle use;

6.30 New bus stops will be provided to serve the site to encourage the use of public transport, a low-emissions mode of transport. A commitment is being sourced from bus service providers to reroute bus services to serve the site;

6.31 A car-sharing scheme will be implemented for commercial and retail tenants to reduce private vehicle use and emissions.

6.32 Refer to the Traffic Impact Assessment (TMAP) report for further details.

Emissions

In addition to the reduction in greenhouse emissions as a result of lower on-site energy usage, emissions to land, air and water will be minimised in the following ways:

6.33 Where available, thermal insulation products will be selected which have a low Ozone Depletion Potential in their manufacture and composition, reducing the impacts of insulation on the atmosphere;

6.34 100% of refrigerants by volume will have an Ozone Depletion Potential of zero; and integrated refrigerant leak detection will ensure early identification of leaks;

6.35 Estimated wastewater discharge to sewer will be significantly reduced relative to a standard building through the implementation of water efficiency measures;

6.36 Stormwater management procedures such as OSD and gross pollutant traps will improve stormwater runoff quality and reduce peak stormwater flows from the site;

6.37 External light pollution will be controlled by careful lighting design, in accordance with AS 4282-1997.

Materials Selection

6.38 Preference will be given to environmentally responsible materials during the selection process, according to the following principles:

- Avoidance of ecologically sensitive products (such as scarce minerals and old-growth forest);
- Selection of materials with a low embodied energy & high recycled content;
- Low toxicity material selection;
- Low impact on the indoor environment;
- Durability, flexibility and recyclability;
- Emissions in manufacture and composition, including greenhouse gases and ozone depleting substances;

- Waste reduction – utilising prefabricated construction can minimise construction work and waste on site.

6.39 The following initiatives will be implemented:

- Timber will be sourced from sustainable plantations such as FSC certified or reused products;

- Finishes will be selected with a low impact on indoor air quality including paints, carpets and adhesives with low VOC emissions and low-formaldehyde emissions in composite wood products;

Environmental Management

6.40 Prior to construction, an Environmental Management Plan (EMP) will be developed to regulate the environmental impacts of the development during construction. This will identify potential environmental impacts and strategies to mitigate these impacts, as well as outlining methods for auditing and tracking the impacts and responsible parties;

6.41 A building users' guide will be developed to inform and educate building users, residents and tenants on how to capture and promote strong on-going environmental performance;

6.42 Remediation will be undertaken for areas of the site considered to be contaminated

7. CONTAMINATION

7.1 The proponent will:

Engage a Site Auditor accredited under the *Contaminated Land Management Act 1997* to provide technical oversight to the works, and to issue a Site Audit Statement at the completion of works.

Prepare an Evaluation and Assessment Plan prior to the commencement of each Stage.

Where necessary, undertake additional assessments to meet the current DECC Guidelines.

If the assessments identify contamination levels which trigger the need for remediation, the URS RAP will be reviewed and modified as necessary to produce a Staged RAP which reflects the remediation requirements for each stage of the development. The RAP will be amended if the staging plan is amended.

Together with the Construction Certificate for each stage, and prior to commencement of construction, any remediation will be performed for that particular stage of development.

Prepare a validation report at the completion of any assessment and of any remediation that is found to be required for each such stage of the redevelopment.

The Site Auditor will prepare a Site Audit Statement and accompanying Report for each stage of the development, which will be provided to DECC.

7.2 Management of asbestos removal

The Proponents shall engage an Occupational Hygienist to preparation a hazardous materials survey prior to demolition.

Anyone who removes repairs or disturbs bonded asbestos must hold a bonded or a friable asbestos license, in accordance with Workcover requirements and the Occupational Health and Safety Act 2000.

Licensed contractors must notify WorkCover NSW of work done in relation to bonded asbestos material having a total surface area of more than the maximum allowable area specified in Clause 317 (3) of the Occupational Health and Safety Regulation 2001.

The notification must be given at least 7 days prior to the start of work and should provide the following information:

- Details about the removal contractor and nominated competent person and independent supervisor (building owner's representative)
- Type, quantity and location of bonded asbestos material
- Work method statement of removal procedure s to be carried out
- Commencement and completion dates
- Disposal arrangements

All works to be conducted will comply with the Code of Practice for the Safe Removal of Asbestos [NOHSC: 2002(2005)]

Control air monitoring will be conducted during asbestos removal to ensure levels are within the standards specified in Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment[NOHSC: 1003(1995)]

Details demonstrating compliance with these requirements are to be submitted to the Certifying Authority prior to the commencement of works.

8. WASTE MANAGEMENT

8.1 Material to be removed from the site must be source separated on site to maximise recycling, and the material disposed of to an appropriate disposal and recycling facility in accordance with Section 4 Waste Management Plan of the Construction Management Plan prepared by Parkview dated October 2008.

8.2 Provision and Management of facilities should be in accordance with the Waste Management plan for Lot 3 prepared by JD Macdonald dated 2 October 2008

8.3 Provision and Management of facilities should be in accordance with the Waste Management plan for Lot 1 prepared by JD Macdonald dated 9 October 2008

9. INFRASTRUCTURE

9.1 Roads

a) The proposed road layout and access arrangements will generally be in accordance with Drawing Reference C005; C030 and C040 to C044, prepared by Hyder Consulting dated 2 October 2008.

b) As part of Stage 2, two new concrete vehicle crossings will be provided from the new kerb alignment to the existing property boundaries to replace the existing vehicle crossings at New Troy Street as well as the construction of a new concrete footpath.

9.2 Stormwater

Stormwater Management will be undertaken generally in accordance with Drawing Reference C025 to C028, prepared by Hyder Consulting dated 2 October 2008.

9.3 Potable Water Supply

Construct a DN150 water main between the DN150 main in Troy Street and the DN100 main in Alfred Street. In addition, DN100 water mains will be constructed in New Troy, New Wade and New Harp Streets. Any works will be in accordance with the "Water Supply Code of Australia – Sydney Water Edition".

9.4 Sewer

All sewer work will be carried out in accordance with the standards set out in the "Sewerage Code of Australia – Sydney Water Edition".

9.5 Electrical

a) New substations are to be installed within the proposed development as part of the individual Project Applications as required. They are to be connected to Energy Australia's high voltage network. All upgrade work is to be carried out in accordance with the requirements of Energy Australia.

b) All new internal roads are to be provided with external lighting complying with AS 1158 requirement. Energy efficient lighting is to be used for internal and external lighting.

10. LANDSCAPING

A vegetation maintenance program shall be implemented upon completion of construction on the entire site. Some of the main points in the maintenance program shall include:

(a) The removal/management of leaves from deciduous canopy tree to prevent accumulation of high fuel levels.

(b) A watering regime tailored to the stages of plant growth and seasonal fluctuations in rainfall and temperature. A permanent irrigation system will be installed for all internal areas connected to the rainwater harvesting tanks. The capacity of these tanks has been designed to never be empty so water will always be available. A temporary system shall be installed for all native and endemic vegetation. Most of this vegetation will be self-sufficient after a 3 year period.

(c) The proposed development will have garden and maintenance staff as required

(d) The landscape contractor will be on a 12 month maintenance contract from the date of Practical Completion.

(e) Mulch levels are to be topped up to a minimum of 75mm.

(f) Failed plants are to be replaced

11. CONSTRUCTION

11.1 The proponent will obtain a Construction Certificate prior to commencement of the works associated with the Project Application (Lot 1 and Lot 3).

11.2 The approved structure will not be used or occupied unless an Occupation Certificate (either final or interim) as referred to in Section 109C(1)(c) of the EP&A Act has been issued.

11.3 All building work must be carried out in accordance with the provisions of the BCA.

11.4 All construction and demolition will be undertaken in accordance with the Construction Management Plan prepared by DavidsGroup dated October 2008 and Demolition Management Plan prepared by Metropolitan Demolitions dated 27 March 2009.

11.5 The construction site will be fenced in accordance with Workcover requirements and access will be restricted to authorized persons. Appropriate signage will be installed in locations visible to pedestrians on the site.

11.6 All construction materials, vehicles, waste and the like will be stored within the site.

11.7 Any damage to public roads and road works caused by construction vehicles and activities will be rectified by and at the expense of proponent to the satisfaction of Canterbury Council (or relevant Authority).

11.8 Dilapidation surveys will to be carried out at the Proponents expense on all premises adjoining the site and will be submitted to Council and the adjoining land owners prior to commencement of excavation work. A survey will be carried out and submitted to Council prior to the issuing of an Occupation Certificate. The dilapidation surveys shall be updated accordingly.

11.9 All excavations and backfilling associated with the erection or demolition of a building shall be carried out in a safe and professional manner and in accordance with appropriate professional standards.

11.10 All excavations associated with the erection or demolition of the building are to be properly guarded and protected to prevent them from being dangerous to life or properly.

11.11 Construction Management Program

A Construction Management Program shall be submitted to the Certifying Authority prior to the issue of a Construction Certificate. The program shall detail:

(a) The proposed method of access to and egress from the site for construction vehicles, including access routes through the Council area and the location and type of temporary vehicular crossing for the purpose of minimising traffic congestion and noise in the area, with no access across public parks or reserves being allowed;
(b) The proposed phases of construction works on the site, and the expected duration of each construction phase;
(c) The proposed order in which works on the site will be undertaken, and the method statements on how various stages of construction will be undertaken;
(d) The proposed manner in which adjoining property owners will be kept advised of the timeframes for completion of each phase of development/construction process.
(e) The proposed method of loading and unloading excavation and construction machinery, excavation and building materials, formwork and the erection of any part of the structure within the site. Wherever possible mobile cranes should be located wholly within the site;
(f) The proposed areas within the site to be used for the storage of excavated materials, construction materials and waste containers during the construction period;
(g) The proposed method/device to remove loose material from all vehicles and/or machinery before entering the road reserve, any run-off from the washing down of vehicles shall be directed to the sediment control system within the site;
(h) The proposed method of support to any excavation adjacent to adjoining properties, or the road reserve. The proposed method of support is to be designed and certified by an appropriately qualified and practicing Structural Engineer, or equivalent;
(i) Proposed protection for Council and adjoining properties; and
(j) The location and operation of any on site crane.

11.12 Construction Hours

Building construction shall be restricted to within the hours of 7.00 am to 5.00 pm Monday to Friday and on Saturday to within the hours of 8.00 am to 5.00 pm inclusive, with no work on Sundays and Public Holidays.

Demolition and excavation works shall be restricted to within the hours of 8.00 am to 5.00 pm Monday to Friday only. (Excavation work includes the use of any excavation machinery and the use of jackhammers, rock breakers, excavators, loaders and the like, regardless of whether the activities disturb or alter the natural state of the existing ground stratum or are breaking up/removing materials from the site).

The builder and excavator shall display, on-site, their twenty-four (24) hour contact telephone number, which is to be clearly visible and legible from any public place adjoining the site.

11.13 Dust Emission and Air Quality

Materials must not be burnt on the site. Vehicles entering and leaving the site with soil or fill material must be covered.

Dust suppression measures must be carried out to minimise wind-borne emissions in accordance with the NSW Department of Housing's 1998 guidelines - Managing Urban Stormwater: Soils and

Construction. Odour suppression measures must be carried out so as to prevent nuisance occurring at adjoining properties. This Condition must be complied with during demolition and building work.

11.14 Noise and Vibration

Noise emissions and vibration must be minimised where possible and work is to be carried out in accordance with Environment Protection Authority guidelines for noise emissions from construction/demolition works and must also comply with the provisions of the Protection of the Environment Operations Act 1997. This Condition must be complied with during demolition and building work.

11.15 Protection of Trees During Works

All trees that are to be specifically nominated to be retained by notation or condition as a requirement of development consent shall be maintained and protected during demolition, excavation and construction on the site. Details of required protection methods shall be provided to the Certifying Authority by an appropriately qualified person prior to commencement of any works on the site.

Reason: To ensure compliance with the requirement to retain significant planting on the site.

11.16 Damage to Public Infrastructure

The applicant shall bear the cost of all restoration works to Council's property damaged during the course of this development. The applicant shall advise Council, in writing, of any existing damage to Council property. A dilapidation survey of Council's assets, including photographs and written record, must be prepared by a suitably qualified person and submitted to Council prior to the issue of the Construction Certificate.

Note: This documentation will be used to resolve any dispute over damage to infrastructure. It is in the applicant's interest for it to be as full and detailed as possible.

Reason: To ensure the protection of existing built public infrastructure.

11.17 No materials will be stored on Council's roads, footpaths or parks.

11.18 The builder will erect and maintain in good order all necessary hoardings, barricades and warning signs required to provide adequate public safety. Night warning lamps will be provided where necessary.

11.19 Heavy vehicles entering and leaving the site will only cross the footpath where it has been adequately timbered and strapped. Pedestrian access in these locations will remain in good order at all times during excavation work.

11.20 The building works will be inspected by the Accredited Certifier at the stages of construction listed on the following schedule and a Compliance Certificate verifying that the construction satisfies the standards specified in the BCA will be submitted to the Principal Certifying Authority before proceeding beyond the relevant stage of construction.

SCHEDULE OF CONSTRUCTION STAGES REQUIRING INSPECTION
GENERAL BUILDING WORK

Commencement/pier holes/ trenches /steel reinforcement and preliminary works prior to pouring concrete.
Excavation/foundation material (particularly where a plastic membrane is to be provided).
Dampcourse.
Floor, wall and roof frame.
Stormwater drains.

Completion of building works (including painting).

12. OTHER

12.1 A separate Development Application will be submitted for the use of any individual tenancy within Lot 1.

12.2 All service loading and unloading in relation to the use of the premises at Lot 1 will take place wholly within the property. Deliveries to the premises will not be made from a public place or street.

12.3 A separate Development Application will be submitted to Council for the display and/or erection of any signs (other than exempt and complying development). Such application will include full details of the dimensions, mode of attachment and means of illumination {if any}.

13. B - SUBDIVISION

The subdivision is to be undertaken generally in accordance with the details contained in the plans prepared by Dunlop Thorpe dated 1 June 2009.

WorleyParsons

resources & energy

Incorporating
Planning Workshop Australia

EcoNomics

APPENDIX 2

Architectural Plans

RESIDENTIAL BUILDING & CHILDCARE CENTRE
CLEMTON PARK

60 Charlotte Street, Clemton Park, NSW 2206

S96 DOCUMENTATION

DRAWING LIST

DRAWING NO.	DRAWING TITLE	SCALE	ISSUE
S96 1.01	COVERSHEET	NTS	A
S96 2.01	LEVEL B	1:200 @ A1	A
S96 2.02	LEVEL GROUND	1:200 @ A1	A
S96 2.03	LEVEL 01	1:200 @ A1	A
S96 2.04	LEVEL 02	1:200 @ A1	A
S96 2.05	LEVEL 03	1:200 @ A1	A
S96 2.06	LEVEL ROOF	1:200 @ A1	A
S96 3.01	SECTIONS	1:200 @ A1	A
S96 4.01	ELEVATIONS	1:200 @ A1	A
S96 5.01	SHADOW STUDY	NTS	A
S96 6.01	MATERIAL PALETTE	1:200 @ A1	A

DEVELOPMENT SUMMARY

UNIT MIX

TYPE	QUANTITY	ACTUAL MIX	m² RANGE
1B	9	11.8%	50-52
1B+	28	36.8%	52-58
2B	19	30.3%	73-79
2B+	20	21.1%	73-82
TOTALS	76	100%	

AREA CALCULATIONS

CPSO RESIDENTIAL	5939m²
CPSO CHILDCARE	582m²
CPSO TOTAL	**6521m²**
NSA RESIDENTIAL	4996m²
NSA CHILDCARE	559m²
NSA TOTAL	**5555m²**

CARPARKING PROVISIONS

RESIDENTIAL SPACES	87
VISITOR SPACES	15
CHILDCARE SPACES	8
TOTAL SPACES	**110**

DEVELOPMENT DATA

LEVEL	UNIT NO.	TYPE	SOLAR ACCESS	CROSS FLOW	INTERNAL m²	EXTERNAL m²
G	G.01	1B	Y	Y	52	54
	G.02	1B+		Y	58	26
	G.03	2B	Y	Y	73	58
	G.04	2B	Y	Y	75	108
	G.05	2B	Y		73	62
	G.06	1B+	Y	Y	57	58
	G.07	1B+			58	26
	G.08	2B+			73	37
	G.09	1B+		Y	58	26
	G.10	2B	Y	Y	79	50
	G.11*	1B	Y		52	42
	G.12*	1B	Y		52	42
	G.13	2B+	Y		78	32
	CHILDCARE CENTRE				559	726
01	1.01	1B+	Y		52	12
	1.02	2B	Y	Y	79	10
	1.03	1B+		Y	58	10
	1.04	2B+			73	10
	1.05	1B+			58	10
	1.06	2B		Y	73	35
	1.07	2B+	Y	Y	78	27
	1.08	1B+	Y		53	12
	1.09	1B+	Y		50	10
	1.10	1B+	Y		50	10
	1.11	2B+	Y	Y	81	27
	1.12	2B	Y	Y	76	27
	1.13	2B	Y		73	10
	1.14	2B+	Y	Y	82	20
	1.15	1B+			58	10
	1.16	2B+			73	10
	1.17	1B+		Y	58	10
	1.18	2B	Y	Y	79	10
	1.19*	1B	Y		52	12
	1.20*	1B	Y		52	10
	1.21	2B+	Y		78	10

LEVEL	UNIT NO.	TYPE	SOLAR ACCESS	CROSS FLOW	INTERNAL m²	EXTERNAL m²
02	2.01	1B+	Y		52	12
	2.02	2B	Y	Y	79	10
	2.03	1B+		Y	58	10
	2.04	2B+			73	10
	2.05	1B+			58	10
	2.06	2B		Y	73	35
	2.07	2B+	Y	Y	78	27
	2.08	1B+	Y		53	12
	2.09	1B+	Y		50	10
	2.10	1B+	Y		50	10
	2.11	2B+	Y	Y	81	27
	2.12	2B	Y	Y	76	27
	2.13	2B	Y		73	10
	2.14	2B+	Y	Y	82	20
	2.15	1B+			58	10
	2.16	2B+			73	10
	2.17	1B+		Y	58	10
	2.18	2B	Y	Y	79	10
	2.19*	1B	Y		52	12
	2.20*	1B	Y		52	10
	2.21	2B+	Y		78	10
03	3.01	1B+	Y		52	12
	3.02	2B	Y	Y	79	10
	3.03	1B+		Y	58	10
	3.04	2B+			73	10
	3.05	1B+			58	10
	3.06	2B		Y	73	35
	3.07	2B+	Y	Y	78	27
	3.08	1B+	Y		53	12
	3.09	1B+	Y		50	10
	3.10	1B+	Y		50	10
	3.11	2B+	Y	Y	81	27
	3.12	2B	Y	Y	76	27
	3.13	2B	Y		73	10
	3.14	2B+	Y	Y	82	20
	3.15	1B+			58	10
	3.16	2B+			73	10
	3.17	1B+		Y	58	10
	3.18	2B	Y	Y	79	10
	3.19*	1B	Y		52	12
	3.20*	1B	Y		52	10
	3.21	2B+	Y		78	10

* NOTES ADAPTABLE UNITS

PRELIMINARY
NOT FOR CONSTRUCTION

ISSUE	DATE	DESCRIPTION	BY
A	20.01.11	ISSUE FOR SECTION 96	PS
P2	07.12.10	PRELIMINARY ISSUE	PS
P1	26.11.10	PRELIMINARY ISSUE	PS

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CLEMTON PARK VILLAGE
60 CHARLOTTE ST,
CLEMTON PARK

DRAWING TITLE
COVERSHEET

SCALE	DATE	DRAWN	CHECKED
NTS	NOV 2010	SM	PS

JOB No.	DRAWING No.	ISSUE
07033	S96 1.01	A

STAGE 1
RESIDENTIAL &
CHILDCARE

NEW WADE STREET

NEW WADE STREET

NEW TROY STREET

NEW HARP STREET

NEW ALFRED STREET

NEW ALFRED STREET

ALFRED STREET

TROY STREET

NEW TROY STREET

HARP STREET

BUS STOP

CHARLOTTE STREET

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CLIENT
PARKVIEW GROUP

PROJECT
CLEMTON PARK VILLAGE
60 CHARLOTTE ST,
CLEMTON PARK

DRAWING TITLE
SITE PLAN

SCALE	DATE	DRAWN	CHECKED
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JOB No.	DRAWING No.	ISSUE
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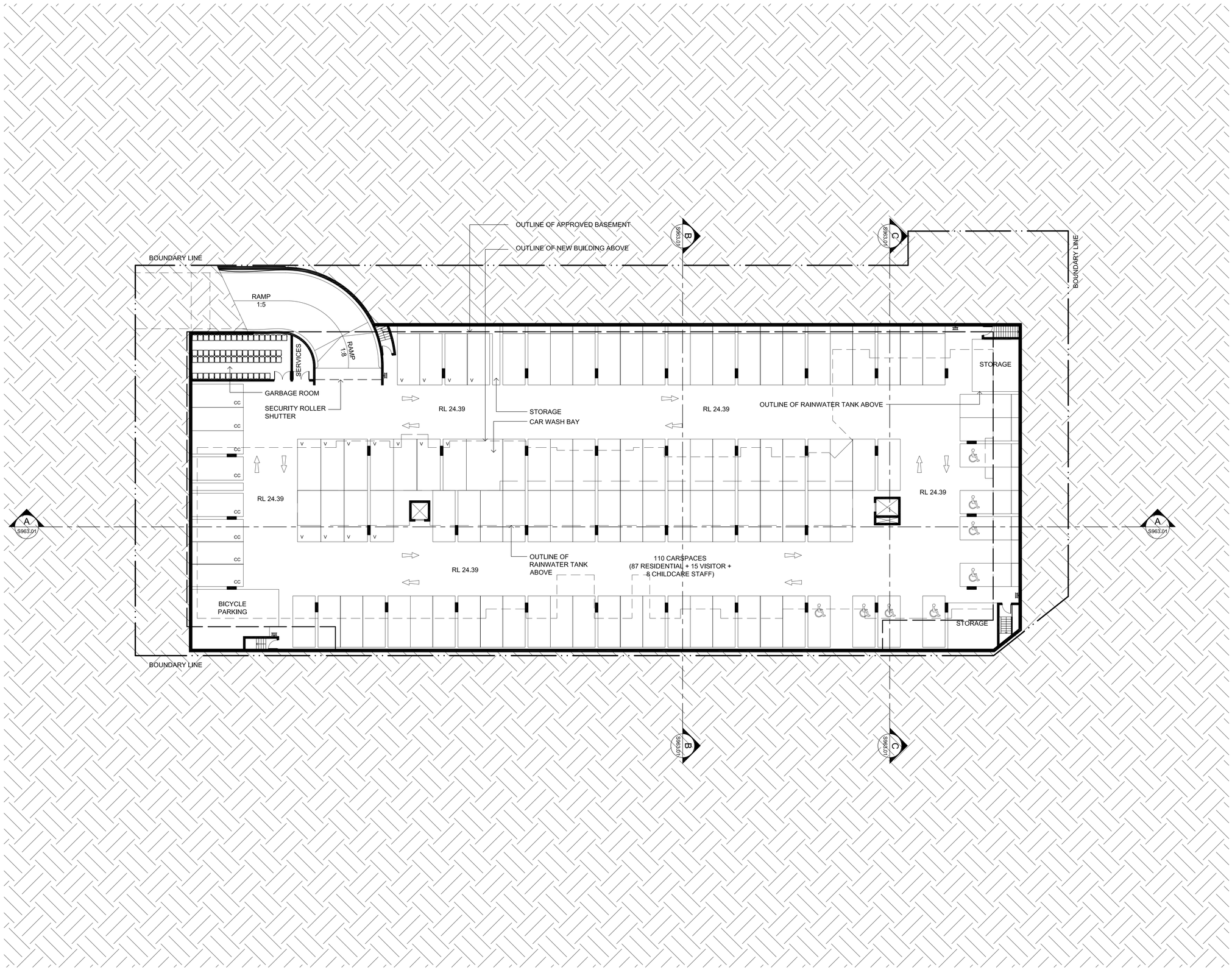

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PROJECT
CLEMTON PARK VILLAGE
60 CHARLOTTE ST,
CLEMTON PARK

DRAWING TITLE
LEVEL BASEMENT
FLOOR PLAN

SCALE	DATE	DRAWN	CHECKED
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JOB No.	DRAWING No.	ISSUE
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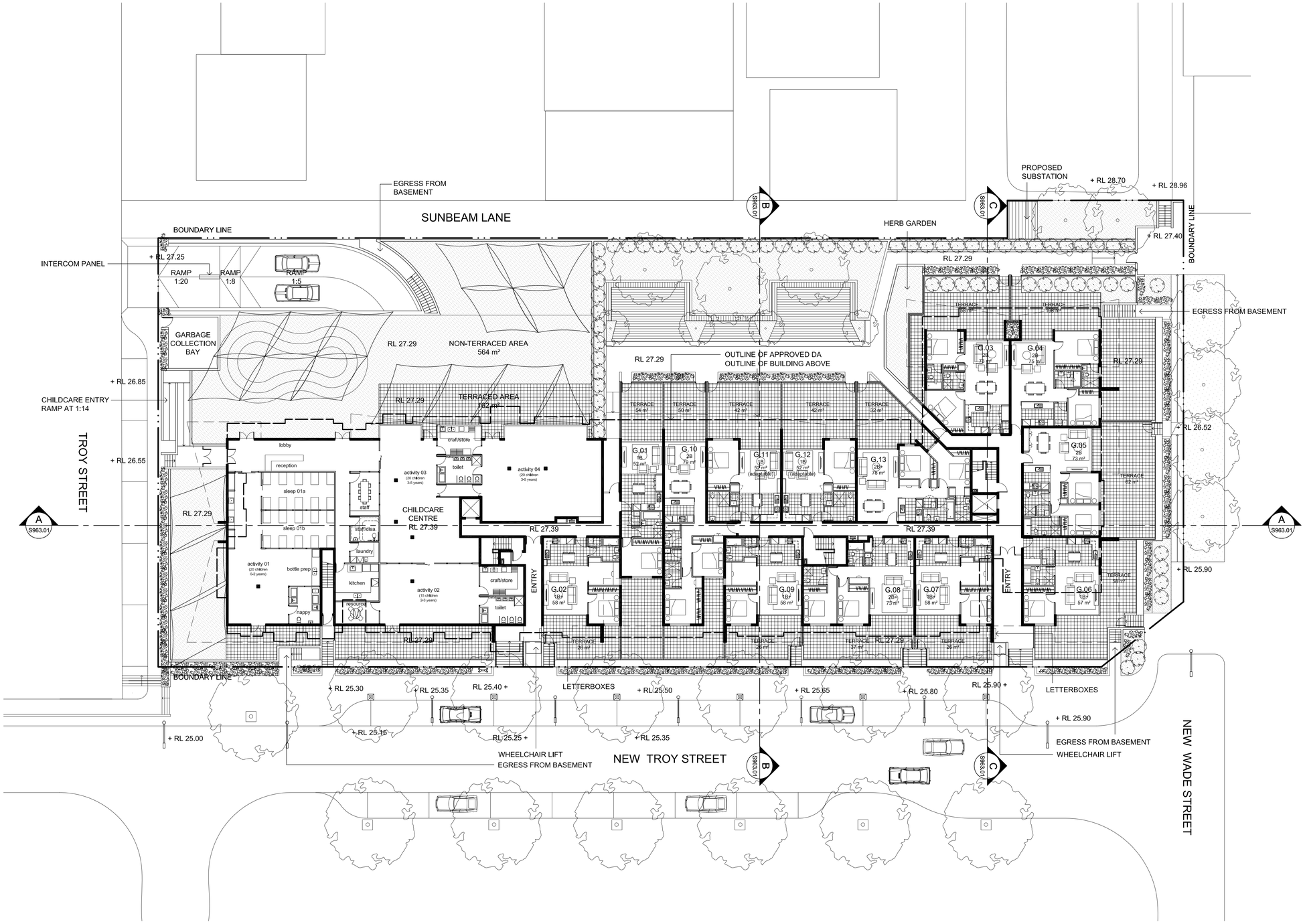

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CLIENT
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PROJECT
CLEMTON PARK VILLAGE
60 CHARLOTTE ST,
CLEMTON PARK

DRAWING TITLE
LEVEL GROUND FLOOR PLAN

SCALE	DATE	DRAWN	CHECKED
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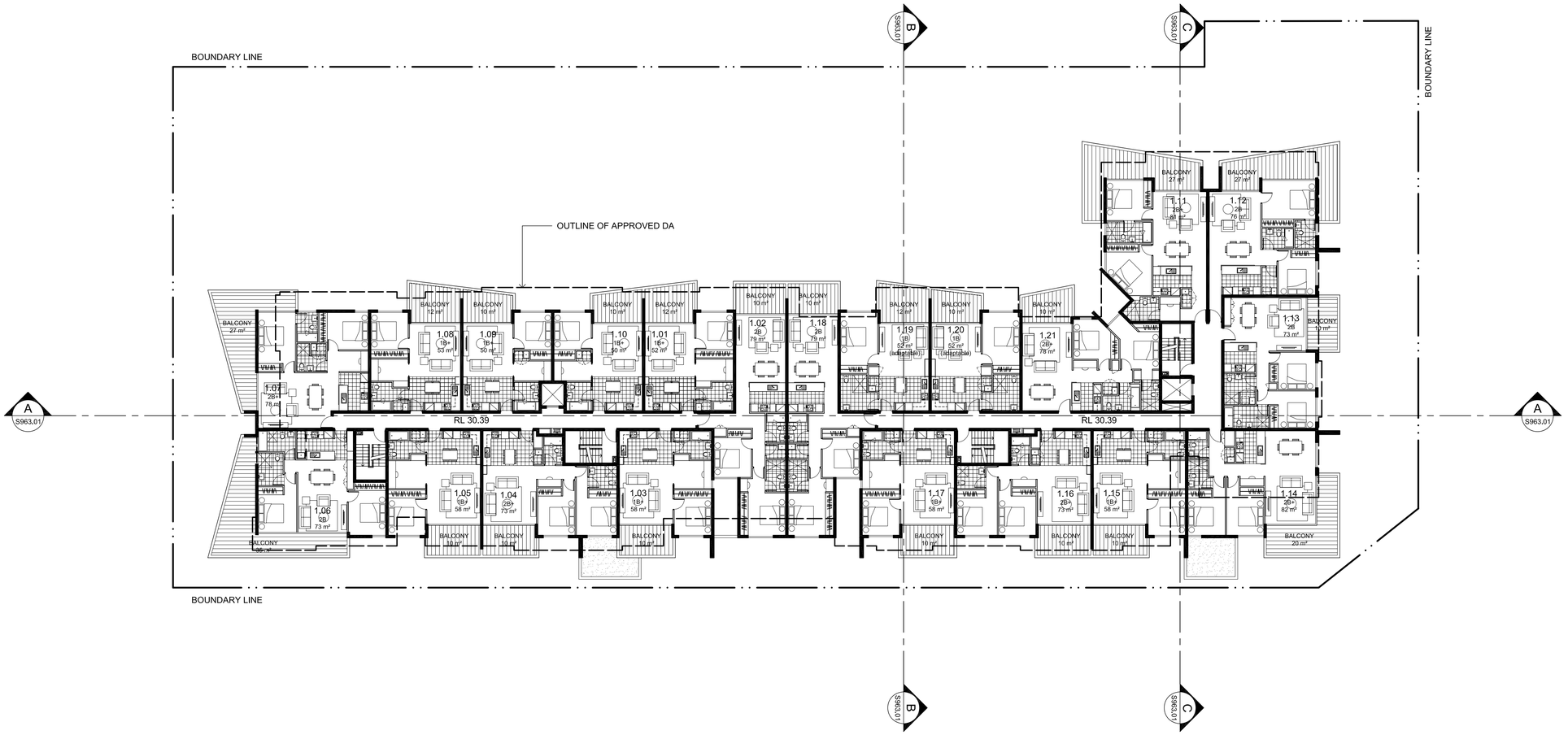

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PROJECT
CLEMTON PARK VILLAGE
60 CHARLOTTE ST,
CLEMTON PARK

DRAWING TITLE
LEVEL 01
FLOOR PLAN

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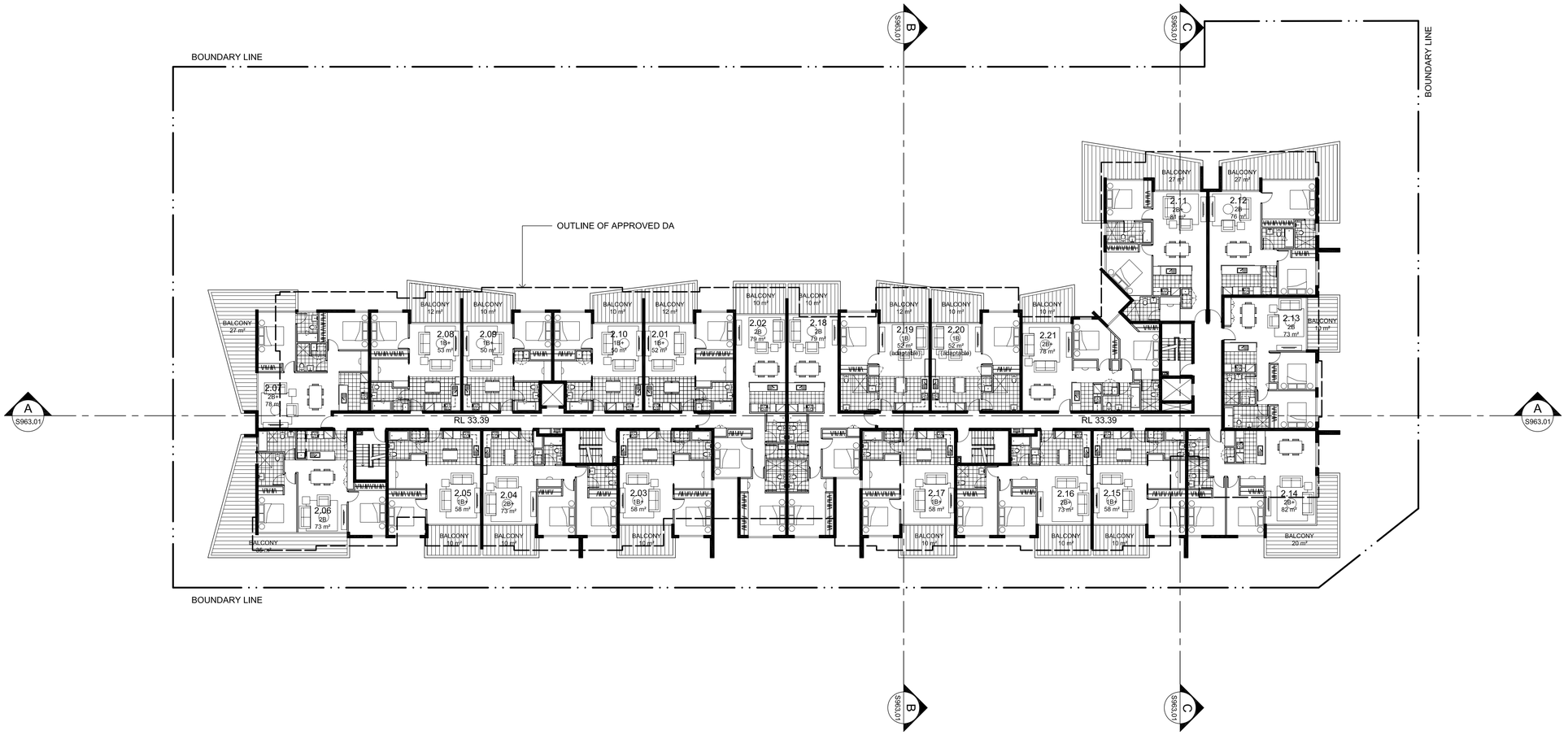

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PROJECT
CLEMTON PARK VILLAGE
60 CHARLOTTE ST,
CLEMTON PARK

DRAWING TITLE
LEVEL 02
FLOOR PLAN

SCALE	DATE	DRAWN	CHECKED
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JOB No.	DRAWING No.	ISSUE
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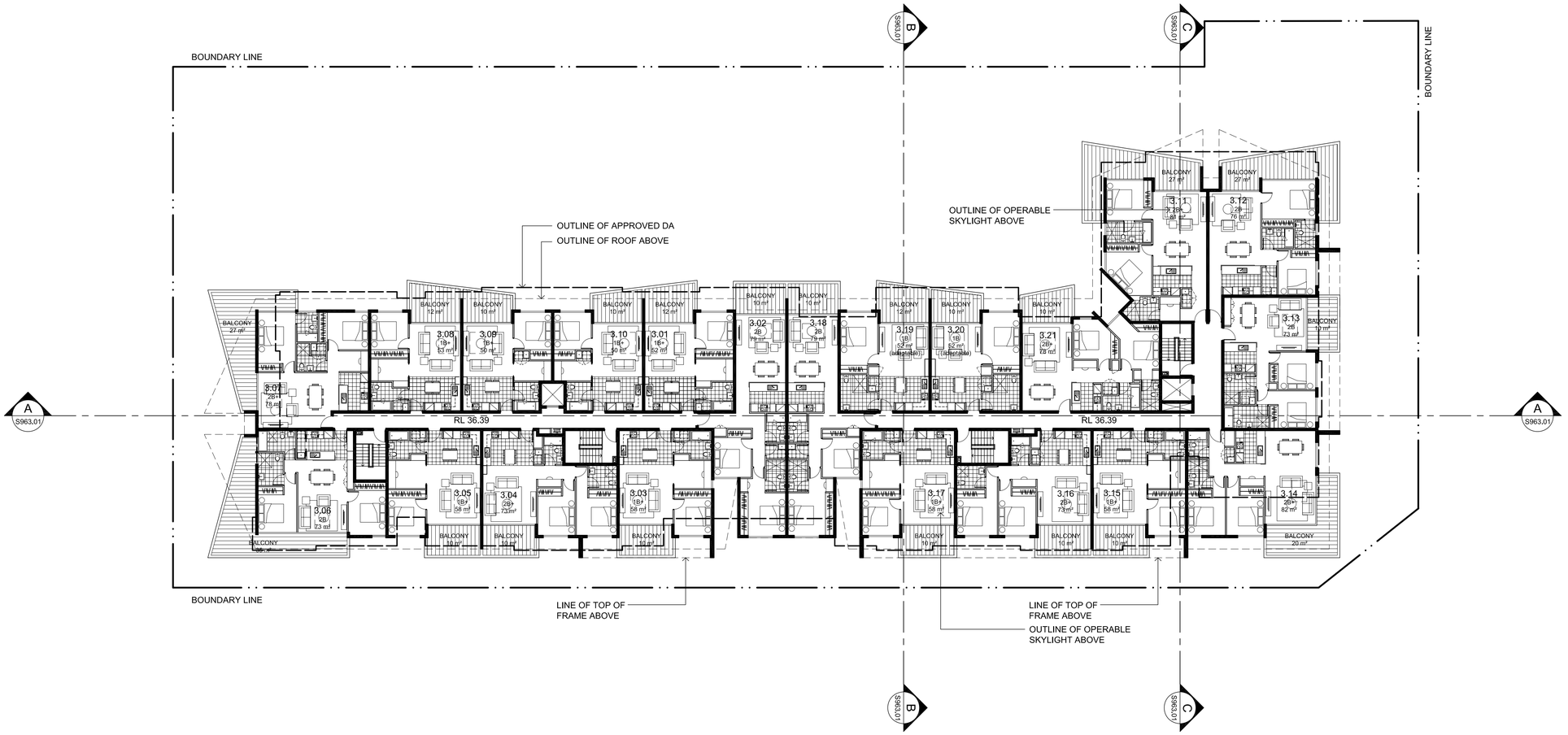

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PROJECT
CLEMTON PARK VILLAGE
60 CHARLOTTE ST,
CLEMTON PARK

DRAWING TITLE
LEVEL 03
FLOOR PLAN

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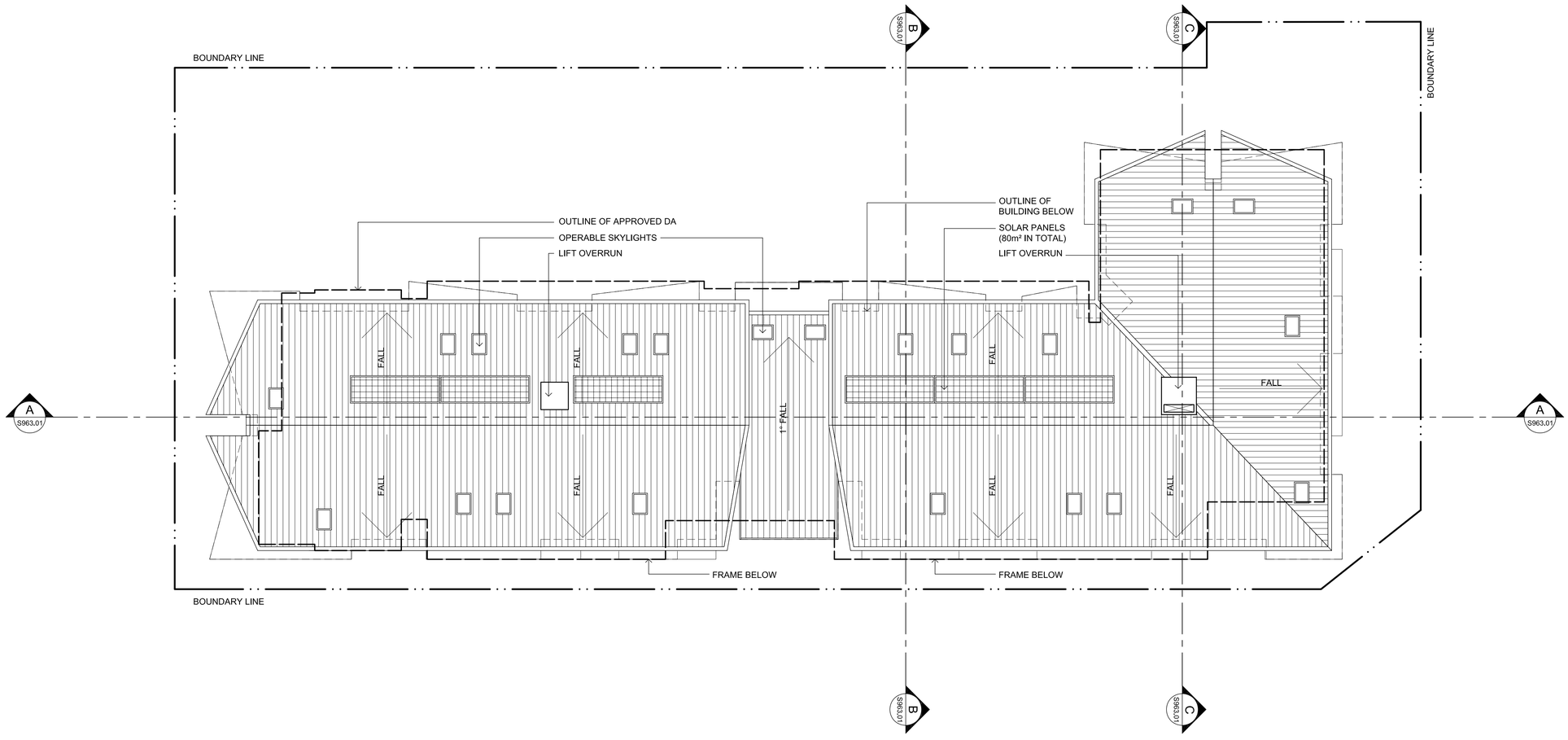

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PROJECT
CLEMTON PARK VILLAGE
60 CHARLOTTE ST,
CLEMTON PARK

DRAWING TITLE
LEVEL ROOF
FLOOR PLAN

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Planning Workshop Australia

EcoNomics

APPENDIX 3

SEPP 65 Statement

marchesepartners

21st January 2011

CLEMTON PARK – 60 CHARLOTTE STREET CLEMTON PARK
Lot 3

RE: PROPOSED DEVELOPMENT RESIDENTIAL APARTMENT BUILDING AND CHILDCARE CENTRE – LOT 3 OF CLEMTON PARK

SEPP 65 STATEMENT

PRINCIPLE 1 – CONTEXT

This site (Lot 3) is on the north western boundary of Clemton Park, which is a mixed use proposal with a residential community. Clemton Park is currently the Sunbeam Factory at 60 Charlotte Street; the site is surrounded by a mixture of building types, heights, uses and styles. To the southwest is a bulky goods facility along with a local shopping street, New Alfred Street, which both form part of the Clemton Park redevelopment. New Alfred Street contains ground and lower ground retail including a supermarket with residential above. To the south east is a residential apartment building that backs on to a large recreational park. The neighbouring existing development to the North is predominantly single dwellings, while to the North West are townhouses that are again part of the Clemton Park redevelopment.

The site is located in the Suburb of Clemton Park 1.2km south of Campsie Town centre and approximately 250m south of Canterbury Road. Generally the site is surrounded by residential zones with light industrial to the southwest. The surrounding residential development is one and two storey dwellings. An extensive pedestrian pathway ling to surrounding suburbs and recreational areas begin 500m east of the site at Bexley Road. This pathway connects residents to Clemton Park to recreational areas off Northcote Street along Hughes Park and Pat O'Connor Reserve extending eventually to the shores of the Cook River. The site is walking distance to a number of recreational facilities including Campsie South Bowling Club and Yatama Park on Alfred Street located 150m from the site.

Contextually, the residential buildings that form Clemton Park are absolutely appropriate to this location and contribute positively to the desired future character of the area.

PRINCIPLE 2 – SCALE

The proposal establishes a hierarchy of scales that relate to the different facet's of the sites context. The residential apartment building aligns to the streetscape replication the existing patter of development in the surrounding suburbs. The proposed two and a half to four storey residential

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Daniel Mulcahy

Associates
Peter McMillan

buildings in the Concept Plan that bound the development provide a transitional scale from the existing neighbouring, predominantly two storey dwellings to the higher residential component located centrally in the site. Well considered setbacks have created a precinct that sits extremely comfortably within the existing suburb. Continuing the existing street pattern and placing the retail, Bulky goods and residential components of the precinct appropriately, has meant not only the scale of the built forms but also the uses are harmonious within the existing built environment. Locating the proposed Bulky Goods on Charlotte Street, where other commercial / light industrial use exist, and alighting this with an internal retail strip, provides a truly integrated and vibrant addition to the area.

The proposed town houses along the north eastern boundary are two and a half stories being completely compatible scale to the adjacent existing dwellings. Lot 3 consists of a four level apartment building with single level basement parking. A childcare centre is located on the ground floor fronting Troy Street. The apartment building is generally setback 17.5m from the north western boundary and 29.5m from the nearest neighbour as a pedestrian pathway, Sunbeam Lane, separates the site from the existing neighbouring dwellings.

This building is appropriately scaled not only in relation to the Clemton park concept plan but also in relationship to the surrounding existing built form.

PRINCIPLE 3 – BUILT FORM

The concept plan containing five precincts is straightforward and clear in its arrangement. This creates a strength and predictability at the macro scale, forming blocks that thread the development back into the existing street pattern.

The proposed apartment building/childcare centre are simple compositions of forms that break up the linear scale of the building whilst creating an impression of a building added to over time. A familiar palette of materials, common to the area, such as face brick is employed. Dividing the building into a number of linked elements with pitched roofs provides a transitional form from dwelling house to apartment building.

The courtyard fences and planter boxes create a soft base to the building which blends into the landscape. These entry courtyards to the ground floor apartments are a traditional transitional space from public to private.

The whole building is parallel to the street and boundary with broad street lines footpaths on all the frontages. Awnings and wide stairs mark the residential entries. The building has two separate cores and the articulation and modulation reflects this.

The child care centre has a dynamic playful fence indicating a clear change in use. This masonry fence has a series of linear grooves in the render and cut-outs with glazed insets. The modulation of the façade to this centre has a number of protruding alcoves which is resolutely different from the residential façade.

The proposed setbacks are in accordance with the City of Canterbury DCP 13.

PRINCIPLE 4 – DENSITY

The residential density of lot 3 residential building comprises 76 apartments with a mixture of 1, and 2 bedrooms. The ground floor contains a 559sqm childcare centre fronting Troy Street. This density is entirely suitable as part of the Clemton Park concept plan, as the proposal implements appropriate community facilities with sustainable environmental design elements. This residential apartment building as part of the Clemton Park concept plan is consistent with the Metro Policy and the desire for “a village centre” providing jobs and services within a 400m radius of where people are living. The child car, bulky goods, retail and medical along with seniors living proposed in the concept plan generate substantial employment opportunities.

The concept plan GSR is consistent with Canterbury planning Scheme Ordinance 1.5:1 for the whole site.

PRINCIPLE 5 – RESOURCE ENERGY AND WATER EFFICIENCY

The provision of this density of residential development in this location with transport links and immediate proximity to retail, learning, entertainment and recreation uses and employment, is in itself an efficient use of resources. Stormwater detention, retention and re-use have been proposed for irrigation of the landscaped areas and car wash bay. A basix report is part of the submission and requirements of solar access and cross flow ventilation have been achieved which provides a level of comfort that will reduce the requirement of air conditioning.

PRINCIPLE 6 – LANDSCAPE

The Clemton park concept plan contains a substantial park located centrally. A detailed landscape plan forms part of the Concept plan submission and the project application for Lot 3. The park landscaped area has been cleverly designed to ensure that lawn and landscaped areas can be established at a raised podium area and are well protected in a potentially heavily trafficked area. This has been done by raising areas of planting and providing a geometric arrangement of paths that relates to the buildings and the pedestrian traffic desire lines.

The landscaping adjacent to the residential apartment building develops the idea of outdoor rooms to provide interest and variety, balanced with the practical requirements of a high use recreation area. There is a clear distinction in the hierarchy of private to common space with the fenced private courtyards having gated access to the common outdoor space. Common stone and paving materials have been used to both landscape and internal common areas to integrate the two.

Additionally the child care centre has a number of play areas that are articulated completely differently from the residential outdoor areas and are age appropriate. There is shade cover proposed along with soft fall areas to provide a stimulating outdoor environment for the children.

PRINCIPLE 7 – AMENITY

The residential building apartments achieve cross flow and solar access requirements with careful use of corner and through units. The orientation of the building has meant there are no solely south facing units. Ample glazing is provided to living spaces that open directly onto balconies. Lift access is provided to all units, linking every floor with the street level and car parking. Tow residential entry lobbies are located on New Troy Street with the child care entry separately located on Troy Street. This presents a clearly articulated entry to the residential building, whilst creating a secure environment for residents and their guests. Common open space has been provided to the rear, north western side of the building with generous proportions, in the line with the scale of the project.

PRINCIPLE 8 – SAFETY AND SECURITY

The residential building will be a secure environment, access by electronic security devices at the vehicle entry point and the two residential entry lobbies on New Troy Street. Building guests will park in the car park or on the street with access to the car park and lobbies controlled electronically by the occupants. Private yards adjacent to the common areas are secured with fences and lockable gates. The common areas are to be well lit, with clearly defined paths. Car park areas are to be well lit and lifts will have security control and close circuit television cameras.

PRINCIPLE 9 – SOCIAL DIMENSIONS AND HOUSING AFFORDABILITY

A variety of apartment sizes and types is proposed which will create opportunities for a diverse residential community. The product variety proposed will meet differing budget requirements, addressing housing affordability as at least almost 50% of the apartments offered are of a smaller size. These residential units will be with immediate proximity to employment opportunities and communal and retail amenities which is an ecologically efficient use of resources. Significant common areas have been provided with facilities for the enjoyment of residents. The scale, materials and detail of the building facades is a positive contribution to the public environment contributing to the desired future character of Canterbury region.

PRINCIPLE 10 – AESTETHICS

The proposed development has been carefully considered with respect to the surrounding natural and build environment.
The use of a range of materials and textures brings richness and character to the site and sets a high standard of design. The design whilst contemporary in nature will fit in with its surroundings and will enhance the streetscape.
The intent of the design is that with high level detailing of the finishes and planning of the site, to lift the standards of the surrounding area into the future and provide a high quality example for development in the area.

ROBERT JURUKOVSKI
Marchese Partners International
Senior Project Architect
Reg. NSW 7632

marchesepartners

21st January 2011

CLEMTON PARK – 60 CHARLOTTE STREET CLEMTON PARK
Lot 3

RE: PROPOSED DEVELOPMENT RESIDENTIAL APARTMENT BUILDING AND CHILDCARE CENTRE – LOT 3 OF CLEMTON PARK

SEPP 65 RULES OF THUMB STATEMENT – PART 2/3

The proposed apartment building with childcare centre is situated on Lot 3 of the Clemton Park concept plan. Clemton Park is currently the Sunbeam Factory at 60 Charlotte Street; the site is surrounded by a mixture of building types, heights, uses and styles.

The separate SEPP 65 statement covers the 10 design quality principals, while this statement briefly responds to the rules of thumb.

Part 2

Site Analysis

The site analysis plan assesses the contextual location of the building. The scale of the building and its siting is addressed in the design quality principals.

The rule of thumb is complied with having 25% of the site as deep soil zone.

Site configuration

The communal open space is 17%; this is low due to the incorporation of a childcare centre on the ground floor and its associated outdoor requirements.

The private courtyard open space is an average of 47sqm meeting the rule of thumb.

Site Access

Two residential entries are located on New Troy Street. These are clearly articulated in the façade. Generous pathways access these entries. Access from the car park is via lift direct to each level. There is greater than 20% barrier free access to the apartments complying with the rule of thumb.

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Associates
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Part 3

Building configuration

There are no single access apartments greater than 8m in depth, complying with the rule, as does the distance to the back of a kitchen.

There are balconies to all apartments with no depth less than 2m, complying with the rule.

Ceiling heights to navigable rooms are not less than 2.7m.

All thirteen ground floor units have separate entries. There are accessible units provided in accordance with the Australian Standard. Lift access to all levels facilitates the location of accessible units.

Storage requirements are generally met. A maximum of 50% of the required storage for each unit is located in the basement.

76% of the apartments receive three hours of sunlight to living spaces in mid winter thus being compliant. The buildings orientation means that there are no solely due south facing apartments, but there are 22 apartments with a south easterly orientation. A number of these have openable double glazed skylights, increasing daylight penetration.

60% of the apartments have cross ventilation and far more than 25% of the kitchens have access to natural ventilation. The depth of the building varies but generally it is a maximum of approximately 18m complying with the rule.

A separate waste management report forms part of the project application.

The proposed roofing material is colorbond. The rainwater collected is for irrigation.

ROBERT JURUKOVSKI
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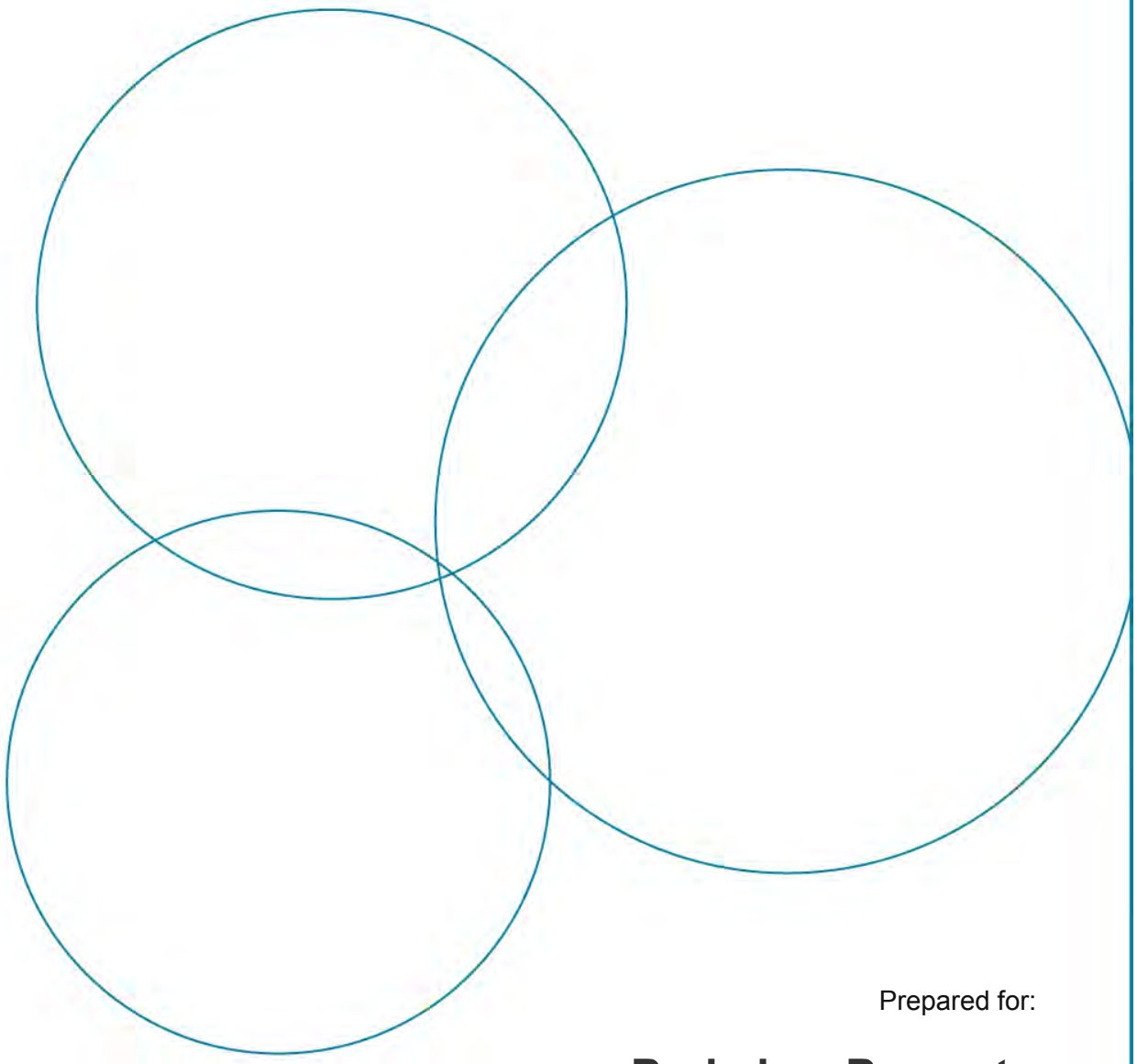
Senior Project Architect
Reg. NSW 7632

CUNDALL

31/01/2011

SEPP 65 Natural Ventilation Compliance

1003347 Clemton Park



Prepared for:

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Approved by:	Natalie Rosenbaum	

Revision	**Description**	**Date**
A	Initial Revision for Internal Review	10/01/2011
B	Draft Client Issue	11/01/2011
C	Final Issue	31/01/2011

The success and realisation of the proposed initiatives will be dependent upon the commitment of the design team, the development of the initiatives through the life of the design and also the implementation into the operation of the building. Without this undertaking the proposed targets may not be achieved.

Contents

Executive Summary

To comply with SEPP 65 guidelines, it is recommended that 60% of apartments in new residential development in NSW are designed to achieve good natural ventilation performance. Design for natural ventilation generally allows cross flow through the apartment from one aspect to another. This report compares the natural ventilation achieved in dual-aspect corner apartments (complying with SEPP 65 recommendations) to the performance of the proposed apartments, where one aspect is facing a cut-out in the facade.

Firstly, the site was analysed for the prevailing wind directions, NNE and S, and the pressure differences facilitating air movement through the apartments was determined (as shown in Figure 1a).

The determined pressures were applied to a model of each of the apartments under consideration, to evaluate comparative performance (Figure 1b).

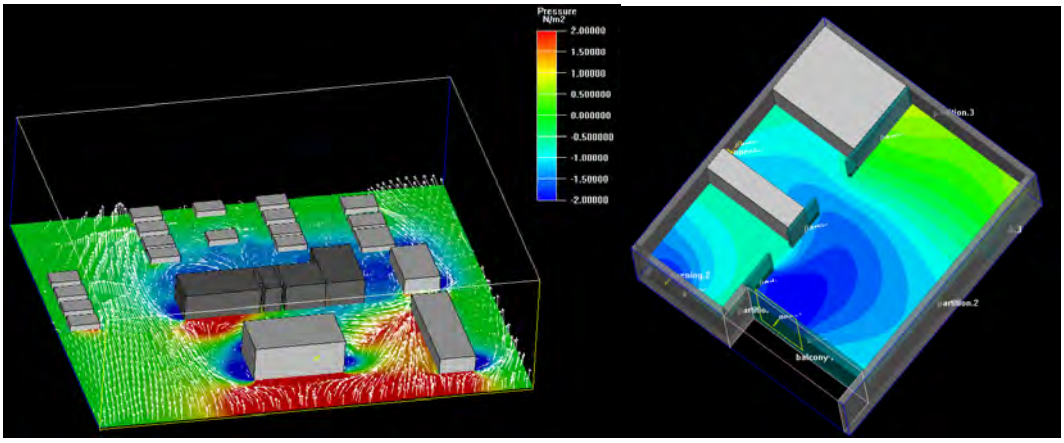


Figure 1a. Site air pressures for a Southerly wind condition. *Figure 1b. Age of air in apartment.*

Different wind directions generate different rates of ventilation in the analysed apartments. The apartments facing the cut-outs generally have a lower air-flow rate compared to apartments located on corners with the same openable window area.

A naturally ventilated apartment generally achieves around 14 air changes per hour. The reference apartments located on a corner have an air change ranging from 4 to 39 per hour and a maximum age of air inside ranging from 260 to 1391 seconds.

Apartments facing the cut-outs currently have an air change rate (per hour) of 5.2 to 14.7. Doubling the size of the window opening facing the cut-out from $0.5m^2$ to $1m^2$ will increase the air change rate to a range of 10.8 to 29.7, and the maximum age of air in the apartment to a range of 301 to 1069s. This represents a good natural ventilation rate and is similar to the performance of a dual-aspect apartment meeting the SEPP 65 recommendations.

Based on the outcomes of this analysis, the window sizes have been increased according to Cundall's recommendations in order to improve natural ventilation flows. The results show that the maximum age of air varies from 301 to 1069 seconds in the analysed cases. These air change rates are close to or above the SEPP65 recommendations for good natural ventilation of 14 air changes per hour (depending on wind direction).

Therefore in our opinion, the proposed solution is equivalent to a reference apartment which complies with SEPP65 guidelines, bringing the proportion of compliant apartments up the SEPP65 requirements.

1 Introduction

The State Environmental Planning Policy 65 (SEPP65) applies to the proposed multi-unit residential development at Lot 3, Clemton Park Village at 60 Charlotte Street. The NSW Residential Flat Design Code (RFDC) 2002 sets minimum rules-of-thumb standards for cross-ventilation in new multi-unit residential developments. A review of the proposed design showed that the number of units meeting these guidelines was fewer than recommended.

The recommendations from SEPP 65, NSW RFDC 2002 state that 60% of units should be naturally cross-ventilated with recommended maximum building depth of 10-18m. This can be achieved by dual aspect ventilation, cross-over apartments or high-level openings such as skylights.

If the recommendations are not met, it should be demonstrated by other means that the natural ventilation is satisfactorily achieved. Therefore additional 'cut-outs' were introduced to a number of units in order to imitate dual-aspect performance and achieve cross-ventilation and meet SEPP 65 guidelines. This report presents modelling results to demonstrate that the performance of this alternative design solution is equivalent to a reference dual-aspect apartment that complies with SEPP 65 guidelines.

2 Methodology

2.1 Approach

A number of units diverge from the SEPP 65 recommendations concerning dual aspect stated in the guidelines for optimum natural ventilation. A performance-based approach has been undertaken to compare the ventilation effectiveness of these units relative to an actual compliant corner unit. Computational Fluid Dynamics (CFD) was used to determine the air flow through the apartments.

Firstly, a 3D model of the entire site was built to determine the pressure differences generated by the wind on each side of the assessed apartments, as these differences will drive air movement. Of particular concern are the apartments facing the cut-outs, including G.02, G.09, 1.03 and 1.17, as shown in the following images:

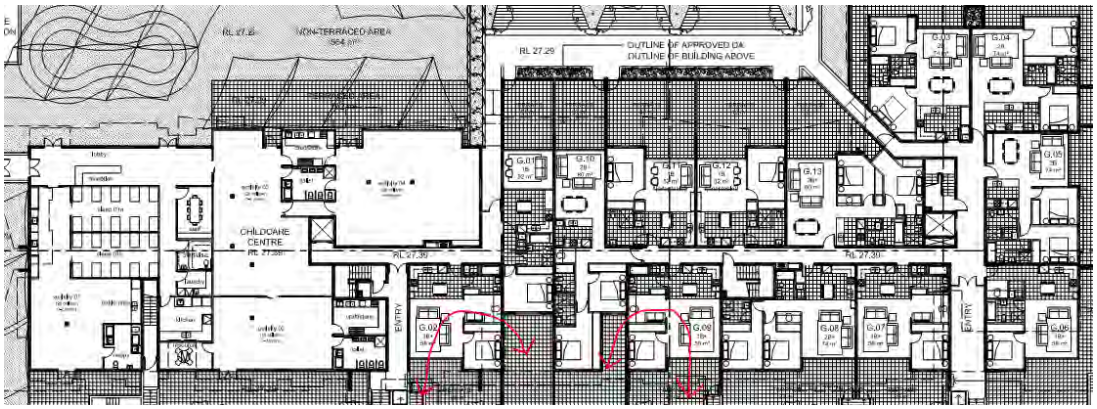


Figure 2:. Ground floor units with analysed air flow paths.

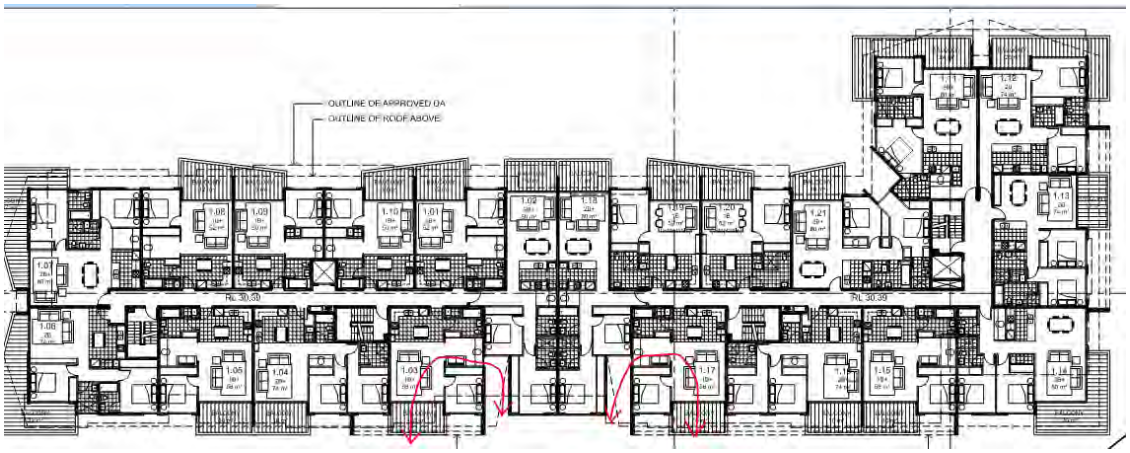


Figure 3. Level 1-3 apartments with analysed air flow paths.

The determined pressures at each area of interest were then applied to a model of the analysed apartments to simulate the air flow through the apartment. The pressure differences from the different facades were allocated to the respective openings and will drive an air-flow through the apartment. The mean age of the air and the flow rate is then used to assess the level of natural ventilation achieved.

The apartments were analysed for airflow and compared to an apartment with similar layout and depth, located on the corner of the building with full dual-aspect which would comply with SEPP 65, to determine if there is significant difference in the mean age of air.

The model takes into account the reduction in wind speed as a result of the surrounding buildings, as shown in Figure 4 (below). Wind available for cross-ventilation is reduced by these buildings, which deflect air flows up and over the site for many wind conditions.

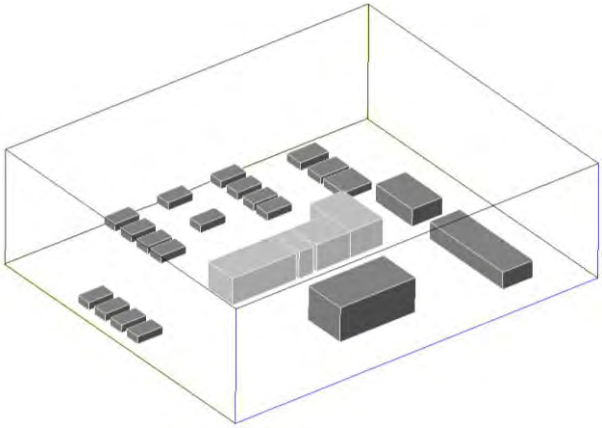
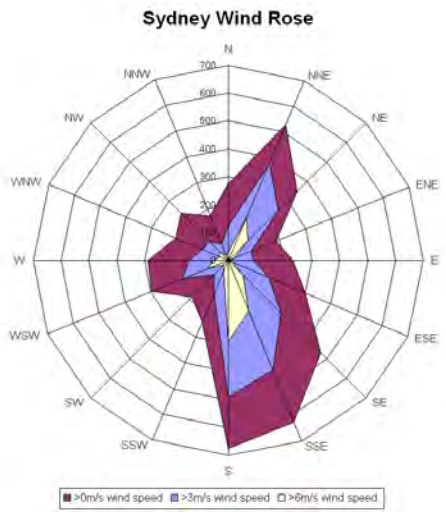


Figure 4. 3D model of site.

2.2 Wind data

Data from the Bureau of Meteorology for Sydney shows that the two prevailing wind directions are South and North/North-east, with an average wind speed of 2.4 m/s over the year as shown on the wind rose (image right).

The prevailing wind directions and wind speed for the area are applied to a model of the site to determine the pressures on the different facades of the building for both wind direction.



2.3 Apartment Details

The apartments are named and modelled as per CAD drawings S96 2.02 and S96 2.03 dated 09/12/2010. The analysed apartments are G.02, G.09, 1.03 and 1.17 located on Ground floor and Level 1. An example model is shown below for unit 1.03.

The sizes of the openings in the reference model are listed in the table below. Note that the listed sizes are the actual openings and not the size of window.

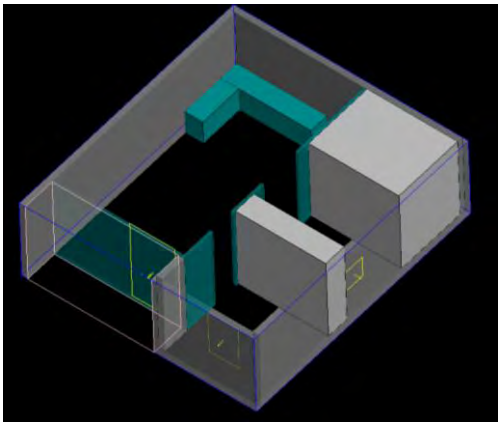


Figure 5. Basic 3D model of unit 1.03.

Table 1. Window sizes

Apartment/Window	Balcony door	Bedroom window	Window facing cut-out
G.09, 1.03, 1.17	2.75x1.5m	1.5x1m	0.7x0.7m
G.02	2.75x1.5m	1.5x0.75m	0.7x0.7m

3 Results

3.1 Site Wind Pressure

Results showing predicted local pressures around the site for the two prevailing wind directions are displayed below (Figure 6).

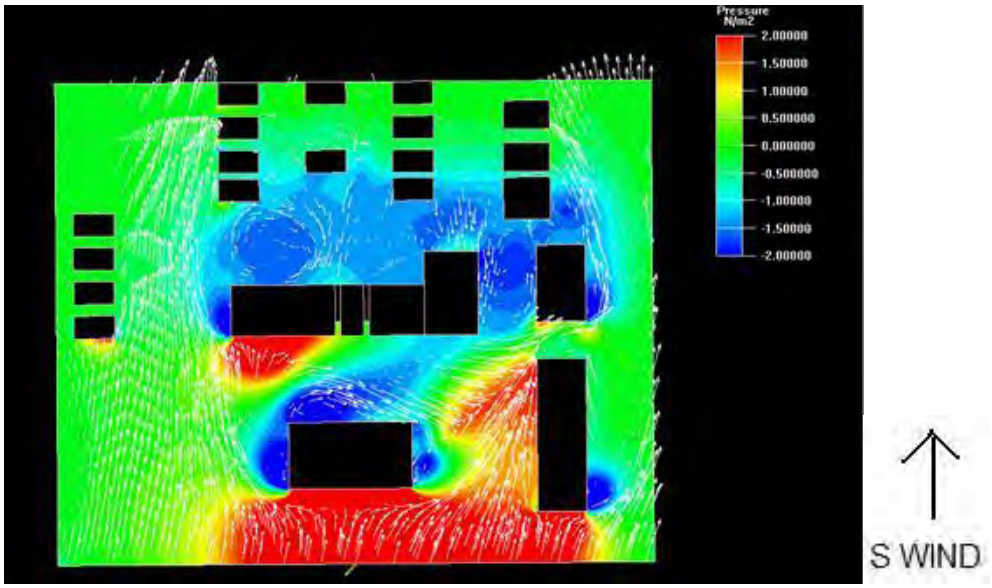


Figure 6: Plan of building site and surrounds, showing wind pressures for Southerly wind

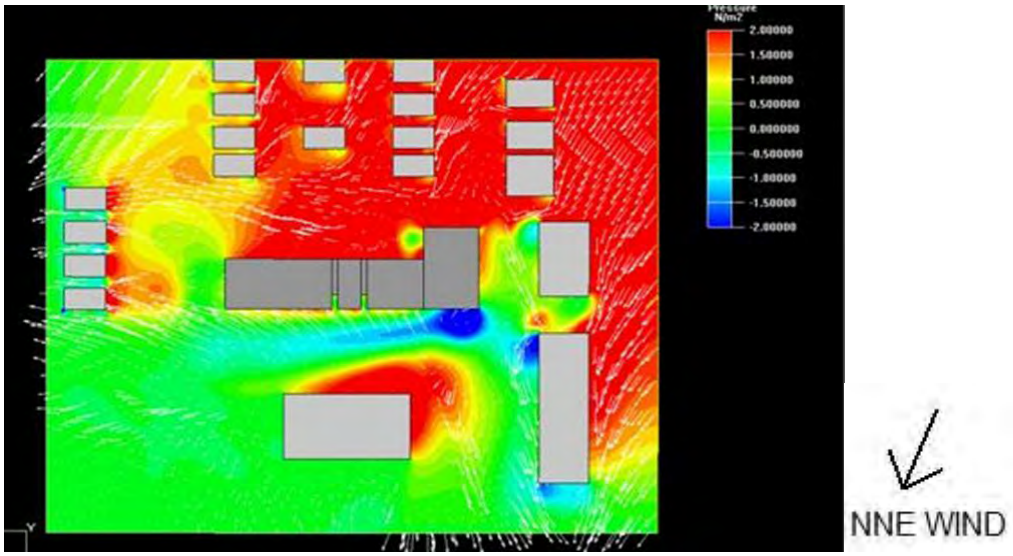


Figure 7: Plan of building site and surrounds, showing wind pressures for North/North-easterly wind. .

The results of the analysis for the two dominant site wind directions are shown in Table 2 for the Ground floor and Level 1, including effective pressures on the facades in the location of the window openings. The larger the pressure difference, the more wind will be driven through the apartment.

The window openings are represented by letters as shown in Figure 8.

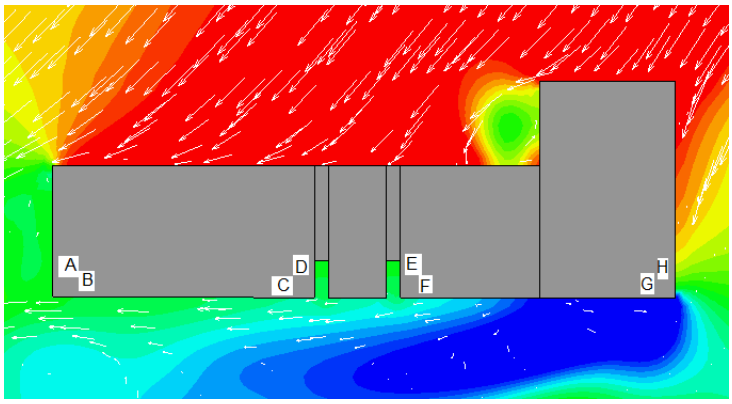


Figure 8. Key diagram showing the location and lettering of relevant apartment windows.

Table 2. Summary of pressures on facade areas at windows for analysed apartments.

Wind direction - S	**Height**	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**
Pressure	1m	-3.00	3.40	1.42	0.71	0.07	-0.45	-0.90	-1.12
	4m	-4.06	3.58	1.25	0.68	0.05	-0.62	-1.02	-1.12
Pressure difference	1m	6.40		-0.71		-0.52		-0.22	
	4m	7.64		-0.57		-0.67		-0.10	
Wind direction - NNE	**Height**	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**
Pressure	1m	0.60	0.89	1.74	0.68	0.55	1.12	-3.16	0.50
	4m	0.40	0.50	0.74	0.56	0.38	0.16	-3.30	0.30
Pressure difference	1m	0.29		-1.06		0.57		3.66	
	4m	0.10		-0.17		-0.22		3.60	

The site analysis shows that the pressure differences at the corner of each building vary significantly depending on the wind direction. The pressure differences at the corners of the cut-outs have a smaller variation.

Reference apartments have been simulated with applied pressures representing the two wind directions from the corner of the building, and the air change is compared to the apartments facing the cut-outs as indicated on the diagram below (Figure 9).

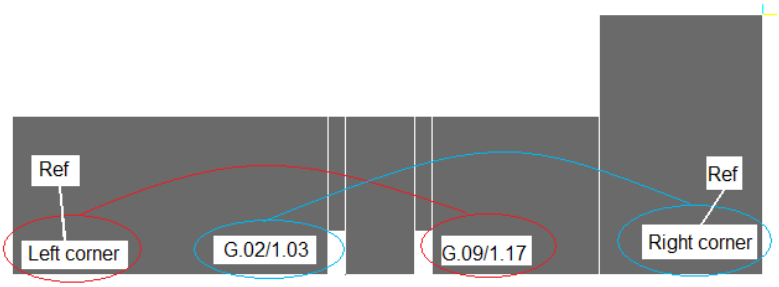


Figure 5: Reference apartments used in modelling (Ground floor & Level 1)

Results are shown for Southerly and North/North-easterly wind conditions in order to compare ventilation performance during periods that are conducive to natural ventilation. Two types of results are provided:

- CFD Images show the mean age of air which represents air quality;
- Tabulated results show number of air changes and flow rates.

Air quality is represented by colours depicting mean age of air, which is a measure of how long air has been in a space (the longer the mean age of air, the more contaminated it is likely to be). A good result shows most habitable spaces contain air that is less than 2 minutes old. Blue regions represent air that is quite fresh, while red regions show air that has become stale.

3.2 Reference model

The reference model is an apartment with similar layout to the alternative proposed design however it is modelled as if it were located at the corner of the building, with full dual-aspect in line with SEPP65 recommendations. Due the orientation of the building, the left and right-hand corner units perform very differently depending on wind direction.

3.2.1 Corner apartment (right side) representing unit G.02

Results showing the mean age of air are displayed in the images overleaf, for the Southerly and North/North-easterly wind directions.

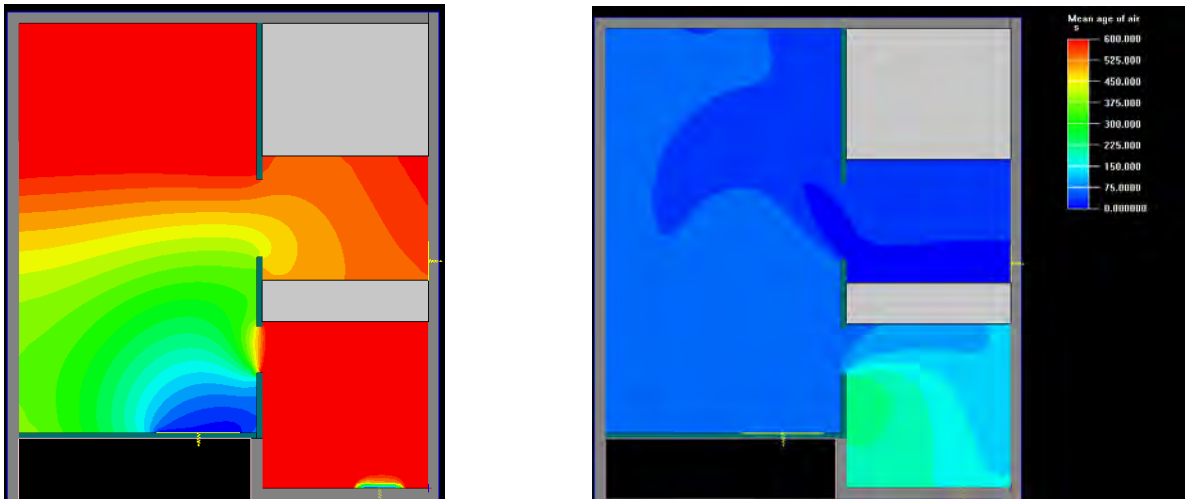


Figure 6: Mean age of air in right corner apartment Ground floor for worst case (S wind direction) and best case (NNE wind direction) respectively.

3.2.2 Corner apartment (left side) representing unit 1.03

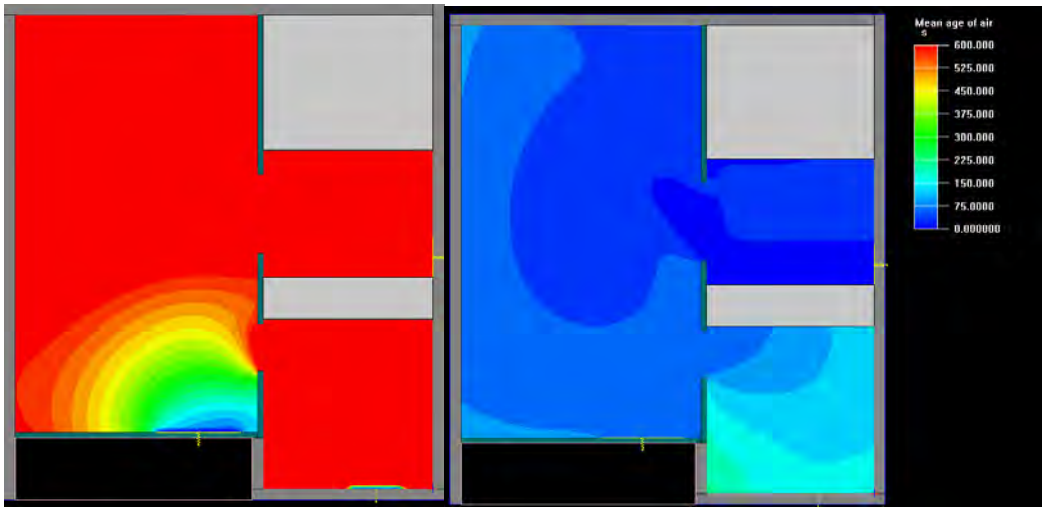


Figure 7: Mean age of air in right corner apartment at Level 1 for worst case (S wind direction) and best case (NNE wind direction) respectively.

3.2.3 Corner apartment (left) representing Units G09 and 1.17

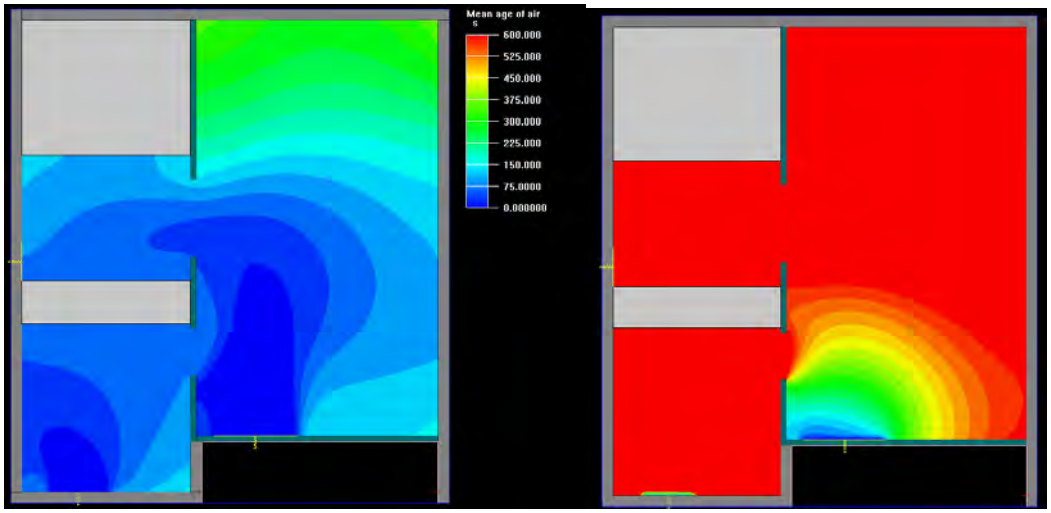


Figure 8: Mean age of air in right corner apartment for worst case (S wind direction) and best case (NNE wind direction) respectively.

As shown on the diagrams above, the air change rate varies significantly with the wind direction.

3.2.4 Result summary of reference model

The maximum age of air in the apartment and the flow rate through the apartment are listed in the table below. The age of air is in seconds and the flow is in m^3/s. The +/- symbols in the flow rate indicates the direction of the flow. The air change rate is per hour.

Table 1. Reference model summary of results

Wind	S			NNE		
	Max Age. (s)	Flow (m3/s)	Air chg. (h-1)	Max Age. (s)	Flow (m3/s)	Air chg. (h-1)
Right corner (GL)	1122	-0.2285	6.2	288	1.281	34.9
Right corner (L1)	1385	-0.1483	4	260	1.271	34.6
Left corner (LG&L1)	475	-1.438	39.1	1391	-0.1483	4

As shown the in the table above, the air change rate in the reference apartments varies from 4 to 39 changes per hour and the maximum age of air varies from 260 to 1391 seconds. Fourteen air changes per hour is generally a good rate of natural ventilation.

3.3 Results for proposed apartments

The air pressures determined in the site analysis have been applied to the proposed apartments to predict air change rates.

Analysis of the reference model shows that the ground level corner apartment on the right-hand side gets a higher flow compared to that on the first floor. G.02 is therefore not analysed further as the 1st floor apartment 1.03 is the worst case of the two. The following diagrams show the age of air in the apartments facing the cut-outs.

3.3.1 Apartment 1.03

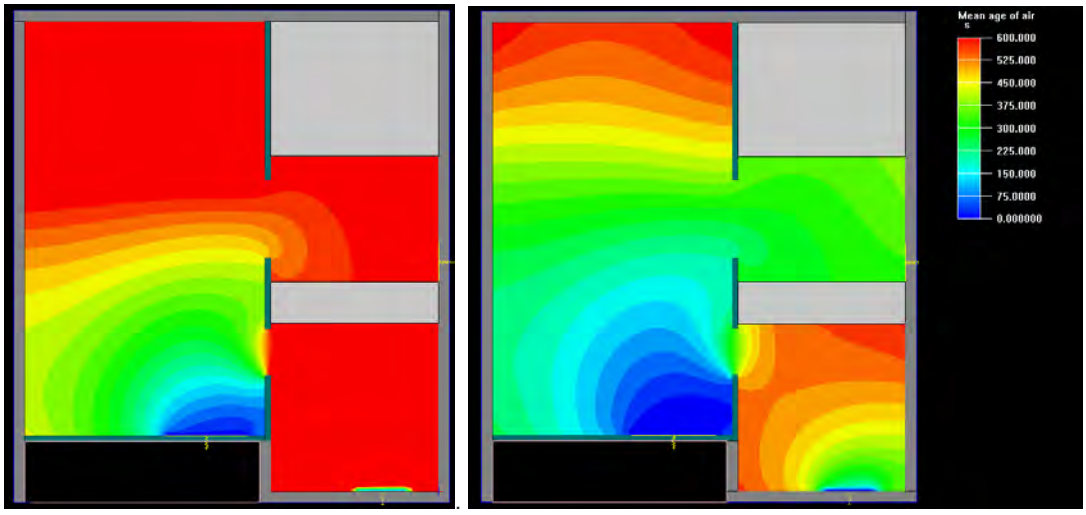


Figure 9: Mean age of air in units 1.03 for a Southerly (left image) and NNE (right image) wind directions.

3.3.2 Apartments G.09 and 1.17

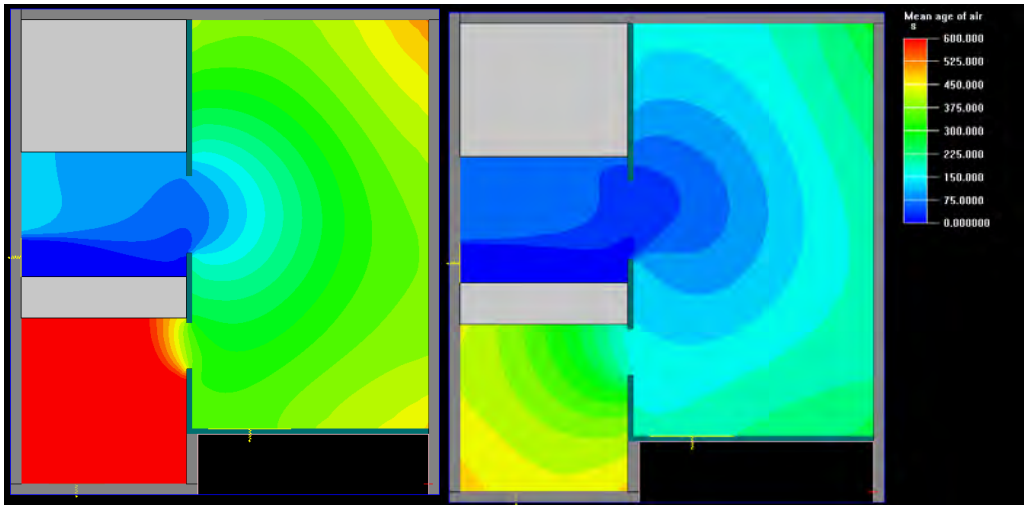


Figure 10: Mean age of air in apartments G.09 and 1.17 Southerly (left image) and NNE (right image) wind directions.

It is clear from the diagrams that the natural ventilation in the apartments facing the cut-outs is worse in one wind direction and better in the other.

3.3.3 Result summary of proposed apartments

The results of the analysis concerning age of air, flow rate and air change in the proposed apartments facing the cut-outs are summarised in the table below.

Table 2:. Proposed unit summary of results

Wind	S			NNE		
	Max Age. (s)	Flow (m3/s)	Air chg. (h-1)	Max Age. (s)	Flow (m3/s)	Air chg. (h-1)
G.02/1.03	1276	-0.3788	10.3	1605	-0.2050	5.2
G.09/1.17	669	0.597	14.7	1069	0.3012	8.2

As shown the in the table does the air change in the proposed apartment vary from 5.2 to 14.7 per hour and the maximum age of air varies from 669 to 1605 seconds in the analysed cases.

3.4 Results for proposed apartments.

Comparison of the results from the two scenarios shows that the apartment facing the cut-outs will achieve an air-change rate of 2.5 to 3.5 times less in a favourable wind direction. The reason for the lower air-change rate is that pressure differences around an exposed corner are greater than for a sheltered corner at this direction. However in other wind direction, the apartments facing the cut-out have an air flow rates 40% - 100% better.

3.5 Alternative window sizing

Increasing the opening size will achieve a higher air flow through the apartment. The size of the opening facing the cut-out has been increased from 0.7 x 0.7 m to 1.4 x 0.7m doubling the area to allow greater air flows.

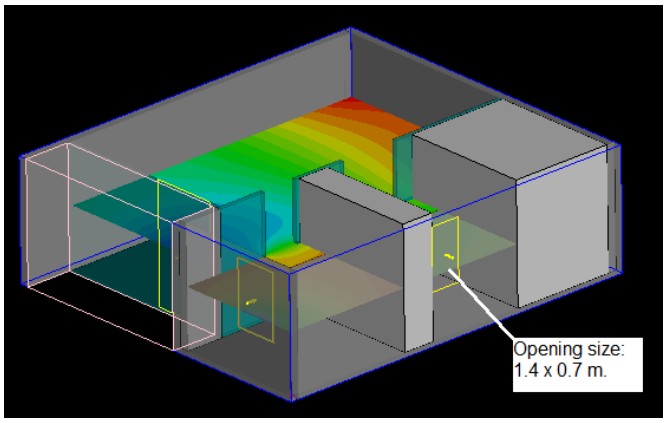


Figure 11. Model with opening size of approx.1m^2.

Diagrams showing the age of air are shown below for the model with an increased window opening size.

3.5.1 G.02/1.03 with larger window

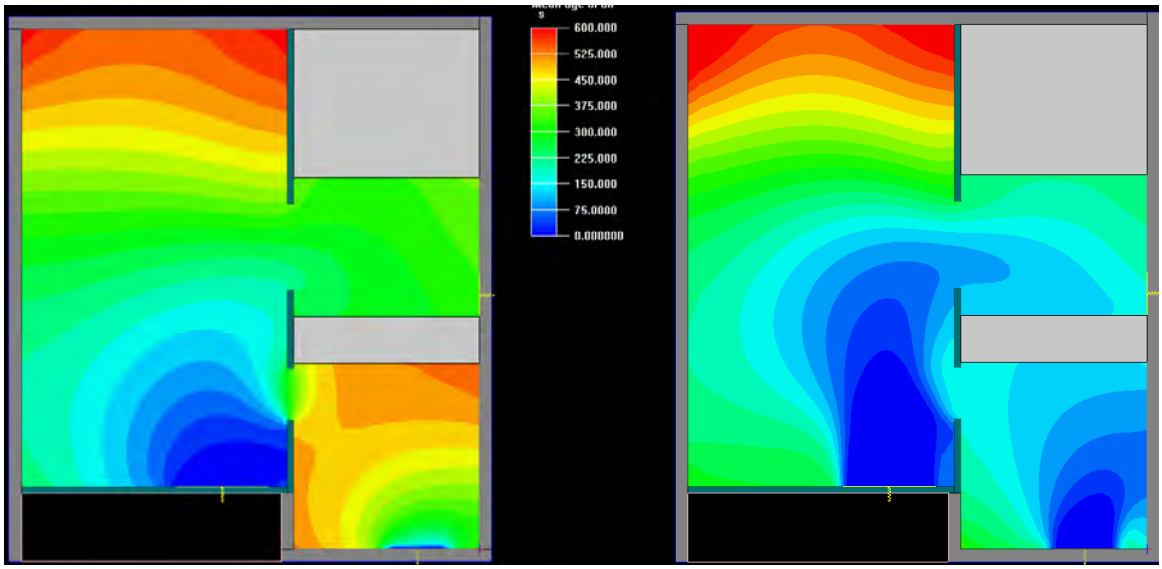


Figure 12: Mean age of air in apartments G.02 and 1.03 with larger window facing the cut-out for S (left image) and NNE (right image) wind directions.

3.5.2 G.09/1.17 with larger window

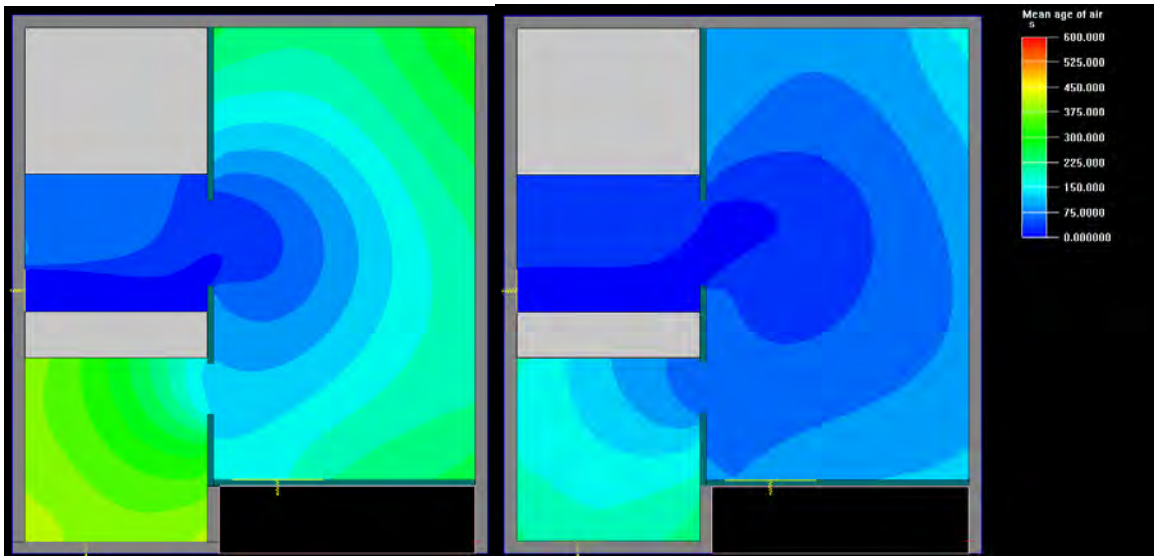


Figure 13: Mean age of air in apartments G.09 and 1.17 with larger window facing the cut-out.for NNE(left) and S (right) wind directions.

Increasing the window size clearly reduces the age of air in the apartments as seen on figures 16 and 17 as compared to figures 13 and 14.

The results of the analysis concerning age of air, flow rate and air change in the apartments with larger windows facing the cut-outs are summarised in the table below.

Table 3. Result summary of proposed apartments with increased window size

Wind		S			NNE	
	Max Age (s)	Flow (m3/s)	Air chg. (h-1)	Max Age. (s)	Flow (m3/s)	Air chg. (h-1)
G.02/1.03	1096	-0.7484	20.4	814	-0.3960	10.8
G.09/1.17	301	1.090	29.7	586	0.5966	16.2

As shown the in the table the maximum age of air varies from 301 to 1069 seconds in the analysed cases. These air change rates are close to or above the SEPP65 recommendations for good natural ventilation of 14 air changes per hour (depending on wind direction).

3.6 Result comparison

The air change rates for the three analysed scenarios are summarized in the table below for each dominant wind condition.

Wind	S			NNE		
	Reference Gr. / 1st fl.	Proposed Small win.	Proposed Large win.	Reference Gr. / 1st fl.	Proposed Small win.	Proposed Large win.
G.02/1.03	6.2 / 4	10.3	20.4	34.6 / 34.9	5.2	10.8
G.09/1.17	39.1	14.7	29.7	4	8.2	16.2

4 Conclusion

An analysis using CFD simulation of the site and proposed apartments showed that the size of the openings facing the facade cut-out needed to be increased by 100%, i.e. to 1 m^2 minimum, to achieve a level of natural ventilation similar to a reference apartment that is in line with SEPP 65 guidelines.

Based on the outcomes of this analysis, the window sizes have been increased according to Cundall's recommendations in order to improve natural ventilation flows. The results show that the maximum age of air varies from 301 to 1069 seconds in the analysed cases. These air change rates are close to or above the SEPP65 recommendations for good natural ventilation of 14 air changes per hour (depending on wind direction).

Therefore in our opinion, the proposed solution is equivalent to a reference apartment which complies with SEPP65 guidelines, bringing the proportion of compliant apartments up the SEPP65 requirements.

Table 1. Compliance with solar access and cross flow ventilation

Level	Unit No.	Type	Solar Access	Cross Flow	Internal ^{2}	External m^2
G	G.01	1B	Y	Y	52	54
	G.02	1B+		Y	58	26
	G.03	2B	Y	Y	73	58
	G.04	2B	Y	Y	75	108
	G.05	2B	Y		73	62
	G.06	1B+	Y	Y	57	58
	G.07	1B+			58	26
	G.08	2B+			73	37
	G.09	1B+		Y	58	26
	G.10	2B	Y	Y	79	50
	G.11*	1B	Y		52	42
	G.12*	1B	Y		52	42
	G.13	2B+	Y		78	32
	Child Care Centre				559	726
01	1.01	1B+	Y		52	12
	1.02	2B	Y	Y	79	10
	1.03	1B+		Y	58	10
	1.04	2B+			73	10
	1.05	1B+			58	10
	1.06	2B		Y	73	35
	1.07	2B+	Y	Y	78	27
	1.08	1B+	Y		53	12
	1.09	1B+	Y		50	10
	1.10	1B+	Y		50	10
	1.11	2B	Y	Y	81	27
	1.12	2B	Y	Y	76	27
	1.13	2B+	Y		73	10
	1.14	2B+	Y	Y	82	20
	1.15	1B+			58	10
	1.16	2B+			73	10
	1.17	1B+		Y	58	10
	1.18	2B	Y	Y	79	10
	1.19*	1B	Y		52	12
	1.20*	1B	Y		52	10
	1.21	2B+	Y		78	10
02	2.01	1B+	Y		52	12
	2.02	2B	Y	Y	79	10
	2.03	1B+		Y	58	10
	2.04	2B+			73	10
	2.05	1B+			58	10

	2.06	2B		Y	73	35
	2.07	2B+	Y	Y	78	27
	2.08	1B+	Y		53	12
	2.09	1B+	Y		50	10
	2.10	1B+	Y		50	10
	2.11	2B+	Y	Y	81	27
	2.12	2B	Y	Y	76	27
	2.13	2B	Y		73	10
	2.14	2B+	Y	Y	82	20
	2.15	1B+			58	10
	2.16	2B+			73	10
	2.17	1B+		Y	58	10
	2.18	2B	Y	Y	79	10
	2.19*	1B	Y		52	12
	2.20*	1B	Y		52	10
	2.21	2B+	Y		78	10
						* NOTES ADAPTABLE UNITS
03	3.01	1B+	Y		52	12
	3.02	2B	Y	Y	79	10
	3.03	1B+		Y	58	10
	3.04	2B+			73	10
	3.05	1B+			58	10
	3.06	2B		Y	73	35
	3.07	2B+	Y	Y	78	27
	3.08	1B+	Y		53	12
	3.09	1B+	Y		50	10
	3.10	1B+	Y		50	10
	3.11	2B+	Y	Y	81	27
	3.12	2B	Y	Y	76	27
	3.13	2B	Y		73	10
	3.14	2B+	Y	Y	82	20
	3.15	1B+			58	10
	3.16	2B+			73	10
	3.17	1B+		Y	58	10
	3.18	2B	Y	Y	79	10
	3.19*	1B	Y		52	12
	3.20*	1B	Y		52	10
	3.21	2B+	Y		78	10

Source: Drawing Number S961.01 dated November 2010 (Marchese Partners International)

WorleyParsons

resources & energy

Incorporating
Planning Workshop Australia

EcoNomics

APPENDIX 4

Strata Subdivision Plan

LOCALITY: CAMPSIE
L.G.A. : CANTERBURY

CONCEPT PLAN STAGE 1

PROPOSED SUBDIVISION OF LOT 11 D.P.

(BEING PART OF LOT 1 D.P.721721)

PROPOSED EASEMENTS

(A) RIGHT OF CARRIAGEWAY (LIMITED IN STRATUM) - BENEFITING LOT2
(B) RIGHT OF FOOTWAY (LIMITED IN STRATUM) - BENEFITING LOT 2
(C) EASEMENT FOR ACCESS (LIFT - LIMITED IN STRATUM) - BENEFITING LOT 2
(D) EASEMENT FOR ACCESS & GARBAGE (LIMITED IN STRATUM) - BENEFITING LOT 2
(E) EASEMENT FOR LIGHT & AIR (LIMITED IN DEPTH & UNLIMITED IN HEIGHT) BENEFITING LOT 2
(F) EASEMENT FOR MAINTENANCE (LIMITED IN STRATUM) BENEFITING LOT 1

EXISTING EASEMENTS

(X) DRAINAGE EASEMENT 1.83 WIDE AND VARIABLE WIDTH (H218896)
(Y) EASEMENTS FOR ELECTRICITY PURPOSES

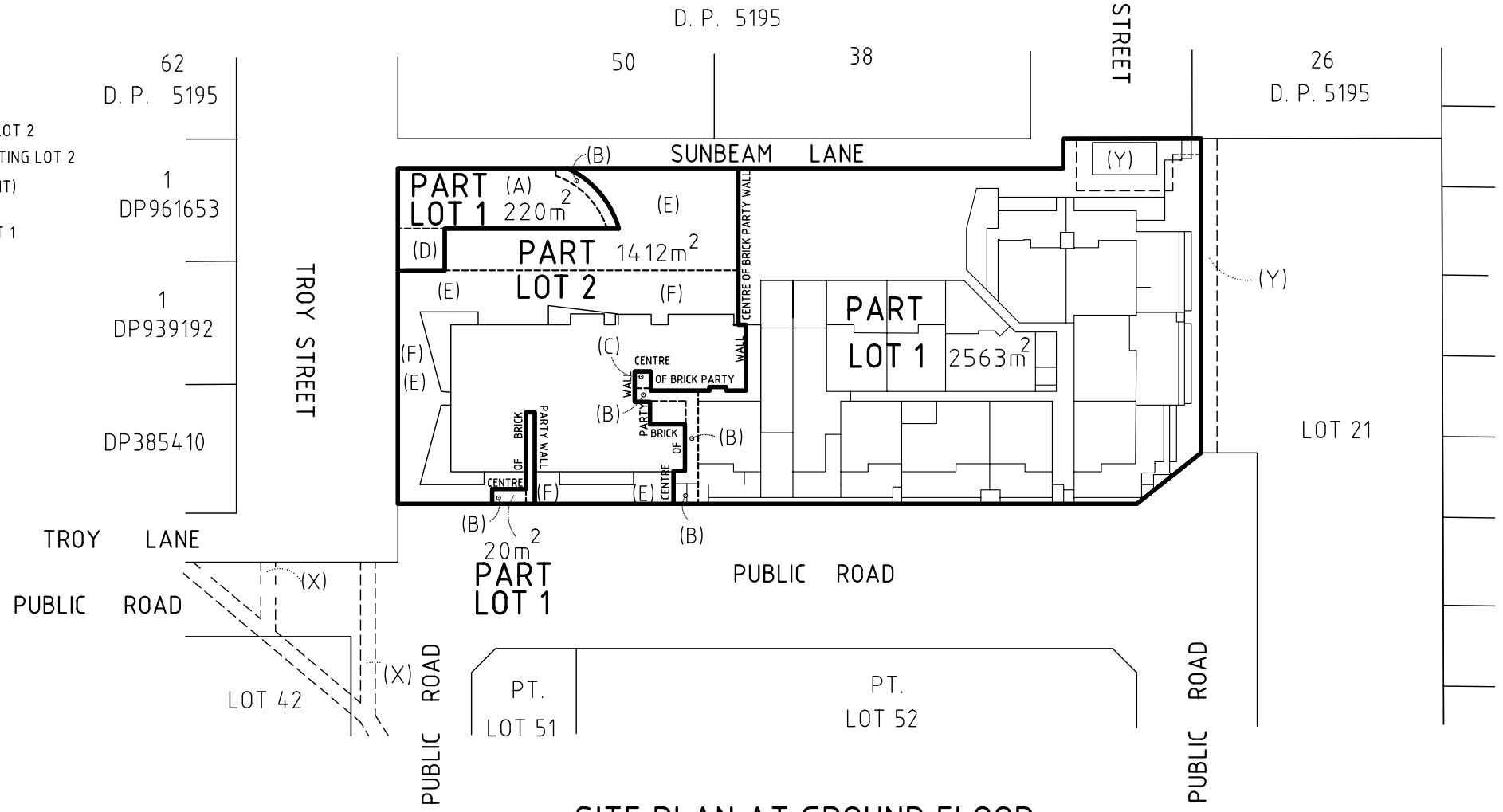
LOT 1 IS UNLIMITED IN HEIGHT AND DEPTH AND EXCLUDES LOT 2

LOT 2 INCLUDES A STRATUM ON THE GROUND FLOOR AND BASEMENT FLOOR LEVELS AND IS LIMITED IN HEIGHT AND DEPTH TO THE CENTRE OF THE CONCRETE SLABS AS SHOWN ON THE SECTION AND FLOOR PLANS ON SHEETS 1 AND 2

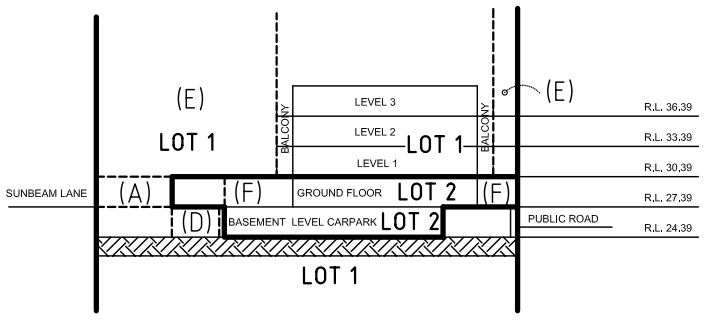
LIFTS ARE TO BE PART OF LOT 1

EASEMENTS FOR ACCESS TO USE LIFTS, FIRE EGRESS, SERVICES, CARPARK ACCESS, SUPPORT WILL BE CREATED WHERE NECESSARY

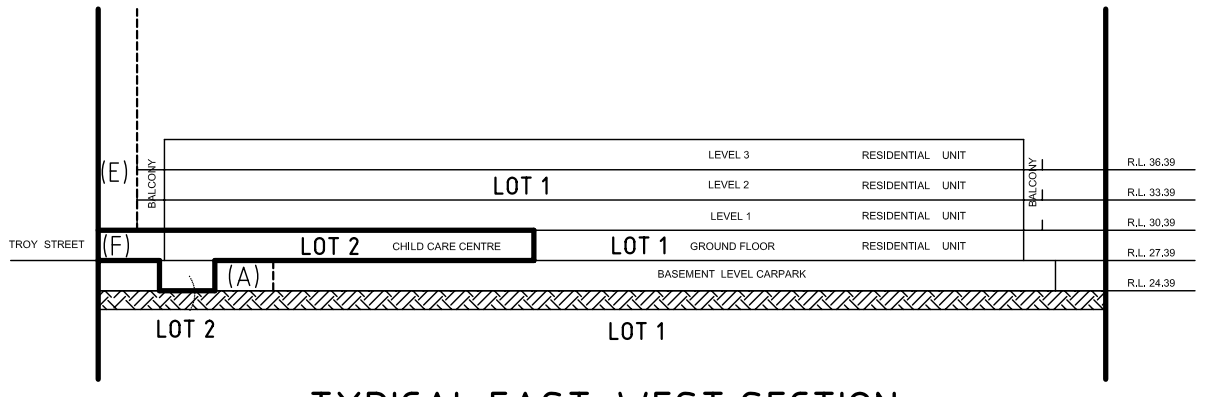
NOTE: AREAS AND DIMENSIONS ARE SUBJECT TO FINAL SURVEY AND REGISTRATION OF PLAN AT LAND AND PROPERTY INFORMATION OFFICE



SITE PLAN AT GROUND FLOOR



TYPICAL NORTH-SOUTH SECTION



TYPICAL EAST-WEST SECTION

AMENDMENTS:

DRAWN: D.G.W.
SURVEYED: D.G.W.
DESIGNED:

CLIENT: PARKVIEW SYDNEY DEVELOPMENTS PTY. LTD.

DUNLOP THORPE & CO. PTY. LTD.
SURVEYORS
447 KENT STREET
SYDNEY 2000
DX 988 SYDNEY
ABN 74 003 512 150
PHONE 9283 6677
FAX 9283 6633
Email : dunthor@ozemail.com.au

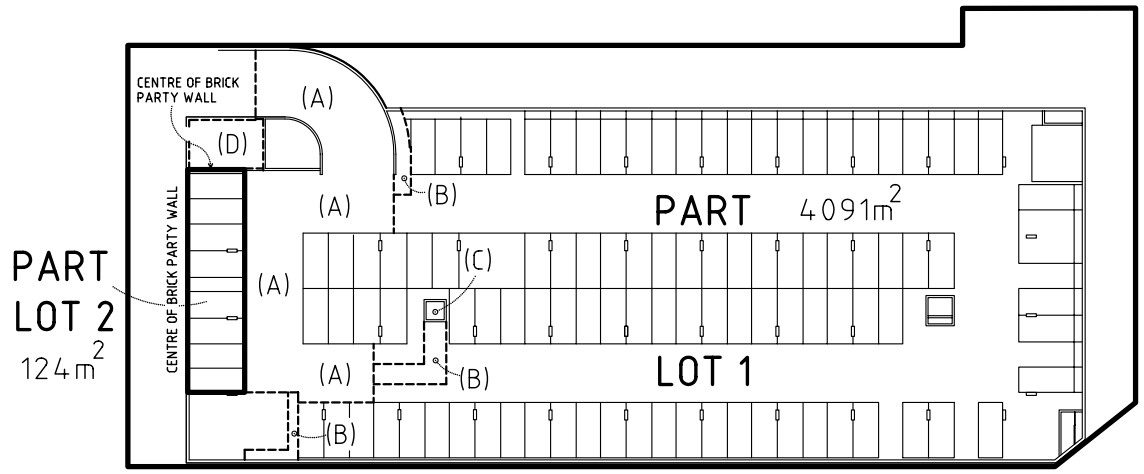
REDUCTION RATIO 1:750
SIZE A3
LEVEL DATUM
DATE 7 FEBRUARY 2011
SHEET 1 OF 2 SHEET
REFERENCE No. 14200-1ST1

LOCALITY: CAMPSIE
L.G.A. : CANTERBURY

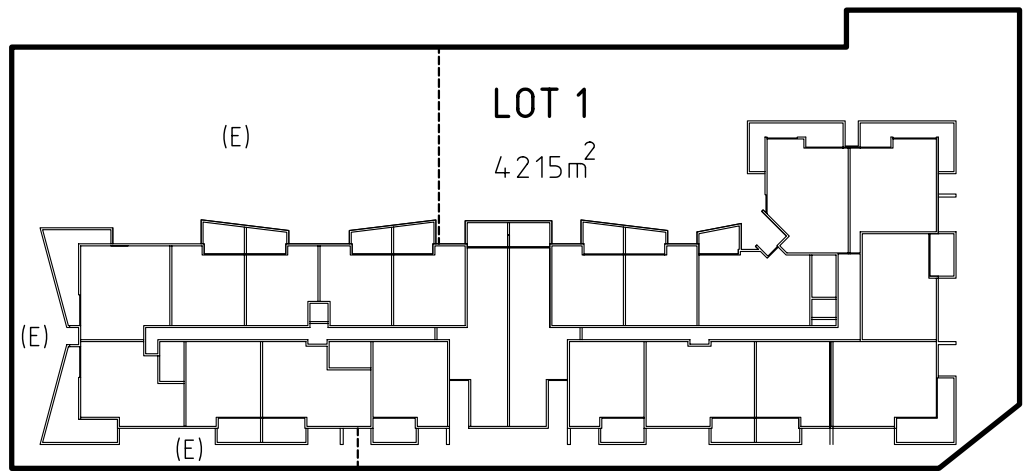
CONCEPT PLAN STAGE 1

PROPOSED SUBDIVISION OF LOT 11 D.P.

(BEING PART OF LOT 1 D.P.721721)



BASEMENT LEVEL



LEVEL 1 & ABOVE

SEE NOTES SHEET 1

AMENDMENTS:

DRAWN: D.G.W.

SURVEYED: D.G.W.

DESIGNED:

CLIENT: PARKVIEW SYDNEY DEVELOPMENTS PTY. LTD.

DUNLOP THORPE & CO. PTY. LTD.
SURVEYORS
447 KENT STREET
SYDNEY 2000
DX 988 SYDNEY
ABN 74 003 512 150
PHONE 9283 6677
FAX 9283 6633
Email : dunthor@ozemail.com.au

REDUCTION RATIO 1:750
SIZE A3
LEVEL DATUM
DATE 7 FEBRUARY 2011
SHEET 2 OF 2 SHEET
REFERENCE No. 14200-1ST1

STRATA PLAN FORM 3 (Part 1) WARNING: Creasing or folding will lead to rejection

STRATA PLAN ADMINISTRATION SHEET

Sheet 1 of 2 sheet(s)

Name of, and address for service of notices on, the Owners Corporation, (Address required on original strata plan only)

The Owners-Strata Plan No.
No.60 CHARLOTTE STREET,
CLEMTON PARK N.S.W. 2206

Office Use Only

Registered: DRAFT

Purpose: DATE 3/2/2011

Office Use Only

PLAN OF SUBDIVISION OF LOT

The adopted by-laws for the scheme are:

*^..... Model By-laws.

*together with, Keeping of animals: Option*A/*B/*C

*By-laws in ..... sheets filed with this plan.

*strike out whichever is inapplicable

^Insert the type to be adopted (Schedule 1 SSM Regulation 2010)

Strata Certificate (Approved Form 5)

(1) * The Council of .....

* The Accredited Certifier .....

Accreditation No. .....

has made the required inspections and is satified that the requirements of;

* (a) Section 37 or 37A Strata Schemes (Freehold Development) Act 1973 and clause 29A Strata Schemes (Freehold Development) Regulation 2007,

* (b) Section 66 or 66A Strata Schemes (Leasehold Development) Act 1986 and clause 30A of the Strata Schemes (Leasehold Development) Regulation 2007,

have been complied with and approves of the proposed strata plan illustrated in the plan with this certificate.

*(2) The Accredited Certifier is satisfied that the plan is consistent with a relevant development consent in force, and that all conditions of the development consent that by its terms are required to be complied with before a strata certificate may be issued, have been complied with.

*(3) The strata plan is part of a development scheme. The council or accredited certifier is satisfied that the plan is consistent with any applicable conditions of the relevant development consent and that the plan gives effect to the stage of the strata development contract to which it relates.

*(4) The building encroaches on a public place and;

* (a) The Council does not object to the encroachment of the building beyond the alignment of

.....

* (b) The Accredited Certifier is satisfied that the building complies with the relevant development consent which is in force and allows the encroachment.

*(5) This approval is given on the condition that lot(s) ^ ..... are created as utility lots in accordance with section 39 of the Strata Schemes (Freehold Development) Act 1973 or section 68 of the Strata Schemes (Leasehold Development) Act 1986.

Date .....

Subdivision No. .....

Relevant Development Consent No. .....

issued by .....

.....

Authorised Person/General Manager/Accredited Certifier

*Strike through if inapplicable

^Insert lot numbers of proposed utility lots

LGA: **CANTERBURY**

Locality: **CLEMTON PARK**

Parish: **ST. GEORGE**

County: **CUMBERLAND**

Surveyor's Certificate (Approved Form 3)

I, JAMES PATRICK THORPE

of DUNLOP THORPE & CO. PTY. LTD.
447 KENT STREET, SYDNEY 2000

a surveyor registered under the Surveying and Spatial Information Act, 2002 , hereby certify that:

(1) Each applicable requirement of

* Schedule 1A of the Strata Schemes (Freehold Development) Act 1973

* ~~Schedule 1A of the Strata Schemes (Leasehold Development) Act 1986~~

has been met;

*(2) * ~~(a) the building encroaches on a public place;~~

* (b) the building encroaches on land (other than a public place), and an appropriate easement has been created by ^ ..... to ~~permit the encroachment to remain.~~

*(3) the survey information recorded in the accompanying location plan is accurate.

Signature: .....

Date: .....

* Strike through if inapplicable

^ Insert the Deposited Plan Number or Dealing Number of the instrument that created the easement

SURVEYOR'S REFERENCE: 14200SP

Use STRATA PLAN FORM 3A for additional certificates, signatures and seals

STRATA PLAN FORM 3 (Part 2) WARNING: Creasing or folding will lead to rejection

STRATA PLAN ADMINISTRATION SHEET

PLAN OF

Office Use Only

DRAFT

DATE 3/2/2011

Office Use Only

Registered:

Strata Certificate Details: Subdivision No. Date:

SCHEDULE OF UNIT ENTITLEMENT

(if insufficient space use additional annexure sheet)

LOT No.	UNIT ENTITLEMENT	LOT No.	UNIT ENTITLEMENT	LOT No.	UNIT ENTITLEMENT
1	126	26	142	51	118
2	123	27	143	52	147
3	150	28	116	53	110
4	158	29	140	54	109
5	153	30	116	55	141
6	130	31	145	56	116
7	123	32	109	57	149
8	152	33	108	58	120
9	123	34	139	59	143
10	155	35	115	60	120
11	126	36	147	61	145
12	126	37	118	62	149
13	147	38	142	63	116
14	113	39	118	64	115
15	145	40	143	65	115
16	116	41	147	66	149
17	140	42	112	67	148
18	116	43	114	68	145
19	142	44	114	69	146
20	145	45	147	70	120
21	113	46	145	71	143
22	112	47	143	72	120
23	112	48	144	73	149
24	145	49	118	74	112
25	143	50	142	75	111
				76	143
				AGGREGATE	10000

SURVEYOR'S REFERENCE: 14200SP

WorleyParsons

resources & energy

Incorporating
Planning Workshop Australia

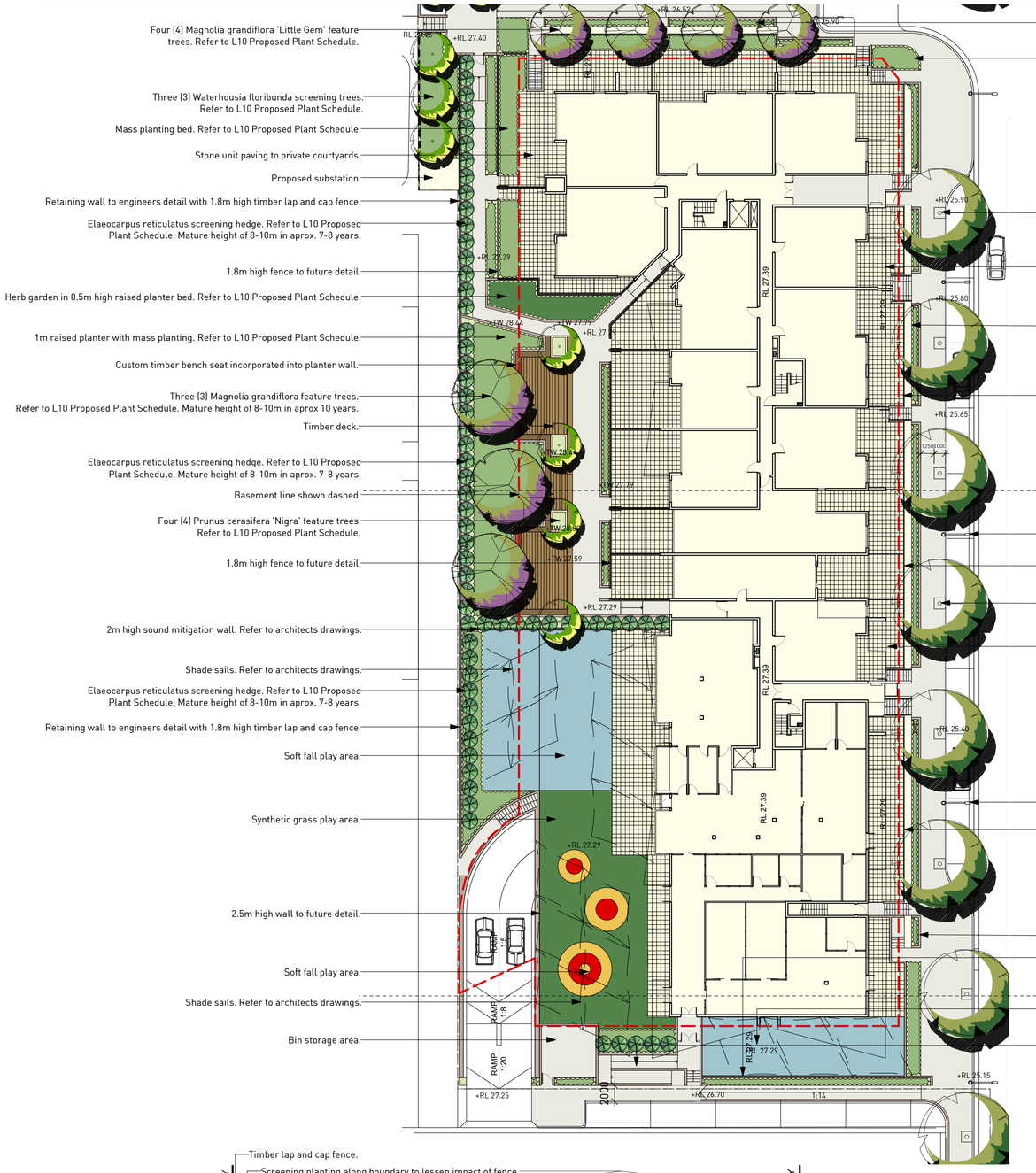
EcoNomics

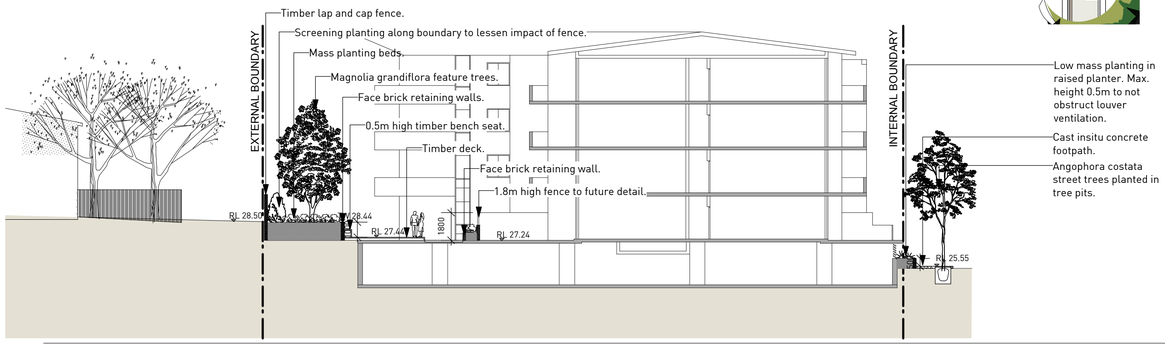
APPENDIX 5

Landscape Plan

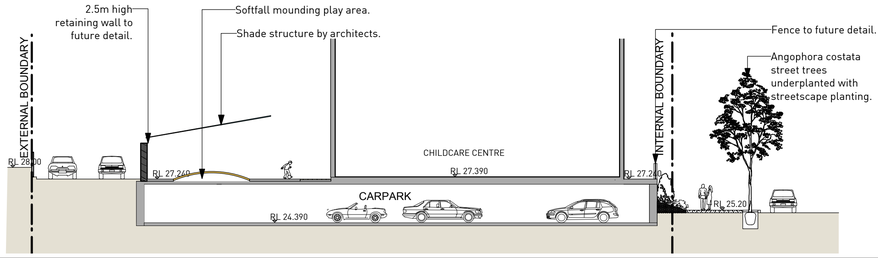
Suite C.1.D 13 Joynton Avenue Zetland NSW 2017 P 02 9699 1600 F 02 8211 5216 E studio@habitation.com.au

habitation





01 SECTION 01
1:200



02 SECTION 02
1:200

KEY

- Street tree and tree pit with porous paving
- Feature trees. Refer to L10 Proposed Plant Schedule
- Screening planting
- Mass planting. Refer to L10 Proposed Plant Schedule
- Boundary buffer planting. Refer to L10 Proposed Plant Schedule.
- Turf
- Cast insitu concrete paving Type 1
- Cast insitu concrete paving Type 2
- Cast insitu concrete paving Type 3
- Stone unit paving
- Timber decking
- Soft fall play surface
- Synthetic Turf
- Face brick and timber fence
- Face brick planter wall
- Bench seat and Bin
- Bbq and outdoor seating/ table
- Rainwater tank


Timber bench seats


Cast insitu honed concrete footpaths


Exposed aggregate concrete paving


Softfall paving and shade structures


Indicative child care playground tratment


Indicative child care screen treatments

S96 ISSUE	SM	09.12.10	L
PRELIMINARY S96 ISSUE	SM	06.12.10	K
PRELIMINARY S96 ISSUE	SM	01.12.10	J
PURPOSE OF ISSUE	REVIEW	DATE	ISSUE

PRECINCT B LANDSCAPE PLAN

DAVIDSGROUP

CLIENT		
PROJECT ADDRESS	**Charlotte St**	
LOCATION	**CLEMTON PARK, NSW**	
DRAWING TITLE	**Project Application Plan**	**1:250**
ORIGINAL MEDIA SIZE	**A1**	
PLOT TIME	**09.12.10**	
STATUS	**L**	

08_062 L02

Suite C.1.D 13 Joynton Avenue Zetland NSW 2017 P 02 9699 1600 F 02 8211 5216 E studio@habitation.com.au

habitation

INDICATIVE PLANT SCHEDULE

SPECIES	COMMON NAME	ORIGIN	EVERGREEN / DECIT	MATURITY	DENSITY	POT SIZE
Streetscape Planting						
TREES						
Angophora costata	Smooth Barked Apple	Native	Evergreen	15m	As shown	45 litre
HEDGES AND SCREENING						
Viburnum odoratissimum	Viburnum	Exotic	Evergreen	2m	2/Lm2	200mm
Metrosideros thomasii	NZ Christmas Bush	Exotic	Evergreen	2m	2/Lm2	200mm
Murraya paniculata	Orange Jessamine	Exotic	Evergreen	2m	2/Lm2	200mm
SHRUBS AND GROUNDCOVERS						
Banksia spinulosa 'Birthday Candles'	Birthday Candle Banksia	Native	Evergreen	1m	3/m2	200mm
Callistemon 'Little John'	Dwarf Bottlebrush	Native	Evergreen	1m	2/m2	200mm
Crinum pedunculatum	Swamp Lily	Native	Evergreen	2m	3/m2	200mm
Dianella caerulea	Flax lily	Native	Evergreen	1m	4/m2	150mm
Dianella revoluta	Mauve Flax Lily	Native	Evergreen	1m	4/m2	150mm
Hardenbergia violacea	False Sarsparilla	Native	Evergreen	under 1m	4/m2	150mm
Grevillea 'Bronze Rambler'	Grevillea	Native	Evergreen	0.3m	1/m2	200mm
Grevillea 'Poorinda Royal Mantle'	Grevillea	Native	Evergreen	2m	1/m2	200mm
Lomandra longifolia	Mat Rush	Native	Evergreen	1m	3/m2	150mm
Myoporum parvifolium	Creeping Boobiallia	Native	Evergreen	under 1m	4/m2	150mm
Trachelospermum jasminoides	Star Jasmine	Exotic	Evergreen	under 1m	3/m2	150mm
Westringia fruticosa	Native Rosemary	Native	Evergreen	2m	1/m2	200mm
Communal Courtyard and Private Garden Planting						
TREES						
Elaeocarpus reticulatus	Blueberry Ash	Native	Evergreen	10m	As shown	200 litre
Magnolia grandiflora 'Exmouth'	Magnolia	Exotic	Deciduous	10m	As shown	200 litre
Magnolia grandiflora 'Little Gem'	Dwarf Magnolia	Exotic	Deciduous	4-5m	As shown	200 litre
Waterhousia floribunda 'Sweeper'	Weeping Lilly Pilly	Native	Evergreen	6m	As shown	200 litre
Prunus cerasifera 'Nigra'	Purple Leaved Cherry Plum	Exotic	Deciduous	6m	As shown	200 litre
HEDGES AND SCREENING						
Metrosideros thomasii	NZ Christmas Bush	Exotic	Evergreen	2m	2/Lm2	200mm
Syzygium australe	Lily Pily	Native	Evergreen	2m	2/Lm2	200mm
Viburnum odoratissimum	Viburnum	Exotic	Evergreen	2m	2/Lm2	200mm
SHRUBS AND GROUNDCOVERS						
Ajuga australis 'Aussie Bugle'	Ajuga	Exotic	Evergreen	0.3m	4/m2	150mm
Clivia miniata	Kaffir Lily	Native	Evergreen	1m	1/m2	150mm
Convolvulus cneorum	Silver Bush	Exotic	Evergreen	under 1m	4/m2	150mm
Dianella caerulea	Flax Lily	Native	Evergreen	1m	4/m2	150mm
Dianella revoluta	Flax Lily	Native	Evergreen	1m	4/m2	150mm
Dichondra repens	Kidney Grass	Native	Evergreen	0.1m	4/m2	150mm
Gazania tomentosum	Gazania	Exotic	Evergreen	0.3m	4/m2	150mm
Grevillea 'Poorinda Royal Mantle'	Grevilea	Native	Evergreen	under 1m	4/m2	150mm
Hardenbergia violacea	False Sarsaparilla	Native	Evergreen	under 1m	4/m2	150mm
Hebe 'Autumn Beauty'	Hebe	Exotic	Evergreen	1m	1/m2	200mm
Liriope muscari	Mondo Grass	Exotic	Evergreen	0.3m	4/m2	150mm
Liriope muscari 'Evergreen Giant'	Giant Mondo Grass	Exotic	Evergreen	0.5m	4/m2	150mm
Lomandra longifolia	Mat Rush	Native	Evergreen	1m	4/m2	150mm
Lomandra tasmanica	Mat Rush	Native	Evergreen	1m	4/m2	150mm
Ophiopogon japonicus	Mondo Grass	Exotic	Evergreen	0.2m	4/m2	150mm
Pittosporum 'Miss Muffet'	Dwarf Pittosporum	Exotic	Evergreen	1m	4/m2	200mm
Scaevola 'Purple Fanfare'	Fan Flower	Native	Evergreen	under 1m	4/m2	150mm
Viola hederacea	Native Violet	Native	Evergreen	0.1m	4/m2	150mm
Child Care Centre Planting						
FEATURE FLOWERS						
Fuchsia x hybrida	Fuchsia	Exotic	Evergreen	2m	2/m2	200mm
Abutilon spp	Chinese Lantern	Exotic	Evergreen	2m	2/m2	200mm
Vibernum opulus 'Sterile'	Snowball Tree	Exotic	Deciduous	3m	1/m2	200mm
Banksia spinulosa 'Birthday Candles'	Haripin Banksia	Native	Evergreen	0.5m	4/m2	200mm
FRAGRANT FLOWERS/FOLIAGE						
Michelia figo	Port Wine Magnolia	Exotic	Evergreen	4m	1/m2	200mm
Lavandula spp	Lavender	Exotic	Evergreen	1m	3/m2	200mm
Viola cornuta	Violet	Exotic	Evergreen	1m	4/m2	200mm
GROUND COVERS						
Ophiopogon japonicus	Mondo Grass	Exotic	Evergreen	0.2m	4/m2	150mm
Erigeron mucronatus	Erigeron	Exotic	Evergreen	0.5m	4/m2	150mm

STREETSCAPE PLANTING

TREES


Angophora costata

HEDGES AND SCREENING


Viburnum odoratissimum 'Emerald Lustre'


Metrosideros thomasii


Murraya paniculata

SHRUBS AND GROUNDCOVERS


Banksia spinulosa 'Birthday Candles'


Callistemon 'Little John'


Crinum pedunculatum


Dianella caerulea


Dianella revoluta


Hardenbergia violacea


Grevillea 'Bronze Rambler'


Grevillea 'Poorinda Royal Mantle'


Lomandra longifolia


Myoporum parvifolium


Trachelospermum jasminoides


Westringia fruticosa

COMMUNAL COURTYARD AND PRIVATE GARDEN PLANTING

TREES


Elaeocarpus reticulatus


Magnolia grandiflora 'Exmouth'


Magnolia grandiflora 'Little Gem'


Waterhousia floribunda 'Sweeper'


Prunus cerasifera 'Nigra'

HEDGES AND SCREENING


Metrosideros thomasii


Syzygium australe


Viburnum odoratissimum 'Emerald Lustre'

SHRUBS AND GROUNDCOVERS


Ajuga australis 'Aussie Bugle'


Clivia miniata


Convolvulus cneorum


Dianella caerulea


Dianella revoluta


Dianella tasmanica


Dichondra repens


Gazania tomentosum


Grevillea 'Poorinda Royal Mantle'


Hardenbergia violacea


Hebe 'Autmun Beauty'


Liriope muscari


Liriope 'Evergreen Giant'


Lomandra longifolia


Ophiopogon japonicus


Pittosporum 'Miss Muffet'


Scaevola 'Purple Fanfare'


Viola hederacea

CHILD CARE CENTRE PLANTING

FEATURE FLOWERS

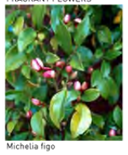

Fuchsia x hybrida


Abutilon spp


Viburnum opulus 'Sterile'


Banksia spinulosa 'Birthday Candles'

FRAGRANT FLOWERS


Michelia figo


Lavandula spp


Viola cornuta

596 ISSUE	SM	09.12.10	A	
PURPOSE OF ISSUE	REVIEW	DATE	ISSUE	

STAGE 1 INDICATIVE PLANT SCHEDULE

DAVIDSGROUP

CLIENT	
PROJECT ADDRESS	**Charlotte St**
LOCATION	**CLEMTON PARK, NSW**
DRAWING TITLE	**Project Application**
ORIGINAL MEDIA SIZE	**A1**
PLOT TIME	**09.12.10**
STATUS	**A**

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08_062 L10

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Incorporating
Planning Workshop Australia

EcoNomics

APPENDIX 6

BASIX Certificate

BASIX® Certificate

Building Sustainability Index www.basix.nsw.gov.au

Multi Dwelling

Certificate number: 216340M_02

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 29/06/2006 published by the Department of Planning. This document is available at www.basix.nsw.gov.au

This certificate is a revision of certificate number 216340M lodged with the consent authority or certifier on 01 October 2008 with application MP08_0087.

It is the responsibility of the applicant to verify with the consent authority that the original, or any revised certificate, complies with the requirements of Schedule 1 Clause 2A, 4A or 6A of the Environmental Planning and Assessment Regulation 2000

Director-General
Date of issue: Thursday, 20 January 2011

NSW GOVERNMENT | Planning

Project summary		
Project name	Clemton Park Village Lot 3 (240908)_02	
Street address	60 Charlotte Street Clemton park 2206	
Local Government Area	Canterbury City Council	
Plan type and plan number	strata -	
Lot no.	3	
Section no.	-	
No. of unit buildings	1	
No. of units in unit buildings	76	
No. of attached dwelling houses	0	
No. of separate dwelling houses	0	
Project score		
Water	✓ 45	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 31	Target 30

Certificate Prepared by (please complete before submitting to Councl or PCA)
Name / Company Name:
ABN (if applicable):

Description of project

Project address	
Project name	Clemton Park Village Lot 3 (240908)_02
Street address	60 Charlotte Street Clemton park 2206
Local Government Area	Canterbury City Council
Plan type and plan number	strata -
Lot no.	3
Section no.	-

Project type	
No. of unit buildings	1
No. of units in unit buildings	76
No. of attached dwelling houses	0
No. of separate dwelling houses	0

Site details	
Site area (m²)	4217
Roof area (m²)	1932
Non-residential floor area (m²)	581
Residential car spaces	100
Non-residential car spaces	8

Common area landscape	
Common area lawn (m²)	0
Common area garden (m²)	473
Area of indigenous or low water use species (m²)	176.4

Assessor details	
Assessor number	20548
Certificate number	46537287

Project score		
Water	✓ 45	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 31	Target 30

Description of project

The tables below describe the dwellings and common areas within the project

Unit building - Precinct B, 76 dwellings, 4 storeys above ground

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
1.01	1	50.0	0.0	0	0
1.05	1	58.0	0.0	0	0
1.09	1	52.0	0.0	0	0
1.13	2	74.0	0.0	0	0
1.17	1	58.0	0.0	0	0
1.21	2	80.0	0.0	0	0
2.04	2	74.0	0.0	0	0
2.08	1	52.0	0.0	0	0
2.12	2	70.2	3.8	0	0
2.16	2	74.0	0.0	0	0
2.20	1	52.0	0.0	0	0
3.03	1	58.0	0.0	0	0
3.07	2	75.6	4.4	0	0
3.11	2	73.7	6.3	0	0
3.15	1	58.0	0.0	0	0
3.19	1	52.0	0.0	0	0
G.02	1	58.0	0.0	0	0
G.06	1	58.0	0.0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
1.02	2	80.0	0.0	0	0
1.06	2	70.2	3.8	0	0
1.10	1	50.0	0.0	0	0
1.14	2	80.0	0.0	0	0
1.18	2	80.0	0.0	0	0
2.01	1	50.0	0.0	0	0
2.05	1	58.0	0.0	0	0
2.09	1	52.0	0.0	0	0
2.13	2	74.0	0.0	0	0
2.17	1	58.0	0.0	0	0
2.21	2	80.0	0.0	0	0
3.04	2	74.0	0.0	0	0
3.08	1	52.0	0.0	0	0
3.12	2	70.2	3.8	0	0
3.16	2	74.0	0.0	0	0
3.20	1	52.0	0.0	0	0
G.03	2	74.0	0.0	11.3	0
G.07	1	58.0	0.0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
1.03	1	58.0	0.0	0	0
1.07	2	75.6	4.4	0	0
1.11	2	73.7	6.3	0	0
1.15	1	58.0	0.0	0	0
1.19	1	52.0	0.0	0	0
2.02	2	80.0	0.0	0	0
2.06	2	70.2	3.8	0	0
2.10	1	50.0	0.0	0	0
2.14	2	80.0	0.0	0	0
2.18	2	80.0	0.0	0	0
3.01	1	50.0	0.0	0	0
3.05	1	58.0	0.0	0	0
3.09	1	52.0	0.0	0	0
3.13	2	74.0	0.0	0	0
3.17	1	58.0	0.0	0	0
3.21	2	80.0	0.0	0	0
G.04	2	70.0	4.0	34.5	0
G.08	2	74.0	0.0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
1.04	2	74.0	0.0	0	0
1.08	1	52.0	0.0	0	0
1.12	2	70.2	3.8	0	0
1.16	2	74.0	0.0	0	0
1.20	1	52.0	0.0	0	0
2.03	1	58.0	0.0	0	0
2.07	2	75.6	4.4	0	0
2.11	2	73.7	6.3	0	0
2.15	1	58.0	0.0	0	0
2.19	1	52.0	0.0	0	0
3.02	2	80.0	0.0	0	0
3.06	2	70.2	3.8	0	0
3.10	1	50.0	0.0	0	0
3.14	2	80.0	0.0	0	0
3.18	2	80.0	0.0	0	0
G.01	1	52.0	0.0	0	0
G.05	2	74.0	0.0	15.4	0
G.09	1	58.0	0.0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m^2)	Unconditioned floor area (m^2)	Area of garden & lawn (m^2)	Indigenous species (min area m^2)
G.10	2	80.0	0.0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m^2)	Unconditioned floor area (m^2)	Area of garden & lawn (m^2)	Indigenous species (min area m^2)
G.11	1	52.0	0.0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m^2)	Unconditioned floor area (m^2)	Area of garden & lawn (m^2)	Indigenous species (min area m^2)
G.12	1	52.0	0.0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m^2)	Unconditioned floor area (m^2)	Area of garden & lawn (m^2)	Indigenous species (min area m^2)
G.13	2	80.0	0.0	0	0

Description of project

The tables below describe the dwellings and common areas within the project

Common areas of unit building - Precinct B

Common area	Floor area (m²)
Car park area (No. 1)	2150
Lift motor room (No. 1)	20
Internal Fire Stairs	113.1
Hallway/lobby type (Lvl 1, 2 & 3)	240

Common area	Floor area (m²)
Lift car (No. 1)	-
Garbage room (No. 1)	33
Basement Storage	53.5

Common area	Floor area (m²)
Lift car (No. 2)	-
Plant or service room (No. 1)	18
Ground floor lobby type (No. 1)	85.2

Schedule of BASIX commitments

1. Commitments for unit building - Precinct B
    - (a) Dwellings
        - (i) Water
        - (ii) Energy
        - (iii) Thermal Comfort
    - (b) Common areas and central systems/facilities
        - (i) Water
        - (ii) Energy

2. Commitments for attached dwelling houses

3. Commitments for separate dwelling houses

4. Commitments for common areas and central systems/facilities for the development (non-building specific)
    - (i) Water
    - (ii) Energy

Schedule of BASIX commitments

The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

1. Commitments for unit building - Precinct B

(a) Dwellings

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must plant indigenous or low water use species of vegetation throughout the area of land specified for the dwelling in the "Indigenous species" column of the table below, as private landscaping for that dwelling. (This area of indigenous vegetation is to be contained within the "Area of garden and lawn" for the dwelling specified in the "Description of Project" table).	✓	✓	
(c) If a rating is specified in the table below for a fixture or appliance to be installed in the dwelling, the applicant must ensure that each such fixture and appliance meets the rating specified for it.		✓	✓
(d) The applicant must install an on-demand hot water recirculation system which regulates all hot water use throughout the dwelling, where indicated for a dwelling in the "Hot water recirculation" column of the table below.		✓	✓
(e) The applicant must not install a private swimming pool or spa for the dwelling, with a volume exceeding that specified for it in the table below.	✓	✓	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		✓	
(g) The pool or spa must be located as specified in the table.	✓	✓	
(h) The applicant must install, for the dwelling, each alternative water supply system, with the specified size, listed for that dwelling in the table below. Each system must be configured to collect run-off from the areas specified (excluding any area which supplies any other alternative water supply system), and to divert overflow as specified. Each system must be connected as specified.	✓	✓	✓

	Fixtures					Appliances		Individual pool				Individual spa		
Dwelling no.	All shower-heads	All toilet flushing systems	All kitchen taps	All bathroom taps	HW recirculation or diversion	All clothes washers	All dish-washers	Volume (max volume)	Pool cover	Pool location	Pool shaded	Volume (max volume)	Spa cover	Spa shaded
All dwellings	3 star	4 star	4 star	4 star	no	4 star	4 star	-	-	-	-	-	-	-

	Alternative water source							
Dwelling no.	**Alternative water supply systems**	**Size**	**Configuration**	**Landscape connection**	**Toilet connection (s)**	**Laundry connection**	**Pool top-up**	**Spa top-up**
All dwellings	central water tank (no. 1)	See central systems	See central systems	yes	no	no	no	no
None	-	-	-	-	-	-	-	-

(ii) Energy	**Show on DA plans**	**Show on CC/CDC plans & specs**	**Certifier check**
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must install each hot water system specified for the dwelling in the table below, so that the dwelling's hot water is supplied by that system. If the table specifies a central hot water system for the dwelling, then the applicant must connect that central system to the dwelling, so that the dwelling's hot water is supplied by that central system.	✓	✓	✓
(c) The applicant must install, in each bathroom, kitchen and laundry of the dwelling, the ventilation system specified for that room in the table below. Each such ventilation system must have the operation control specified for it in the table.		✓	✓
(d) The applicant must install the cooling and heating system/s specified for the dwelling under the "Living areas" and "Bedroom areas" headings of the "Cooling" and "Heating" columns in the table below, in/for at least 1 living/bedroom area of the dwelling. If no cooling or heating system system is specified in the table for "Living areas" or "Bedroom areas", then no systems may be installed in any such areas. If the term "zoned" is specified beside an air conditioning system, then the system must provide for day/night zoning between living areas and bedrooms.		✓	✓
(e) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Artificial lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that the "primary type of artificial lighting" for each such room in the dwelling is fluorescent lighting or light emitting diode (LED) lighting. If the term "dedicated" is specified for a particular room or area, then the light fittings in that room or area must only be capable of being used for fluorescent lighting or light emitting diode (LED) lighting.		✓	✓
(f) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that each such room or area is fitted with a window and/or skylight.	✓	✓	✓
(g) This commitment applies if the applicant installs a water heating system for the dwelling's pool or spa. The applicant must: (aa) install the system specified for the pool in the "Individual Pool" column of the table below (or alternatively must not install any system for the pool). If specified, the applicant must install a timer, to control the pool's pump; and (bb) install the system specified for the spa in the "Individual Spa" column of the table below (or alternatively must not install any system for the spa). If specified, the applicant must install a timer to control the spa's pump.		✓ ✓	
(h) The applicant must install in the dwelling:			

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(aa) the kitchen cook-top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the table below;		✓	
(bb) each appliance for which a rating is specified for that dwelling in the "Appliances & other efficiency measures" column of the table, and ensure that the appliance has that minimum rating; and		✓	✓
(cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table.		✓	
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		✓	

	Hot water	Bathroom ventilation system		Kitchen ventilation system		Laundry ventilation system	
Dwelling no.	Hot water system	Each bathroom	Operation control	Each kitchen	Operation control	Each laundry	Operation control
All dwellings	central hot water system 1	individual fan, ducted to façade or roof	manual on / timer off	individual fan, not ducted	manual on / timer off	individual fan, ducted to façade or roof	manual on / timer off

	Cooling		Heating		Artificial lighting						Natural lighting	
Dwelling no.	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/ toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
3.19, 3.20	1-phase airconditioning 3 Star (zoned)	1-phase airconditioning 3 Star (zoned)	1-phase airconditioning 3 Star (zoned)	1-phase airconditioning 3 Star (zoned)	1 (dedicated)	0	no	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no
1.19, 1.20, 2.19, 2.20, G.01, G.11, G.12	(zoned)	(zoned)	(zoned)	(zoned)	1 (dedicated)	0	no	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no

	Cooling		Heating		Artificial lighting						Natural lighting	
Dwelling no.	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/ toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
3.02, 3.04, 3.07, 3.11, 3.14, 3.16, 3.18, 3.21	1-phase airconditioning 3 Star (zoned)	1-phase airconditioning 3 Star (zoned)	1-phase airconditioning 3 Star (zoned)	1-phase airconditioning 3 Star (zoned)	3 (dedicated)	0	no	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no
3.01, 3.03, 3.05, 3.06, 3.08, 3.09, 3.10, 3.12, 3.13, 3.15, 3.17	1-phase airconditioning 3 Star (zoned)	1-phase airconditioning 3 Star (zoned)	1-phase airconditioning 3 Star (zoned)	1-phase airconditioning 3 Star (zoned)	2 (dedicated)	0	no	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no
1.02, 1.04, 1.07, 1.11, 1.14, 1.16, 1.18, 1.21, 2.02, 2.04, 2.07, 2.11, 2.14, 2.16, 2.18, 2.21, G.10, G.13	(zoned)	(zoned)	(zoned)	(zoned)	3 (dedicated)	0	no	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no

	Cooling		Heating		Artificial lighting						Natural lighting	
Dwelling no.	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/ toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
1.01, 1.03, 1.05, 1.06, 1.08, 1.09, 1.10, 1.12, 1.13, 1.15, 1.17, 2.01, 2.03, 2.05, 2.06, 2.08, 2.09, 2.10, 2.12, 2.13, 2.15, 2.17, G.02, G.03, G.04, G.05, G.06, G.07, G.08, G.09	(zoned)	(zoned)	(zoned)	(zoned)	2 (dedicated)	0	no	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no

	Individual pool		Individual spa		Appliances & other efficiency measures							
Dwelling no.	Pool heating system	Timer	Spa heating system	Timer	Kitchen cooktop/oven	Refrigerator	Well ventilated fridge space	Dishwasher	Clothes washer	Clothes dryer	Indoor or sheltered clothes drying line	Private outdoor or unsheltered clothes drying line
All dwellings	-	-	-	-	gas cooktop & electric oven	-	no	3.5 star	3.5 star	2 star	no	no

(iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must attach the certificate referred to under "Assessor details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for a final occupation certificate for the proposed development.			
(b) The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
(c) The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX Certificate, including the details shown in the "Thermal Loads" table below.			
(d) The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Thermal Comfort Protocol requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor, to certify that this is the case.			
(e) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.			
(f) The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
(g) Commitment (h) below, applies to the rooms or areas of a dwelling which are listed in the "Cross Ventilation" table below as comprising a breeze path for the dwelling.			
(h) The applicant must construct the dwelling so that at least one ventilation opening is provided in each such room or area. (If only one room or area of a dwelling is mentioned for a breeze path, then that room or area must have at least two ventilation openings).		✓	✓
(i) The two ventilation openings referred to in (h), must meet the following specifications: (aa) be located as specified for the breeze path in the table; (bb) not be more than 15 metres apart;			

(iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(cc) if the dwelling is below the 10th storey of the building, be at least 1 square metre in size, or if the dwelling is on or above the 10th storey, be at least 0.5 square metres in size and be located above door head level in the room; and (dd) have only 1 doorway, or opening less than 2 square metres in size, located in the direct path between them.			

	Thermal loads		
Dwelling no.	Heating load (in mJ/m²/yr)	Cooling load (in mJ/m²/yr)	Corrected Cooling load (in mJ/m²/yr)
1.01	44	19.8	19.8
1.03	111.9	17.8	17.8
2.01	24.7	55.3	55.3
2.03	97.3	17.5	17.5
3.01	59.8	43.7	43.7
3.02	85.8	15.5	15.5
3.03	134.9	31.4	31.4
3.04	129.7	20.2	20.2
3.05	128.6	30.9	30.9
3.06	131.4	46.9	46.9
3.07	89.9	62.1	62.1
3.08	59.5	43.8	43.8
3.11	72.7	39.2	39.2
3.12	62	45.1	45.1
3.13	58.1	39	39.0
3.14	102.5	45.0	45.0
3.15	125.3	26.1	26.1
3.16	123.1	20.1	20.1
3.17	135.3	28.4	28.4
3.18	84.3	15.3	15.3
3.19	56.3	41.3	41.3

	Thermal loads		
Dwelling no.	**Heating load (in mJ/m²/yr)**	**Cooling load (in mJ/m²/yr)**	**Corrected Cooling load (in mJ/m²/yr)**
3.21	61	21.8	21.8
G.01	64.5	14.9	14.9
G.02	108.6	12.7	12.7
G.03	58.5	14.2	14.2
G.04	54.4	18.6	18.6
G.05	36.9	19.8	19.8
G.06	118.1	49.7	49.7
G.07	112	9.9	9.9
G.08	100.4	8.6	8.6
G.09	106.5	11.5	11.5
G.10	71	3.3	3.3
G.11	37.4	12.4	12.4
G.12	38.2	12.3	12.3
G.13	46.2	5.4	5.4
1.02, 2.02	59.6	3.9	3.9
1.04, 2.04	90.7	9.3	9.3
1.05, 2.05	75.7	11.9	11.9
1.06, 2.06	122.3	27.4	27.4
1.07, 2.07	49.4	28.9	28.9
1.11, 2.11	45.7	17.2	17.2
1.12, 2.12	39.5	18	18.0
1.13, 2.13	25.6	23.5	23.5
1.14, 2.14	82.5	20.7	20.7
1.15, 2.15	80.9	11.4	11.4
1.16, 2.16	84.1	10.1	10.1
1.17, 2.17	90	13.1	13.1
1.18, 2.18	57.9	3.7	3.7

	Thermal loads		
Dwelling no.	**Heating load (in mJ/m²/yr)**	**Cooling load (in mJ/m²/yr)**	**Corrected Cooling load (in mJ/m²/yr)**
1.21, 2.21	32	6.6	6.6
3.09, 3.10, 3.20	60.3	48.6	48.6
1.08, 1.19, 2.08, 2.19	25.3	22	22.0
All other dwellings	21	26.8	26.8

	Cross ventilation			
Dwelling no.	**Breeze path 1**	**Breeze path 2**	**Breeze path 3**	**Breeze path 4**
All dwellings	-	-	-	-

(b) Common areas and central systems/facilities

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a showerhead, toilet, tap or clothes washer into a common area, then that item must meet the specifications listed for it in the table.		✓	✓
(b) The applicant must install (or ensure that the development is serviced by) the alternative water supply system(s) specified in the "Central systems" column of the table below. In each case, the system must be sized, be configured, and be connected, as specified in the table.	✓	✓	✓
(c) A swimming pool or spa listed in the table must not have a volume (in kLs) greater than that specified for the pool or spa in the table.	✓	✓	
(d) A pool or spa listed in the table must have a cover or shading if specified for the pool or spa in the table.		✓	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		✓	✓
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		✓	✓

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	3 star	4 star	4 star	no common laundry facility

Central systems	Size	Configuration	Connection (to allow for...)
Central water tank - rainwater or stormwater (No. 1)	5000	To collect run-off from at least: - 1500 square metres of roof area of buildings in the development - 0 square metres of impervious area in the development - 0 square metres of garden/lawn area in the development - 0 square metres of planter box area in the development (excluding, in each case, any area which drains to, or supplies, any other alternative water supply system).	- irrigation of 220.5 square metres of common landscaped area on the site - car washing in 1 car washing bays on the site
Fire sprinkler system (No. 1)	-	-	-

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified.		✓	✓
(b) In carrying out the development, the applicant must install, as the "primary type of artificial lighting" for each common area specified in the table below, the lighting specified for that common area. This lighting must meet the efficiency measure specified. The applicant must also install a centralised lighting control system or Building Management System (BMS) for the common area, where specified.		✓	✓
(c) The applicant must install the systems and fixtures specified in the "Central energy systems" column of the table below. In each case, the system or fixture must be of the type, and meet the specifications, listed for it in the table.	✓	✓	✓

	Common area ventilation system		Common area lighting		
Common area	Ventilation system type	Ventilation efficiency measure	Primary type of artificial lighting	Lighting efficiency measure	Lighting control system/BMS
Car park area (No. 1)	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	fluorescent	time clock and motion sensors	No
Lift car (No. 1)	-	-	fluorescent	connected to lift call button	No
Lift car (No. 2)	-	-	fluorescent	connected to lift call button	No
Lift motor room (No. 1)	ventilation exhaust only	thermostatically controlled	fluorescent	motion sensors	No
Garbage room (No. 1)	ventilation exhaust only	-	fluorescent	motion sensors	No
Plant or service room (No. 1)	ventilation exhaust only	thermostatically controlled	fluorescent	motion sensors	No
Internal Fire Stairs	ventilation exhaust only	time clock or BMS controlled	fluorescent	time clock and motion sensors	No
Basement Storage	ventilation supply only	time clock or BMS controlled	fluorescent	motion sensors	No
Ground floor lobby type (No. 1)	ventilation (supply + exhaust)	time clock or BMS controlled	fluorescent	time clock and motion sensors	No
Hallway/lobby type (Lvl 1, 2 & 3)	ventilation (supply + exhaust)	time clock or BMS controlled	fluorescent	time clock and motion sensors	No

Central energy systems	Type	Specification
Central hot water system (No. 1)	solar - gas boosted	Solar collector area (minimum, in square metres): 80 Piping insulation (ringmain & supply risers): (a) Piping external to building: R1.0 (~38 mm); (b) Piping internal to building: R1.0 (~38 mm)
Lift (No. 1)	geared traction with V V A C motor	Number of levels (including basement): 5
Lift (No. 2)	geared traction with V V A C motor	Number of levels (including basement): 5

4. Commitments for common areas and central systems/facilities for the development (non-building specific)

(b) Common areas and central systems/facilities

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a showerhead, toilet, tap or clothes washer into a common area, then that item must meet the specifications listed for it in the table.		✓	✓
(b) The applicant must install (or ensure that the development is serviced by) the alternative water supply system(s) specified in the "Central systems" column of the table below. In each case, the system must be sized, be configured, and be connected, as specified in the table.	✓	✓	✓
(c) A swimming pool or spa listed in the table must not have a volume (in kLs) greater than that specified for the pool or spa in the table.	✓	✓	
(d) A pool or spa listed in the table must have a cover or shading if specified for the pool or spa in the table.		✓	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		✓	✓
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		✓	✓

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	3 star	4 star	4 star	no common laundry facility

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified.		✓	✓
(b) In carrying out the development, the applicant must install, as the "primary type of artificial lighting" for each common area specified in the table below, the lighting specified for that common area. This lighting must meet the efficiency measure specified. The applicant must also install a centralised lighting control system or Building Management System (BMS) for the common area, where specified.		✓	✓
(c) The applicant must install the systems and fixtures specified in the "Central energy systems" column of the table below. In each case, the system or fixture must be of the type, and meet the specifications, listed for it in the table.	✓	✓	✓

Notes

1. In these commitments, "applicant" means the person carrying out the development.
2. The applicant must identify each dwelling, building and common area listed in this certificate, on the plans accompanying any development application, and on the plans and specifications accompanying the application for a construction certificate / complying development certificate, for the proposed development, using the same identifying letter or reference as is given to that dwelling, building or common area in this certificate.
3. This note applies if the proposed development involves the erection of a building for both residential and non-residential purposes (or the change of use of a building for both residential and non-residential purposes). Commitments in this certificate which are specified to apply to a "common area" of a building or the development, apply only to that part of the building or development to be used for residential purposes.
4. If this certificate lists a central system as a commitment for a dwelling or building, and that system will also service any other dwelling or building within the development, then that system need only be installed once (even if it is separately listed as a commitment for that other dwelling or building).
5. If a star or other rating is specified in a commitment, this is a minimum rating.
6. All alternative water systems to be installed under these commitments (if any), must be installed in accordance with the requirements of all applicable regulatory authorities. NOTE: NSW Health does not recommend that stormwater, recycled water or private dam water be used to irrigate edible plants which are consumed raw, or that rainwater be used for human consumption in areas with potable water supply.

Legend

1. Commitments identified with a "✓" in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).
2. Commitments identified with a "✓" in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.
3. Commitments identified with a "✓" in the "Certifier check" column must be certified by a certifying authority as having been fulfilled. (Note: a certifying authority must not issue an occupation certificate (either interim or final) for a building listed in this certificate, or for any part of such a building, unless it is satisfied that each of the commitments whose fulfilment it is required to monitor in relation to the building or part, has been fulfilled).

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APPENDIX 7

ABSA Thermal Performance Certificates and ABSA Certified drawings

Assessor Certificate

Multiple Dwellings

Certificate Version 6.1. Prior versions not valid after 1 March 2006

Issued in accordance with
BASIX Thermal Comfort Simulation Method.

Assessor					
Name:	Carolyn Ferris	**Company:**	c/- GAT & Associates	**ABSA #:**	20548
Address:	Suite 15, Level 1, 469-475 Parramatta Road, Leichhardt 2040				
Phone:	9569 1100	**Fax**	9569 1103	**Email:**	gat@gatassoc.com.au
Declaration of interest:	None				
Client					
Name:		**Company**	Cundall Johnston & Partners Pty Ltd		
Address:					
Phone:		**Fax**		**Email:**	
Project					
Address:	60 Charlotte Street CLEMTON PARK NSW 2206				
Applicant:				**LGA:**	
Assessment					
Date:	21-Dec-10	**File ref:**	BAS 733	**Software:**	NatHERS **Version:** 2.32
Documentation					

All details, upon which this assessment has been based, are included in the project documentation that has been stamped and signed by the Assessor issuing this certificate, as identified below:

Affix assessor stamp

ABSA
Assr # 20548 Cert # 46537287
Sign
Date 21-10-10

Thermal Performance Spec:
Attached, Affixed to drawings Page#: 1

Drawings: (Title, Ref.#, Revision, Issue date, etc) 07033

Building Specifications: (Title, Ref.#, Revision, Issue date, etc)

ABSA Assessor Certificate Assessor # 20548 Certificate # 46537287 Issued: 21-Dec-10

Thermal performance specifications

Unit number(s)	Certificate number	Floor area (M^2)		Predict. loads ($MJ/M^2/y$)		Concessions	Qualify for ventilation bonus
		Cond.	Uncond.	Heat	Cool (Sens & Lat)		
G.01	46537287	51.2	0	64.5	14.9		
G.02	56308600	56.6	0	108.6	12.7		
G.03	30125939	69.9	0	58.5	14.2		
G.04	33703791	70.1	0	54.4	18.6		
G.05	38297980	71.3	0	36.9	19.8		
G.06	61795006	56.7	0	118.1	49.7		
G.07	37218281	55.4	0	112.0	9.9		
G.08	33815289	72.8	0	100.4	8.6		
G.09	97824863	55.4	0	106.5	11.5		
G.10	26136687	73.9	0	71.0	3.3		
G.11	65381166	57.0	0	37.4	12.4		
G.12	55980547	57.0	0	38.2	12.3		
G.13	22331706	73.5	0	46.2	5.4		
1.01	98165320	52.1	0	44.0	19.8		
1.02, 2.02	74465968	77.6	0	59.6	3.9		
103	23280336	54.6	0	111.9	17.8		
1.04, 2.04	94886733	71.1	0	90.7	9.3		
1.05, 2.05	16815257	54.6	0	75.7	11.9		
1.06, 2.06	66774333	63.8	5.4	122.3	27.4		
1.07, 2.07	34396369	75.5	0	49.4	28.9		
1.08, 2.08, 1.19, 2.19	81507174	51.9	0	25.3	22.0		

Unit number(s)	Certificate number	Floor area (M^2)		Predict. loads ($MJ/M^2/y$)		Concessions	Qualify for ventilation bonus
		Cond.	Uncond.	Heat	Cool (Sens & Lat)		
1.09, 2.09, 1.20, 2.20	56519065	50.3	0	21.0	26.8		
1.10, 2.10	34814595	50.3	0	21.0	26.8		
1.11, 2.11	52636034	74.8	4.2	45.7	17.2		
1.12, 2.12	33581106	73.5	0	39.5	18.0		
1.13, 2.13	78115744	71.3	0	25.6	23.5		
1.14, 2.14	51613619	82.3	0	82.5	20.7		
1.15, 2.15	86163588	55.4	0	80.9	11.4		
1.16, 2.16	52056261	72.8	0	84.1	10.1		
1.17, 2.17	65237444	55.4	0	90.0	13.1		
1.18, 2.18	99154341	77.6	0	57.9	3.7		
1.21, 2.21	57967733	73.5	0	32.0	6.6		
2.01	26158046	51.9	0	24.7	55.3		
2.03	28986956	54.6	0	97.3	17.5		
3.01	61775382	51.9	0	59.8	43.7		
3.02	71833266	77.6	0	85.8	15.5		
3.03	68011853	54.6	0	134.9	31.4		
3.04	15153278	71.1	0	129.7	20.2		
3.05	32181466	54.6	0	128.6	30.9		
3.06	38844622	63.8	5.4	131.4	46.9		
3.07	67286628	75.5	0	89.9	62.1		
3.08	63876329	51.9	0	59.5	43.8		
3.09	75766507	50.3	0	60.3	48.6		
3.10	95367765	50.3	0	60.3	48.6		
3.11	50518986	74.8	4.2	72.7	39.2		
3.12	61671578	73.5	0	62.0	45.1		
3.13	41576524	71.3	0	58.1	39.0		
3.14	81843673	82.3	0	102.5	45.0		
3.15	86222488	55.4	0	125.3	26.1		
3.16	98176932	72.8	0	123.1	20.1		
3.17	83523998	55.4	0	135.3	28.4		
3.18	70138266	77.6	0	84.3	15.3		
3.19	37551575	51.9	0	56.3	41.3		
3.20	48570738	50.3	0	60.3	48.6		
3.21	86876612	73.5	0	61.0	21.8		

Assessor #	20548	Certificate #	46537287	Issued:	21-Dec-10

Thermal Performance Specifications

These are the Specifications upon which the Certified Assessment is based. If details included in these Specifications vary from other drawings or written specifications, these Specifications shall take precedence. If only one specification option is detailed for a building element, that specification must apply to all instances of that element for the project. If alternate specifications are detailed for a building element, the location and extent of alternate specifications must be detailed below and / or clearly indicated on referenced documents

Windows	Product ID	Glass	Frame	U value	SHGC	Area M^2	Detail
Generic		clear	Aluminium	5.36	0.69		To bedrooms of Units 3.03, 3.06,
Generic low-e		Clear	Aluminium	5.76	0.48		To bedroom windows of Unit 3.07
Generic		Single clear	Aluminium	7.32	0.77		All other glazing

Skylights	Product ID	Glass	Frame	U value	SHGC	Area M^2	Detail

Window and skylight U and SHGC values, if specified, are according to NFRC. Alternate products or specifications may be used if their U value is lower, and the SHGC value is less than 10% higher or lower, than the U and SHGC values of the product specified above.

External walls	Construction	Insulation	Colour – solar abs.	Detail
Cavity brick		R1.5	Medium – SA: 0.475 – 0.70	As per plans

Internal walls	Construction	Insulation	Detail
Brick plastered		None	As per plans

Floors	Construction	Insulation	Covering	Detail
Concrete		R1.5	Default	To units above car park
Concrete		Non	Default	To all other floors

Ceilings	Construction	Insulation	Detail
Concrete		None	As per plans
Plasterboard		R3.5	To all ceilings below roof and/or terrace

Roof	Construction	Insulation	Colour – solar abs.	Detail
Metal deck		R1.5	Medium – SA: 0.475 – 0.70	As per plans

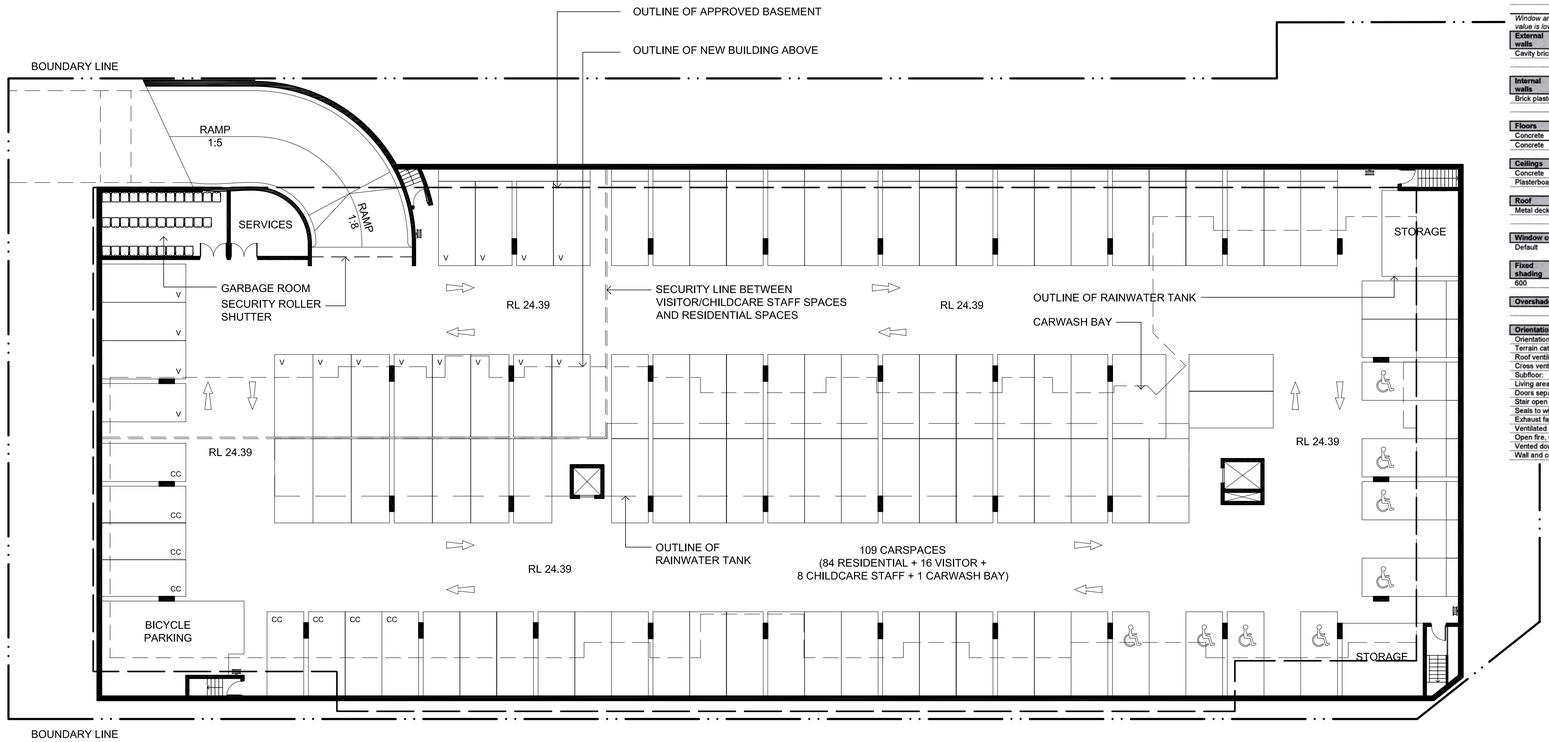
Window cover	Internal (curtains)	External (awnings, shutters, etc)
Default		None

Fixed shading		Eaves (width - inc. gutters, height above windows)	Verandahs, Pergolas (type, description)
600	0	Eaves	As per plans

Overshadowing	Overshadowing structures	Overshadowing trees

Orientation, Exposure, Ventilation and Infiltration	
Orientation of nominal north:	328°
Terrain category:	Suburban
Roof ventilation:	Unventilated
Cross ventilation:	Standard
Subfloor:	Enclosed
Living area open to entry:	Yes
Doors separate living areas:	Yes
Stair open to heated areas:	No
Seals to windows and doors:	Yes
Exhaust fans without dampers:	No
Ventilated skylights:	No
Open fire, unflued gas heat:	No
Vented downlights:	No
Wall and ceiling vents:	No

ABSA Assessor stamp



IMPORTANT NOTES:

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Assessor # 20548 Certificate # 46537287 Issued: 21-Dec-10

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Generic low-e		Clear	Aluminium	5.76	0.48		To bedroom windows of Unit 3.07
Generic		Single clear	Aluminium	7.32	0.77		All other glazing

Skylights	Product ID	Glass	Frame	U value	SHGC	Area M²	Detail

Window and skylight U and SHGC values, if specified, are according to NFRC. Alternate products or specifications may be used if their U value is lower, and the SHGC value is less than 10% higher or lower, than the U and SHGC values of the product specified above.

External walls	Construction	Insulation	Colour – solar abs.	Detail
Cavity brick		R1.5	Medium – SA: 0.475 – 0.70	As per plans

Internal walls	Construction	Insulation	Detail
Brick plastered		None	As per plans

Floors	Construction	Insulation	Covering	Detail
Concrete		R1.5	Default	To units above car park
Concrete		Non	Default	To all other floors

Ceilings	Construction	Insulation	Detail
Concrete		None	As per plans
Plasterboard		R3.5	To all ceilings below roof and/or terrace

Roof	Construction	Insulation	Colour – solar abs.	Detail
Metal deck		R1.5	Medium – SA: 0.475 – 0.70	As per plans

Window cover	Internal (curtains)	External (awnings, shutters, etc)
Default		None

Fixed shading	Eaves (width - inc. gutters, height above windows)		Verandahs, Pergolas (type, description)
600	0	Eaves	As per plans

Overshadowing	Overshadowing structures	Overshadowing trees

Orientation, Exposure, Ventilation and Infiltration	
Orientation of nominal north:	328°
Terrain category:	Suburban
Roof ventilation:	Unventilated
Cross ventilation:	Standard
Subfloor:	Enclosed
Living area open to entry:	Yes
Doors separate living areas:	Yes
Stair open to heated areas:	No
Seals to windows and doors:	Yes
Exhaust fans without dampers:	No
Ventilated skylights:	No
Open fire, unflued gas heat:	No
Vented downlights:	No
Wall and ceiling vents:	No

ABSA Assessor stamp

ABSA
Assr # 20548 Cert # 46537287
Sign
Date 21-12-10

ISSUE	DATE	DESCRIPTION	BY
P1	26.11.10	PRELIMINARY ISSUE	PS

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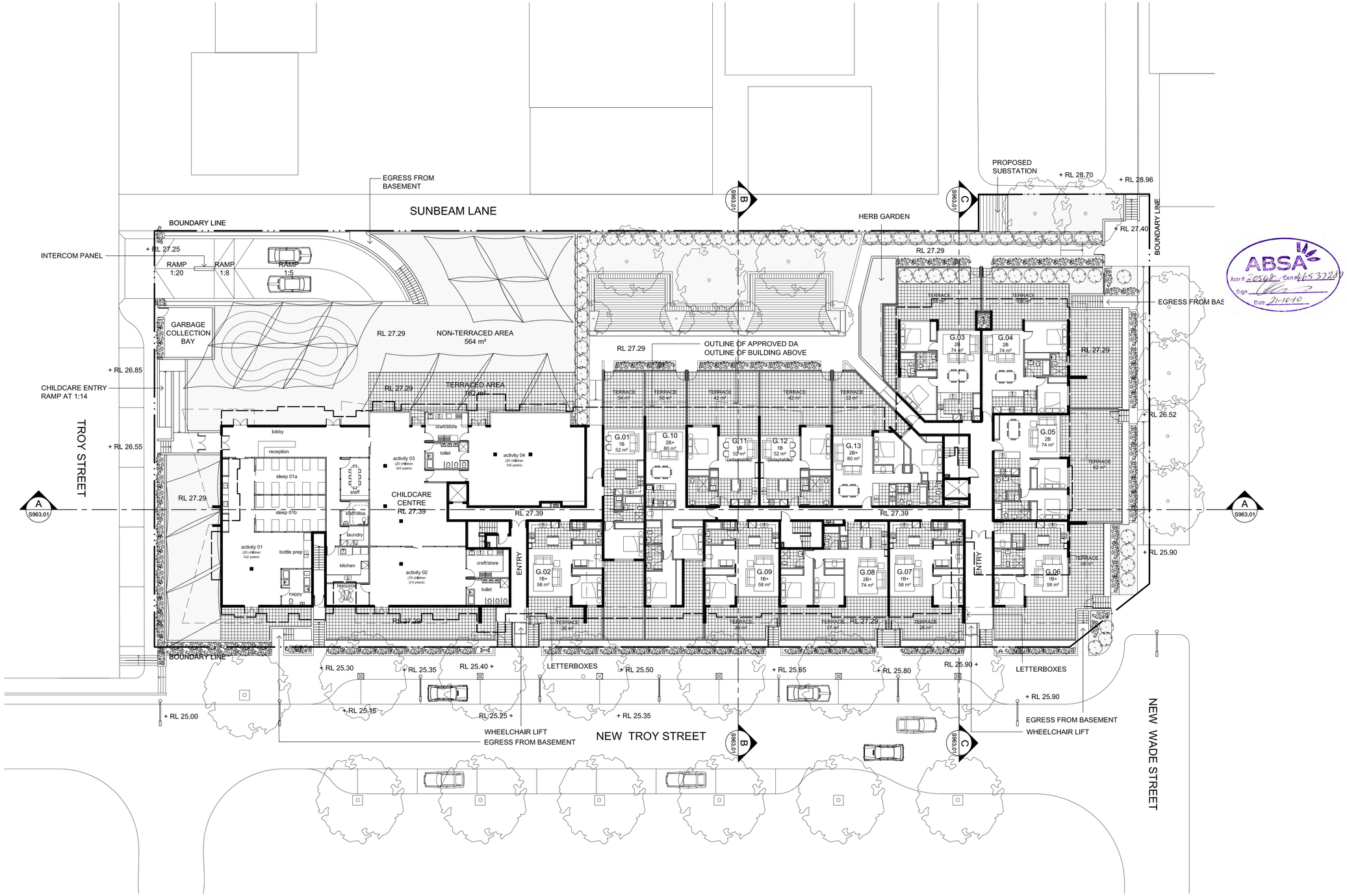
PARKVIEW GROUP

PROJECT
CLEMTON PARK VILLAGE
60 CHARLOTTE ST,
CLEMTON PARK

DRAWING TITLE
LEVEL BASEMENT
FLOOR PLAN

SCALE	DATE	DRAWN	CHECKED
1:200@A1	NOV 2010	SM	PS

JOB No.	DRAWING No.	ISSUE
07033	S96 2.01	P1



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ISSUE	DATE	DESCRIPTION	BY
P2	07.12.10	PRELIMINARY ISSUE	PS
P1	26.11.10	PRELIMINARY ISSUE	PS

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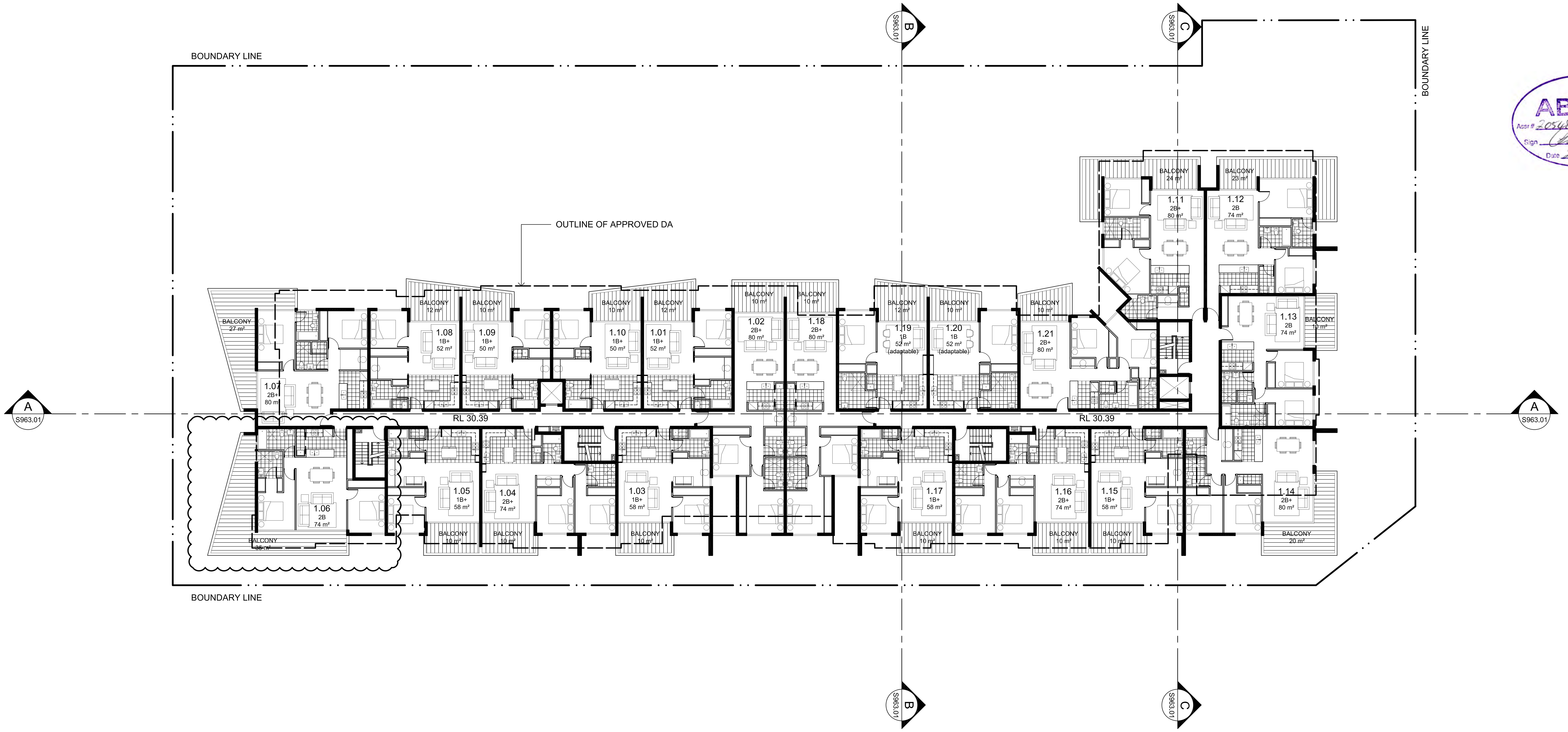
PROJECT
CLEMTON PARK VILLAGE
60 CHARLOTTE ST,
CLEMTON PARK

DRAWING TITLE
LEVEL GROUND FLOOR PLAN

SCALE	DATE	DRAWN	CHECKED
1:200@A1	NOV 2010	SM	PS

JOB No.	DRAWING No.	ISSUE
07033	S96 2.02	P2



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P3	13.12.10	PRELIMINARY ISSUE	PS
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P1	26.11.10	PRELIMINARY ISSUE	PS

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PROJECT
CLEMTON PARK VILLAGE
60 CHARLOTTE ST,
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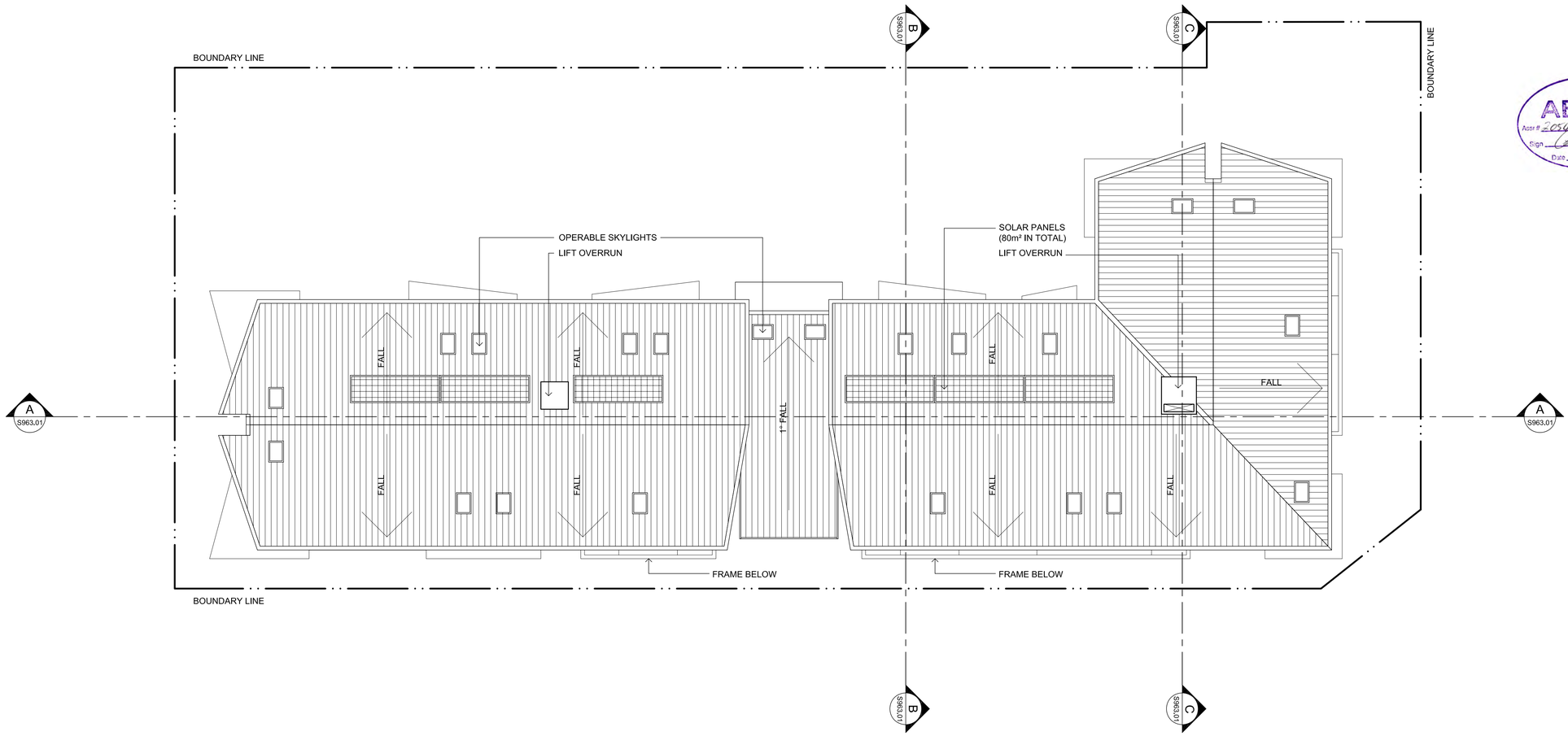
DRAWING TITLE
LEVEL 01
FLOOR PLAN

SCALE	DATE	DRAWN	CHECKED
1:200@A1	NOV 2010	SM	PS

JOB No.	DRAWING No.	ISSUE
07033	S96 2.03	P3



ABSA
Accr # 2054 Cert # 6537237
Sign
Date 21-10-10

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ISSUE	DATE	DESCRIPTION	BY
P2	07.12.10	PRELIMINARY ISSUE	PS
P1	26.11.10	PRELIMINARY ISSUE	PS

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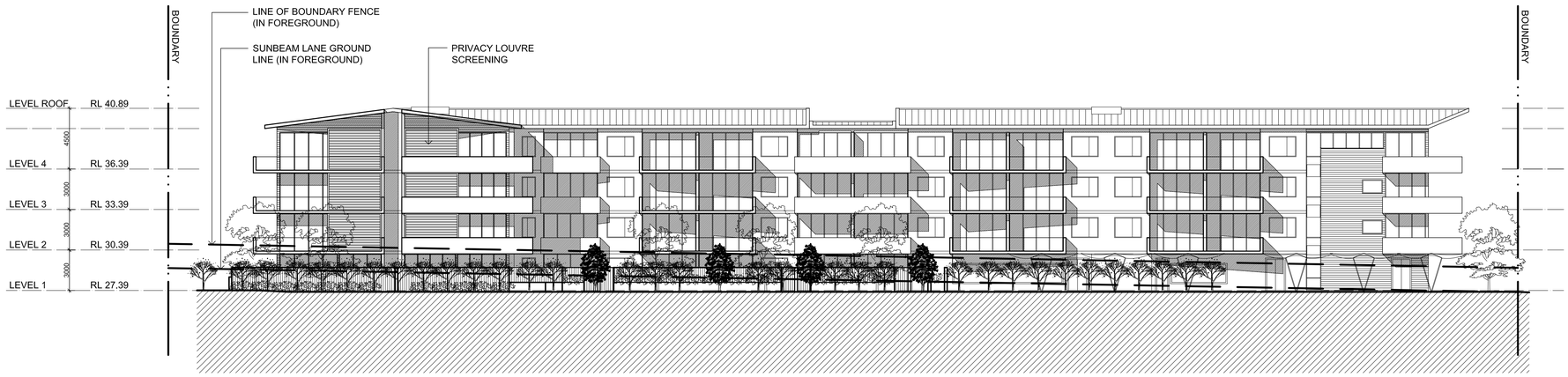
PROJECT
CLEMTON PARK VILLAGE
60 CHARLOTTE ST,
CLEMTON PARK

DRAWING TITLE
LEVEL ROOF
FLOOR PLAN

SCALE	DATE	DRAWN	CHECKED
1:200@A1	NOV 2010	SM	PS

JOB No.	DRAWING No.	ISSUE
07033	S96 2.06	P2

SOUTH ELEVATION



NORTH ELEVATION

EAST ELEVATION

WEST ELEVATION

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ISSUE	DATE	DESCRIPTION	BY
P2	08.12.10	PRELIMINARY ISSUE	PS
P1	26.11.10	PRELIMINARY ISSUE	PS

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PROJECT
CLEMTON PARK VILLAGE
60 CHARLOTTE ST,
CLEMTON PARK

DRAWING TITLE
ELEVATIONS

SCALE	DATE	DRAWN	CHECKED
1:200@A1	NOV 2010	SM	PS

JOB No.	DRAWING No.	ISSUE
07033	S96 4.01	P2

WorleyParsons

resources & energy

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Planning Workshop Australia

EcoNomics

APPENDIX 8

Traffic and Parking Report

Reference: 08 088

traffix
traffic & transport planners

suite 3.08
level 3 46a macleay street
potts point nsw 2011
po box 1061
potts point nsw 1335
t: +61 2 8324 8700
f: +61 2 9380 4481
w: www.traffix.com.au
director graham pindar
acn: 065132961
abn: 66065132961

17 February 2011

Parkview Group
Pier 8/9
23 Hickson Road
Walsh Bay NSW 2000

Attention: Matt Crews – Property Development Manager

Re: 75W Application - Lot 3 of the former Sunbeam Site; Charlotte Street, Clemton Park

Dear Matt,

We refer to the subject site and in particular your correspondence dated 22 November 2010 concerning the amended Project Application to be submitted to the Department of Planning. We have reviewed all relevant information provided to us and note that the approved Project Application for Lot 3 included the provision of 58 residential apartments, a child care centre with the capacity for 75 children and a single basement car park accessed via Troy Street with the capacity for 93 parking spaces.

The amended project application to be submitted to the Department of Planning proposes an increase in the total number of apartments to 76 and the provision of an additional 17 parking spaces. No change to the approved child care centre is proposed. The impacts of the amended application have been assessed below.

Parking

Parking for the proposed development has been assessed against the requirements of Canterbury Councils DCP 20. The change in the parking requirements and provision are summarised below;

Type	Council Parking Rates	Number Approved	Number Now Proposed	Parking Approved	Parking Proposed	Difference
Residential						
1 bedroom	1.0 per unit	11 units	37 units	11	37	+26
2 bedroom	1.2 per unit	39 units	39 units	47	50	+3
3 bedroom	2.0 per unit	8 units	0 units	16	0	-16
Visitor	1.0 per 5 units	58 units	76 units	11	15	+4
Child Care	No Requirement	95 children	95 children	0	0	0
Child Care Staff	1 per 2 staff	15 staff	15 staff	8	8	0
TOTAL				**93**	**110**	**+17**

The above parking allocation exceeds the requirements of Council's DCP by 2% which is minimal but supportable in the circumstances. The additional 3 spaces for the two bedroom units have been provided to allow flexibility in the design should additional disabled parking be required, so that full compliance is expected.

In addition to the staff parking proposed for the child care centre, 5 spaces are to be provided within Troy Street as previously approved and these will be for use by parents and carers associated with the development.

It should be noted that the development proposes that the required wash bay be provided as one of the visitor bays. Although Council's DCP requires that wash bays are provided separately, this is not considered necessary as with 15 visitor spaces, the shared use of a double space would not cause any inconvenience to visitors whose peak demands occurs at other times. This has been discussed with Council's Traffic Engineers and agreed in principle.

Accordingly the parking provision proposed is considered satisfactory and will accommodate all parking requirements..

- Traffic Generation

The generation of the site for the approved Project Application was assessed as 28 veh/hr during the AM peak with 26 veh/hr during the PM peak period as outlined in the Traffic Impact Assessment report undertaken by TRAFFIX dated October 2008. Under the revised application the development includes the provision of an additional 18 units which will increase the previously approved generation of the site by 7 vehicles per hour in both the AM and PM peak periods.

This increase is considered moderate and relates to one additional movement every 8-10 minutes. This will have no impact on the operation of key intersections in the vicinity of the site which will operate as outlined in our Project Application report dated October 2008. In fact, this level of generation is within the limits of daily fluctuations of traffic activity in the area and as such models are not sensitive to such small variations.

- Internal design

The internal design of the revised development has adopted the design principles previously approved. In particular all ramp widths and gradients comply with the requirements of AS2890.1 as do all visitor and resident car parks. A swept path analysis has been undertaken and is included in **attachment 1** and demonstrates compliance with the standard.

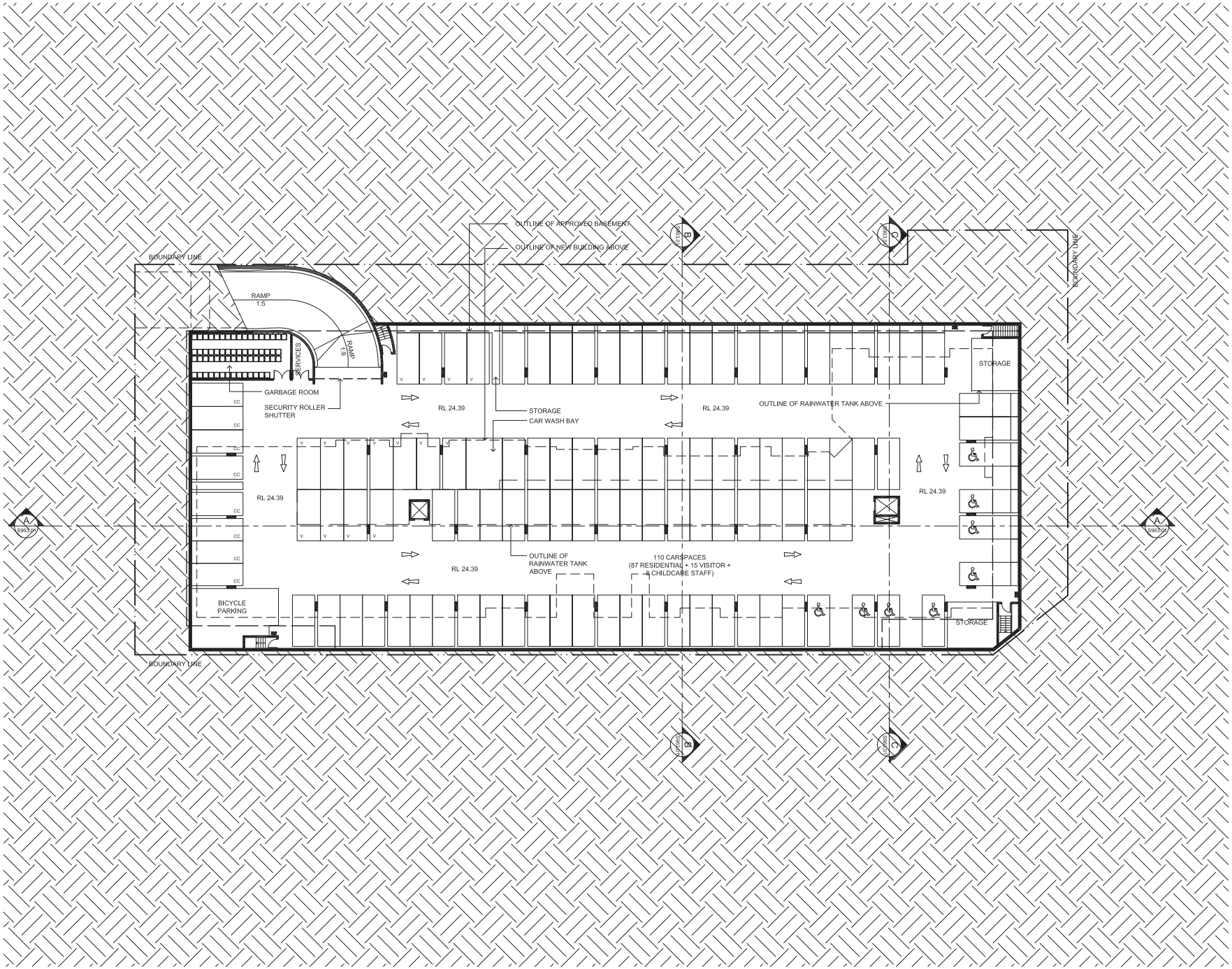
In summary, the revised application is considered supportable on traffic planning grounds. Please contact the undersigned should you have any queries or require any further information regarding the above.

Yours faithfully,

traffix

Andrew Johnson
Associate Engineer

attachment 1



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PRELIMINARY

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ISSUE	DATE	DESCRIPTION	BY
A	20.01.11	ISSUE FOR SECTION 96	PS
P3	21.12.10	PRELIMINARY ISSUE	PS
P2	07.12.10	PRELIMINARY ISSUE	PS
P1	26.11.10	PRELIMINARY ISSUE	PS

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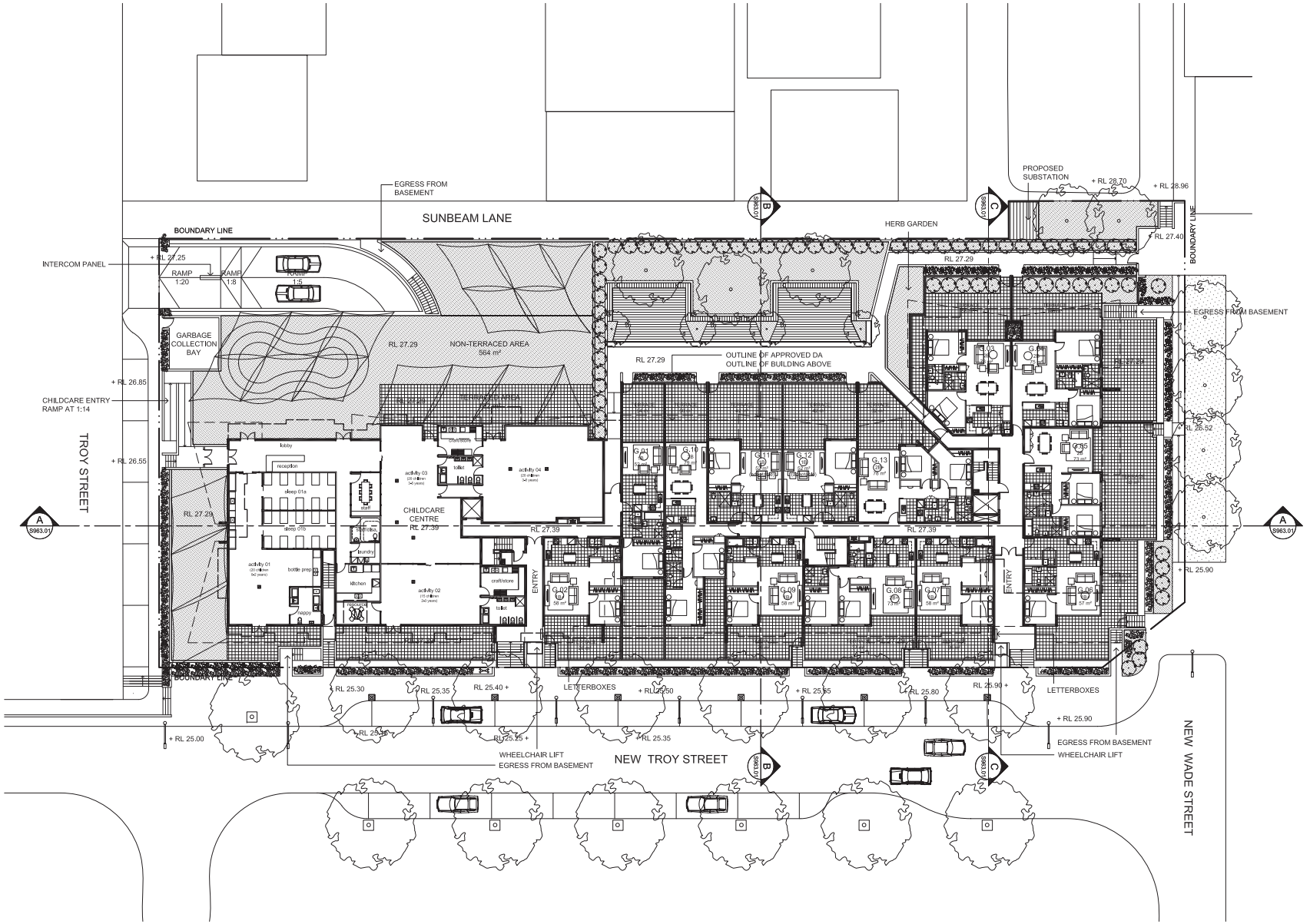
PROJECT
CLEMTON PARK VILLAGE
60 CHARLOTTE ST,
CLEMTON PARK

DRAWING TITLE
LEVEL BASEMENT
FLOOR PLAN

SCALE	DATE	DRAWN	CHECKED
1:200@A1	NOV 2010	SM	PS

JOB No.	DRAWING No.	ISSUE
07033	S96 2.01	A



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A	20.01.11	ISSUE FOR SECTION 96	PS
P3	13.01.11	PRELIMINARY ISSUE	PS
P2	07.12.10	PRELIMINARY ISSUE	PS
P1	26.11.10	PRELIMINARY ISSUE	PS

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CLIENT
PARKVIEW GROUP

PROJECT
CLEMTON PARK VILLAGE
60 CHARLOTTE ST,
CLEMTON PARK

DRAWING TITLE
LEVEL GROUND
FLOOR PLAN

SCALE	DATE	DRAWN	CHECKED
1:200@A1	NOV 2010	SM	PS

JOB No.	DRAWING No.	ISSUE
07033	S96 2.02	A

WorleyParsons

resources & energy

Incorporating
Planning Workshop Australia

EcoNomics

APPENDIX 9

Conditions of the Project Application which require modification

Table 1: Project Application conditions modified by the amended proposal

Condition	To be Modified	Condition	To be Modified	Condition	To be Modified
A1	No	**B36**	No	**E1**	No
A2	Yes	**B37**	No	**E2**	No
A3	No	**C1**	No	**E3**	No
A4	No	**C2**	No	**E4**	No
A5	No	**C3**	No	**E5**	No
B1	No	**C4**	No	**E6**	No
B2	No	**C5**	No	**E7**	No
B3	No	**C6**	No	**E8**	No
B4	No	**C7**	No	**E9**	No
B5	No	**C8**	No	**E10**	No
B6	No	**C9**	No	**E11**	No
B7	No	**C10**	No	**E12**	No
B8	No	**D1**	No	**E13**	No
B9	No	**D2**	No	**E14**	No
B10	No	**D3**	No	**E15**	Yes
B11	No	**D4**	No	**F1**	No
B12	No	**D5**	No	**F2**	No
B13	No	**D6**	No	**F3**	No
B14	No	**D7**	No	**F4**	No
B15	No	**D8**	No	**F5**	No
B16	No	**D9**	No	**F6**	No
B17	No	**D10**	No	**F7**	No
B18	No	**D11**	No	**F8**	No
B19	Yes	**D12**	No	**F9**	No
B20	Yes	**D13**	No	**F10**	No
B21	No	**D14**	No	**F11**	No

B22	No	**D15**	No	**F12**	No
B23	Yes	**D16**	No	**F13**	No
B24	No	**D17**	No	**F14**	No
B25	No	**D18**	No	**F15**	No
B26	No	**D19**	No	**F16**	No
B27	No	**D20**	No	**F17**	No
B28	No	**D21**	No	**G1**	No
B29	No	**D22**	No	**G2**	No
B30	No	**D23**	No	**G3**	No
B31	No	**D24**	No	**G4**	No
B32	No	**D25**	No	**G5**	No
B33	No	**D26**	No	**G6**	No
B34	Yes	**D27**	No	**G7**	No
B35	No	**D28**	No	**G8**	No