BAL FZ NOTES

EXTRACT FROM AS3959:2018 - BAL FZ

GENERAL

A building assessed in Section 2 as being BAL-FZ shall conform with Section 3 and Clauses 9.2 to 9.8 and have a minimum setback distance of 10 m from the edge of the classified vegetation. In circumstances where the 10 m setback distance between the building and the edge of the classified vegetation cannot be achieved, those elements of the building that are less than 10 m from the edge of the classified vegetation shall conform with AS 1530.8.2. The details for roof systems specified in Appendix H are the result of testing to AS 1530.8.2 and are deemed to satisfy solutions for the purpose of this Standard. Any element of construction or system that satisfies the test criteria of AS 1530.8.2 may be used in lieu of the applicable requirements contained in Clauses 9.2 to 9.8. NOTES: 1 BAL-FZ is primarily concerned with protection from flame contact together with ember attack and radiant heat of more than 40 kW/m2. 2 Construction in BAL-FZ may require reliance on measures other than construction. The requirements for construction of a building BAL-FZ may be regulated by the building authorities having jurisdiction in the States and Territories of Australia.

9.2 SUB-FLOOR SUPPORTS

This Standard does not provide construction requirements for subfloor supports where the subfloor space is enclosed with a wall that conforms with Clause 9.4. Where the subfloor space is unenclosed, systems, including support posts, columns, stumps, piers and poles, shall- (a) have an FRL of at least 30/-/- and shall be non-combustible; or (b) be a system conforming with AS 1530.8.2; or (c) be a combination of items (a) and (b). NOTE: This requirement applies to the subject building only and not to verandas, decks, steps, ramps and landings (see Clause 9.7). C9.2 Combustible materials stored in the subfloor space may be ignited by embers and impact the building. 9.3

FLOORS 9.3.1 General This Standard does not provide construction requirements for concrete slabs on the ground. 9.3.2 Elevated floors 9.3.2.1 Enclosed subfloor space This Standard does not provide construction requirements for elevated floors, including bearers, joists and flooring, where the subfloor space is enclosed with a wall that conforms with Clause 9.4. 9.3.2.2 Unenclosed subfloor space Where the subfloor space is unenclosed, the floor system, including bearers, joist and flooring, shall- (a) have an FRL of at least 30/30/30 and the surface material shall be non-combustible; or (b) have the underside of the combustible elements of the floor system protected with a 30 min resistance to incipient spread of fire system; or (c) conform with AS 1530.8.2 when tested from the underside; or (d) be a combination of any of items (a), (b) or (c).

9.4 WALLS

9.4.1 General The exposed components of external walls shall be as follows: (a) Non-combustible material including the following provided the minimum thickness is 90 mm: (i) Full masonry or masonry veneer walls with an outer leaf of clay, concrete, calcium silicate or natural stone. (ii) Precast or in situ walls of concrete or aerated concrete. (iii) Earth walls including mud brick. or (b) A system conforming with AS 1530.8.2 when tested from the outside. or (c) A system with an FRL of 30/30/30 or -/30/30 when tested from the outside. or (d) A combination of any of items (a), (b) or (c). 9.4.2 Joints All joints in the external surface material of walls shall be covered, sealed, overlapped, backed or butt-jointed. 9.4.3 Vents and weepholes Except for exclusions provided in Clause 3.6, vents and weepholes in external walls shall be screened with a mesh made of corrosion-resistant steel or bronze.

9.5 EXTERNAL GLAZED ELEMENTS, ASSEMBLIES AND DOORS

9.5.1 Bushfire shutters Where fitted, bushfire shutters shall conform with- (a) Clause 3.7, except that perforations are not acceptable over the door system; and (b) AS 1530.8.2 when tested from the outside. 9.5.2 Screens for windows and doors Where fitted, screens for windows and doors shall have a mesh or perforated sheet made of corrosion-resistant steel or bronze. The frame supporting the mesh or perforated sheet shall be metal. Screen assemblies shall be attached using metal fixings. 9.5.3 Windows and sidelights Window assemblies shall- (a) be completely protected by a bushfire shutter that conforms with Clauses 3.7 and Clause 9.5.1; or (b) be openable portion of the window shall be screened internally or externally with a screen that conforms with Clause 3.6 and Clause 9.5.2; and either- (i) the window system shall have an FRL of at least -/30/-; or (ii) the window system shall conform with AS 1530.8.2 when tested from the outside. 9.5.4 Doors-Slide-hung external doors (including French doors, panel fold and bi-fold doors) Slide-hung external doors, including French doors, panel fold and bi-fold doors, shall- (a) be completely protected by bushfire shutters that conform with Clause 3.7 and Clause 9.5.1. or (b) conform with the following: (i) All door systems, including door frames and doors with glazed panels, shall- (A) have an FRL of at least -/30/-; or (B) conform with AS 1530.8.2 when tested from the outside. (ii) Doors shall be tight-fitting to the door frame and to an abutting door, if applicable. (iii) Weather strips, draught excluders or draught seals shall be installed at the base of side-hung external doors. (iv) Seals shall not compromise the FRL or the performance achieved in AS 1530.4. 9.5.5 Doors-Sliding doors Sliding doors shall- (a) be completely protected by a bushfire shutter that conforms with Clause 3.7 and Clause 9.5.1; or (b) conform with the following: (i) All sliding door systems, including those with glazed panels, shall- (A) have an FRL of at least -/30/-; or (B) conform with AS 1530.8.2 when tested from the outside. (ii) Sliding doors shall be tight-fitting in the frames. 9.5.6 Doors-Vehicle access doors (garage doors) The following applies to vehicle access doors: (a) Vehicle access doors shall be non-combustible. (b) Where the garage is attached to the building, the requirements of Clause 3.2.2(b) shall apply. (c) All vehicle access doors shall be protected with suitable weather strips, draught excluders, draught seals or brushes. Door assemblies fitted with guide tracks do not need edge gap protection. NOTES: 1 Refer to AS/NZS 4505 for door types. 2 Gaps of door edges or building elements should be protected as per Section 3. C9.5.6(c) These guide tracks do not provide a direct passage for embers into the building. (d) Weather strips, draught excluders, draught seals or brushes to protect edge gaps or thresholds shall be manufactured from materials having a flammability index not exceeding 5. (e) Vehicle access doors shall not include ventilation slots.

9.6 ROOFS (INCLUDING PENETRATIONS, EAVES, FASCIAS AND GABLES, AND GUTTERS AND DOWNPIPES)

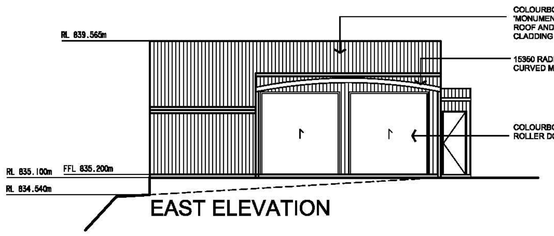
9.6.1 General The following applies to all types of roofs and roofing systems: (a) The roof/wall and roof/roof junction shall be sealed either by the use of fascia and eaves linings or by sealing between the top of the wall and the underside of the roof and between the rafters at the line of the wall. They shall also be protected in accordance with Clause 3.6. (b) Roof ventilation openings, such as gable and roof vents, shall be fitted with ember guards made of non-combustible material or a mesh or perforated sheet complying with Clause 3.6 and made of corrosion-resistant steel or bronze. (c) Roof-mounted evaporative coolers are not permitted in BAL-FZ. Appendix H provides two generic systems for ventilation, tripped and gabled roofs which are deemed to satisfy Clause 9.6 (BAL-FZ). 9.6.2 Tiled roofs Tiled roofs shall conform with- (a) Appendix H; or (b) a system tested to AS 1530.8.2. 9.6.3 Sheet roofs Sheet roofs shall conform with- (a) Appendix H; or (b) a system tested to AS 1530.8.2. 9.6.4 Verandas, carport and awning roof The following applies to verandas, carport and awning roofs: (a) A veranda, carport or awning roof forming part of the main roof space (see Figure D1(a). Appendix D) shall meet all the requirements for the main roof, as specified in Clause 9.6.1, 9.6.2, 9.6.3, and 9.6.6. (b) A veranda, carport or awning roof separated from the main roof space by an external wall (see Figures D1(b) and D1(c), Appendix D) conforming with Clause 9.4 shall have a non-combustible roof covering and the complete support structure shall be- (i) of non-combustible material; or (ii) timber rafters lined on the underside with fibre-cement sheet a minimum of 6 mm in thickness, or with material conforming with AS 1530.8.2; or (iii) a system conforming with AS 1530.8.2; or (iv) a combination of any of items (i), (ii) or (iii). 9.6.5 Roof penetrations The following applies to roof penetrations: (a) Roof penetrations, including aerials, vent pipes and supports for solar collectors or the like, shall be sealed with mineral fibre at the roof to prevent gaps. The material used to seal the penetration shall be non-combustible. NOTE: As a general principle, the service penetration should not significantly compromise the performance of the element of construction it penetrates nor should it be a means to allow the passage of burning embers or heat transfer such that fire could spread to the interior of a structure. (b) Roof lights and roof ventilators shall be systems conforming with AS 1530.8.2 when tested from the outside with one of the deemed to satisfy roof systems described in Appendix H. (c) Pipe or conduit that penetrates the roof covering shall conform with AS 1530.8.2. 9.6.6 Eaves linings, fascias and gables The following applies to eaves linings, fascias and gables: (a) Gables shall conform with Clause 9.4. (b) Fascias and bargeboards shall conform with AS 1530.8.2. (c) Eaves linings shall be- (i) a system with an FRL of -/30/30; or (ii) a system conforming with AS 1530.8.2; or (iii) a combination of items (i) and (ii). (d) Eaves penetrations shall be protected the same as for roof penetrations, as specified in Clause 9.6.5. (e) Eaves ventilation openings shall be fitted with ember guards in accordance with Clause 3.6 made of corrosion-resistant steel or bronze. (f) Joints in eaves linings, fascias and gables may be sealed with plastic joining strips or timber storm moulds. 9.6.7 Gutters and downpipes This Standard does not provide requirements for downpipes. If installed, gutter and valley leaf guards shall be non-combustible. Gutters shall be non-combustible. Box gutters shall be non-combustible and flashed at the junction with the roof with noncombustible materials.

9.7 VERANDAS, DECKS, STEPS AND LANDINGS

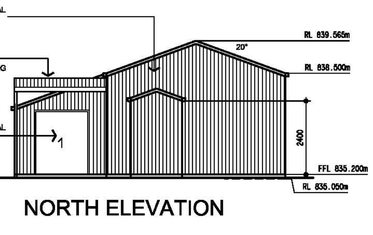
9.7.1 General Decking shall not be spaced. There is no requirement to enclose the subfloor spaces of verandas, decks, steps, ramps or landings. 9.7.2 Enclosed subfloor spaces of verandas, decks, steps, ramps and landings 9.7.2.1 Materials to enclose a subfloor space The subfloor spaces of verandas, decks, steps, ramps and landings are deemed to be 'enclosed' when- (a) the material used to enclose the subfloor space conforms with Clause 9.4; and (b) all openings are protected in accordance with Clause 3.6 and made of corrosion resistant steel or bronze. 9.7.2.2 Supports This Standard does not provide construction requirements for support posts, columns, stumps, stringers, piers and poles. 9.7.2.3 Framing This Standard does not provide construction requirements for the framing of verandas, pergolas, decks, ramps or landings (i.e. bearers and joists). 9.7.2.4 Decking, stair treads and the trafficable surfaces of ramps and landings Decking, stair treads and the trafficable surfaces of ramps and landings shall be- (a) of non-combustible material; or (b) of fibre-cement sheet; or (c) a system conforming with AS 1530.8.2; or (d) a combination of any of items (a), (b) or (c). 9.7.3 Unenclosed subfloor spaces of verandas, decks, steps, ramps and landings 9.7.3.1 Supports Support posts, columns, stumps, stringers, piers and poles shall be- (a) of non-combustible material; or (b) a system conforming with AS 1530.8.2; or (c) a combination of items (a) and (b). 9.7.3.2 Framing Framing of verandas, decks, ramps or landings (i.e. bearers and joists) shall be- (a) of non-combustible material; or (b) a system conforming with AS 1530.8.2; or (c) a combination of items (a) and (b). 9.7.3.3 Decking, stair treads and the trafficable surfaces of ramps and landings Decking, stair treads and the trafficable surfaces of ramps and landings shall be- (a) of non-combustible material; or (b) fibre-cement sheet; or (c) a system conforming with AS 1530.8.2; or (d) a combination of items (a), (b) or (c). 9.7.4 Balustrades, handrails or other barriers Those parts of the handrails and balustrades less than 125 mm from any glazing shall be of non-combustible material. Those parts of the handrails and balustrades that are 125 mm or more from the building have no requirements. 9.7.5 Veranda posts Veranda posts shall be made from non-combustible material.

9.8 WATER AND GAS SUPPLY PIPES

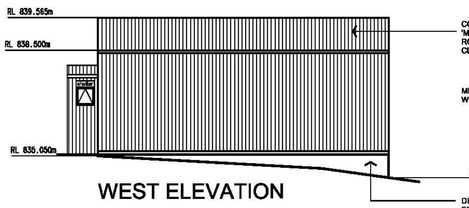
Above-ground, exposed water supply pipes shall be metal. External gas pipes and fittings above ground shall be of steel or copper construction having a minimum wall thickness in accordance with gas regulations or 0.9 mm whichever is the greater. The metal pipe shall extend a minimum of 400 mm within the building and 100 mm below ground. NOTE: Refer to State and Territory gas regulations, AS/NZS 5601.1 and AS/NZS 4645.1. C12.5 Concern is raised for the protection of bottled gas installations. Location, shielding and venting of the gas bottles needs to be considered.



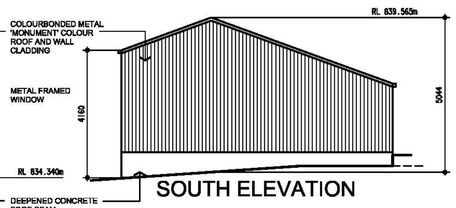
EAST ELEVATION



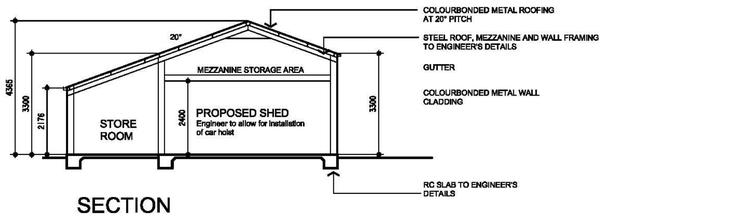
NORTH ELEVATION



WEST ELEVATION

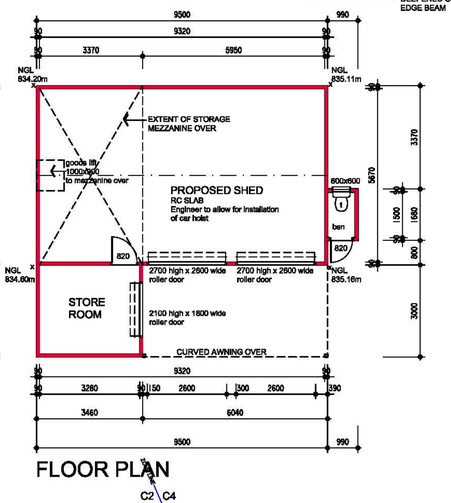


SOUTH ELEVATION

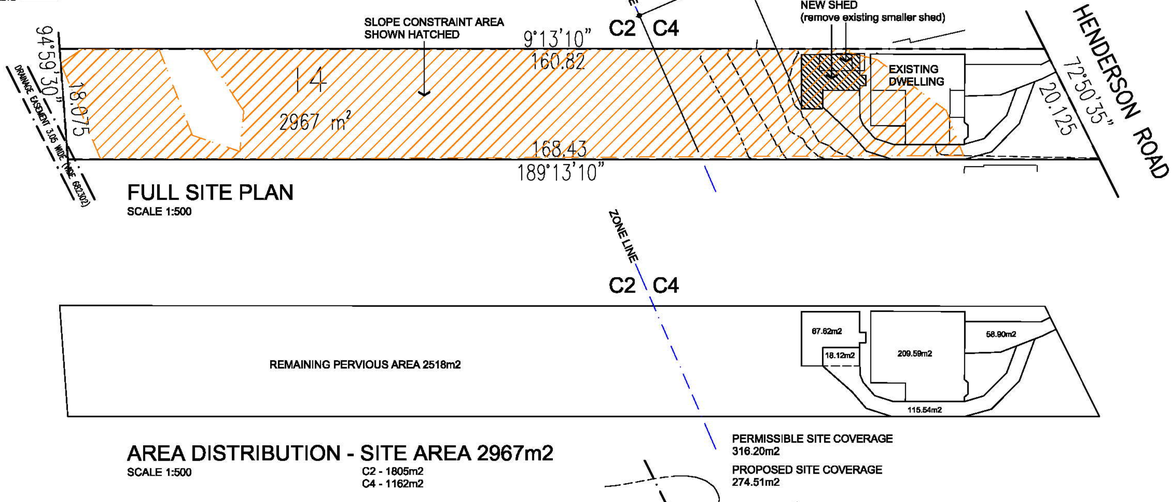


SECTION

NOTE:
WIND SPEED DETAILS TO BE
SUPPLIED BY STRUCTURAL ENGINEER.



FLOOR PLAN



FULL SITE PLAN

SCALE 1:500

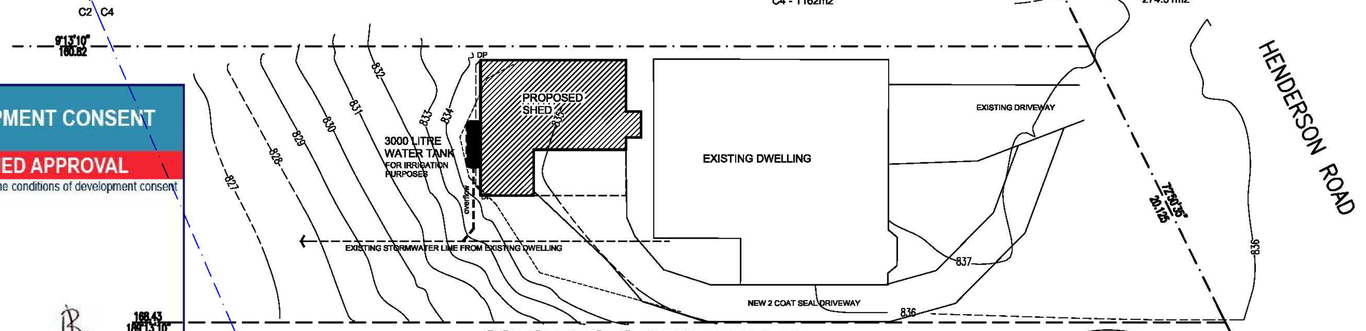
AREA DISTRIBUTION - SITE AREA 2967m2

SCALE 1:500

C2 - 1805m2
C4 - 1162m2

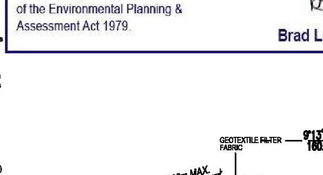
PERMISSIBLE SITE COVERAGE
316.20m2

PROPOSED SITE COVERAGE
274.51m2



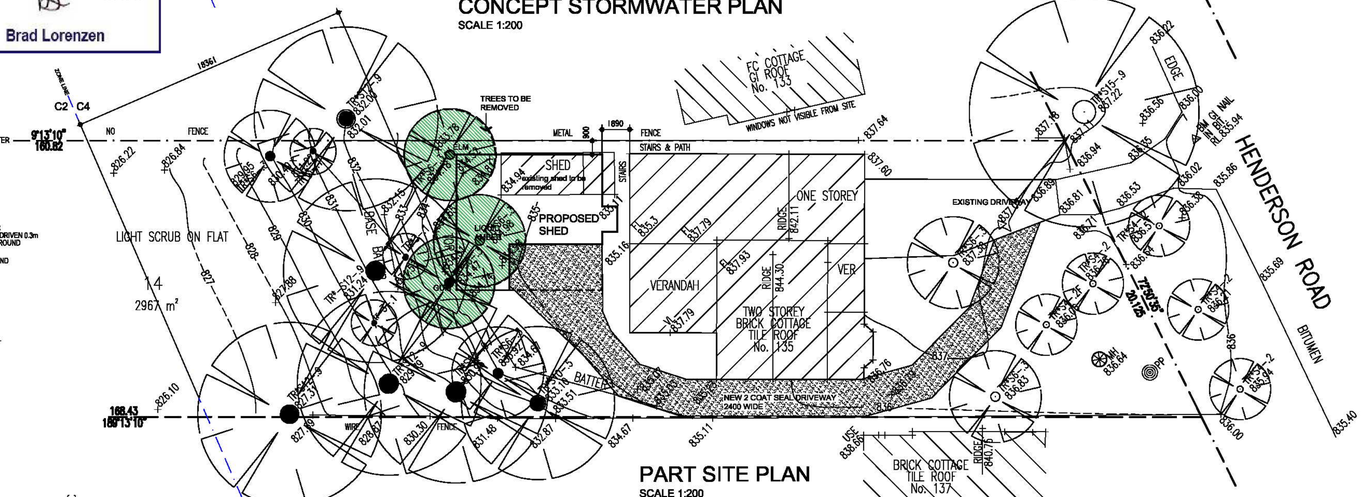
CONCEPT STORMWATER PLAN

SCALE 1:200



SEDIMENT FENCE

N.T.S

SEDIMENT CONTROL NOTES

1. all erosion and sedimentation control measures, including revegetation and storage of soil and topsoil, shall be implemented to the standards of the soil conservation of new.
2. all drainage works shall be constructed and stabilized as early as possible during development.
3. sediment traps shall be constructed around all inlet pits, consisting of 300mm wide x 300mm deep trench.
4. all sediment basins and traps shall be cleaned when the structures are a maximum of 50 % full of soil materials, including the maintenance period.
5. all disturbed areas shall be revegitated as soon as the relavent works are completed.
6. soil and topsoil stockpiles shall be located away from drainage lines and area where water may concentrate.
7. filter shall be constructed by stretching a filter fabric (propex or approved equivalent between post at 3.0m centres. fabric shall be buried 150mm along its lower edge.