

DA Form 1 – Development application details

Approved form (version 1.0 effective 3 July 2017) made under section 282 of the Planning Act 2016.

This form **must** be used to make a development application **involving code assessment or impact assessment**, except when applying for development involving building work.

For a development application involving **building work only**, use *DA Form 2 – Building work details*.

For a development application involving **building work associated with any other type of assessable development**, use this form (*DA Form 1*) **and** parts 4 to 6 of *DA Form 2 – Building work details*.

Unless stated otherwise, all parts of this form **must** be completed in full and all required supporting information **must** accompany the development application.

One or more additional pages may be attached as a schedule to this development application if there is insufficient space on the form to include all the necessary information.

This form and any other form relevant to the development application must be used to make a development application relating to strategic port land and Brisbane core port land under the *Transport Infrastructure Act 1994*, and airport land under the *Airport Assets (Restructuring and Disposal) Act 2008*. For the purpose of assessing a development application relating to strategic port land and Brisbane core port land, any reference to a planning scheme is taken to mean a land use plan for the strategic port land, Brisbane port land use plan for Brisbane core port land, or a land use plan for airport land.

Note: All terms used in this form have the meaning given under the Planning Act 2016, the Planning Regulation 2017, or the Development Assessment Rules (DA Rules).

PART 1 – APPLICANT DETAILS

1) Applicant details	
Applicant name(s) <i>(individual or company full name)</i>	Barbara Lloyd
Contact name <i>(only applicable for companies)</i>	Greg Skyring
Postal address <i>(P.O. Box or street address)</i>	11 Noli Close
Suburb	Mossman
State	QLD
Postcode	4873
Country	AUS
Contact number	07 40982061
Email address <i>(non-mandatory)</i>	greg@skyringdesign.com.au
Mobile number <i>(non-mandatory)</i>	
Fax number <i>(non-mandatory)</i>	
Applicant's reference number(s) <i>(if applicable)</i>	

2) Owner's consent
2.1) Is written consent of the owner required for this development application?
<input checked="" type="checkbox"/> Yes – the written consent of the owner(s) is attached to this development application <input type="checkbox"/> No – proceed to 3)



PART 2 – LOCATION DETAILS

3) Location of the premises (complete 3.1) or 3.2), and 3.3) as applicable)

Note: Provide details below and attach a site plan for any or all premises part of the development application. For further information, see [DA Forms Guide: Relevant plans](#).

3.1) Street address and lot on plan

- Street address **AND** lot on plan (all lots must be listed), **or**
 Street address **AND** lot on plan for an adjoining or adjacent property of the premises (appropriate for development in water but adjoining or adjacent to land e.g. jetty, pontoon; all lots must be listed).

a)	Unit No.	Street No.	Street Name and Type	Suburb
			Silver Ash Road	Cow Bay
	Postcode	Lot No.	Plan Type and Number (e.g. RP, SP)	Local Government Area(s)
		514	RP742056	Douglas
b)	Unit No.	Street No.	Street Name and Type	Suburb
	Postcode	Lot No.	Plan Type and Number (e.g. RP, SP)	Local Government Area(s)

3.2) Coordinates of premises (appropriate for development in remote areas, over part of a lot or in water not adjoining or adjacent to land e.g. channel dredging in Moreton Bay)

Note: Place each set of coordinates in a separate row. Only one set of coordinates is required for this part.

- Coordinates of premises by longitude and latitude

Longitude(s)	Latitude(s)	Datum	Local Government Area(s) (if applicable)
		<input type="checkbox"/> WGS84 <input type="checkbox"/> GDA94 <input type="checkbox"/> Other:	

- Coordinates of premises by easting and northing

Easting(s)	Northing(s)	Zone Ref.	Datum	Local Government Area(s) (if applicable)
		<input type="checkbox"/> 54 <input type="checkbox"/> 55 <input type="checkbox"/> 56	<input type="checkbox"/> WGS84 <input type="checkbox"/> GDA94 <input type="checkbox"/> Other:	

3.3) Additional premises

- Additional premises are relevant to this development application and their details have been attached in a schedule to this application
 Not required

4) Identify any of the following that apply to the premises and provide any relevant details

In or adjacent to a water body or watercourse or in or above an aquifer
 Name of water body, watercourse or aquifer: _____

On strategic port land under the *Transport Infrastructure Act 1994*
 Lot on plan description of strategic port land: _____
 Name of port authority for the lot: _____

In a tidal area
 Name of local government for the tidal area (if applicable): _____
 Name of port authority for tidal area (if applicable): _____

On airport land under the *Airport Assets (Restructuring and Disposal) Act 2008*
 Name of airport: _____

Listed on the Environmental Management Register (EMR) under the *Environmental Protection Act 1994*
 EMR site identification: _____

<input type="checkbox"/> Listed on the Contaminated Land Register (CLR) under the <i>Environmental Protection Act 1994</i>	
CLR site identification:	

5) Are there any existing easements over the premises?
Note: Easement uses vary throughout Queensland and are to be identified correctly and accurately. For further information on easements and how they may affect the proposed development, see [DA Forms Guide](#).

Yes – All easement locations, types and dimensions are included in plans submitted with this development application

No

PART 3 – DEVELOPMENT DETAILS

Section 1 – Aspects of development

6.1) Provide details about the first development aspect

a) What is the type of development? *(tick only one box)*

Material change of use Reconfiguring a lot Operational work Building work

b) What is the approval type? *(tick only one box)*

Development permit Preliminary approval Preliminary approval that includes a variation approval

c) What is the level of assessment?

Code assessment Impact assessment *(requires public notification)*

d) Provide a brief description of the proposal *(e.g. 6 unit apartment building defined as multi-unit dwelling, reconfiguration of 1 lot into 3 lots):*

Dwelling House and Shed

e) Relevant plans
Note: Relevant plans are required to be submitted for all aspects of this development application. For further information, see [DA Forms guide: Relevant plans](#).

Relevant plans of the proposed development are attached to the development application

6.2) Provide details about the second development aspect

a) What is the type of development? *(tick only one box)*

Material change of use Reconfiguring a lot Operational work Building work

b) What is the approval type? *(tick only one box)*

Development permit Preliminary approval Preliminary approval that includes a variation approval

c) What is the level of assessment?

Code assessment Impact assessment *(requires public notification)*

d) Provide a brief description of the proposal *(e.g. 6 unit apartment building defined as multi-unit dwelling, reconfiguration of 1 lot into 3 lots):*

e) Relevant plans
Note: Relevant plans are required to be submitted for all aspects of this development application. For further information, see [DA Forms Guide: Relevant plans](#).

Relevant plans of the proposed development are attached to the development application

6.3) Additional aspects of development

Additional aspects of development are relevant to this development application and the details for these aspects that would be required under Part 3 Section 1 of this form have been attached to this development application

Not required

Section 2 – Further development details

7) Does the proposed development application involve any of the following?	
Material change of use	<input checked="" type="checkbox"/> Yes – complete division 1 if assessable against a local planning instrument
Reconfiguring a lot	<input type="checkbox"/> Yes – complete division 2
Operational work	<input type="checkbox"/> Yes – complete division 3
Building work	<input type="checkbox"/> Yes – complete <i>DA Form 2 – Building work details</i>

Division 1 – Material change of use

Note: This division is only required to be completed if any part of the development application involves a material change of use assessable against a local planning instrument.

8.1) Describe the proposed material change of use			
Provide a general description of the proposed use	Provide the planning scheme definition (include each definition in a new row)	Number of dwelling units (if applicable)	Gross floor area (m ²) (if applicable)
New dwelling house, 2/gazebos, and solar generator and battery shed	Dwelling house, gazebos, shed		

8.2) Does the proposed use involve the use of existing buildings on the premises?		
<input type="checkbox"/> Yes		
<input checked="" type="checkbox"/> No		

Division 2 – Reconfiguring a lot

Note: This division is only required to be completed if any part of the development application involves reconfiguring a lot.

9.1) What is the total number of existing lots making up the premises?	
9.2) What is the nature of the lot reconfiguration? (tick all applicable boxes)	
<input type="checkbox"/> Subdivision (complete 10))	<input type="checkbox"/> Dividing land into parts by agreement (complete 11))
<input type="checkbox"/> Boundary realignment (complete 12))	<input type="checkbox"/> Creating or changing an easement giving access to a lot from a construction road (complete 13))

10) Subdivision				
10.1) For this development, how many lots are being created and what is the intended use of those lots:				
Intended use of lots created	Residential	Commercial	Industrial	Other, please specify:
Number of lots created				
10.2) Will the subdivision be staged?				
<input type="checkbox"/> Yes – provide additional details below				
<input type="checkbox"/> No				
How many stages will the works include?				
What stage(s) will this development application apply to?				

11) Dividing land into parts by agreement – how many parts are being created and what is the intended use of the parts?				
Intended use of parts created	Residential	Commercial	Industrial	Other, please specify:
Number of parts created				

12) Boundary realignment
12.1) What are the current and proposed areas for each lot comprising the premises?

Current lot		Proposed lot	
Lot on plan description	Area (m ²)	Lot on plan description	Area (m ²)

12.2) What is the reason for the boundary realignment?

13) What are the dimensions and nature of any existing easements being changed and/or any proposed easement?
(attach schedule if there are more than two easements)

Existing or proposed?	Width (m)	Length (m)	Purpose of the easement? <i>(e.g. pedestrian access)</i>	Identify the land/lot(s) benefitted by the easement

Division 3 – Operational work

Note: This division is only required to be completed if any part of the development application involves operational work.

14.1) What is the nature of the operational work?

<input type="checkbox"/> Road work	<input type="checkbox"/> Stormwater	<input type="checkbox"/> Water infrastructure
<input type="checkbox"/> Drainage work	<input type="checkbox"/> Earthworks	<input type="checkbox"/> Sewage infrastructure
<input type="checkbox"/> Landscaping	<input type="checkbox"/> Signage	<input type="checkbox"/> Clearing vegetation
<input type="checkbox"/> Other – please specify: <input style="width: 200px;" type="text"/>		

14.2) Is the operational work necessary to facilitate the creation of new lots? *(e.g. subdivision)*

<input type="checkbox"/> Yes – specify number of new lots: <input style="width: 100px;" type="text"/>
<input type="checkbox"/> No

14.3) What is the monetary value of the proposed operational work? *(include GST, materials and labour)*

\$

PART 4 – ASSESSMENT MANAGER DETAILS

15) Identify the assessment manager(s) who will be assessing this development application

Douglas Shire Council

16) Has the local government agreed to apply a superseded planning scheme for this development application?

Yes – a copy of the decision notice is attached to this development application

Local government is taken to have agreed to the superseded planning scheme request – relevant documents attached

No

PART 5 – REFERRAL DETAILS

17) Do any aspects of the proposed development require referral for any referral requirements?

Note: A development application will require referral if prescribed by the Planning Regulation 2017.

No, there are no referral requirements relevant to any development aspects identified in this development application – proceed to Part 6

Matters requiring referral to the **chief executive of the Planning Regulation 2017:**

Clearing native vegetation

Contaminated land *(unexploded ordnance)*

<input type="checkbox"/> Environmentally relevant activities (ERA) <i>(only if the ERA have not been devolved to a local government)</i> <input type="checkbox"/> Fisheries – aquaculture <input type="checkbox"/> Fisheries – declared fish habitat area <input type="checkbox"/> Fisheries – marine plants <input type="checkbox"/> Fisheries – waterway barrier works <input type="checkbox"/> Hazardous chemical facilities <input type="checkbox"/> Queensland heritage place <i>(on or near a Queensland heritage place)</i> <input type="checkbox"/> Infrastructure – designated premises <input type="checkbox"/> Infrastructure – state transport infrastructure <input type="checkbox"/> Infrastructure – state transport corridors and future state transport corridors <input type="checkbox"/> Infrastructure – state-controlled transport tunnels and future state-controlled transport tunnels <input type="checkbox"/> Infrastructure – state-controlled roads <input type="checkbox"/> Land within Port of Brisbane’s port limits <input type="checkbox"/> SEQ development area <input type="checkbox"/> SEQ regional landscape and rural production area or SEQ Rural living area – community activity <input type="checkbox"/> SEQ regional landscape and rural production area or SEQ Rural living area – indoor recreation <input type="checkbox"/> SEQ regional landscape and rural production area or SEQ Rural living area – residential development <input type="checkbox"/> SEQ regional landscape and rural production area or SEQ Rural living area – urban activity <input type="checkbox"/> Tidal works or works in a coastal management district <input type="checkbox"/> Urban design <input type="checkbox"/> Water-related development – taking or interfering with water <input type="checkbox"/> Water-related development – removing quarry material <i>(from a watercourse or lake)</i> <input type="checkbox"/> Water-related development – referable dams <input type="checkbox"/> Water-related development – construction of new levees or modification of existing levees <i>(category 2 or 3 levees only)</i> <input type="checkbox"/> Wetland protection area
Matters requiring referral to the local government: <input type="checkbox"/> Airport land <input type="checkbox"/> Environmentally relevant activities (ERA) <i>(only if the ERA have been devolved to local government)</i> <input type="checkbox"/> Local heritage places
Matters requiring referral to the chief executive of the distribution entity or transmission entity: <input type="checkbox"/> Electricity infrastructure
Matters requiring referral to: <ul style="list-style-type: none"> • The chief executive of the holder of the licence, if not an individual • The holder of the licence, if the holder of the licence is an individual <input type="checkbox"/> Oil and gas infrastructure
Matters requiring referral to the Brisbane City Council: <input type="checkbox"/> Brisbane core port land
Matters requiring referral to the Minister under the Transport Infrastructure Act 1994: <input type="checkbox"/> Brisbane core port land <input type="checkbox"/> Strategic port land
Matters requiring referral to the relevant port operator: <input type="checkbox"/> Brisbane core port land (below high-water mark and within port limits)
Matters requiring referral to the chief executive of the relevant port authority: <input type="checkbox"/> Land within limits of another port
Matters requiring referral to the Gold Coast Waterways Authority: <input type="checkbox"/> Tidal works, or development in a coastal management district in Gold Coast waters
Matters requiring referral to the Queensland Fire and Emergency Service: <input type="checkbox"/> Tidal works, or development in a coastal management district

18) Has any referral agency provided a referral response for this development application?		
<input type="checkbox"/> Yes – referral response(s) received and listed below are attached to this development application <input checked="" type="checkbox"/> No		
Referral requirement	Referral agency	Date of referral response
Identify and describe any changes made to the proposed development application that was the subject of the referral response and the development application the subject of this form, or include details in a schedule to this development application (if applicable).		

PART 6 – INFORMATION REQUEST

19) Information request under Part 3 of the DA Rules
<input checked="" type="checkbox"/> I agree to receive an information request if determined necessary for this development application <input type="checkbox"/> I do not agree to accept an information request for this development application Note: By not agreeing to accept an information request I, the applicant, acknowledge: <ul style="list-style-type: none"> that this development application will be assessed and decided based on the information provided when making this development application and the assessment manager and any referral agencies relevant to the development application are not obligated under the DA Rules to accept any additional information provided by the applicant for the development application unless agreed to by the relevant parties Part 3 of the DA Rules will still apply if the application is an application listed under section 11.3 of the DA Rules. Further advice about information requests is contained in the DA Forms Guide .

PART 7 – FURTHER DETAILS

20) Are there any associated development applications or current approvals? (e.g. a preliminary approval)			
<input type="checkbox"/> Yes – provide details below or include details in a schedule to this development application <input checked="" type="checkbox"/> No			
List of approval/development application references	Reference number	Date	Assessment manager
<input type="checkbox"/> Approval <input type="checkbox"/> Development application			
<input type="checkbox"/> Approval <input type="checkbox"/> Development application			

21) Has the portable long service leave levy been paid? (only applicable to development applications involving building work or operational work)		
<input type="checkbox"/> Yes – the yellow local government/private certifier's copy of the receipted QLeave form is attached to this development application <input type="checkbox"/> No – I, the applicant will provide evidence that the portable long service leave levy has been paid before the assessment manager decides the development application. I acknowledge that the assessment manager may give a development approval only if I provide evidence that the portable long service leave levy has been paid <input checked="" type="checkbox"/> Not applicable		
Amount paid	Date paid (dd/mm/yy)	QLeave levy number (A, B or E)
\$		

22) Is this development application in response to a show cause notice or required as a result of an enforcement notice?
<input type="checkbox"/> Yes – show cause or enforcement notice is attached <input checked="" type="checkbox"/> No

23) Further legislative requirements

Environmentally relevant activities

23.1) Is this development application also taken to be an application for an environmental authority for an **Environmentally Relevant Activity (ERA)** under section 115 of the *Environmental Protection Act 1994*?

Yes – the required attachment (form EM941) for an application for an environmental authority accompanies this development application, and details are provided in the table below

No

Note: Application for an environmental authority can be found by searching “EM941” at www.qld.gov.au. An ERA requires an environmental authority to operate. See www.business.qld.gov.au for further information.

Proposed ERA number:		Proposed ERA threshold:	
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Proposed ERA name:	
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Multiple ERAs are applicable to this development application and the details have been attached in a schedule to this development application.

Hazardous chemical facilities

23.2) Is this development application for a **hazardous chemical facility**?

Yes – *Form 69: Notification of a facility exceeding 10% of schedule 15 threshold* is attached to this development application

No

Note: See www.justice.qld.gov.au for further information.

Clearing native vegetation

23.3) Does this development application involve **clearing native vegetation** that requires written confirmation the chief executive of the *Vegetation Management Act 1999* is satisfied the clearing is for a relevant purpose under section 22A of the *Vegetation Management Act 1999*?

Yes – this development application is accompanied by written confirmation from the chief executive of the *Vegetation Management Act 1999* (s22A determination)

No

Note: See www.qld.gov.au for further information.

Environmental offsets

23.4) Is this development application taken to be a prescribed activity that may have a significant residual impact on a **prescribed environmental matter** under the *Environmental Offsets Act 2014*?

Yes – I acknowledge that an environmental offset must be provided for any prescribed activity assessed as having a significant residual impact on a prescribed environmental matter

No

Note: The environmental offset section of the Queensland Government’s website can be accessed at www.qld.gov.au for further information on environmental offsets.

Koala conservation

23.5) Does this development application involve a material change of use, reconfiguring a lot or operational work within an assessable development area under Schedule 10, Part 10 of the Planning Regulation 2017?

Yes

No

Note: See guidance materials at www.ehp.qld.gov.au for further information.

Water resources

23.6) Does this development application involve **taking or interfering with artesian or sub artesian water, taking or interfering with water in a watercourse, lake or spring, taking overland flow water or waterway barrier works**?

Yes – the relevant template is completed and attached to this development application

No

Note: DA templates are available from www.dilgp.qld.gov.au.

23.7) Does this application involve **taking or interfering with artesian or sub artesian water, taking or interfering with water in a watercourse, lake or spring, or taking overland flow water** under the *Water Act 2000*?

Yes – I acknowledge that a relevant water authorisation under the *Water Act 2000* may be required prior to

commencing development

No

Note: Contact the Department of Natural Resources and Mines at www.dnrm.qld.gov.au for further information.

Marine activities

23.8) Does this development application involve **aquaculture, works within a declared fish habitat area or removal, disturbance or destruction of marine plants?**

Yes – an associated resource allocation authority is attached to this development application, if required under the *Fisheries Act 1994*

No

Note: See guidance materials at www.daf.qld.gov.au for further information.

Quarry materials from a watercourse or lake

23.9) Does this development application involve the **removal of quarry materials from a watercourse or lake** under the *Water Act 2000*?

Yes – I acknowledge that a quarry material allocation notice must be obtained prior to commencing development

No

Note: Contact the Department of Natural Resources and Mines at www.dnrm.qld.gov.au for further information.

Quarry materials from land under tidal waters

23.10) Does this development application involve the **removal of quarry materials from land under tidal water** under the *Coastal Protection and Management Act 1995*?

Yes – I acknowledge that a quarry material allocation notice must be obtained prior to commencing development

No

Note: Contact the Department of Environment and Heritage Protection at www.ehp.qld.gov.au for further information.

Referable dams

23.11) Does this development application involve a **referable dam** required to be failure impact assessed under section 343 of the *Water Supply (Safety and Reliability) Act 2008* (the Water Supply Act)?

Yes – the ‘Notice Accepting a Failure Impact Assessment’ from the chief executive administering the Water Supply Act is attached to this development application

No

Note: See guidance materials at www.dews.qld.gov.au for further information.

Tidal work or development within a coastal management district

23.12) Does this development application involve **tidal work or development in a coastal management district?**

Yes – the following is included with this development application:

Evidence the proposal meets the code for assessable development that is prescribed tidal work (*only required if application involves prescribed tidal work*)

A certificate of title

No

Note: See guidance materials at www.ehp.qld.gov.au for further information.

Queensland and local heritage places

23.13) Does this development application propose development on or adjoining a place entered in the **Queensland heritage register** or on a place entered in a local government’s **Local Heritage Register**?

Yes – details of the heritage place are provided in the table below

No

Note: See guidance materials at www.ehp.qld.gov.au for information requirements regarding development of Queensland heritage places.

Name of the heritage place:		Place ID:	
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Brothels

23.14) Does this development application involve a **material change of use for a brothel?**

Yes – this development application demonstrates how the proposal meets the code for a development application for a brothel under Schedule 3 of the *Prostitution Regulation 2014*

No

Decision under section 62 of the *Transport Infrastructure Act 1994*

23.15) Does this development application involve new or changed access to a state-controlled road?

- Yes - this application will be taken to be an application for a decision under section 62 of the *Transport Infrastructure Act 1994* (subject to the conditions in section 75 of the *Transport Infrastructure Act 1994* being satisfied)
- No

PART 8 – CHECKLIST AND APPLICANT DECLARATION**24) Development application checklist**

I have identified the assessment manager in question 15 and all relevant referral requirement(s) in question 17

 Yes**Note:** See the *Planning Regulation 2017* for referral requirementsIf building work is associated with the proposed development, Parts 4 to 6 of *Form 2 – Building work details* have been completed and attached to this development application Yes Not applicable

Supporting information addressing any applicable assessment benchmarks is with development application

Note: This is a mandatory requirement and includes any relevant templates under question 23, a planning report and any technical reports required by the relevant categorising instruments (e.g. local government planning schemes, State Planning Policy, State Development Assessment Provisions). For further information, see *DA Forms Guide: Planning Report Template*. Yes

Relevant plans of the development are attached to this development application

Note: Relevant plans are required to be submitted for all aspects of this development application. For further information, see *DA Forms Guide: Relevant plans*. Yes

The portable long service leave levy for QLeave has been paid, or will be paid before a development permit is issued (see 21))

 Yes Not applicable**25) Applicant declaration** By making this development application, I declare that all information in this development application is true and correct Where an email address is provided in Part 1 of this form, I consent to receive future electronic communications from the assessment manager and any referral agency for the development application where written information is required or permitted pursuant to sections 11 and 12 of the *Electronic Transactions Act 2001***Note:** It is unlawful to intentionally provide false or misleading information.

Privacy – Personal information collected in this form will be used by the assessment manager and/or chosen assessment manager, any relevant referral agency and/or building certifier (including any professional advisers which may be engaged by those entities) while processing, assessing and deciding the development application. All information relating to this development application may be available for inspection and purchase, and/or published on the assessment manager's and/or referral agency's website.

Personal information will not be disclosed for a purpose unrelated to the *Planning Act 2016*, *Planning Regulation 2017* and the *DA Rules* except where:

- such disclosure is in accordance with the provisions about public access to documents contained in the *Planning Act 2016* and the *Planning Regulation 2017*, and the access rules made under the *Planning Act 2016* and *Planning Regulation 2017*; or
- required by other legislation (including the *Right to Information Act 2009*); or
- otherwise required by law.

This information may be stored in relevant databases. The information collected will be retained as required by the *Public Records Act 2002*.

PART 9 – FOR OFFICE USE ONLY

Date received: Reference number(s):

Notification of engagement of alternative assessment manager	
Prescribed assessment manager	
Name of chosen assessment manager	
Date chosen assessment manager engaged	
Contact number of chosen assessment manager	
Relevant licence number(s) of chosen assessment manager	

QLeave notification and payment	
<i>Note: For completion by assessment manager if applicable</i>	
Description of the work	
QLeave project number	
Amount paid (\$)	
Date paid	
Date receipted form sighted by assessment manager	
Name of officer who sighted the form	

The *Planning Act 2016*, the *Planning Regulation 2017* and the *DA Rules* are administered by the Department of Infrastructure, Local Government and Planning. This form and all other required development application materials should be sent to the assessment manager.

20th February 2019

The Manager,
Planning Services,
Douglas Shire Council
P.O. Box 723
Mossman Q 4873

Attention: - Development Services

Dear Sir/Madam,

**RE: APPLICATION FOR MATERIAL CHANGE OF USE OF PREMISES –
DWELLING HOUSE, SHED and 2/GAZEBOS on L514 RP742056, SILVER ASH ROAD,
COW BAY
For B. Lloyd**

Attached is DA Form 1 duly completed, together with sketches of the proposed 1 bedroom dwelling house, and soil classification and wastewater management reports.

In addition to the house site, the attached site plan shows the extent of potential landslide and acid sulphate soils overlays for your convenience.

The following report provides supporting information to show compliance or otherwise with the planning scheme and codes within.

1.0 – General Details

Local Government Authority	Douglas Shire Council
Planning Scheme	2018 Douglas Shire Planning Scheme
Planning Area	Conservation Zone
Assessment Level	Code Assessable
Applicable Codes (Affecting building site)	Conservation zone code Cape Tribulation and Daintree Coast local plan code (Precinct 2) Natural areas overlay code

2.0

Assessment Against the Douglas Shire Planning Scheme Codes

Conservation zone – assessable development

Performance outcomes	Acceptable outcomes	Comments
For assessable development		
<p>PO1 The establishment of uses is consistent with the outcomes sought for the Conservation zone and protects the zone from the intrusion of inconsistent uses.</p>	<p>AO1 Uses identified in Table 6.2.3.3.b are not established in the Conservation zone.</p>	<p>Complies. A dwelling house is a consistent use</p>
<p>PO2 The height of buildings is compatible with the character of the area and does not adversely affect the amenity of the area.</p>	<p>AO2 Buildings and structures are not more than 8.5 metres in height and two storeys. Note - Height is inclusive of roof height.</p>	<p>Complies. Maximum building height is 4.2m</p>
<p>PO3 Development is setback from site boundaries so they are screened from view from the boundaries of adjoining properties and adjoining roads to maintain the scenic values of the area.</p>	<p>AO3 Buildings and structures are setback not less than: (a) 40 metres from the frontage of a State-controlled road, existing or proposed arterial road, existing or proposed sub-arterial road, as identified on the Transport network overlay maps contained in Schedule 2; (b) 25 metres from Cape Tribulation Road frontage; (c) 20 metres from any other road frontage (d) 10 metres from side and rear boundaries.</p>	<p>An area has previously been cleared in the front of the allotment as shown on the site plan, most likely because this is the only area where a building can be located without incurring the prohibitive cost of bridging an adjacent high banked rocky creek. The proposed buildings will be located in the general area of the existing clearing, with the primary consideration trying to achieve a reasonable buffer to the existing creeks and the secondary compromise made between the front boundary and proposed buildings. A dispensation is therefore required for a setback of the proposed buildings to the front boundary of 16m min to the main buildings and 12.5m to the generator shed. (refer to Site Plan)</p>
<p>PO4 The site coverage of all buildings and structures does not have an adverse effect on the conservation or scenic amenity values of the site and surrounding area and buildings are subservient to the natural environment.</p>	<p>AO4 Development is sited in an existing cleared area or an area approved for clearing, but which is not yet cleared until a development permit to carry out Building Works is issued. Any clearing is limited to a maximum area of 700m² and is sited clear of the high bank of any watercourse. Note – The 700m² area of clearing does not include an access driveway.</p>	<p>Complies. A cleared area of maximum 700m² is proposed, extending behind and to the north of the existing 300m² cleared area</p>
<p>PO5 Development is consistent with the overall outcomes sought for the</p>	<p>AO5 No acceptable outcomes are prescribed.</p>	<p>Complies</p>

Performance outcomes	Acceptable outcomes	Comments
Conservation zone.		
<p>PO6</p> <p>Development complements, and is subservient to the surrounding environment and is in keeping with the ecological, landscape and scenic values of the area.</p>	<p>AO6</p> <p>The exterior finishes and colours of all development are non-reflective and consist of colours that blend easily with surrounding native vegetation and view-shed.</p>	Complies
<p>PO7</p> <p>Development is screened from view from adjoining roads and properties with a dense screen of endemic/native landscape which:</p> <p>(e) is informal in character and complementary to the existing natural environment;</p> <p>(f) provides screening;</p> <p>(g) enhances the visual appearance of the development.</p> <p>Note – Planning scheme policy – Landscaping provides further guidance on meeting the performance outcome.</p>	<p>AO7.1</p> <p>For any development, the balance area of the site not built upon, including all setback areas must be landscaped/revegetated with dense three tier, endemic planting which is maintained to ensure successful screening is achieved.</p> <p>AO7.2</p> <p>Endemic palm species, where used, are planted as informal accent features and not as avenues and not in a regular pattern.</p>	<p>Complies.</p> <p>A minimum 10m of remnant vegetation is between the front boundary and the existing cleared area. Removal of further remnant vegetation is to the eastern and northern side.</p>
<p>P08</p> <p>Development is complementary to the surrounding environment.</p>	<p>AO8.1</p> <p>Development harmonises with the surrounding environment, for example, through suspended, light-weight construction on sloping sites, which requires minimal excavation or fill.</p> <p>AO8.2</p> <p>A driveway or parking areas are constructed and maintained to:</p> <p>(h) minimise erosion, particularly in the wet season;</p> <p>(i) minimise cut and fill;</p> <p>(j) follow the natural contours of the site;</p> <p>(k) minimise vegetation clearing.</p> <p>AO8.3</p> <p>Buildings and structures are erected on land not exceeding a maximum gradient of 1 in 6 (16.6%)</p> <p>or</p> <p>On land steeper than 1 in 6 (16.6%) gradient:</p> <p>(l) A split level building form is utilised;</p> <p>(m) A single plane concrete slab is not</p>	<p>Complies.</p> <p>Low set building forms will be used.</p> <p>Complies.</p> <p>The driveway and parking area is near flat (1.7% fall towards the creek and towards the north), which will have little impact on overland flows. Minimal cut or fill is required. A gravelled surface will be provided for all weather access.</p> <p>Complies.</p> <p>Slope over the cleared area is approximately 1.7% both ways and is clearly referenced on the attached Site Plan. Max fall across the cleared area is 600mm, making the display of 1m contouring of the site redundant.</p>

Performance outcomes	Acceptable outcomes	Comments
	<p>utilised;</p> <p>(n) Any voids between building and ground level, or between outdoor decks and ground level are screened from view using lattice/battens and/or landscaping.</p> <p>and</p> <p>(o) is accompanied by a Geotechnical Report prepared by a qualified engineer at development application stage which includes certification that the site can be stabilised, followed by a certificate upon completion of works.</p> <p>AO8.4 Buildings and structures are sited below any ridgelines and are sited to avoid protrusion above the surrounding tree-level canopy.</p>	Complies
<p>PO9 Development is located to:</p> <p>(p) protect the ecological values of the site and surrounding land;</p> <p>(q) maintain the scenic values of the area;</p> <p>(r) maintain appropriate setbacks to waterways, watercourses, wetlands, tidal areas and overland flow paths;</p> <p>(s) avoid areas that are vulnerable to natural hazards;</p> <p>(t) minimise to the greatest extent possible on site excavation and filling;</p> <p>(u) provide buffers to cultural, historical or ecological features;</p> <p>(v) minimise visibility from external sites or public viewing points;</p> <p>(w) minimises to the greatest extent possible the loss of native vegetation and fauna habitat.</p>	<p>AO9 No acceptable outcomes are prescribed.</p>	Complies
<p>PO10 Development does not result in adverse impacts on:</p> <p>(x) ecological function or features;</p> <p>(y) on-site or surrounding waterways and wetlands.</p>	<p>AO10 No acceptable outcomes are prescribed.</p>	Complies
<p>PO11 Rehabilitation of natural processes on disturbed sites is undertaken to improve the environmental integrity</p>	<p>AO11 No acceptable outcomes are prescribed</p>	Complies

Performance outcomes	Acceptable outcomes	Comments
of the area.		
PO12 Fencing is designed to not impede the free movement of native fauna through the site.	AO12 No acceptable outcomes are prescribed.	Complies. No fencing will be erected
PO13 New lots contain a minimum lot size of 200 hectares, unless: (z) the lot reconfiguration results in no additional lots (e.g. amalgamation, boundary realignments); (aa) the reconfiguration is limited to one additional lot to accommodate an existing or approved: (i) Telecommunications facility; (ii) Utility installation; (bb) the lot reconfiguration facilitates and outcome consistent with the Return to Country local plan. Note – Boundary realignments must result in an improved environmental outcome or resolve encroachments.	AO13 No acceptable outcomes are prescribed.	n/a

Cape Tribulation and Daintree Coast local plan – assessable development

All development in the Cape Tribulation and Daintree Coast local plan area		Comments
PO1 Development does not result in a demand which exceeds the capacity of: (cc) the Daintree River ferry crossing; (dd) Alexandra Range Road; (ee) the local road network.	AO1 No acceptable outcomes are prescribed.	Complies. Development occurs on an existing allotment
PO2 Development provides a suitable standard of self-sufficient service for: (ff) potable water; (gg) water for fire fighting purposes; (hh) electricity supply.	AO2.1 Water storage is provided in tank/s with a minimum capacity to service the proposed use, including fire fighting capacity, and access to the tank/s for fire trucks. Tank/s are to be: (ii) fitted with a 50mm ball valve and camlock fitting; (jj) installed and connected prior to occupation; (kk) sited so as to be visually unobtrusive.	Complies. A minimum 30,000L tank with appropriate fittings will be provided as required, with the roof catchment shared between the residence and one of the gazebos.

All development in the Cape Tribulation and Daintree Coast local plan area		Comments
	<p>AO2.2 Water storage tanks are to be fitted with screening at their inlets to prevent the intrusion of leaves and insects.</p> <p>AO2.3 An environmentally acceptable and energy efficient power supply is constructed, installed and connected prior to occupation and sited so as to be screened from the road.</p>	Complies. Solar panels will be installed on the main building roof. A backup generator and batteries will be located in the proposed generator shed.
<p>PO3 On-site waste water does not adversely impact on the environmental quality of the water and soil resources or amenity of residents, through the implementation of best environmental practice.</p>	<p>AO3 No acceptable outcomes are prescribed.</p>	Complies. A secondary level waste water system will be installed (AES) - refer to attached Waste Water Report for location and minimum clearance requirements.
<p>PO4 The sustainability of the natural water resources of the area is protected for ecological and domestic consumption purposes.</p>	<p>AO4.1 If groundwater is to be used, development is limited to one bore per site and the bore is: not located within 100 metres of a septic disposal trench (on the site or adjoining sites); not located within 100 metres of another bore.</p> <p>AO4.2 Surface water is to be used for domestic purposes only.</p>	<p>Complies. No bore will be provided</p> <p>Complies</p>
<p>PO5 Development does not adversely impact on areas of sensitive natural vegetation, foreshore areas, watercourses and/or areas of tidal inundation.</p>	<p>AO5 No acceptable outcomes are prescribed.</p>	Complies
<p>PO6 Development is subservient to the surrounding natural environment in scale and intensity and is designed to be functional in a humid tropical rainforest environment.</p>	<p>AO6.1 The exterior finishes and colours of buildings are non-reflective and complement the colours of the surrounding vegetation and view shed.</p> <p>AO6.2 The noise of generators is controlled by design, or the generator is enclosed within a sound insulated building with a residential approved muffler. The noise level generated is less than 65 dBA when measured from a distance</p>	<p>Complies</p> <p>Complies. Generator will be housed in a 4m x 3m steel framed building. Sound and heat Insulation will be fitted to the walls and roof to minimise generator noise</p>

All development in the Cape Tribulation and Daintree Coast local plan area		Comments
	<p>of 7 metres.</p> <p>AO6.3 Any fuel storage associated with an on-site generator, with storage of 20 litres or more of fuel, is enclosed with a building and provided with a bund.</p>	Complies
<p>PO7 Landscaping of the development ensures that the endemic character of the local area is dominant.</p>	<p>AO7.1 Landscaping complies with the requirements of Planning Scheme Policy 7 – Landscaping;</p> <p>AO7.2 All of the existing landscaping to be retained and all of the proposed landscaping is 100% endemic or native species and the details are provided on a landscape plan.</p>	<p>Complies. No landscaping will be required past the nominated cleared area.</p> <p>Complies. The remainder of the allotment is will remain as remnant vegetation.</p>
<p>PO8 Site access driveways and roads within the local plan area are retained as safe, slow speed, scenic drives.</p>	<p>AO8.1 Site access driveways and existing or proposed roads comply with the relevant requirements of Planning Scheme Policy 5 – FNQROC Development Manual and are maintained as low speed gravel roads to maintain the scenic drive experience and to discourage the use of roads by through-traffic;</p> <p>AO8.2 Where existing roads/tracks are 4-wheel drive only, upgrading to facilitate conventional vehicles and an increase in through traffic does not occur.</p>	<p>Complies</p> <p>n/a</p>
<p>PO9 The on-site impacts on natural flow regimes and erosion and sedimentation are minimised.</p>	<p>AO9.1 Filling and excavation is kept to a minimum and involves not more than 5% of the cleared area of the lot.</p> <p>AO9.2 All exposed surfaces must incorporate erosion and sediment controls during construction and must be maintained until revegetation, or other permanent stabilisation, has occurred.</p> <p>AO9.3 This is no disturbance to tree roots and trenching does not involve any damage to tree roots.</p> <p>AO9.4 On-site drainage and stormwater management: (II) maintains natural flow regimes;</p>	<p>Complies. A maximum 100mm excavation or filling is required, resulting in minimal impact on natural flows</p> <p>Complies</p> <p>Complies</p> <p>Complies. The roof catchment for the water storage tank will be shared between</p>

All development in the Cape Tribulation and Daintree Coast local plan area		Comments
	<p>(mm) minimises impervious surfaces;</p> <p>(nn) avoids concentration of flows, but where there is any form of concentration of flow, energy dissipation measures are installed at the outlet to avoid erosion (e.g. rock rip rap, gravel beds, diffusers etc.)</p>	the residence and one of the gazebos. Otherwise no guttering will be installed allowing the roof water to flow onto a rubble filled dispersion bed
General requirements – Dwelling house		
<p>PO10 Development minimises the loss of vegetation and habitat connectivity on site and is sited to protect the environmental values of the site.</p>	<p>AO10.1 The elements of development and access to the site are included in a Designated Development Area (DDA).</p> <p>AO10.2 Development is sited in an existing cleared area or in an area approved for vegetation clearing.</p> <p>AO10.3 Any new clearing is limited to a maximum area of 700m² and is sited to be clear of the high bank of any watercourse. Note – The 700m² of clearing does not include an access driveway.</p>	<p>Complies. The general intent of the development complies with all other relevant acceptable outcomes as described in this assessment</p> <p>Complies. Refer to Site Plan</p> <p>Complies. Refer to Site Plan</p>
<p>PO11 All existing native vegetation on a house site, other than that required and approved to be cleared for the construction of a house and access thereto, is protected to ensure the environmental integrity of the local plan area.</p>	<p>AO11 No acceptable solutions are prescribed.</p>	Complies
<p>PO12 Wildlife movement, fauna habitat and habitat corridors are protected and domestic impacts are minimised.</p>	<p>AO12.1 Fences are limited in extent to the confines of the cleared area around the house and any associated gates are self-closing.</p> <p>AO12.2 External lighting is to be kept to the minimum necessary for orientation, safety and security. Flood lights must not point up, and areas of retained vegetation should, in general, not be illuminated. Where appropriate, outdoor lights are controlled by movement detectors and/or timers.</p>	<p>Complies. No fencing will be provided</p> <p>Complies</p>
<p>PO13 House sites have efficient and safe</p>	<p>AO13.1 Vehicle access is limited to one access</p>	Complies.

All development in the Cape Tribulation and Daintree Coast local plan area		Comments
<p>vehicle access and manoeuvring areas on site, and to the site, to an acceptable standard for the local plan area.</p>	<p>per lot and sited in an approved location, clear of any watercourses.</p> <p>AO13.2 Vehicular access is a maximum width of 4 metres, avoids large tree specimens and/or significant vegetation and habitat corridors and is constructed and maintained to a minimum gravel standard of 75mm of road base on a compacted soil surface.</p> <p>AO13.3 Vehicular access is constructed prior to house construction.</p>	<p>Driveway is near flat (1.7% fall to creek), and a maximum 100mm excavation and filling is required at the house site, resulting in minimal impact on natural overland flows The driveway will be 3m maximum width with a gravelled surface provided for all weather access. Fall is generally perpendicular to the contour and will therefore not require any form of drainage system.</p> <p>Will comply</p>
Additional requirements for Precinct 2– Low impact residential precinct		
<p>PO19 Development is for; (a) detached dwelling of limited size and scale and necessary outbuildings and infrastructure; (b) home occupations, including bed and breakfast accommodation, where it can be demonstrated that the bed and breakfast accommodation can establish on the site and not detrimentally impact on the scenic values of the site and surrounding areas; (c) Nature based tourism, being Forest stay accommodation where in compliance with other requirements contained within this code.</p>	<p>AO19.1 Development is limited to one dwelling house per lot.</p> <p>AO19.2 Establishment of bed and breakfast accommodation only occurs on land on which a dwelling house has been approved and constructed.</p> <p>AO19.3 Bed and breakfast accommodation is limited to cleared areas on the land; or</p> <p>AO19.4 Bed and breakfast accommodation is established within an existing house, where there is no additional vegetation clearing required to accommodate the use;</p> <p>AO19.5 Bed and breakfast accommodation occurs on a site with a minimum area of 1 hectare, and thereafter occurs at a rate of 1 bedroom (2 beds) per hectare, up to a maximum of 4 bedrooms (8) beds per site.</p> <p>AO19.6 Development is setback a minimum of 100 metres to an Esplanade or a foreshore frontage.</p>	<p>Complies</p> <p>N/A</p> <p>N/A</p> <p>N/A</p> <p>N/A</p> <p>N/A</p>

Natural areas overlay code – assessable development

Performance outcomes	Acceptable outcomes	Comments
For self-assessable and assessable development		
Protection of matters of environmental significance		
<p>PO1 Development protects matters of environmental significance.</p>	<p>AO1.1 Development avoids significant impact on the relevant environmental values. or AO1.2 A report is prepared by an appropriately qualified person demonstrating to the satisfaction of the assessment manager, that the development site does not contain any matters of state and local environmental significance. or AO1.3 Development is located, designed and operated to mitigate significant impacts on environmental values. For example, a report certified by an appropriately qualified person demonstrating to the satisfaction of the assessment manager, how the proposed development mitigates impacts, including on water quality, hydrology and biological processes.</p>	<p>Complies. A dwelling is acceptable development on this allotment. In addition, this is a modest 1 bedroom dwelling of minimal proportions, with 3 ancillary buildings, 2 of which will encourage open living.</p>
Management of impacts on matters of environmental significance		
<p>PO2 Development is located, designed and constructed to avoid significant impacts on matters of environmental significance.</p>	<p>AO2 The design and layout of development minimises adverse impacts on ecologically important areas by: (oo) focusing development in cleared areas to protect existing habitat; (pp) utilising design to consolidate density and preserve existing habitat and native vegetation; (qq) aligning new property boundaries to maintain ecologically important areas; (rr) ensuring that alterations to natural landforms, hydrology and drainage patterns on the development site do not negatively affect ecologically important areas; (ss) ensuring that significant fauna</p>	<p>Complies</p>

Performance outcomes	Acceptable outcomes	Comments
	habitats are protected in their environmental context; and (tt) incorporating measures that allow for the safe movement of fauna through the site.	
PO3 An adequate buffer to areas of state environmental significance is provided and maintained.	AO3.1 A buffer for an area of state environmental significance (Wetland protection area) has a minimum width of: (uu) 100 metres where the area is located outside Urban areas; or (vv) 50 metres where the area is located within a Urban areas. or AO3.2 A buffer for an area of state environmental significance is applied and maintained, the width of which is supported by an evaluation of environmental values, including the function and threats to matters of environmental significance.	n/a
PO4 Wetland and wetland buffer areas are maintained, protected and restored. Note – Wetland buffer areas are identified in AO3.1.	AO4.1 Native vegetation within wetlands and wetland buffer areas is retained. AO4.2 Degraded sections of wetlands and wetland buffer areas are revegetated with endemic native plants in patterns and densities which emulate the relevant regional ecosystem.	n/a
PO5 Development avoids the introduction of non-native pest species (plant or animal), that pose a risk to ecological integrity.	AO5.1 Development avoids the introduction of non-native pest species. AO5.2 The threat of existing pest species is controlled by adopting pest management practices for long-term ecological integrity.	Complies. Identification of a lantana like weed in the existing clearing will be required, with appropriate management to follow.
Ecological connectivity		
PO6 Development protects and enhances ecological connectivity and/or habitat extent.	AO6.1 Development retains native vegetation in areas large enough to maintain ecological values, functions and processes. and AO6.2 Development within an ecological	Complies. Less than 7% of the property will be used for the dwelling, leaving approximately 93% of the property as untouched remnant vegetation.

Performance outcomes	Acceptable outcomes	Comments
	<p>corridor rehabilitates native vegetation.</p> <p>and</p> <p>AO6.33 Development within a conservation corridor mitigates adverse impacts on native fauna, feeding, nesting, breeding and roosting sites and native fauna movements.</p>	
<p>PO73 Development minimises disturbance to matters of state environmental significance (including existing ecological corridors).</p>	<p>AO7.1 Development avoids shading of vegetation by setting back buildings by a distance equivalent to the height of the native vegetation.</p> <p>and</p> <p>AO7.2 Development does not encroach within 10 metres of existing riparian vegetation and watercourses.</p>	<p>Complies. 3.8m is the maximum height of any of the buildings, with the greater majority of the dwelling part having a clearance of approximately 4m from adjacent vegetation.</p> <p>Complies. The closest building will be greater than 10m from an adjacent creek bank.</p>
Waterways in an urban area		
<p>PO8 Development is set back from waterways to protect and maintain: (ww) water quality; (xx) hydrological functions; (yy) ecological processes; (zz) biodiversity values; (aaa) riparian and in-stream habitat values and connectivity; (bbb) in-stream migration.</p>	<p>AO8.1 Where a waterway is contained within an easement or a reserve required for that purpose, development does not occur within the easement or reserve; or AO8.2 Development does not occur on the part of the site affected by the waterway corridor.</p>	<p>n/a</p> <p>n/a</p>
Waterways in a non-urban area		
<p>PO9 Development is set back from waterways to protect and maintain: (ccc) water quality; (ddd) hydrological functions; (eee) ecological processes; (fff) biodiversity values; (ggg) riparian and in-stream habitat values and connectivity; (hhh) in-stream migration.</p>	<p>AO9 Development does not occur on that part of the site affected by a waterway corridor.</p>	<p>Complies. The closest building will be greater than 10m from an adjacent creek bank.</p>

Waterways classification	Waterway corridor width
Waterways in Urban areas	10 metres measured perpendicular from the top of the high bank.
Waterways in Other areas	For a dwelling house, 10 metres measured perpendicular from the top of the high bank. For all other development, 20 metres measured perpendicular from the top of the high bank.

CONCLUSION

The development application seeks a Development Permit for Material Change of Use for the purpose of a single dwelling house and generator shed on land described as L514 RP742056, Silver Ash Road, COW BAY.

The proposed development is considered generally consistent with the relevant Planning Scheme Codes and overlays. The report includes supporting information intended to address any concerns Council may have as the assessing authority.



EARTH TEST

Site Classification

And

Wastewater Management System

For

Barbara Lloyd

At

Lot 514 Silver Ash Road

Cow Bay



INTRODUCTION:

Earth Test has been engaged by Barbara Lloyd to assess, design and report on Site Classification and a Domestic Wastewater Management System at Lot 514 Silver Ash Road, Cow Bay.

Real Property Description:-

Lot 514, on RP 742056

Local Authority: Douglas Shire Council.

It is understood the intention is to construct a new dwelling at the site.

A site and soil evaluation was carried out in April 2018.

SITE FACTORS:

The site was identified during a meeting with the owner on-site.

The Lot has an area of 1.075 hectares and is predominantly covered with rainforest.

The water supply to the site will be onsite roof rain water only.

An intermittent watercourse is shown on the site plan.

One borehole BH1 was sampled to confirm soil depth, type and structure.

Atterberg Limits tests were performed on a disturbed sample from Borehole1.



Proposed dwelling location at Lot 514 Silver Ash Road, Cow Bay



SITE INVESTIGATION REPORT

BOREHOLE LOG

CLIENT: Barbara Lloyd.		DATE SAMPLED: 4/04/2018
PROJECT: Lot 514 Silver Ash Road, Cow Bay.		Sampled by: L. Quinn
REPORT DATE: 23/07/2018		
BOREHOLE No: BH1		
DEPTH (m)	DESCRIPTION	COMMENTS
		Disturbed sample 0.6- 0.9m. Watertable not encountered



ATTERBERG LIMITS TEST REPORT

CLIENT: Barbara Lloyd

SAMPLE No: SI 120-18

PROJECT: Lot 514 Silver Ash Road, Cow Bay

DATE SAMPLED: 4/04/2018

SAMPLE DETAILS:

Sampled by: L. Quinn

REPORT DATE: 23/07/2018

Tested By: B. Wyatt

TEST METHOD	RESULT
Liquid Limit: AS 1289.3.1.2	53%
Plastic Limit: AS 1289.3.2.1	39%
Plasticity Index: AS 1289.3.3.1	14%
Linear Shrinkage: AS 1289.3.4.1	13.0%
Length Of Mould:	250.1mm
Cracking, Crumbling, Curling, Number Of Breaks:	Three Breaks
Sample History:	Air Dried
Preparation Method:	Dry Sieved
Insitu Moisture Content:	30.0%
% Passing 0.075mm:	62%



SITE CLASSIFICATION

Lot 514 Silver Ash Road, Cow Bay.

“Abnormal moisture conditions (AS2870-2011 Clause 1.3.3)” exist at the site due to the future removal of trees

The Atterberg Limits test results indicate a moderately reactive soil.

Due to the “Abnormal moisture conditions”, the site must be classified **CLASS-“P”**. To comply with the “Building Services Board Subsidence Policy” advice should be sought from a Registered Professional Engineer for footing design.

All site works must be carried out in accordance with AS 3798-2007 “Guidelines on earthworks for commercial and residential developments”

If the depth of any cut exceeds 0.5m or uncontrolled fill exceeds 0.4m the classification shall be reconsidered.

Because this investigation is limited in scope and extent, it is possible that areas may exist which differ from those shown on the test hole records and used in the site classification. Should any variation from the reported conditions be encountered during excavation work, this office must be notified immediately so that reappraisal of the classification can be made.

Leonard Quinn.
Earth Test.



SITE AND SOIL EVALUATION

Lot 514 Silver Ash Road, Cow Bay.

The site and soil evaluation carried out on 04/04/2018 provided the following results.

Site Assessment

<u>Site Factor</u>	<u>Result</u>
Slope	3 Degrees
Shape	Linear-Planar
Aspect	North North-West
Exposure	Extremely limited (Rainforest)
Erosion/land slip	Not noted.
Boulders/rock outcrop	Not encountered
Vegetation	Rainforest.
Watercourse/Bores	As shown on site plan.
Water table	Not encountered during investigation.
Fill	Not encountered during investigation.
Flooding	Not likely.
Channelled run-off	Not found
Soil surface conditions	Firm, Moist
Other site specific factors	Not Noted

Soil Assessment

<u>Soil Property</u>	<u>Result</u>
Colour	Red-Brown
Texture	Clay-Loam
Structure	High
Coarse Fragments	30%
Measured Permeability Ksat (m/d)	Not measured
Dispersion	Slakes
Soil Category	4
Resultant Design Load Rate, DLR (mm/day)	30



WASTEWATER MANAGEMENT SYSTEM

An “All-Waste” septic tank discharging into an “Advanced Enviro-Septic” bed is considered suitable for this site.

This system has been designed to conform to the requirements of the following codes, acts, regulations and standards. All work to be carried out in accordance with the following codes.

- AS/NZ 1547:2012 On-site domestic-wastewater management.
- Queensland PLUMBING AND DRAINAGE ACT 2002.
- Queensland STANDARD PLUMBING AND DRAINAGE REGULATION 2003.
- Queensland PLUMBING AND WASTEWATER CODE.

SYSTEM SIZING FACTORS.

A population equivalent of six (6) persons has been chosen for the proposed four bedroom dwelling.

The site is connected to an onsite roof rain water supply system.

Standard water-reduction fixtures must be used to ensure the integrity of the system.

They shall include:-

- Dual flush 6/3 Litre water closets.
- Shower-flow restrictors.
- Aerator faucets (taps).
- Water-conserving automatic washing machines.

Note: - Garbage grinders are not permitted.

As per AS/NZ 1547:2012 Appendix H, Table H1 the “Typical wastewater design flow” for a “Onsite roof rain water supply” gives a flow allowance of 120 L/Person/day.

The daily flow for the dwelling (6 persons @ 120 L/person/day) will be 720 L/day.

From AS/NZ 1547:2012 Table J1 the minimum capacity of the All-Waste septic tank required is 3000 L.

The tank must NOT be fitted with an outlet filter.



LAND-APPLICATION SYSTEM

DISPOSAL AREA SIZING

From AS/NZ 1547:2012 APPENDIX L, L4 DESIGN AREA SIZING, L4.2 Sizing

$$L = Q / (DLR \times W)$$

Where:

L = length in m

Q = design daily flow in L/day

DLR = Design Loading Rate in mm/d

W = Width in m

$$\begin{aligned} L &= 720 / (30 \times 1.9) \\ &= 12.6\text{m.} \end{aligned}$$

Use one 12.6m long by 1.9m wide Advanced Enviro-Septic bed.

See site plan and detail cross-section.

SYSTEM SAND

All configurations of Advanced Enviro-Septic® require a minimum of 150mm of system sand surrounding the circumference of the pipe. This sand, typically gravelly coarse sand, must adhere to the following percentage and quality restrictions.

AS Sieve Size (mm)	Percent Passing %
9.50	100
4.75	95-100
2.36	80-100
1.18	50-85
0.600	25-60
0.300	5-30
0.150	0-10
0.075	0-2

If there is any doubt if the sand media will pass requirements please contact Earth Test for further advice.



SYSTEM INSTALLATION

Avoid compaction by keeping people and machinery off the finished trench or bed floor. The system shall be installed by a licensed plumber in accordance with the manufacturer's recommendations and the relevant Australian Standards.

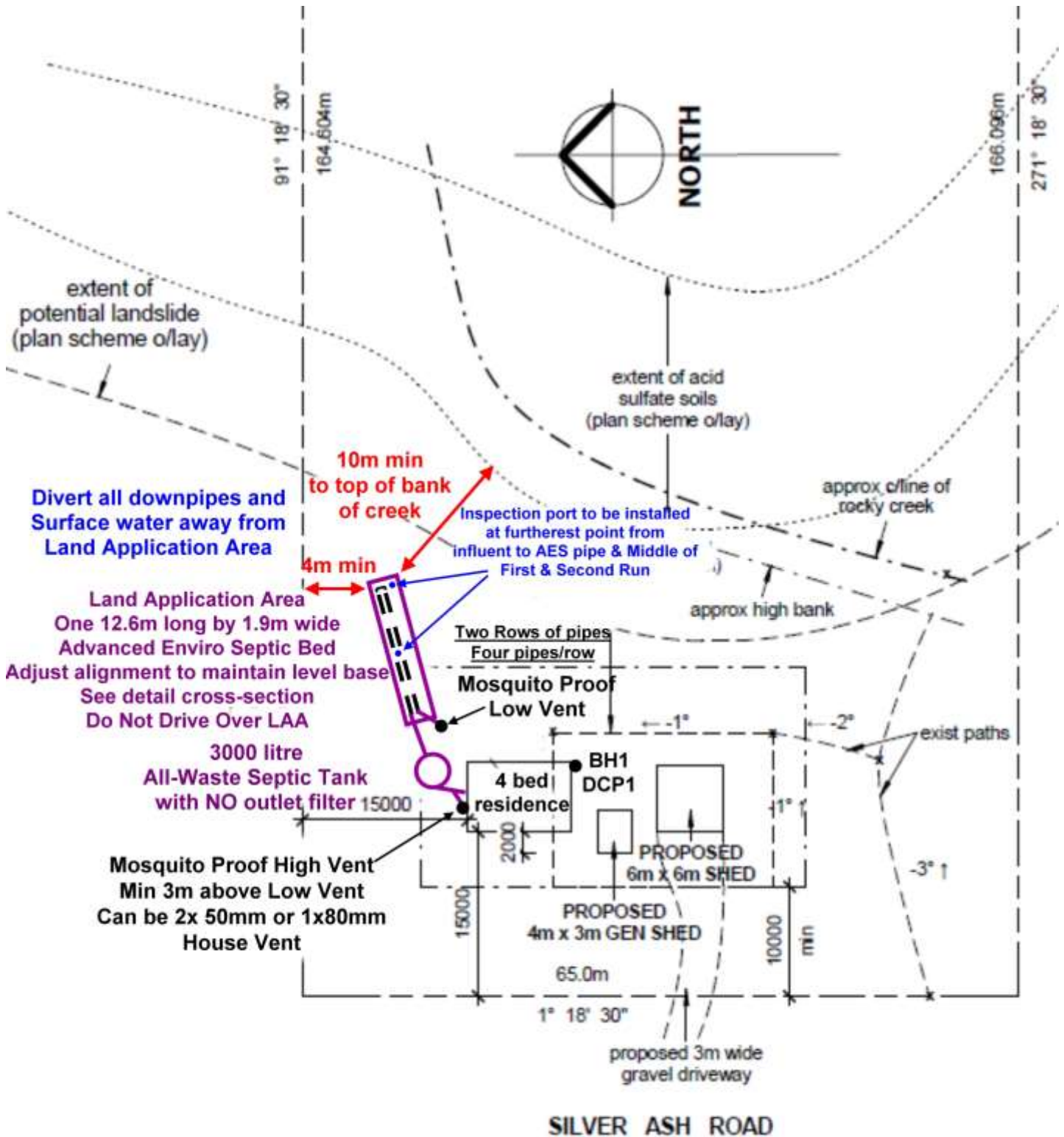
Operation and Maintenance

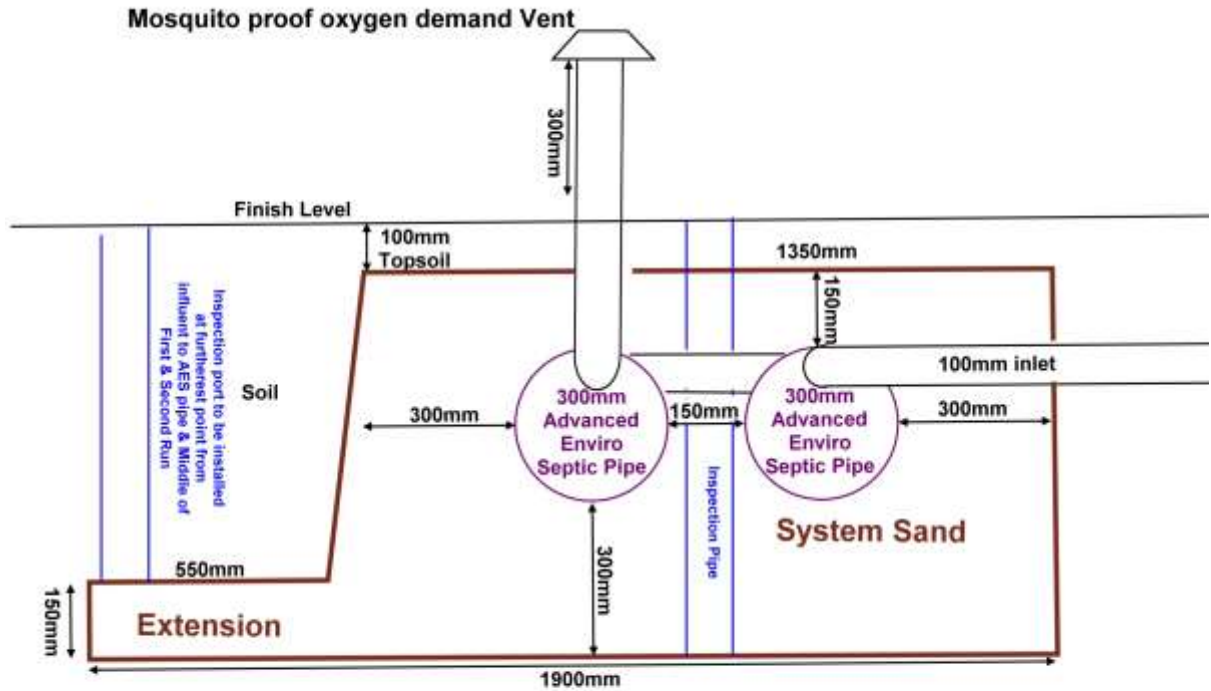
Homeowners should be fully informed of the proper operation and maintenance requirements of the on-site wastewater system.

Leonard Quinn
Earth Test

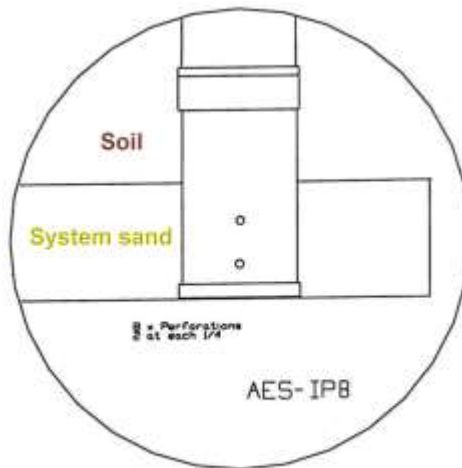


SITE PLAN
Lot 514 Silver Ash Road, Cow Bay.
NOT TO SCALE

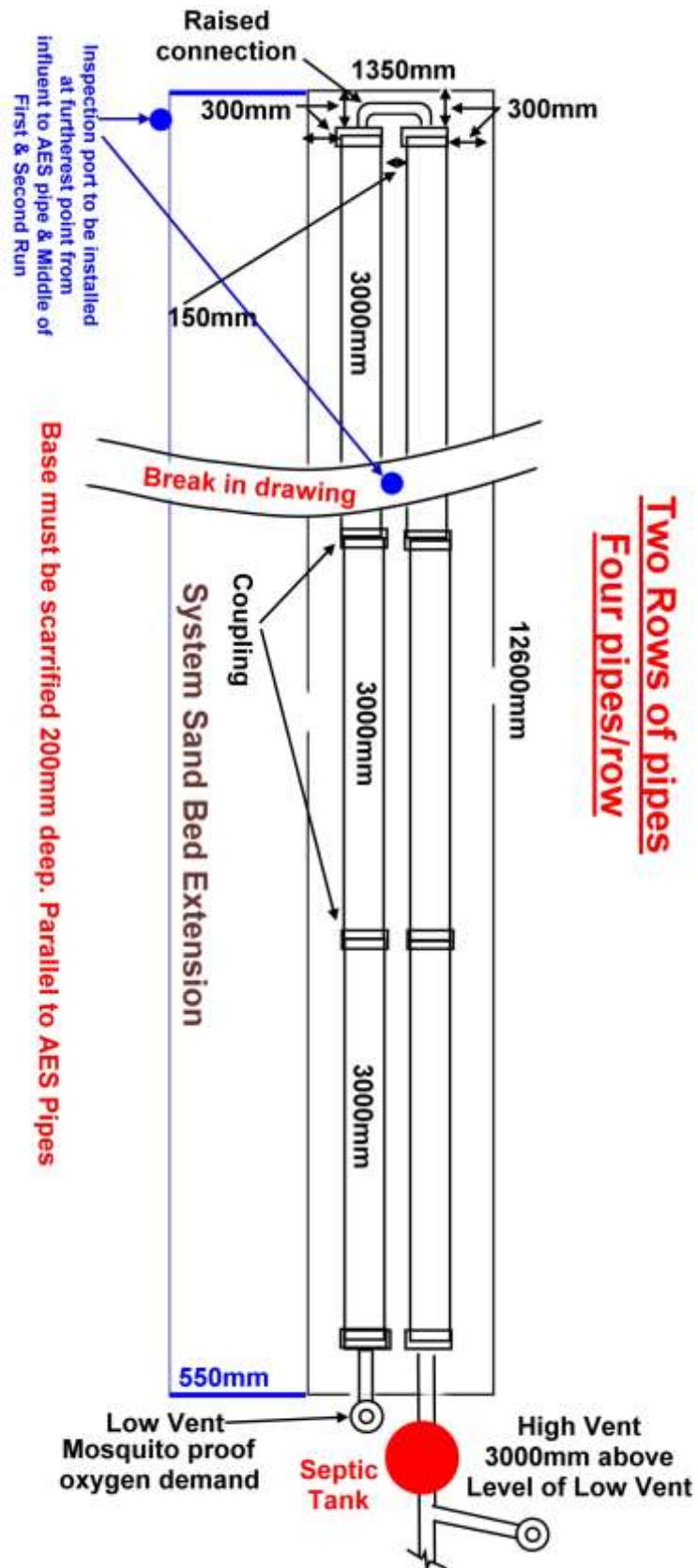






**Entire base must be scarified 200mm deep parallel To AES Pipes
1900mm Wide Two Pipe
Advanced Enviro-Septic Cross-Section**

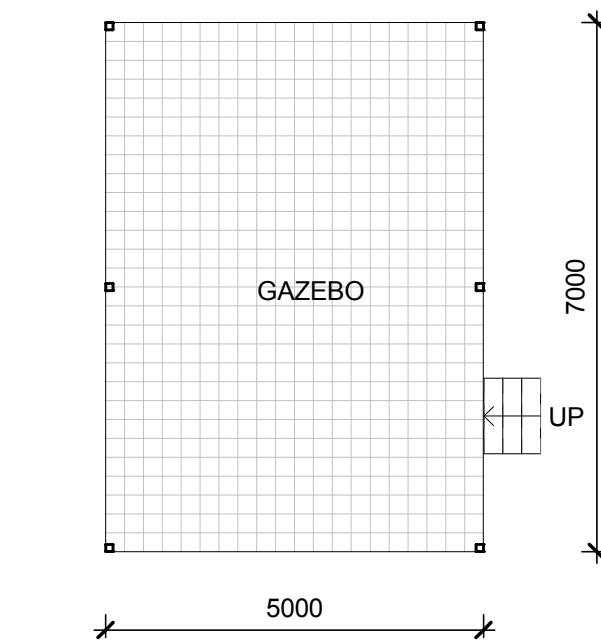
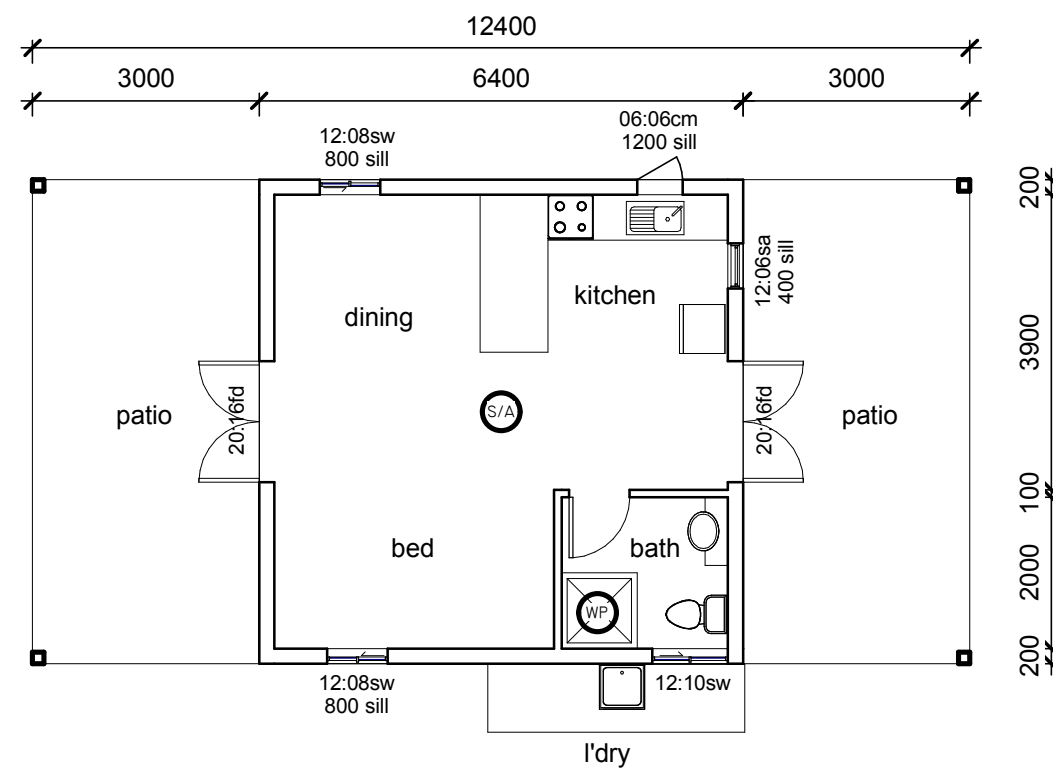
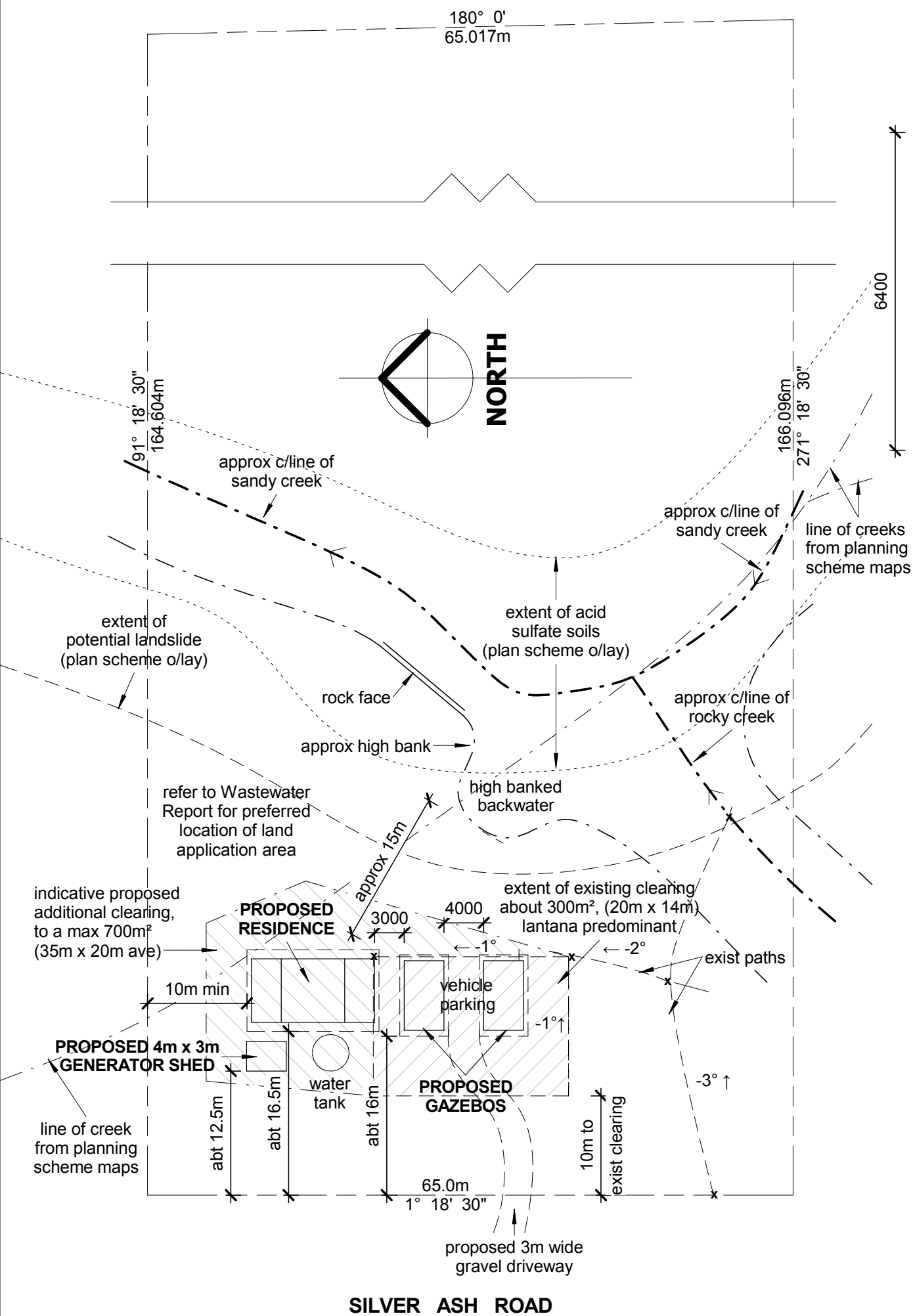


AES Inspection point detail





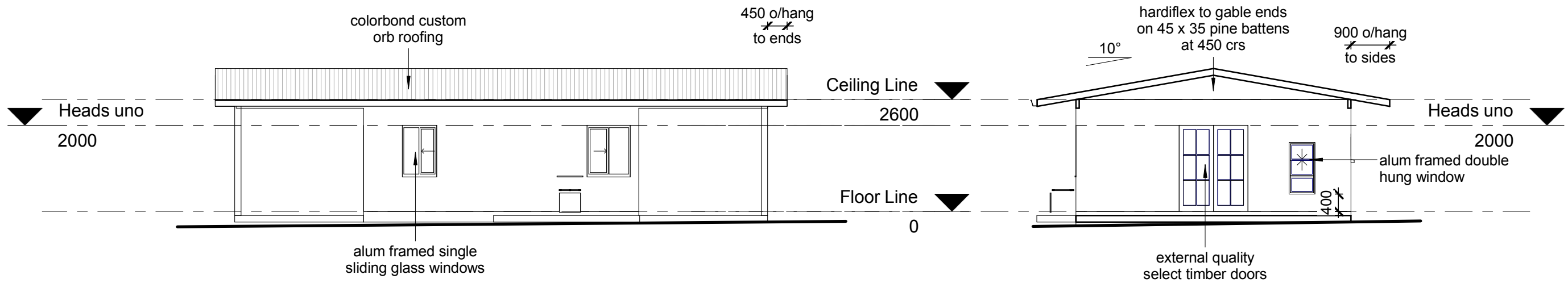
 Advanced Enviro-septic Design Calculator v8.5				
<i>"Always the BEST Option" until site and soil conditions rule it out.</i>				
Site Address: Lot 514 Silver Ash Road, Cow Bay	State: Q Post Code:			
Client Name: Issan				
Designers Name: Earth Test	Designers Ph Number: 40954734 Designer Lic Number: 1017941			
Plumber	Plumber Ph Number Plumb / Drainer Lic Number			
Council Area: Douglas Shire Council	Designers AES Cert Number Date:			
This Calculator is a guide only, receiving soil classification, surface water, water tables and all other site constraints addressed by the qualified designer.				
System Designers site and soil calculation data entry IMPORTANT NOTES				
meter loading rate, "30" for Advanced Secondary or "38" Secondary	30 >> <i>This design is for an ADVANCED SECONDARY system</i>			
Is this a new installation Y or N	y >> Minimum single vent size is 80mm or 2 x 50mm house vents			
Number of person	6 >> a septic tank outlet filter is NOT RECOMMENDED			
Daily Design Flow Allowance Litre/Person/Day	120			
Number of rows required to suit site constraints	2 >> The maximum lth of a single AES pipe run is 30 meters.			
Surface Soil Category as established by site and soil evaluation, CATEGORY	4 >> Category may require design considerations, Ref AS1547			
Design Loading Rate based on site & soil evaluation DLR (mm/day)	30 >> Soil conditioning may be necessary, Ref AS1547 & Comments.			
Bore log depth below system Basal area	1200 >> Min depth below basal area is 600 mm to establish water table or rc			
Enter System footprint Slope in % for standard AES systems to calculate	5 >> Consideration required for Sloping sites, Ref AS1547, refer comment			
Is this design a gravity system with no outlet filter? Y or N	y >> A House Vent & LOW VENT required on this system			
PLEASE CHECK YOU HAVE FALL FROM TANK TO AES SYSTEM PIPES				
<i>COMMENTS -- "The outcome must be important to everyone."</i>				
- Ripping of receiving surface is required in clay soil structures in Cat 4,5,6. In addition refer to AS 1547. Always excavate and rip parallel to the site slope/AES pt				
- All Sloping sites require special consideration and management through design of slope percentage, surface water and construction methods as per AS1547.				
- Plumbers are reminded to practice good construction techniques as per AS 1547 and as provided on AES installation instructions supplied with components.				
AES System Calculator Outcomes				
Total System load - litres / day (Q)	720 l/d			
Min Length of AES pipe rows to treat loading	12.0 m			
Number of FULL AES Pipe lengths per row	4 lths			
Total Capacity of AES System pipe in Litres	1696 ltr.			
AES dimensions				
	AES System System Extension			
Lth m (L)	12.6 12.6			
Width m(W)	1.35 0.55			
Subsoil Depth :	0.75 0.15			
Area m2	17.0 7.0			
DO YOU WISH TO USE CUT LENGTHS OF PIPE IN THIS DESIGN? (ENTER 'Y')				
IF YOU WISH TO USE A TRENCH EXTENSION DESIGN OPTION ENTER 'Y'				
Enter Custom Width in metre				
AES INFILTRATION FOOT PRINT AREA - $L = Q / (DLR \times W)$	Length Width Minimum AES foot print required			
<i>for this Basic Serial design is</i>				
	12.6 x 1.90 = 24.0 m2 total			
AES System Bill of Materials				
Code	AES System Bill of Materials	Chankar Environmental Use Only		
AES-PIPE	AES 3 mtr Lths required	8	lths	 <p>Digitally signed by Kane Dickson DN: cn=Kane Dickson, o=Chankar Environmental, ou=Design Review, email=designreview@enviro-septic.com.au, c=AU Date: 2018.07.24 08:21:55 +10'00'</p> <p>Designreview@enviro-septic.com.au</p>
AESC	AESC Couplings required	6	ea	
AESO	AESO Offset adaptors	4	ea	
AESODV	AES Oxygen demand vent	1	ea	
AES-IPB	AES 100mm Inspection point base	2	ea	
AES Equ	AES Speed Flow Equaliser		ea	
TOTAL SYSTEM SAND REQUIRED (Guide Only)		17	m3	
PLEASE email your AES CALC and Drawings to DESIGNREVIEW@ENVIRO-SEPTIC.COM.AU				
<p>> The AES Calculator is a design aid to allow checking of the AES components and configuration and is a guide only; Site and soil conditions referencing the AS 1547 standard are calculated and designed by a Qualified Designer.</p> <p>> Chankar Environmental has no responsibility for the soil evaluation, loading calculations or DLR entered by the designer for this calculator.</p> <p>> AES pipes can be cut to length on site. They are supplied in 3 meter lths only.</p>				
AES-Design-V8.5-Calculator Copy Right - Chankar Environmental Pty Ltd 1.11.2015				



LEGEND

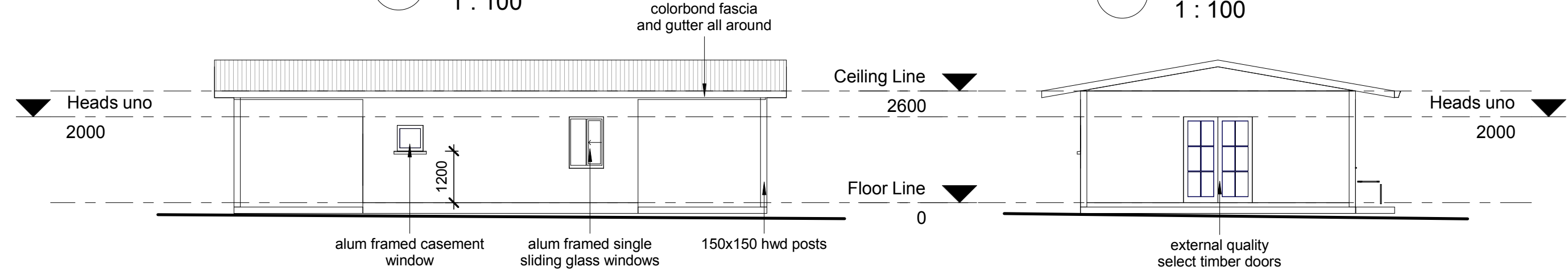
- 200 Concrete Masonry external walls, render finished to external, gyprock to internal generally, villaboard to wet areas.
 - 100 conc mas walls to shower areas, line as above
 - FW●** Floor Waste (optional)
 - Waterproof wet area to AS3740.
 - Smoke alarms to AS3786.
 - 150 x 150 hwd posts
- WINDOW and DOOR LEGEND**
- fd timber french glass door
 - sw alum framed single sliding glass window
 - cm alum framed casement glass window
 - sa alum framed sash glass window

C	19.02.19	gazebos added	
REV	DATE	DESCRIPTION	
GREG SKYRING <i>Design</i> and DRAFTING Pty. Ltd. Lic Under QBSA Act 1991 - No 1040371			
11 Noli Close, Mossman Q. 4873		Phone/Fax: (07) 40982061 Mobile: 0419212652 Email: greg@skyringdesign.com.au	
PROJECT			
Proposed Dwelling, Lot 514 RP742056, Silver Ash Road, COW BAY			
PLAN TITLE			
Site and Floor Plans			
CLIENT			
B. Lloyd (Issani)			
SCALES	WIND CLASS	PLAN NO	SHEET NO
As indicated	C2	206-18	1 of 2
		REV.	C



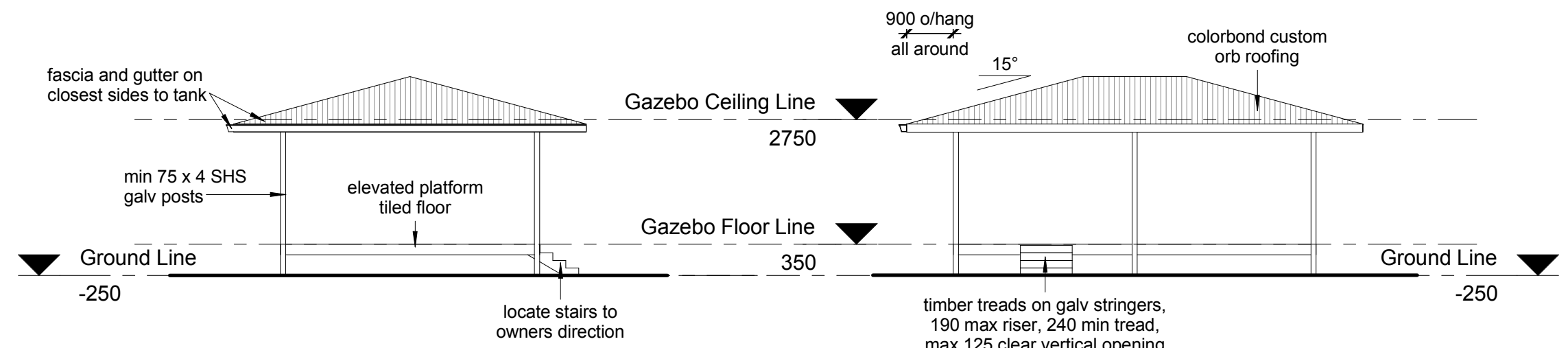
1 Front Elevation
1 : 100

2 Right Elevation
1 : 100



3 Rear Elevation
1 : 100

4 Left Elevation
1 : 100



5 Gazebo Front Elevation
1 : 100

6 Gazebo Right Elevation
1 : 100

I, Barbara Lloyd

[Insert full name.]

as owner/s of the premises identified as follows:

L514 RP742056, Silver Ash Road, Cow Bay

consent to the making of a development application by:

Greg Skyring Design and Drafting Pty Ltd

on the premises described above for:

Development application - Material change of use

B Lloyd

[signature of owner and
date signed]

27.09.2018