

PROPOSED UNIT DEVELOPMENT

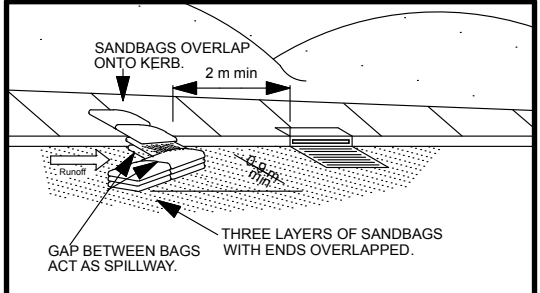
for

THINK PROPERTY DEVELOPMENTS PTY LTD

at

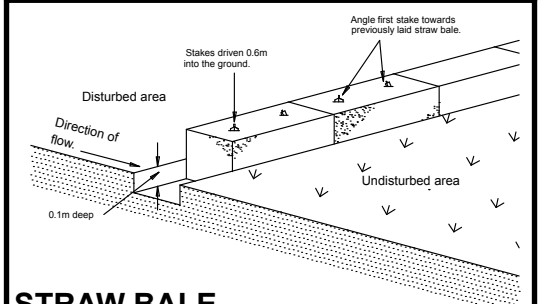
**LOT 133 IN DP 1217374, No. 10 SKARDON TERRACE ,
ALBION PARK**

CONSTRUCTION CERTIFICATE
ISSUE 'C'-20/11/17



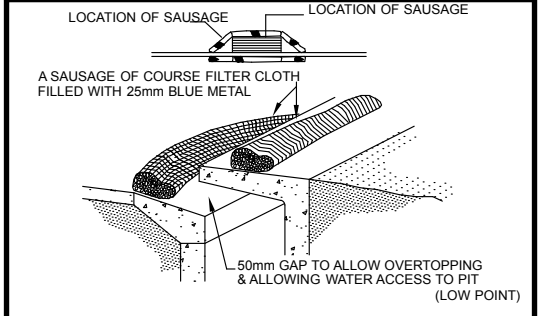
SANDBAG KERB INLET
SEDIMENT TRAP

SCALE: NTS



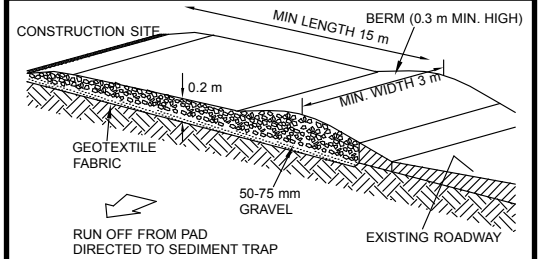
STRAW BALE
SEDIMENT FILTER

SCALE: NTS



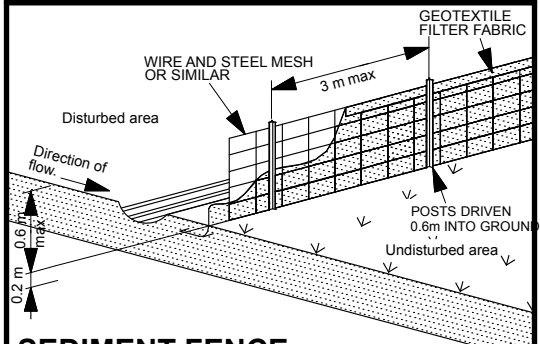
KERB INLET CONTROL

SCALE: NTS



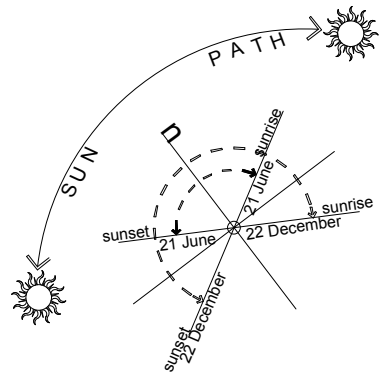
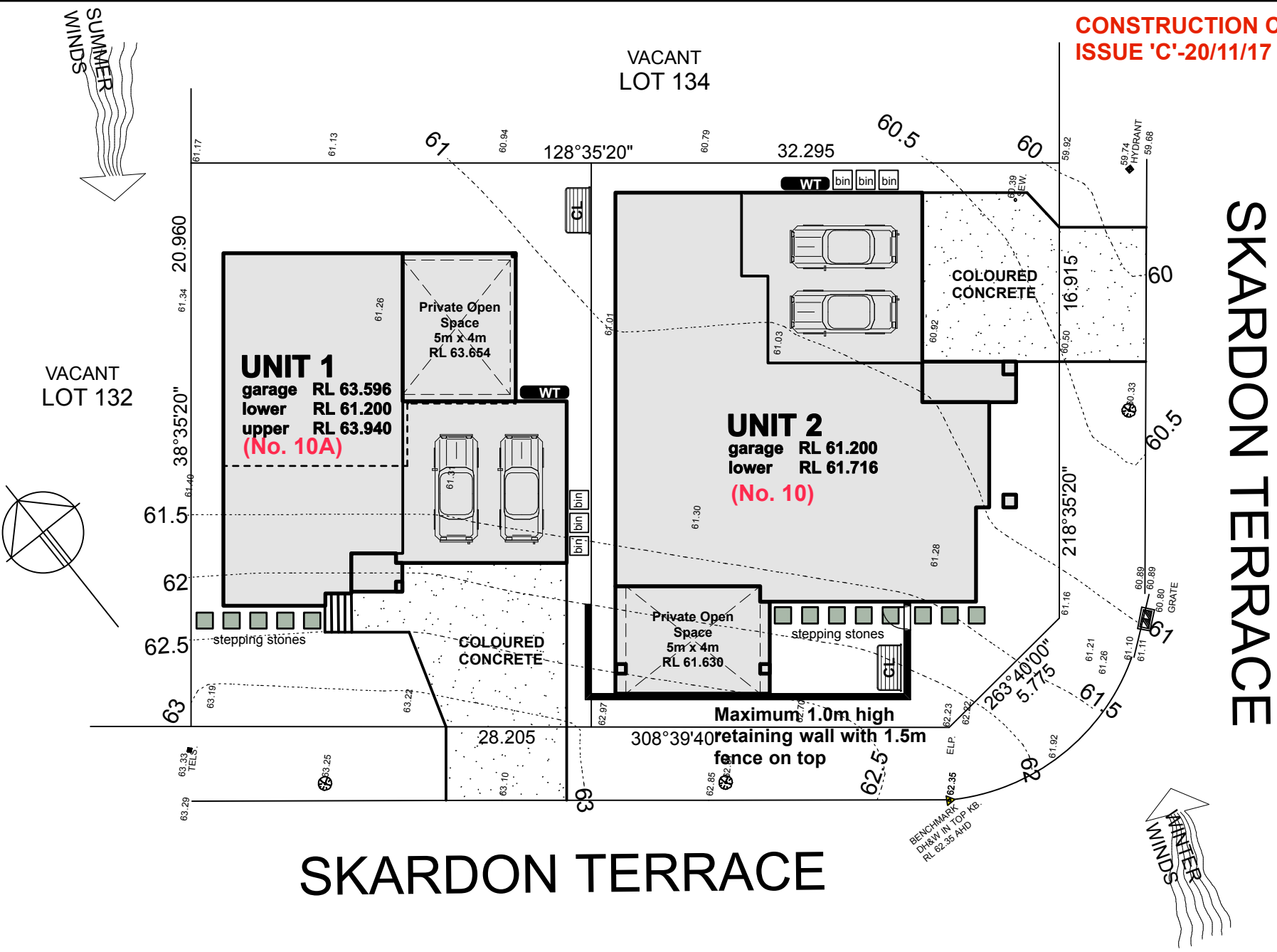
TEMPORARY
CONSTRUCTION EXIT

SCALE: NTS



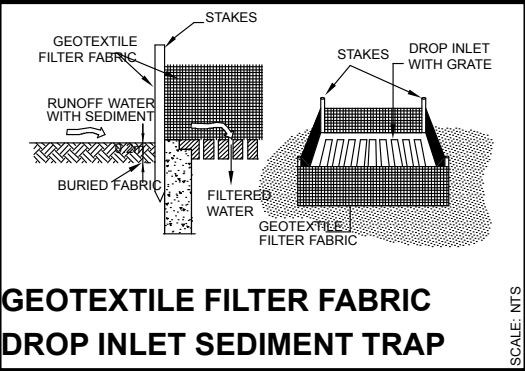
SEDIMENT FENCE

SCALE: NTS



SKARDON TERRACE

SITE PLAN
SCALE 1:200



GEOTEXTILE FILTER FABRIC
DROP INLET SEDIMENT TRAP

SCALE: NTS

ALL DIMENSIONS ARE TO BE VERIFIED ON
SITE PRIOR TO WORK COMMENCING.

NOTES:- All clothes lines to be minimum 20 linear metres per dwelling.
-Window style to owners detail
-All bathroom, ensuites, laundries & kitchen to owners setout

SITE CALCULATIONS	
SITE	669.1sq. m.
UNIT 1	
Lower Floor	65.4sq. m.
Upper Floor	74.4sq. m.
Garage	32.4sq. m.
TOTAL AREA	139.8sq. m.
UNIT 2	
Lower Floor	139.8sq. m.
Garage	33.5sq. m.
TOTAL AREA	139.8 sq. m.
TOTAL AREA	279.6 sq. m.
FSR	0.418:1

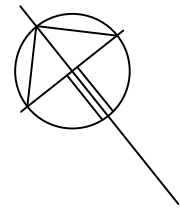
© COPYRIGHT OF PECORP DESIGN.

CLIENT:
think property
developments

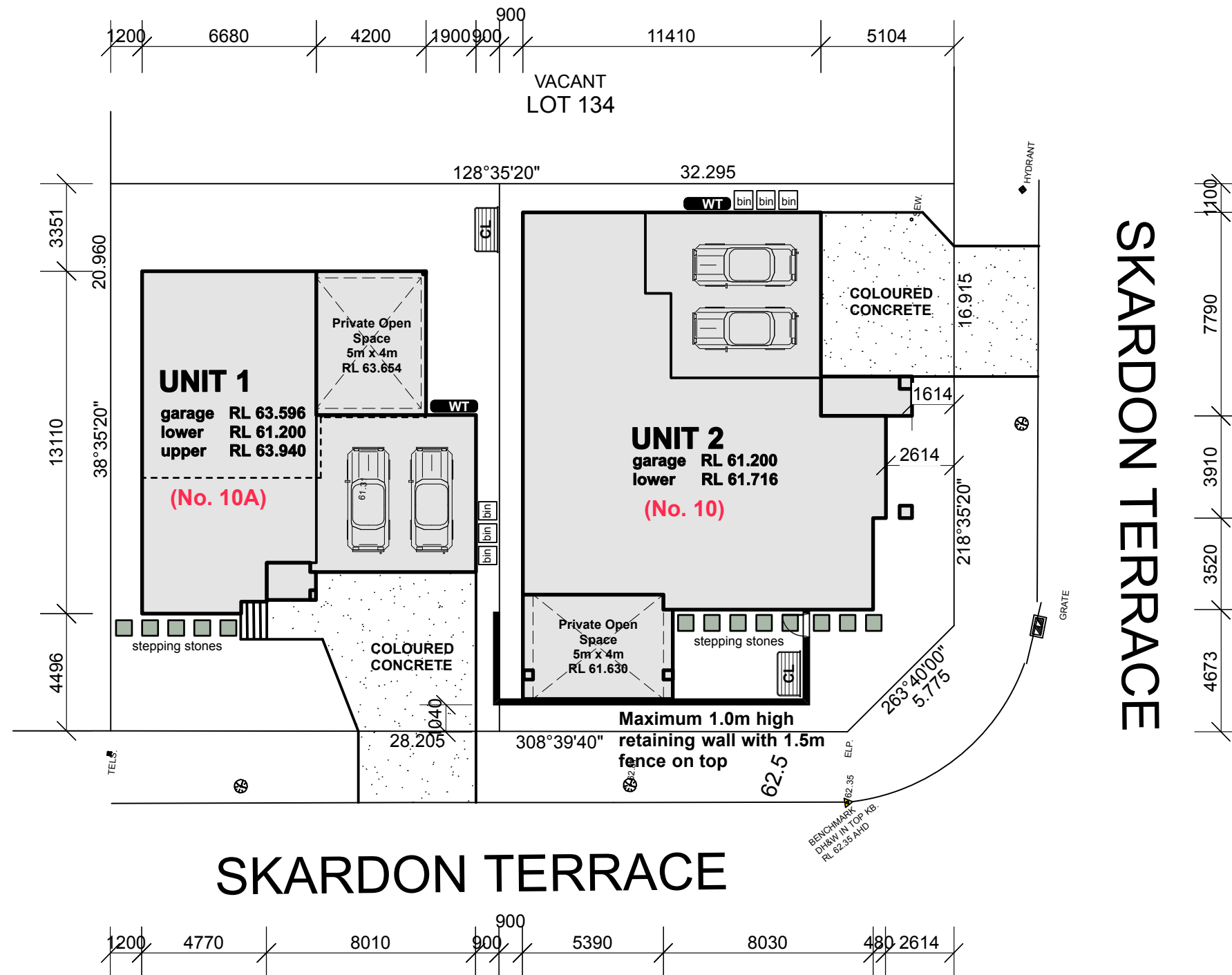
JOB ADDRESS:
LOT 133 IN DP 1217374, No. 10 SKARDON TERRACE,
ALBION PARK.

JOB NUMBER:	20170010-PSE
DATE:	20/11/2017
ISSUE:	C
SHEET 2 of 18	

PECORP DESIGN
2/238 COWPER STREET WARRAWONG, 2502
M:PO BOX 47 WARRAWONG NSW 2502
P:42751999 F:42751933 E:peter@pecorpdesign.com.au



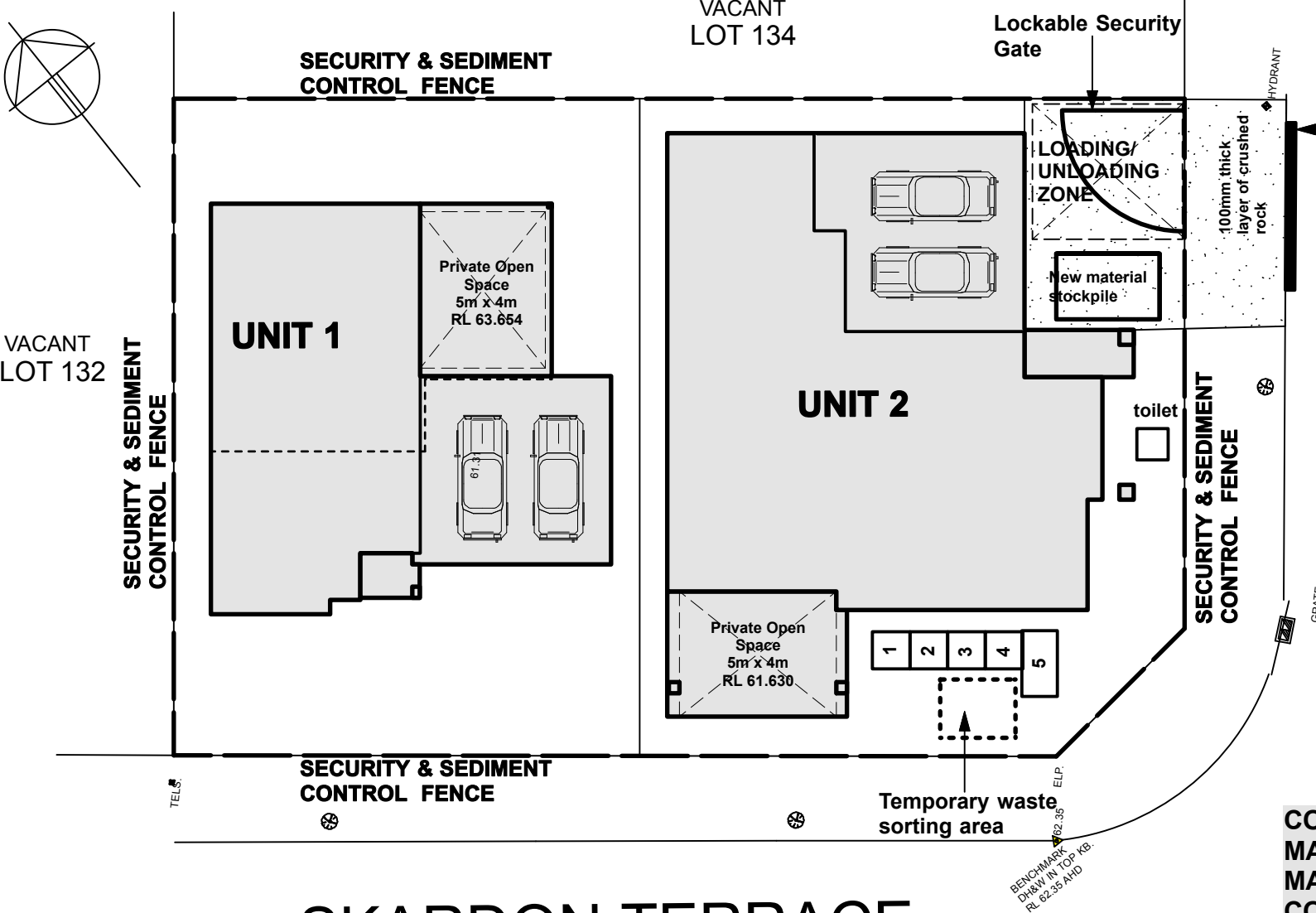
VACANT
LOT 132



SITE SETOUT PLAN

SCALE 1:200





SKARDON TERRACE

SITE MANAGEMENT/WASTE MANAGEMENT/ SOIL EROSION PLAN

SCALE 1:200

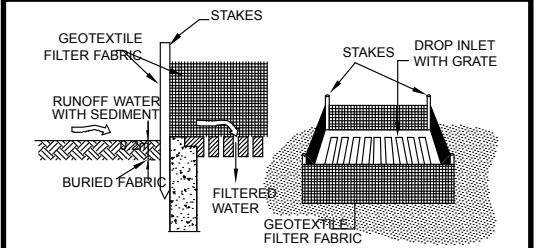
WASTE BAYS 1-4 ARE TO BE CONSTRUCTED USING SHADE CLOTH OR SEDIMENT FENCING. WHERE THE WASTE STREAM IS MADE UP OF LIGHT MATERIAL SUCH AS PAPER AND CARDBOARD, THE WASTE BAYS MUST CONSIST OF A CONTAINER FOR THE STORAGE OF THIS MATERIAL.

Trucks to be hosed off in this area prior to leaving the site to prevent soil being deposited on roadway.

SKARDON TERRACE

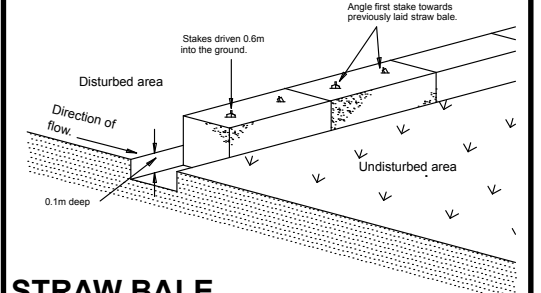
CONCRETE PUMPING, DELIVERY OF MATERIAL, LOADING AND UNLOADING OF MATERIAL TO BE DONE WITHIN THE CONFINES OF THE PROPERTY

VEHICLES TO BE HOSED DOWN TO PREVENT SOIL/EXCAVATED MATERIAL BEING DEPOSITED ON ROADWAY.



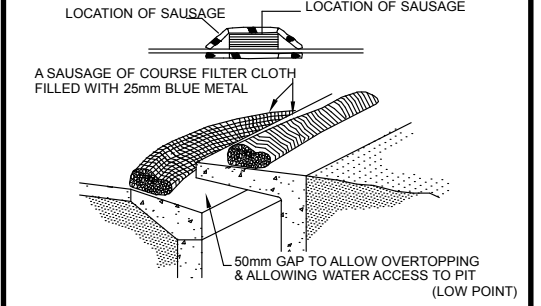
GEOTEXTILE FILTER FABRIC
DROP INLET SEDIMENT TRAP

SCALE: NTS



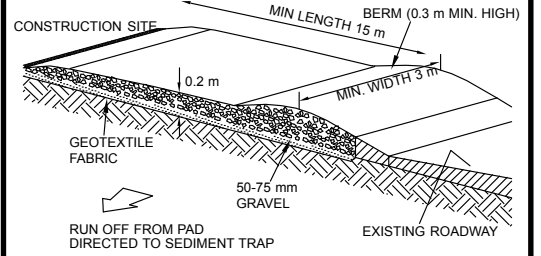
STRAW BALE
SEDIMENT FILTER

SCALE: NTS



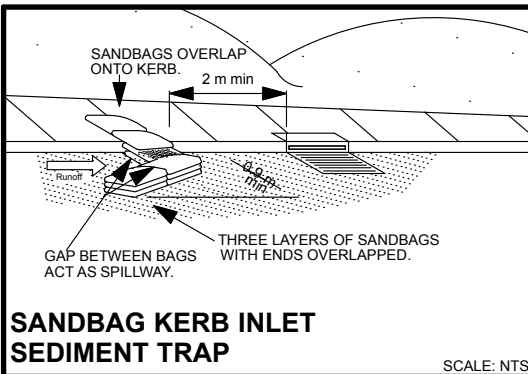
KERB INLET CONTROL

SCALE: NTS



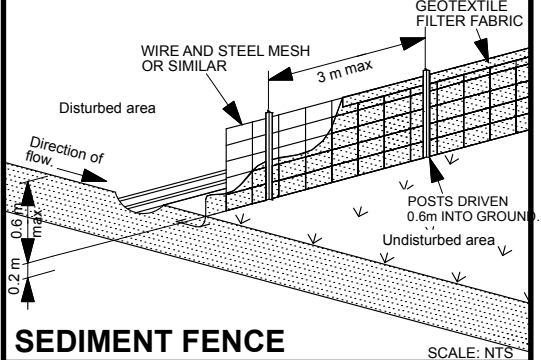
TEMPORARY
CONSTRUCTION EXIT

SCALE: NTS



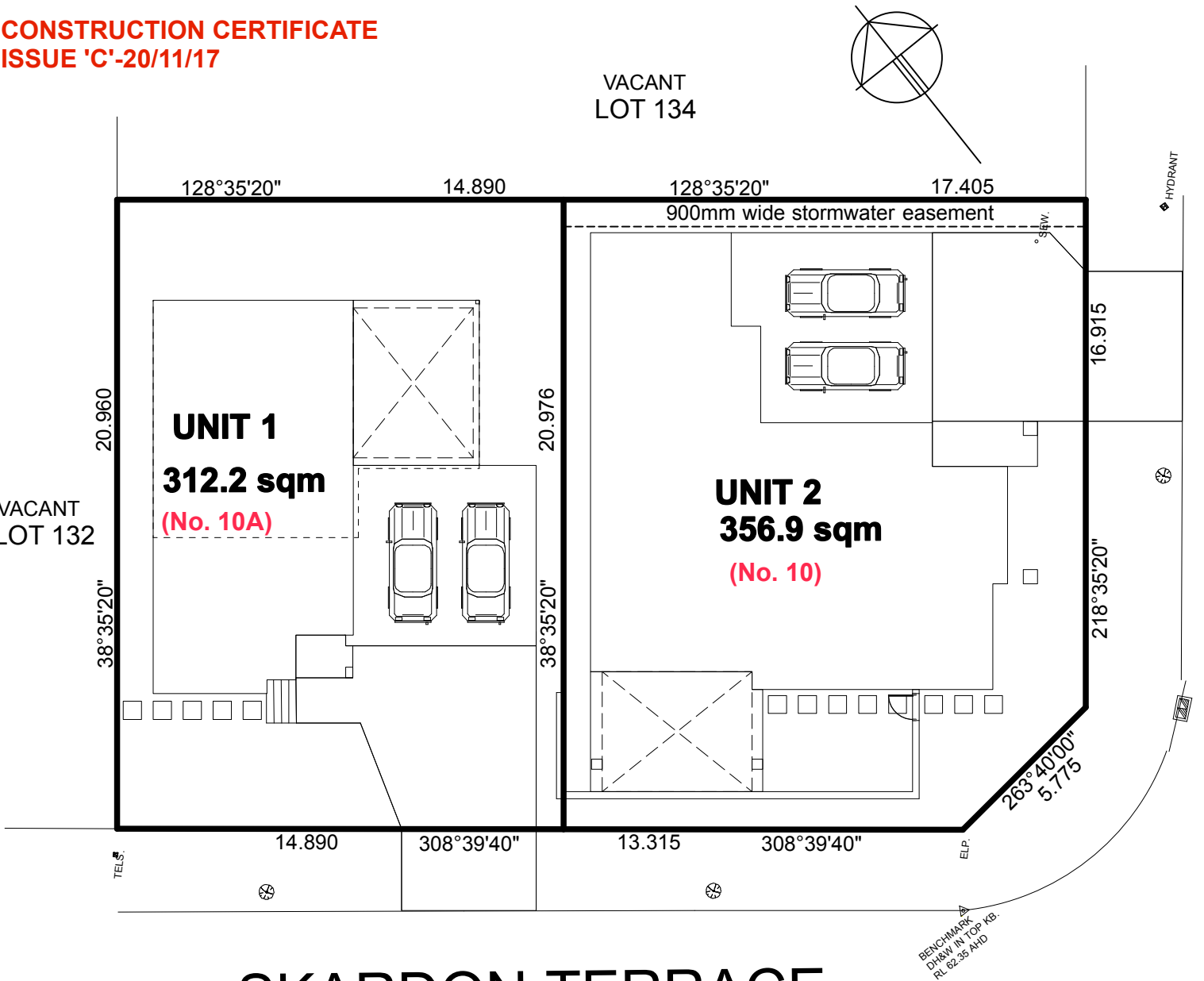
SANDBAG KERB INLET
SEDIMENT TRAP

SCALE: NTS



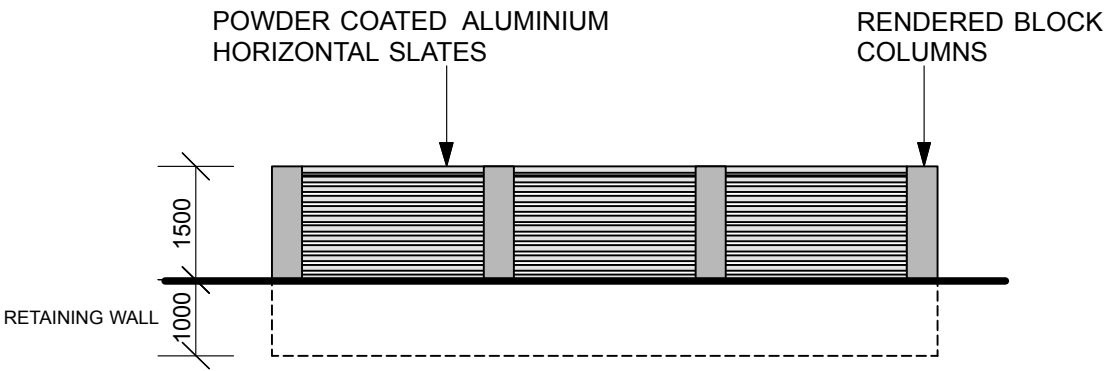
SEDIMENT FENCE

SCALE: NTS

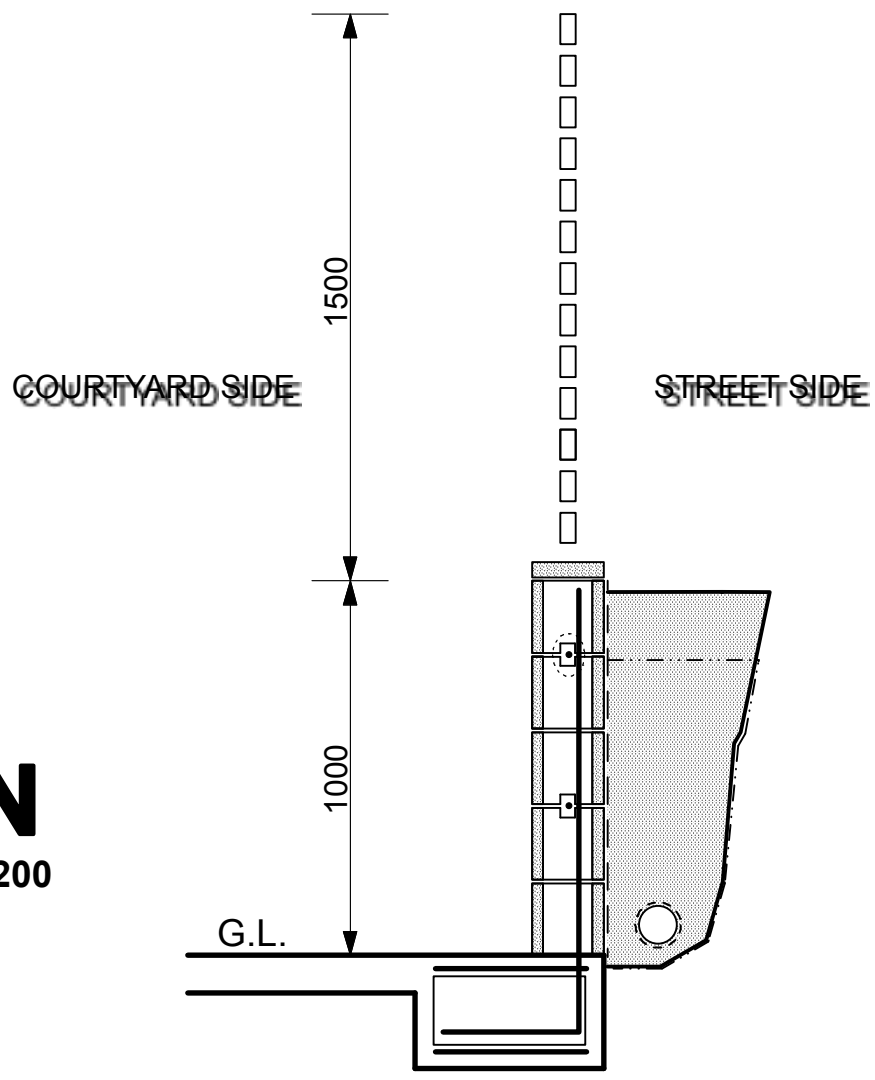


SKARDON TERRACE

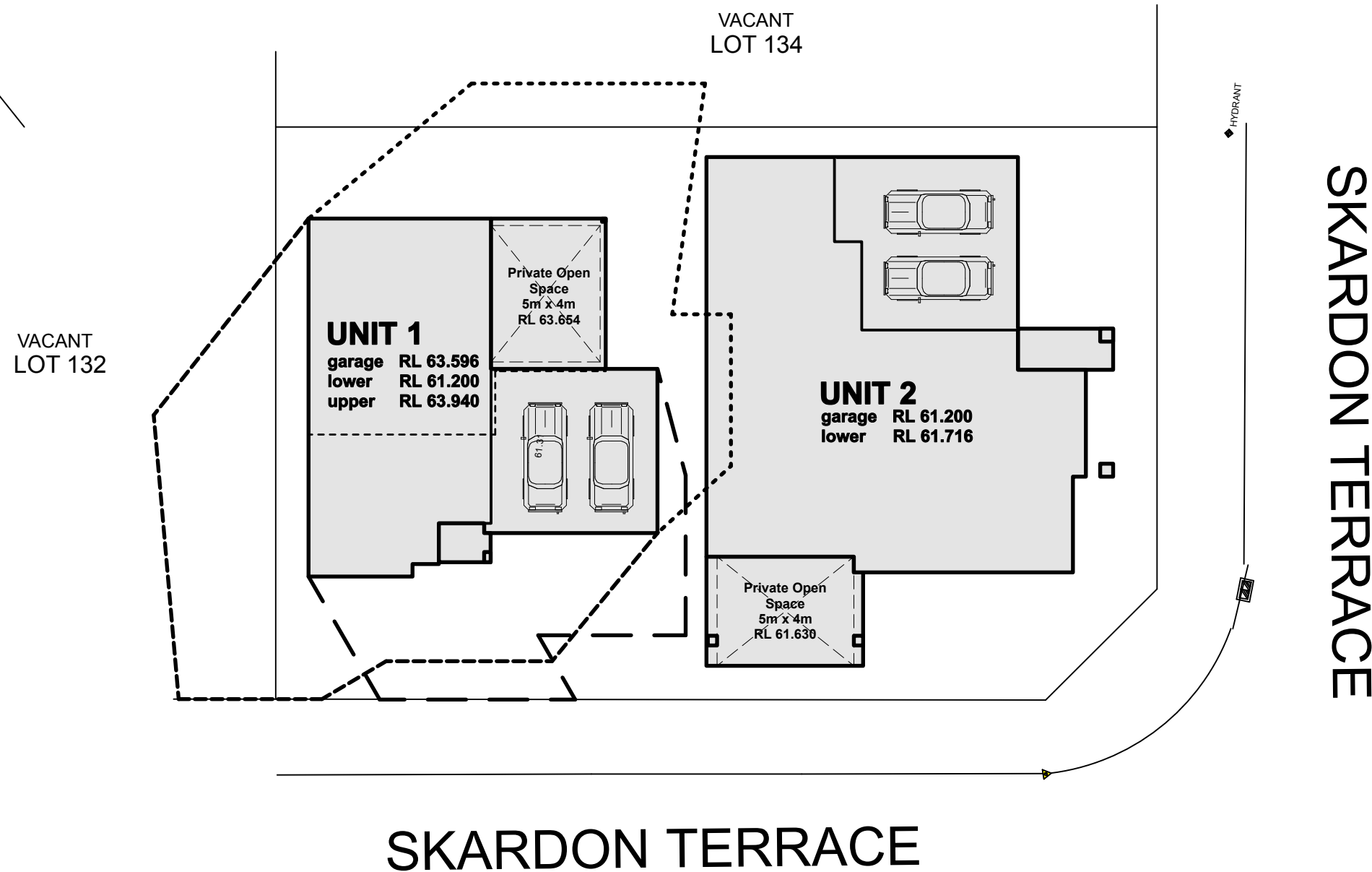
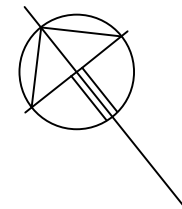
SKARDON TERRACE
TORRENS TITLE SUBDIVISION PLAN
SCALE 1:200



FRONT COURTYARD FENCE FOR UNIT 2
VIEWED FROM THE STREET



COURTYARD FENCE/RETAINING
WALL DETAIL
Scale:1-20



June 22nd Shadow Diagram

----- 9.00 a.m.
- - - 12.00 p.m.
..... 3.00 p.m.

SHADOW DIAGRAM

SCALE 1:200



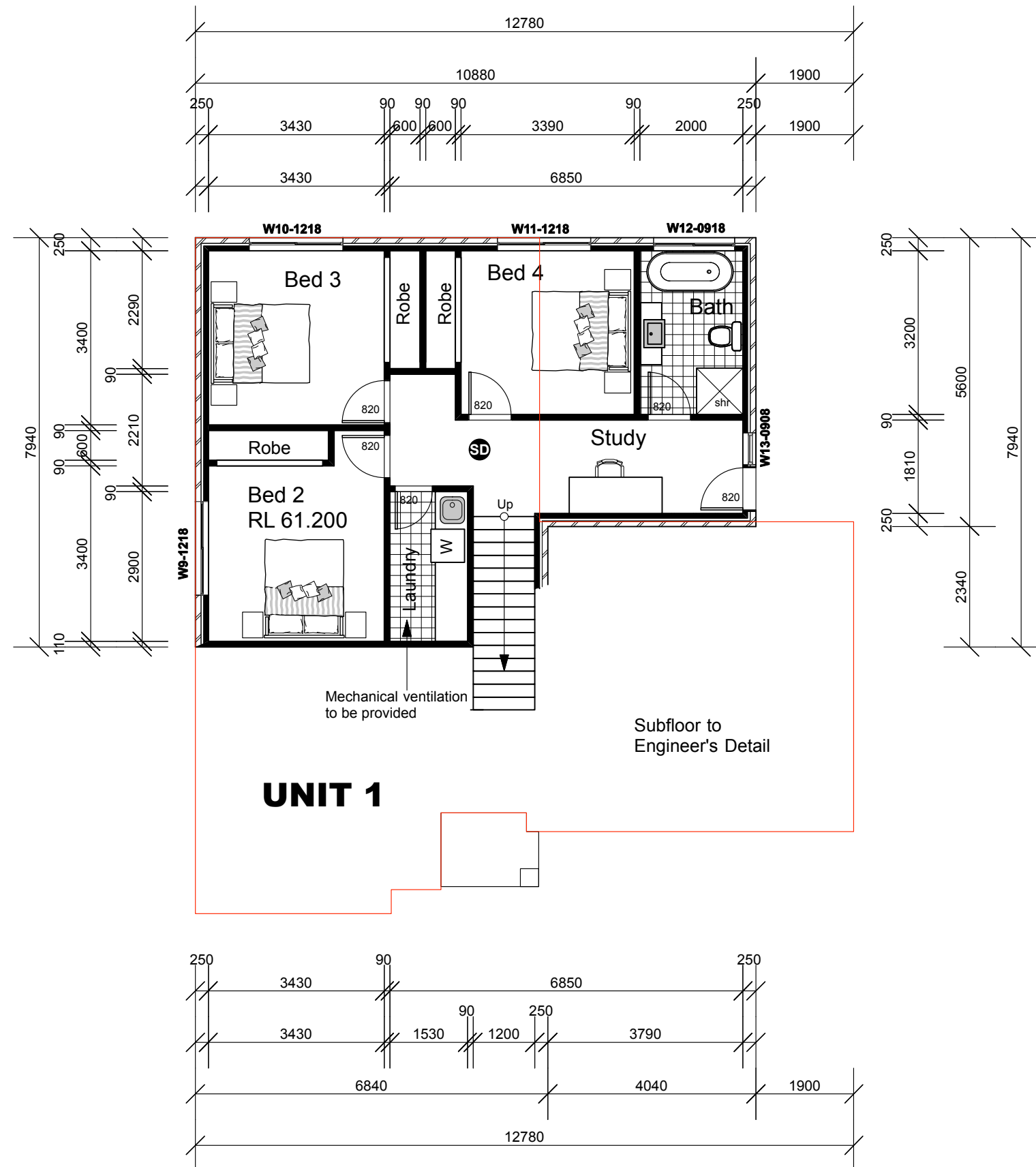
W3-1206 ← WINDOW SIZE

↑ DENOTES BASIX WINDOW REFERENCE

SD DENOTES SMOKE DETECTOR
PERMANENTLY WIRED TO
ELECTRICITY MAINS.
(THE LOCATION OF COMPLIANT SMOKE
ALARMS MUST BE IN ACCORDANCE WITH
THE PROVISIONS OF PART 3.7.2 OF THE
BUILDING CODE OF AUSTRALIA).

upper floor plan

SCALE 1:100

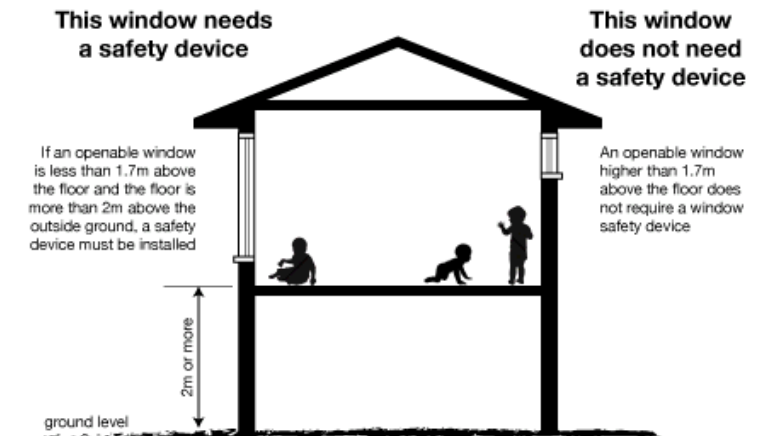


lower floor plan
SCALE 1:100

An openable window will need a safety device installed if:

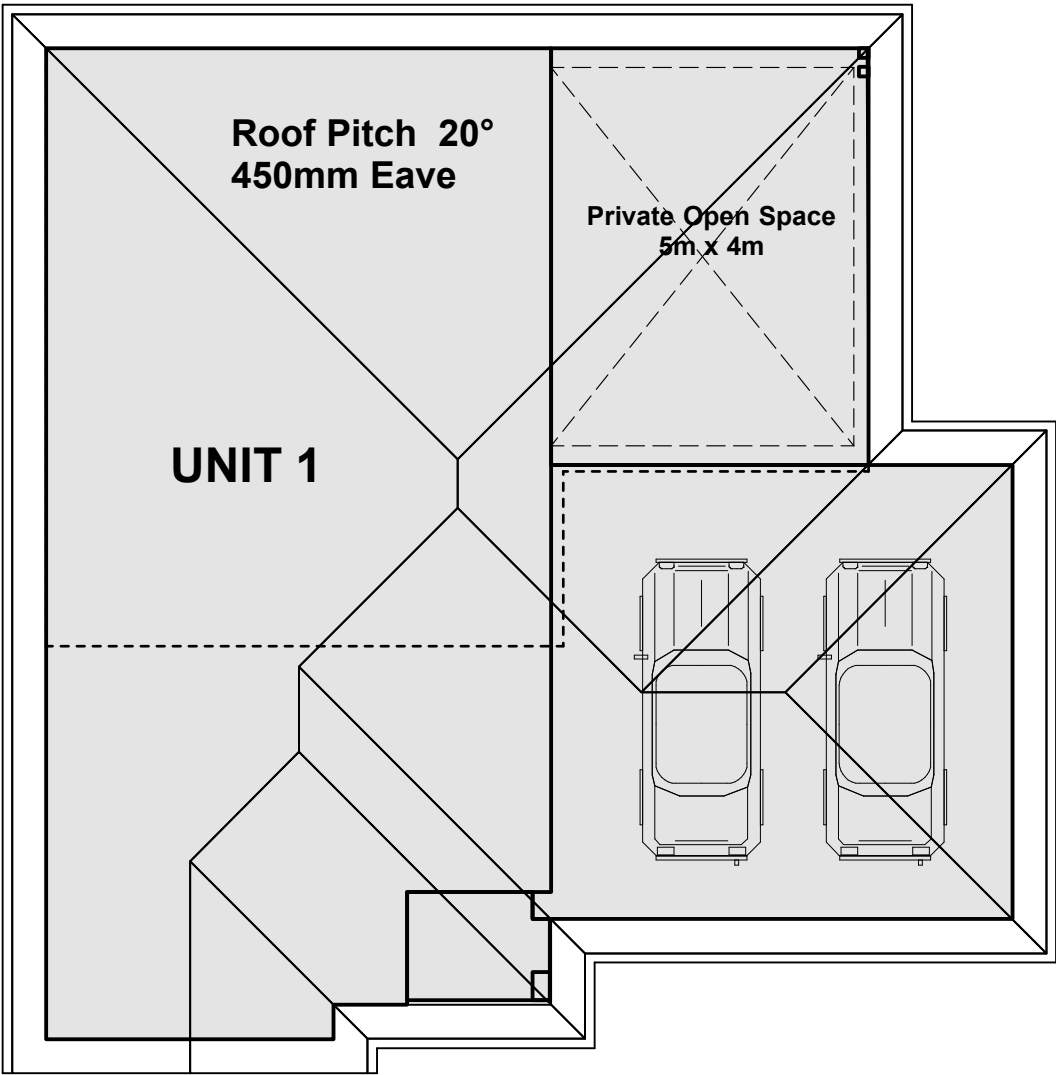
1. the lowest part of the window is less than 1.7m above the floor; and
2. the internal floor under the window is 2m or more above the outside surface.

The safety devices must be able to limit the maximum window opening to 12.5cm, must be robust, and must be childproof. Suitable window safety devices would include window locks or safety screens, but not ordinary insect screens.



W3-1206 ← WINDOW SIZE
↑ DENOTES BASIX WINDOW REFERENCE

SD DENOTES SMOKE DETECTOR PERMANENTLY WIRED TO ELECTRICITY MAINS. (THE LOCATION OF COMPLIANT SMOKE ALARMS MUST BE IN ACCORDANCE WITH THE PROVISIONS OF PART 3.7.2 OF THE BUILDING CODE OF AUSTRALIA).



roof plan
SCALE 1:100

RFS Bushfire Safety Authority

A Bushfire Safety Authority as required under section 100B of the Rural Fires Act 1997 is issued by the NSW Rural Fire Service, subject to the following conditions:

50. Asset Protection Zones

To provide sufficient space and maintain reduced fuel loads so as to ensure radiant heat levels of buildings are below critical limits and to prevent direct flame contact with a building, at the issue of subdivision certificate and in perpetuity, the entire property shall be managed as an inner protection area (IPA) as outlined within Section 4.1.3 and Appendix 5 of "Planning for Bush Fire Protection 2006" and the NSW Rural Fire Service's document "Standards for asset protection zones".

51. Water and Utilities

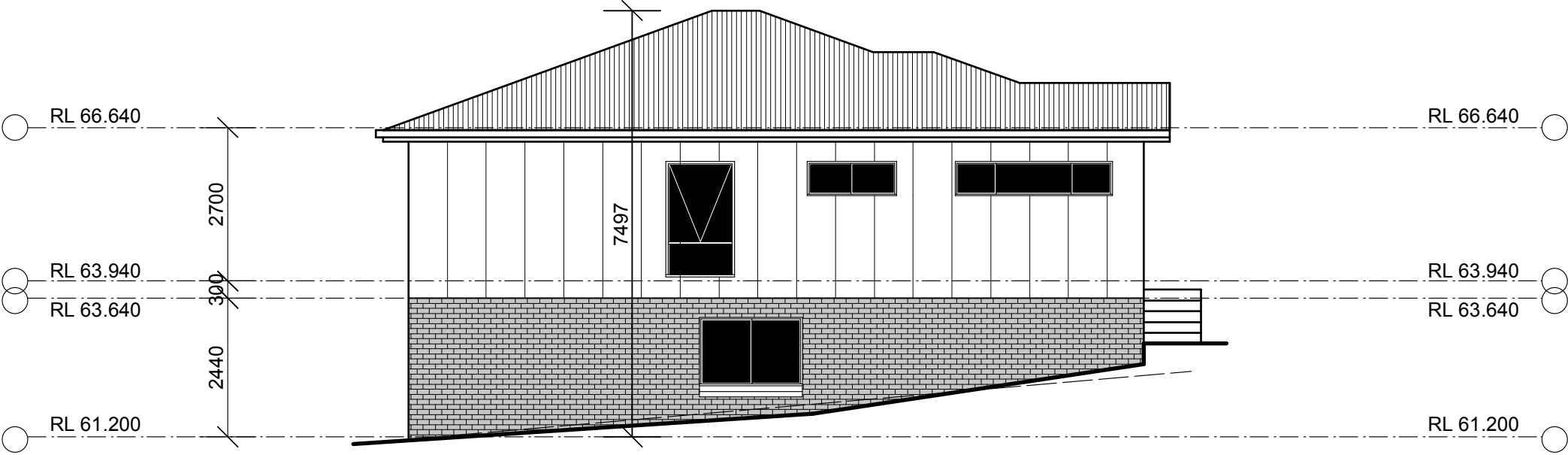
To provide adequate services of water for the protection of buildings during and after the passage of a bush fire, and to locate gas and electricity so as not to contribute to the risk of fire to a building, water, electricity and gas are to comply with Section 4.1.3 of "Planning for Bush Fire Protection 2006".

52. Design and Construction

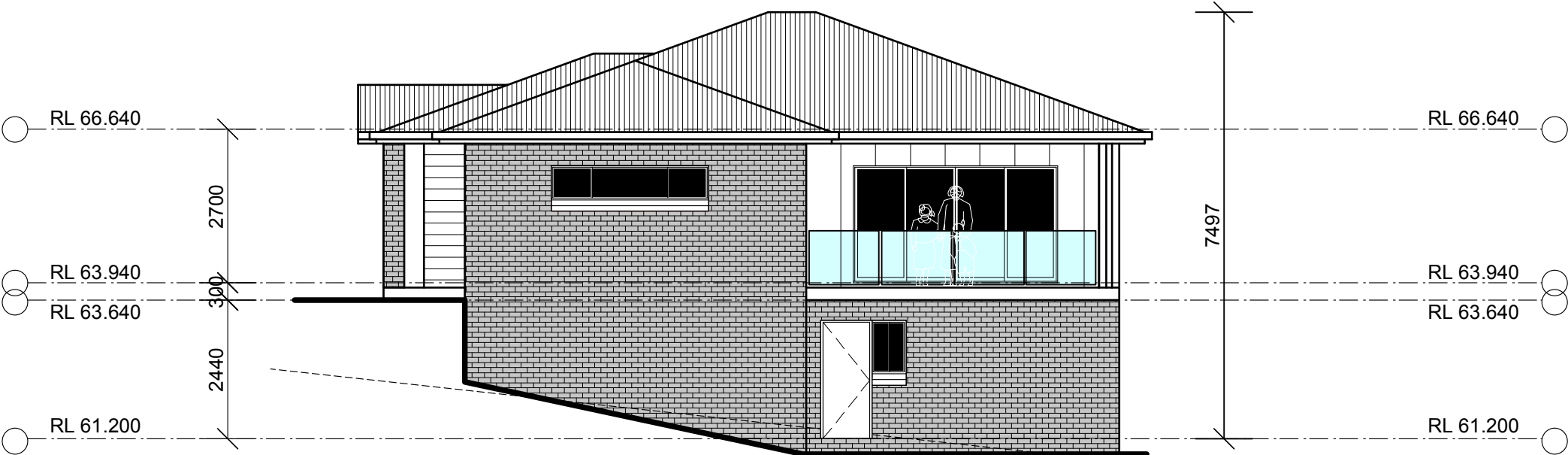
The intent of measures is that buildings are designed and constructed to withstand the potential impacts of bush fire attack. To achieve this, the following conditions shall apply:

- (a) New construction to the roof and northeast, southeast and southwest elevations of proposed Unit 2 shall comply with Section 3 and Section 7 (BAL 29) Australian Standard AS3959-2009 "Construction of buildings in bush fire-prone areas" or NASH Standard (1.7.14 updated) "National Standard Steel Framed Construction in Bushfire Areas - 2014" as appropriate and Section A3.7 Addendum Appendix 3 of "Planning for Bush Fire Protection 2006".
- (b) New construction to the northwest elevation of proposed Unit 2 shall comply with Section 3 and Section 6 (BAL 19) Australian Standard AS3959-2009 "Construction of buildings in bush fire-prone area" or NASH Standard (1.7.14 updated) "National Standard Steel Framed Construction in Bushfire Areas - 2014" as appropriate and Section A3.7 Addendum Appendix 3 of "Planning for Bush Fire Protection 2006".
- (c) New construction to proposed Unit 1 shall comply with Sections 3 and 5 (BAL 12.5) Australian Standard AS3959-2009 "Construction of buildings in bush fire-prone areas" or NASH Standard (1.7.14 updated) "National Standard Steel Framed Construction in Bushfire Areas - 2014" as appropriate and Section A3.7 Addendum Appendix 3 of "Planning for Bush Fire Protection 2006".





northwest elevation
(BAL 12.5) SCALE 1:100



southeast elevation
(BAL 12.5) SCALE 1:100

UNIT 2—CERTIFICATE NUMBER: 801214S

SCHEDULE FOR BASIX REQUIREMENTS		
ITEM	REQUIREMENT UNDER BASIX	CERTIFIER CHECK
FIXTURES		
Shower Heads	3A Minimum Rating	Yes
Toilet Flushing System	3A in each toilet in the development	Yes
Kitchen Taps	4A Minimum Rating	
Bathroom Taps	4A Minimum Rating	
RAINWATER TANK		
Rainwater Tank	1500 Litres minimum capacity	Yes
Roof Area Collection	Rainwater tank to collect roof runoff from at least 80 square metres.	Yes
Rainwater Tank Connection	Tank to be connected to toilets & cold water tap that supplies clothes washer	Yes
Rainwater Tank Connection	Minimum one outdoor tap. Not for human consumption. Cold water tap for clothes washer	Yes
THERMAL COMFORT		
Nathers Energy Requirement	The development is to be constructed with all the thermal performance specifications set out in the Basix Certificate. -R1.5 in external walls -R1.5 in ceiling -R0.6 under timber floor enclosed by subfloor -Refer to basix certificate improved aluminium frames	
ENERGY COMMITMENTS		
Hot Water	gas instantaneous-5 star rating	Yes
Cooling System	Living Areas & Bedrooms: No cooling system or ducting to be installed. If system is to be installed new basix certificate is required.	Yes
Heating System	Living Areas & Bedrooms: No cooling system or ducting to be installed. If system is to be installed new basix certificate is required.	Yes
Lighting	Fluorescent or LED lighting to be installed thruout	
Bathroom Ventilation	Individual fan,t ducted. Manual on/off switch	Yes
Kitchen Ventilation	Individual fan, ducted. Manual on/off switch	Yes
Laundry Ventilation	Natural Ventilation	Yes
Refrigerator Space	Well Ventilated	
Clothes Line	Clothes dryer	
Kitchen Appliances	Gas cooktop, electric oven	

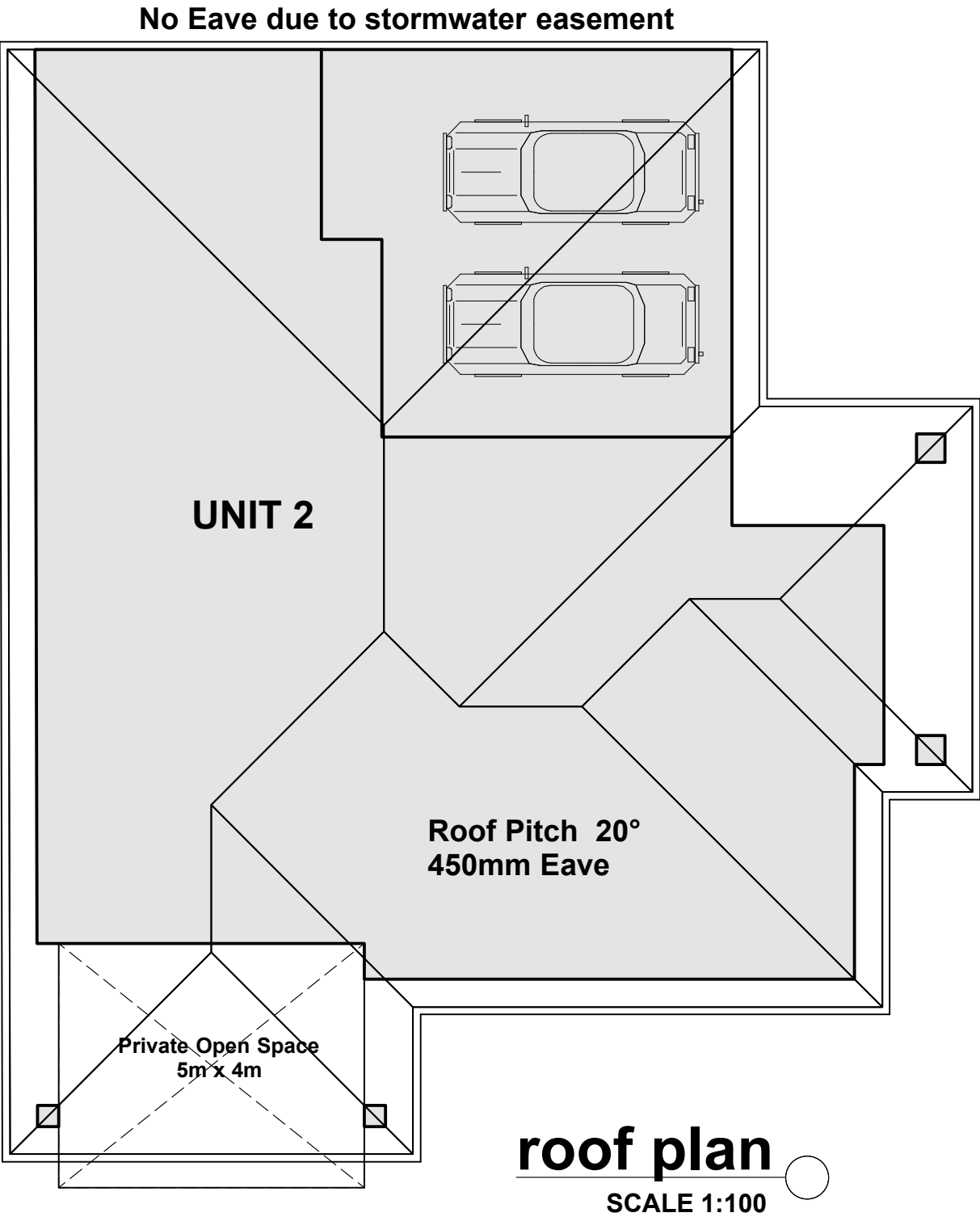
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lower floor plan

SCALE 1:100



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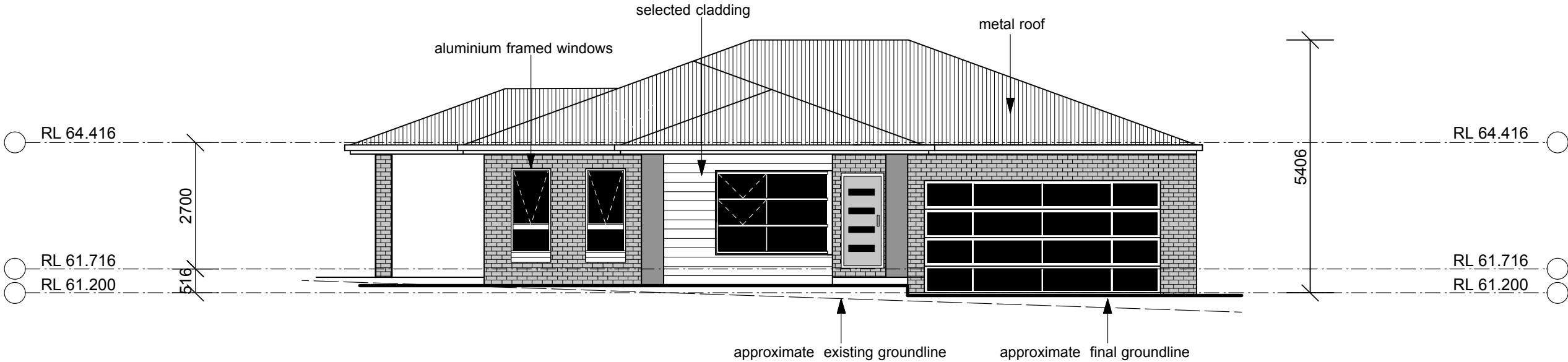
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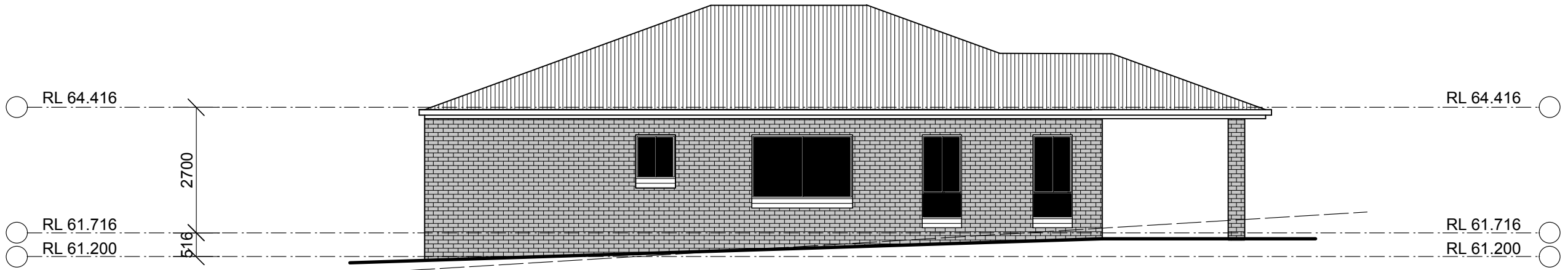
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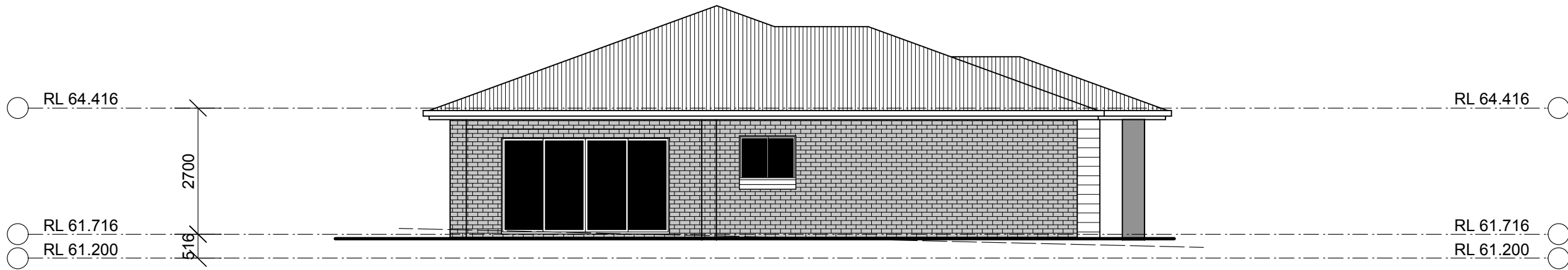
southeast elevation
(BAL 29) SCALE 1:100



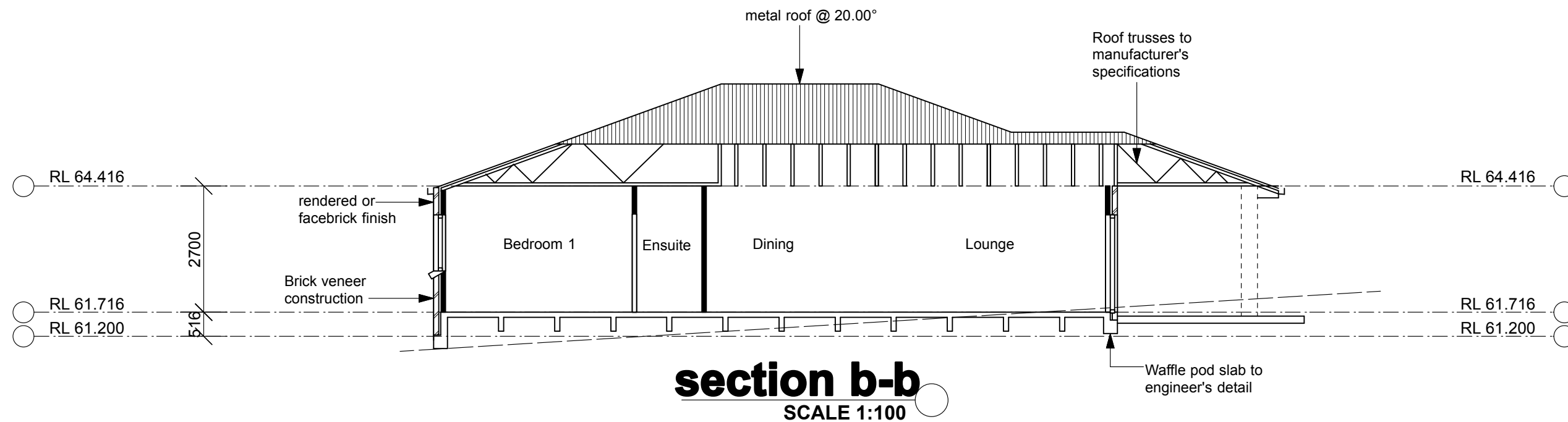
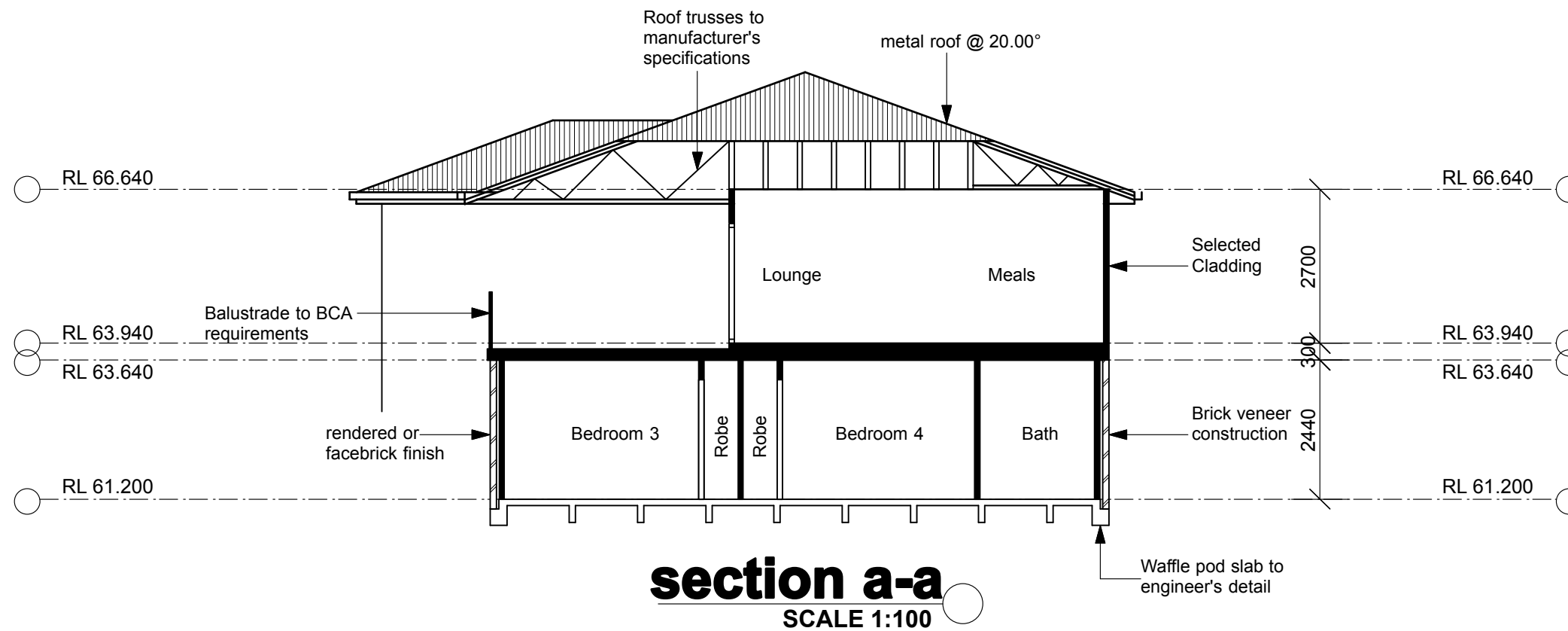
northeast elevation
(BAL 29) SCALE 1:100



northwest elevation
(BAL 19) SCALE 1:100



southwest elevation
(BAL 29) SCALE 1:100



Fascia boards & Soffits:- there are no construction requirements for fascia boards &/or soffit linings within AS3959-2009 BAL-12.5 & BAL-19 &/or Appendix 3 of Planning for Bushfire Protection (2010). *Note*: Joints in eave linings may be sealed with plastic joining strips. Gaps are not to exceed **3.0mm**.

Fascia boards (BAL-29):- Fascia boards need to be metal or bushfire resisting timbers (See Appendix F of AS3959-2009). Metal fascia boards will need to be fixed at **450mm centre**.

Soffit lining and adequate protection of the joint (BAL-29):- The soffit (or eaves lining) will need to be fibre cement with a minimum 4.5 mm thickness or bushfire-resisting timber (See Appendix F of AS3959-2009). The joint system for these linings are normally plastic and this is acceptable. Gaps are not to exceed **3.0mm**.

Garage Door (BAL-12.5, 19 & 29):- The garage doors need to be non-combustible or bushfire-resisting timbers (See Appendix F of AS3959-2009). Panel lift doors shall be fitted with suitable weather strips, draught excluders, draught seals or guide tracks, as appropriate to the door type, with a maximum gap no greater than 3 mm. Roller doors shall have guide tracks with a maximum gap no greater than 3 mm and shall be fitted with a nylon brush that is in contact with the door.

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Roof Vents/Penetrations (BAL-12.5, 19 & 29):- Roof penetrations, including roof lights, roof ventilators, roof-mounted evaporative cooling units, aerials, vent pipes and supports for solar collectors, shall be adequately sealed at the roof to prevent gaps greater than 3 mm. The material used to seal the penetration shall be non-combustible. *Note*: Vent pipes made from PVC are permitted.

Decking/Verandah (BAL-12.5, 19 & 29):- Support posts, bearers, joists & decking/trafficable surfaces to all verandahs/decks etc are required to be from non-combustible materials **or fire resisting timber** (as per AS3959-2009 appendix F or see 6.0 Bushfire Resisting Timbers). The timbers in the decking maybe spaced, the perimeter of the area beneath the deck must not be enclosed or access to the space beneath the deck impeded. The timber flooring/frame must be separated from the remainder of the building in a manner that will not spread fire into the building.

Seal roof and wall intersections (ALL BAL's):- The roof and wall intersections are to be adequately sealed to protect the roof space from possible ember attack (gaps not to exceed 2.0mm). There are a variety of materials that will achieve this level of performance including sarking or non-combustible mineral wool.

Sarking beneath the roof:- flame retardant sarking will need to be installed beneath the roof tiles. Sarking must have a Flammability index of not more than 5. Sarking must be installed to cover the entire roof area including the ridge & so that there are no gaps that would allow the entry of embers where the sarking meets fascias, gutters, valleys etc.

Vents in the external wall to be spark proofed (BAL-12.5 & 19):- The weep holes/vents in the external wall will need to be adequately spark proofed using corrosion resistance metal gauze screens with a maximum aperture of 2.0 mm, except where they are less than 3 mm or are located in an external wall of a subfloor space.

Vents in the external wall to be spark proofed (BAL-29):- The weep holes/vents in the external wall will need to be adequately spark proofed using corrosion resistance metal gauze screens with a maximum aperture of 2.0 mm, except where they are less than 3 mm.+

(DEVELOPMENT TO BE CONSTRUCTED AS PER REQUIRED BAL RATING
AS PER NOTES ON PAGE 23 AND AS3969-2009 'CONSTRUCTION OF BUILDINGS
IN BUSH FIRE-PRONE AREAS' AND SECTION A3.7 ADDENDUM APPENDIX 3 OF
'PLANNING FOR BUSH FIRE PROTECTION').

Side Hinged doors (BAL-12.5):- The external doors will need to be protected by a tight fitting corrosion resistant metal screen door to the outside face. The screen door will need to be fitted with corrosion resistant steel, bronze or aluminium mesh with a maximum aperture of 2.0mm. *Note*: Gaps around screens are not to exceed 3.0mm when closed;

OR

Doors are to be from non-combustible materials or a solid timber door, having a minimum thickness of 35 mm for the first 400 mm above the threshold. Where any part of the door frame is less than 400 mm from the ground or less than 400 mm above decks, carport roofs, awnings and similar elements or fittings having an angle less than 18 degrees to the horizontal and extending more than 110 mm in width from the door, that part of the door frame shall be made from bushfire resisting timbers or a non-combustible material.

OR

Fully framed glazed doors, where the framing is made from a fire resisting timber species as specified & listed within the report or Appendix F of AS3959-2009 & any glazing within 400mm of ground level, decks, awnings &/or sills/ledges that extend more than 110mm with fall less than 18o etc will need to be from **4mm toughened glass**. Weather strips, draught excluders or draught seals shall be installed at the base of all side-hung external doors.

Side Hinged doors (BAL-19):- The external doors will need to be protected by a tight fitting corrosion resistant metal screen door to the outside face. The screen door will need to be fitted with corrosion resistant steel, bronze or aluminium mesh with a maximum aperture of 2.0mm. *Note*: Gaps around screens are not to exceed 3.0mm when closed;

OR

Doors & Jambs are to be from non-combustible materials or bushfire-resisting timbers;

OR

Fully framed glazed doors, where the framing is made from a fire resisting timber species as specified & listed within the report or Appendix F of AS3959-2009 & **5mm toughened glass**. Weather strips, draught excluders or draught seals shall be installed at the base of all side-hung external doors.

Side Hinged doors (BAL-29):- The external doors will need to be protected by a tight fitting corrosion resistant metal screen door to the outside face. The screen door will need to be fitted with corrosion resistant steel, bronze or aluminium mesh with a maximum aperture of 2.0mm. *Note*: Gaps around screens are not to exceed 3.0mm when closed;

OR

Doors & Jambs are to be from non-combustible materials or bushfire-resisting timbers;

OR

Fully framed glazed doors, where the framing is made from a fire resisting timber species as specified & listed within the report or Appendix F of AS3959-2009 & **6mm toughened glass**. Weather strips, draught excluders or draught seals shall be installed at the base of all side-hung external doors.

External Balustrade/Handrails (BAL-12.5, 19 & 29):- Those parts of the handrails &/or balustrades less than 125 mm from any glazing or any combustible wall shall be from non-combustible materials or bushfire resisting timbers or a combination of both.

Glazed doors (BAL-12.5):- Glazed aluminium &/or bushfire resisting timber doors (i.e. glass sliding, Bi-fold doors, multi stacking sliding doors & entry pivot doors) will also need to be protected against the impact. Protective A grade glass (minimum 4 mm) will be used in the glazed doors to satisfy the requirements of the AS3959-2009. We note there is **no requirement** to provide screen doors for this development. *Note*: However, if screened, the screens shall comply with AS3959-2009 Clause 5.5.1A. (See Appendix F of AS3959-2009 bushfire resisting timbers).

Glazed doors (BAL 19):- Doors/frames/jambs etc shall be metal or from bushfire resisting timbers (See Appendix F of AS3959-2009). The doors will require all glazing to be from **5mm toughened glass**. Door shall be tight-fitting in the frames. We note there is **no requirement** to provide screen doors for this development. *Note*: However, if screened, we recommend screens comply with AS3959-2009 Clause 6.5.1A.

Window design (BAL-12.5):- Window frames shall be metal or from bushfire resisting timbers (See Appendix **F** of AS3959-2009) for window assemblies less than 400 mm from the ground or less than 400 mm above decks, carport roofs, awnings and similar elements or fittings, having an angle less than 18 degrees to the horizontal and extending more than 110 mm in width from the window frame. Externally fitted hardware that supports the sash in its functions of opening and closing shall be metal. The **openable** portions of **all windows** will need to be protected with aluminium, bronze or stainless steel gauze screens with a maximum aperture of 2.0 mm. Any glazing to windows within 400mm of ground level, decks, awnings &/or sills/ledges that extend more than 110mm with fall less than 18o etc will need to be from **4mm toughened glass**. *Note:* Screen can be fitted internally or externally.

Window design (BAL 19):- Window frames shall be metal or from bushfire resisting timbers (See Appendix **F** of AS3959-2009) for window assemblies less than 400 mm from the ground or less than 400 mm above decks, carport roofs, awnings and similar elements or fittings, having an angle less than 18 degrees to the horizontal and extending more than 110 mm in width from the window frame. Externally fitted hardware that supports the sash in its functions of opening and closing shall be metal. All glazing to be from **5mm toughened glass**. The **openable** portions of **all windows** will need to be protected with aluminium, bronze or stainless steel gauze screens with a maximum aperture of 2.0 mm.

Window design (BAL 29):- Window frames shall be metal or from bushfire resisting timbers (See Appendix **F** of AS3959-2009). The windows will require all glazing to be from **5mm toughened glass**. Externally fitted hardware that supports the sash in its functions of opening and closing shall be metal. The **openable** portions of all **windows** are to be protected with a metal or bushfire resisting timber framed screen fitted with bronze or stainless steel gauze screens with a maximum aperture of 2.0 mm. Gaps around screens are not to exceed 3.0mm when fitted. *Note:* The openable portions of windows can be screened internally or externally.

External materials (BAL-12.5, 19):- Any masonry external walls will be satisfactory. Any cladding to timber framed or steel framed wall that are within 400mm of ground level, decks, awnings &/or sills/ledges that extend more than 110mm with an angle less than 18 degrees etc will need to be from fibres-cement external cladding with a minimum of 6mm in thickness or from steel sheeting or bushfire-resisting timbers (See Appendix **F** of AS3959-2009). We recommend **all** gaps/spacings/expansion joints etc are adequately sealed with a non-combustible sealant were gaps exceed 3.0mm & wall sarking behind cladding must have a *Flammability index of not more than 5*.

External materials (BAL-29):- Any masonry external walls will be satisfactory. Any cladding to timber framed or steel framed walls will need to be from fibres-cement external cladding with a minimum of 6mm in thickness or from steel sheeting or bushfire-resisting timbers (See Appendix **F** of AS3959-2009). We recommend **all** gaps/spacings/expansion joints etc are adequately sealed with a non-combustible sealant were gaps exceed 3.0mm & wall sarking behind cladding must have a *Flammability index of not more than 5*.

An openable window will need a safety device installed if:

1. the lowest part of the window is less than 1.7m above the floor; and
2. the internal floor under the window is 2m or more above the outside surface.

The safety devices must be able to limit the maximum window opening to 12.5cm, must be robust, and must be childproof. Suitable window safety devices would include window locks or safety screens, but not ordinary insect screens.

