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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) *(individual or company full name)*	Colin Disley
Contact name *(only applicable for companies)*	
Postal address *(P.O. Box or street address)*	Lot 131 Buchanan Creek Rd
Suburb	Cow Bay
State	Q
Postcode	4873
Country	
Contact number	40989208
Email address *(non-mandatory)*	cmdisley@yahoo.com.au
Mobile number *(non-mandatory)*	
Fax number *(non-mandatory)*	
Applicant's reference number(s) *(if applicable)*	

2) Owner's consent

2.1) Is written consent of the owner required for this development application?

☑ Yes – the written consent of the owner(s) is attached to this development application

☐ No – proceed to 3)

AS THE OWNER OF THE SUBJECT PROPERTY I CONSENT TO THE LODGEMENT OF THIS APPLICATION.

Signed

Colin Disley

Queensland Government

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).*

	Unit No.	Street No.	Street Name and Type	Suburb
a)			Buchanan Creek Rd	Cows Bay
	Postcode	Lot No.	Plan Type and Number *(e.g. RP, SP)*	Local Government Area(s)
		131	RP 737400	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)*
		☐ WGS84 ☐ GDA94 ☐ Other:	

☐ Coordinates of premises by easting and northing

Easting(s)	Northing(s)	Zone Ref.	Datum	Local Government Area(s) *(if applicable)*
		☐ 54 ☐ 55 ☐ 56	☐ WGS84 ☐ GDA94 ☐ 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:

☐ Listed on the Contaminated Land Register (CLR) under the *Environmental Protection Act 1994*

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)*:

HOUSE

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	☑ Yes – complete division 1 if assessable against a local planning instrument
Reconfiguring a lot	☐ Yes – complete division 2
Operational work	☐ Yes – complete division 3
Building work	☐ Yes – complete *DA Form 2 – Building work details*

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)*
CONSTRUCTION OF DWELLING	HOUSE	1	140 m²

8.2) Does the proposed use involve the use of existing buildings on the premises?

☐ Yes
☑ 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)*

☐ Subdivision *(complete 10))*
☐ Boundary realignment *(complete 12))*
☐ Dividing land into parts by agreement *(complete 11))*
☐ 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?

☐ Yes – provide additional details below
☐ 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? *(e.g. pedestrian access)*	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?

- ☐ Road work
- ☐ Stormwater
- ☐ Water infrastructure
- ☐ Drainage work
- ☐ Earthworks
- ☐ Sewage infrastructure
- ☐ Landscaping
- ☐ Signage
- ☐ Clearing vegetation
- ☐ Other – please specify:

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

- ☐ Yes – specify number of new lots:
- ☐ 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)*

- ☐ Environmentally relevant activities (ERA) *(only if the ERA have not been devolved to a local government)*
- ☐ Fisheries – aquaculture
- ☐ Fisheries – declared fish habitat area
- ☐ Fisheries – marine plants
- ☐ Fisheries – waterway barrier works
- ☐ Hazardous chemical facilities
- ☐ Queensland heritage place *(on or near a Queensland heritage place)*
- ☐ Infrastructure – designated premises
- ☐ Infrastructure – state transport infrastructure
- ☐ Infrastructure – state transport corridors and future state transport corridors
- ☐ Infrastructure – state-controlled transport tunnels and future state-controlled transport tunnels
- ☐ Infrastructure – state-controlled roads
- ☐ Land within Port of Brisbane's port limits
- ☐ SEQ development area
- ☐ SEQ regional landscape and rural production area or SEQ Rural living area – community activity
- ☐ SEQ regional landscape and rural production area or SEQ Rural living area – indoor recreation
- ☐ SEQ regional landscape and rural production area or SEQ Rural living area – residential development
- ☐ SEQ regional landscape and rural production area or SEQ Rural living area – urban activity
- ☐ Tidal works or works in a coastal management district
- ☐ Urban design
- ☐ Water-related development – taking or interfering with water
- ☐ Water-related development – removing quarry material *(from a watercourse or lake)*
- ☐ Water-related development – referable dams
- ☐ Water-related development – construction of new levees or modification of existing levees *(category 2 or 3 levees only)*
- ☐ Wetland protection area

Matters requiring referral to the **local government:**

- ☐ Airport land
- ☐ Environmentally relevant activities (ERA) *(only if the ERA have been devolved to local government)*
- ☐ Local heritage places

Matters requiring referral to the **chief executive of the distribution entity or transmission entity:**

- ☐ Electricity infrastructure

Matters requiring referral to:

- 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

- ☐ Oil and gas infrastructure

Matters requiring referral to **the Brisbane City Council:**

- ☐ Brisbane core port land

Matters requiring referral to the **Minister under the Transport Infrastructure Act 1994:**

- ☐ Brisbane core port land
- ☐ Strategic port land

Matters requiring referral to the **relevant port operator:**

- ☐ Brisbane core port land (below high-water mark and within port limits)

Matters requiring referral to the **chief executive of the relevant port authority:**

- ☐ Land within limits of another port

Matters requiring referral to the **Gold Coast Waterways Authority:**

- ☐ Tidal works, or development in a coastal management district in Gold Coast waters

Matters requiring referral to the **Queensland Fire and Emergency Service:**

- ☐ Tidal works, or development in a coastal management district

18) Has any referral agency provided a referral response for this development application?		
☐ Yes – referral response(s) received and listed below are attached to this development application ☑ 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

☑ I agree to receive an information request if determined necessary for this development application

☐ 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:*

- *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)*

☑ Yes – provide details below or include details in a schedule to this development application

☐ No

List of approval/development application references	Reference number	Date	Assessment manager
☑ Approval ☑ Development application	MCUC 026/06	29-3-07	DSC
☐ Approval ☐ Development application			

21) Has the portable long service leave levy been paid? *(only applicable to development applications involving building work or operational work)*

☐ Yes – the yellow local government/private certifier's copy of the receipted QLeave form is attached to this development application

☐ 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

☑ 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?

☐ Yes – show cause or enforcement notice is attached

☑ 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:	
Proposed ERA name:			

☐ 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:	

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 ***Note**: See the Planning Regulation 2017 for referral requirements*	☑ Yes
If 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 *Note: For completion by assessment manager if applicable*	
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.

Inspection Certificate / Aspect Certificate / QBSA Licensee Aspect Certificate

16

NOTE

This is to be used for the purposes of section 10(c) of the *Building Act 1975* and/or section 47 of the *Building Regulation 2006*.

1. Indicate the type of certificate

☑ Inspection Certificate for

☑ Stage of building work (for single detached class 1a or class 10 building or structure)

Footing Stage

☐ Aspect of building work (indicate the aspect)

☐ **QBSA Licensee Aspect Certificate**

Scope of the work

Scope of the work covered by the licence class under the *Queensland Building Services Authority Regulation 2003* for the aspect being certified, eg scope of work for a waterproofing licence is "installing waterproofing materials or systems for preventing moisture penetration". An aspect being certified may include "wet area sealing to showers".

2. Property description

The description must identify all land the subject of the application.

The lot & plan details (eg. SP / RP) are shown on title documents or a rates notice. If the plan is not registered by title, provide previous lot and plan details.

Street address *(include no., street, suburb / locality & postcode)*

Buchanan Creek Road
Cow Bay QLD 4873

Lot & plan details *(Attach list if necessary)*

Lot 131 RP737400

In which local government area is the land situated?

Cairns Regional Council

3. Building description

Building description	Class of building / structure
Dwelling	1a

4. Description of component/s certified

Clearly describe the extent of work covered by this certificate, e.g. all structural aspects of the steel roof beams.

Footing Stage

LOCAL GOVERNMENT USE ONLY

DATE RECEIVED		REFERENCE NUMBER/S		Approved form 16 Version 2, 02/08

5. Basis of certification
Detail the basis for giving the certificate and the extent to which tests, specifications, rules, standards, codes of practice and other publications, were relied upon.

Visual Inspection

6. Reference documentation
Clearly identify any relevant documentation, e.g. numbered structural engineering plans.

Approved Plans

7. Building certifier reference number and development approval number

Building certifier reference number: 20092362

Development approval number:

8. Building Certifier or competent person details

A **competent person** must be assessed as competent before carrying out the inspection.

The builder for the work cannot give a stage certificate of inspection.

A competent person is assessed by the building certifier for the work as competent to practice in an aspect of the building and specification design, because of the individual's skill, experience and qualifications. The competent person must be registered or licensed under a law applying in the State to practice the aspect.

If no relevant law requires the individual to be licensed or registered, the certifier must assess the individual as having appropriate experience, qualifications or skills to be able to give the help.

If the chief executive issues any guidelines for assessing a competent person, the building certifier must use the guidelines when assessing the person.

Name (*in full*): Jeff Evans

Company name *if applicable*: GMA Certification Group

Contact person: Jeff Evans

Phone no. *business hours*: 07 4098 5150

Mobile no.:

Fax no.: 07 4098 5180

Email address: jevans@gmacert.com.au

Postal address: PO Box 831

PORT DOUGLAS QLD Postcode 4877

Licence class: Class A

Licence number: A706169

Date approval to inspect received from building certifier:

9. Signature of building certifier, competent person or QBSA licensee

☑ **Inspection Certificate for stage or aspect**

☐ **QBSA Licensee Aspect Certificate**

☐ A person who may under s43 give a QBSA licensee certificate for the aspect if it complies with the requirements for self assessable building work under the *Building Regulation 2006* s44.

Signature: Jeff Evans

Date: 6 October 2009

ITEM NO	
SUBJECT	MCUC 026/06 – Material Change of Use for the purpose of a House
AUTHOR	Michelle Henderson
RECOMMENDATION	*That the General Manager, Development & Environment, acting under delegated powers* Approve the application subject to conditions listed at Attachment C

PART 1: APPLICATION DETAILS

Location -	
Street address	Buchanan Creek Road, Cow Bay
Lot number	Lot 131 on RP737400
The proposal – See Attachment A for more detail	Construction of a Dwelling House
Site and applicant details -	
Site area	1.04 **hectares** **Existing use:** Vacant
Applicant's details	Mr Colin Disley
Land owner's details	Mr Colin Disley

PART 2: TOWN PLANNING EVALUATION (See Attachment B)

Preliminary considerations -

State Planning Policies? No **Scheme policies apply?** Yes
Referral agencies? No **Previous approvals?** No

Compliance with Douglas Shire (2006) Planning Scheme codes -		Compliance with Code
Locality code	Settlement Areas North of the Daintree River	Compliant with Condition(s)
Planning area	Conservation; Rainforest Residential Precinct	Complies
Land use codes	House	Complies
Overlays	Acid Sulfate Soils Cultural Heritage	Not Applicable
	Natural Hazards - Medium Risk	Complies
General codes	Filling and excavation	Not Applicable
	Landscaping	Not Applicable
	Natural Areas and Scenic Amenity	Complies
	Vehicle Parking and Access	Complies

ATTACHMENTS

A: The proposal B: Town Planning Evaluation C: Draft decision letter - approval

Figure 1 – Locality Map

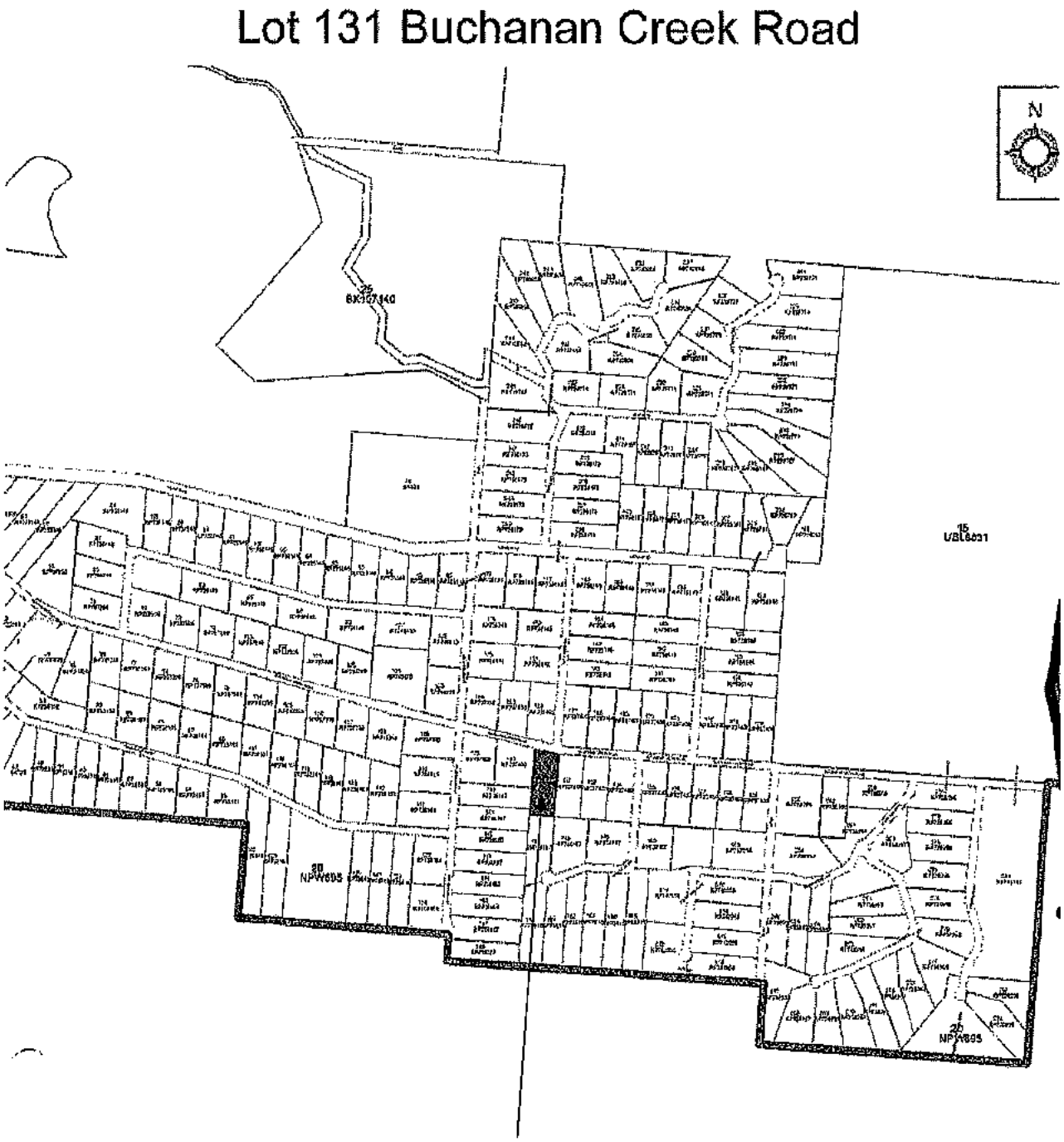


Figure 2 – Planning Scheme Map

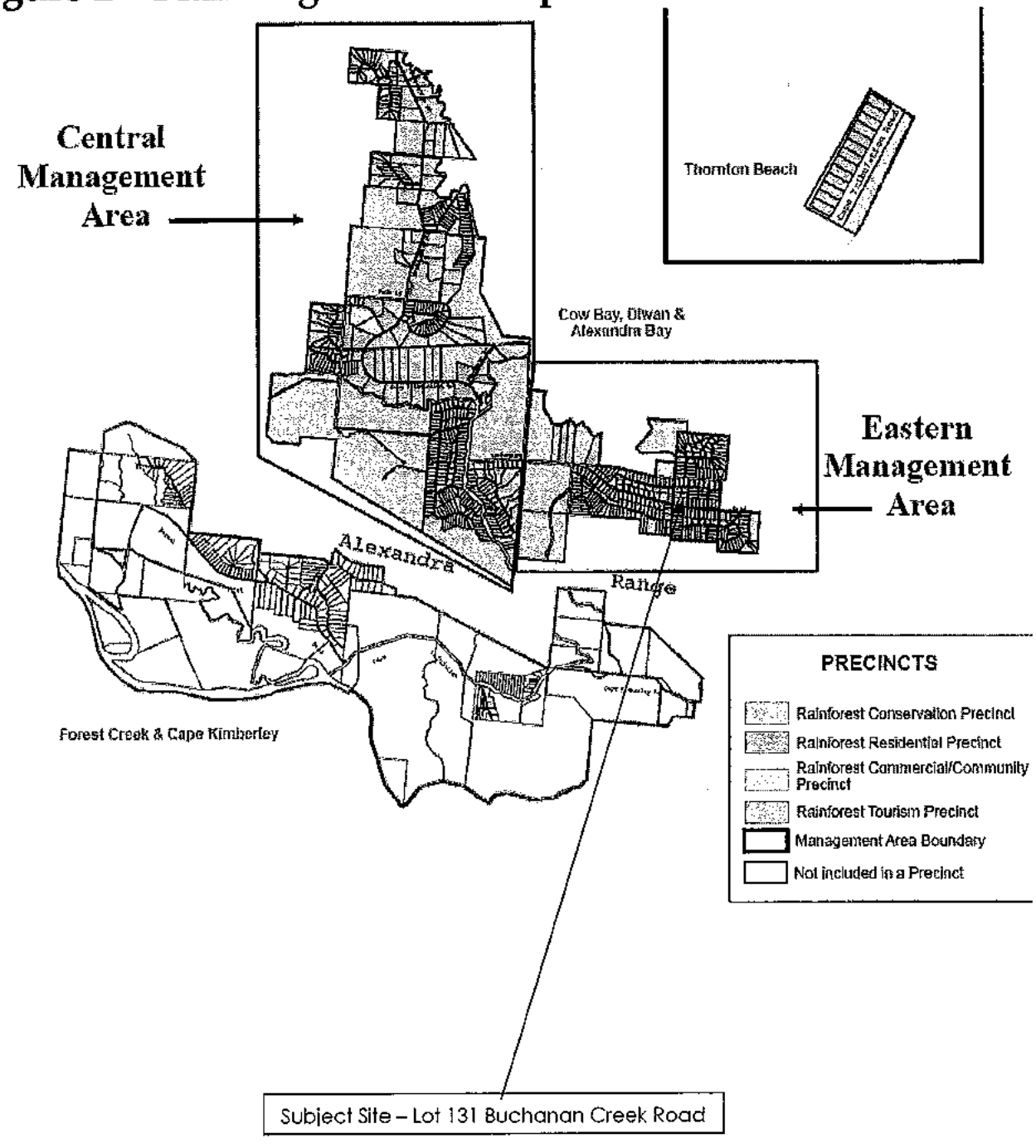


Figure 3 – Site Plan

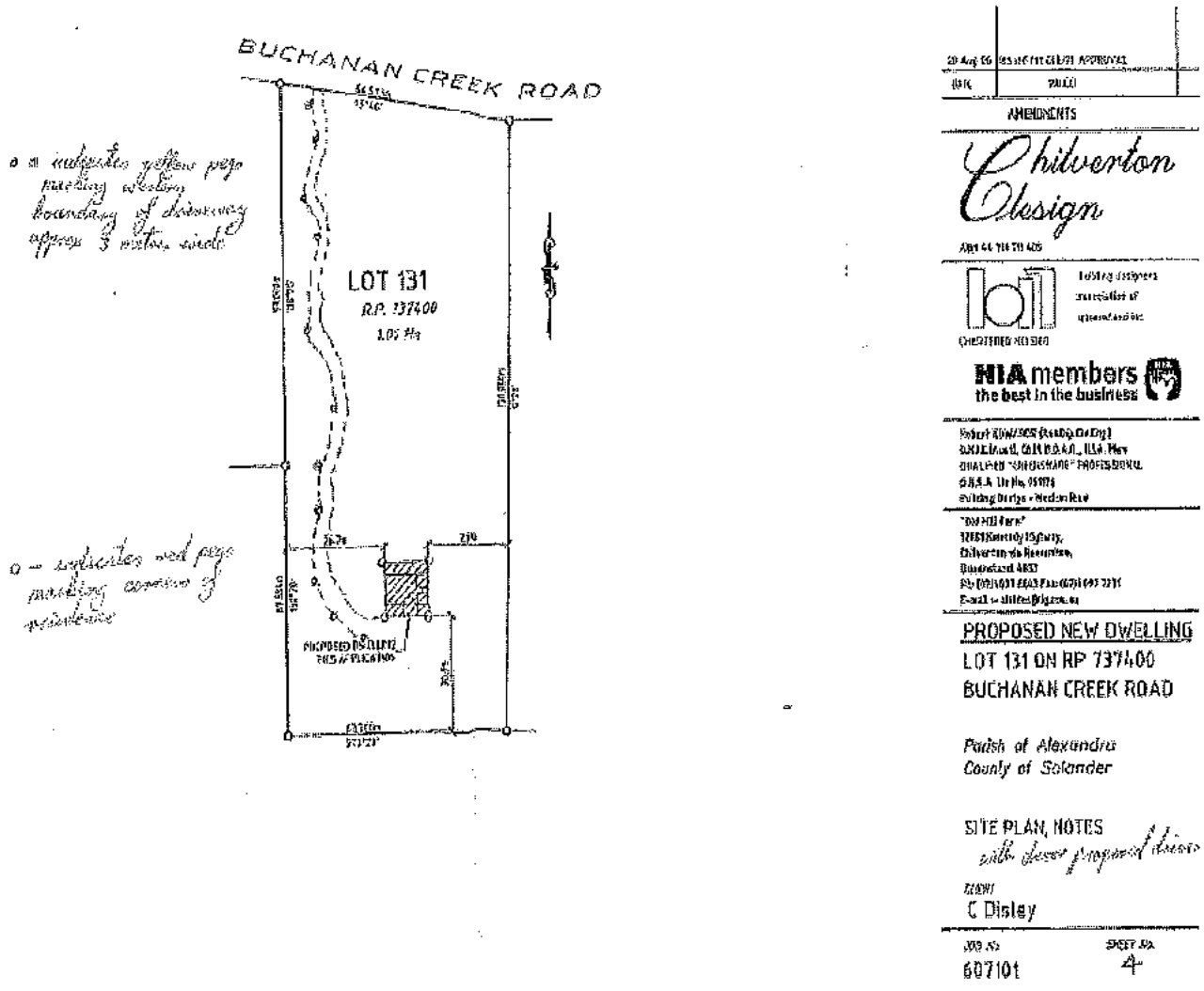
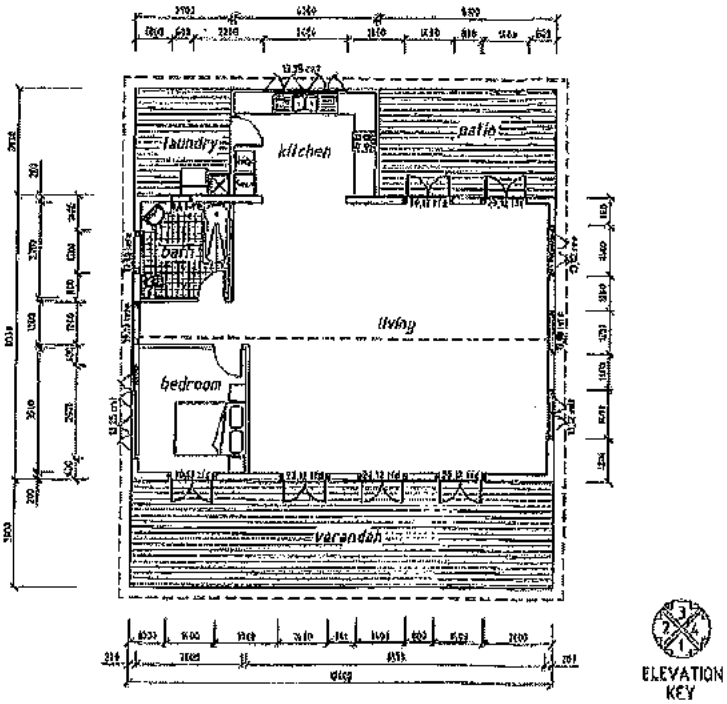


Figure 4 – Floor Plan



FLOOR PLAN

ELEVATION KEY

AMENDMENTS

PROPOSED NEW DWELLING
LOT 131 ON RP 737400
BUCHANAN CREEK ROAD

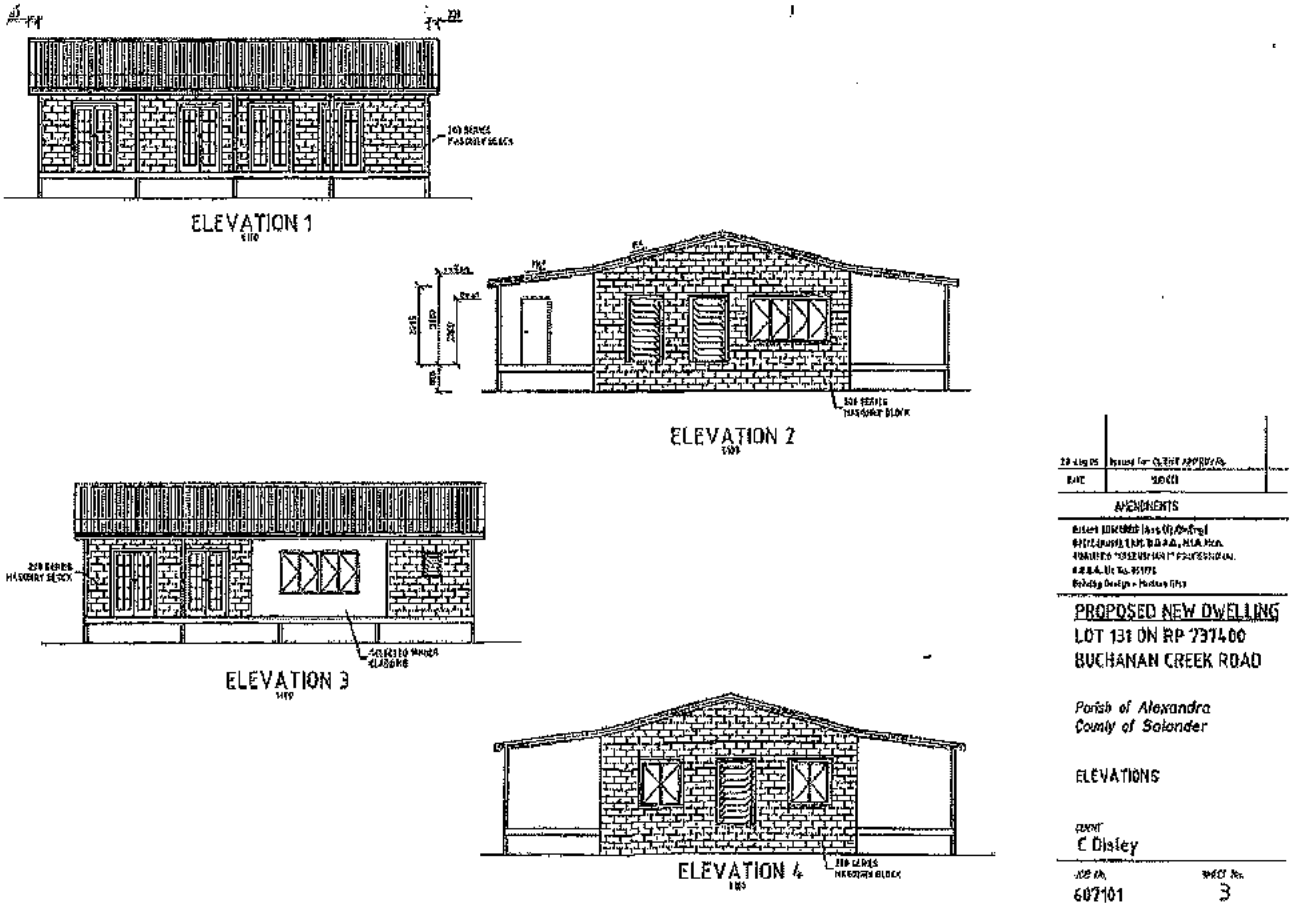
Parish of Alexandra
County of Solander

FLOOR PLAN

C Disley

607101 | 2

Figure 5 – Elevations



Attachment A: The proposal

Council is in receipt of an application for a Development Permit for Material Change of Use for the purpose for a House on land located at Lot 131 Buchanan Creek Road, Cow Bay, properly described as Lot 131 on RP737400 and shown on Figure 1.

A single storey, one (1) bedroom House is to be built on the 1.04 ha allotment. The proposed House consists of a kitchen, living area, bathroom, toilet and verandah. The subject site is located within the Rainforest Residential Precinct, with no existing clearing. A Permit to Damage Protected Vegetation has been submitted, proposing a cleared area of 700m² encompassing both the house site and wastewater disposal area. The proposed House has a gross floor area (GFA) of 168m2, with site coverage of 1.62%.

Access to the proposed House will be from Buchanan Creek Road via the proposed driveway, which is to be 2.8 metres in width and constructed of compacted road base. The driveway and designated development area are both located on relatively flat land. The colour scheme for the House is proposed to be "Cottage Green" for the roofing and "Paperbark" for the external walls. These are colours that have been pre-approved by Council.

The proposed House has a maximum height of 3.6 metres. Power will be accessed via a solar/generator hybrid system. Water will be accessed via collection from the roof, and will be channelled into a concrete or sealed besser brick tank to be located either under or adjacent to the building. The intended tank capacity is 10,000 gallons (45,461 litres).

Per the accompanying wastewater report, the wastewater is proposed to be a septic system.

The allotment is heavily vegetated, thus the House will not be visible from the road. The proposal meets all setback requirements as it is located 120 metres from the front boundary, 25 metres from the nearest side boundary and 30 metres from the rear boundary.

Attachment B: Town planning evaluation

1. Planning history, including approvals

The subject allotment is vacant and uncleared. No planning approvals have been issued.

2. Compliance assessment

Locality Code: Settlement Areas North of Daintree River

Purpose of code:

- To ensure that all development is designed and operated to achieve an environmentally sustainable outcome by taking into account the specific values of the area and/or Management Area and Precinct in which it is located and the site's constraints and opportunities;
- To ensure that all development is sensitive and sympathetic to its remote location in an area of unique Biodiversity and Scenic Amenity value; and
- To ensure the natural forested landscape character of the locality is protected and enhanced.

Commentary: The proposed development is consistent with the relevant Acceptable Solutions outlined in the Settlement Areas North of the Daintree River Locality Code with detail provided in Table 1 below.

Assessment Table 1: Settlement Areas North of the Daintree River Locality

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTION	ASSESSMENT
P1	A1.1	Complies – The structure is 3.5 metres at eaves height, with a maximum roof height at the apex of .58 metre, with a maximum structure height of 3.58 metres.
P2	A2.1-2.3	Complies – Water storage onsite consists of 10,000 gallons (45,461 litres). Applicant intends to collect water from roof runoff. Electricity will be provided via solar panels and a bank of batteries with a back up generator.
P3	A3.1	Complies – The Applicant has provided a wastewater report that has been deemed appropriate by Council's Plumbing Inspector.
P4	A4.1-4.2	Complies – The Applicant intends to source rainwater only.
P5	A5.1	Not applicable – The allotment in question does not contain any of the attributes mentioned in the Performance Criteria such as Watercourses and foreshore areas.

P6	A6.1-6.5	Complies - The colour scheme of the development is from the Council approved colour scheme, being "Cottage Green" for the roofing, and "Paperbark" for the external walls. Buildings have been designed to be open plan, with ample awnings. The generator will be in a sound attenuated structure and fuel storage will be in accordance the Code. Conditions of approval are included to ensure compliance – see condition 8.
P7	A7.1	Complies – Any vegetation proposed to be planted will be native. Conditions of approval are included to ensure compliance – see condition 3.
P8	A8.1	Complies – The proposed driveway is to be surfaced with gravel, and is not of a sufficient grade to require sealing.
P9	A9.1-9.4	Complies – The proposed development is located on flat land and involves minimal disturbance to the soil. The entire surface of the land with the exception of the House is composed of impervious surfaces and all stormwater naturally flowing through the site is intended to continue through the site.
P10	A10.1	Not applicable – There are no ILUA on the subject site.
P11	A11.1-11.3	Complies – Elements of development and access are included in a DDA. The proposed clearing has been recommended for approval by the Vegetation Officer, and the amount of clearing proposed is 700m².
P12	A12.1	Complies – Conditions of approval are included to ensure compliance – see condition 3.
P13	A13.1-13.2	Complies – Fencing is not proposed for this development and external lighting will be minimal.
P14	A14.1 A14.2 A14.3	Complies – There is a single access, which has been sited in a location approved by Council. The access is to be surfaced with gravel and does not exceed the maximum of four (4) metres.
P15-19	A15.1-19.1	Not applicable as proposal does not relate to a "tourist and commercial/community development."
P20-22	A20.1-22.1	Not applicable as proposal is not in the "Settlement Area at Degarra/Bloomfield".
P23-26	A23.1-26.1	Not applicable: Cape Tribulation
P27-35	A27.1-35.1	Not applicable: Cooper Creek

P36	A36.1	Not applicable: land is not designated Rainforest Conservation.
P37	A37.1	Complies – application is for a single House.

Planning Area Code: Conservation

Purpose of code: To ensure that any use of land in private ownership in the Planning Area does not affect the environmental, habitat, conservation or scenic values of that land or surrounding area.

Commentary: The proposed development is consistent with the relevant Acceptable Solutions outlined in the Conservation Planning Area Code with detail provided in Table 2 below.

Assessment Table 2: Conservation Planning Area

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTION	ASSESSMENT
P1	A1.1	Complies – The proposed land use is compliant with A37.1 of the Locality Code, and is therefore Code Assessable.
P2	A2.1	Complies – The development is sited in an area recommended to be approved for Clearing under the Local Law, with the clearing limited to a maximum of 700m2. The proposed development is not sited near a watercourse.
P3	A3.1	Complies – The proposed development is setback 120 metres from the Frontage, 25 metres from the nearest side boundary and 30 metres from the rear boundary.
P4	A4.1	Not applicable – The proposed development is not near a watercourse, and will be situated in a cleared DDA.
P5	A5.1	Complies – The proposed development is located in the Rainforest Residential Precinct and is designated for residential use. The proposal is for a low-impact one (1) bedroom House.
P6	A6.1-6.3	Not applicable – The site is already fully vegetated with native species.
P7	A7.1	Complies – The proposal is not located near a watercourse, with the area to be cleared limited to 700m2 which comprises approximately 6.7% of the total area of the allotment.

P8	A8.1-8.2	Complies – Architectural elements include design which optimises ventilation such as louvre windows, ample awnings and verandahs. The colour scheme of the development is from the Council approved colour scheme, being "Cottage Green" for the roofing, and "Paperbark" for the external walls.
	A8.3	Complies - The driveway will be situated on flat land, and has been positioned by the Applicant to minimise clearing.
P9-P17	A9.1-17.1	Not applicable – these PC refer to development on sloping sites. The subject site is not sloping.

Land Use Code: House Code

Purpose of code: The purpose of the House Code is to ensure that Houses and ancillary facilities are compatible with and complementary to surrounding development and do not adversely impact on the natural environment.

Commentary: The proposed development is consistent with the relevant Acceptable Solutions outlined in the House Code with detail provided in Table 3 below.

Assessment Table 3: House Land Use

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTION	ASSESSMENT
P1	A.1.1	Complies – The proposal includes a single House.
	A1.2	Complies – The site coverage of the House is 1.62% (168m²).
P2	A2.1	Complies – The House is proposed to be used by one household.
P3	A3.1	Complies – Two vehicle spaces are provided onsite.
	A3.2	Complies – Vehicle spaces are located a distance of 12 metres from the street frontage.

Overlay Codes: Acid Sulfate Soils Cultural Heritage Natural Hazards

Purpose of code: The purpose of the Natural Hazards Code is to ensure that development does not occur in areas prone to the natural hazard of bushfires and to minimise any risks associated with bushfires in the Shire.

Commentary: Neither the Acid Sulfate Soils Code nor the Cultural Heritage Code are triggered by this application. The proposed development is consistent with the relevant Acceptable Solutions outlined in the Natural Hazards Code with detail provided in Table 4 below.

Physical Groundtruthing indicates Low Risk. SPP Bushfire Risk

Assessment Table 4: Natural Hazards

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTION	ASSESSMENT
P1	A.1	Not applicable – The subject allotment is Medium Risk Hazard on the Natural Hazard Overlay Map.
P2	A2.1	Complies – The DDA has been situated on the allotment so as to be nearer to areas of Low Risk Hazard. The maximum area to be cleared, 700m², has been requested in order to achieve setbacks. Approval is conditioned to ensure on Site water storage capacity of 30,000 litres – see condition 6.
	A2.2	Not applicable – This PC relates to development that will result in multiple buildings or lots.
P3	A3.1	Not applicable – This PC pertains to hazardous materials manufactured or stored in bulk.

General Codes: Filling and excavation

Purpose of code: The purpose of this Code is to ensure that filling and excavation do not:

- affect visual/scenic amenity values of the Shire;
- cause flooding and drainage problems;
- impact upon the environment of an area;
- cause land instability; or
- adversely impact upon utility services.

Commentary: No cut/fill are proposed for this application. The topography of the site is not to be modified. The only excavation to be undertaken will be minimal excavation undertaken in putting footings in place.

General Codes: Landscaping

Purpose of code: The purpose of this Code is to ensure that new Landscaping incorporates plants which encourage Biodiversity and to ensure that existing vegetation on Site is retained, protected during works and integrated with the built environment.

Commentary: A large number of the Performance Criteria in this Code pertain specifically to urban residential and commercial areas, and are therefore are not applicable in the consideration of this application. The applicant was not asked to submit a Landscape Plan for the proposed development. The allotment in question is an uncleared block that will remain forested with the exception of the driveway and 700m² clearing in which the Dwelling House, water tanks and wastewater treatment is to be housed. Approval to be conditioned to ensure vegetation to be planted is 100% native.

General Codes: Natural Areas and Scenic Amenity

Purpose of code: The purpose of this Code is to ensure that areas of natural value/environmental significance and Scenic Amenity value throughout the Shire are retained and conserved in order to:

- maintain and improve landscape integrity and Scenic Amenity values;
- retain areas in their natural state and protect them from inappropriate, visually obtrusive development;
- protect areas as valuable natural, environmental and scenic areas which are an asset to the Shire;
- maintain areas for their combination of landscape elements which create the dominant landscape character of the Shire;
- protect fauna habitat and linkages;
- maintain and improve the ecosystem functions of aquatic systems;
- maintain essential ecological processes;
- protect Biodiversity; and
- protect the unique environmental values of the Shire which are of International significance.

Commentary: The proposed development is consistent with the relevant Acceptable Solutions outlined in the Natural Areas and Scenic Amenity Code with detail provided in Table 5 below.

Assessment Table 5: Natural Areas and Scenic Amenity

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTION	ASSESSMENT
P1	A1.1-1.2	Complies – All aspects of the proposal are able to be constructed within the DDA identified on the site plan provided to Council.
P2	A2.1	Complies – The DDA has been situated on the allotment so as to be nearer to areas of Low Risk Hazard. The maximum area to be cleared, 700m², has been requested in order to achieve setbacks. Approval will be conditioned to ensure on Site water storage capacity of 30,000 litres.

	A2.2	Not applicable – This PC relates to development that will result in multiple buildings or lots.
P3	A3.1	Not applicable – This PC pertains to hazardous materials manufactured or stored in bulk.
P4-P5	A4.1-5.2	Not triggered – The proposal is not located adjacent to a setback area/riparian corridor adjacent to a watercourse.
P6	A6.1-6.2	Not triggered – The allotment in question is flat and does not contain land with a slope greater than 15%. The proposed development will not be visible from the roadway.

General Codes: Vehicle Parking and Access

Purpose of code: The purpose of this Code is to ensure that onsite parking is provided so as to be accessible and convenient. New vehicle access points are to be safely located and not in conflict with the streetscape character.

Commentary: The proposed development is consistent with the relevant Acceptable Solutions outlined in the Vehicle Parking and Access Code with detail provided in Table 6 below.

Assessment Table 6: Vehicle Parking and Access

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTION	ASSESSMENT
P1	A1.1	Complies – The proposal provides for two (2) parking ~~spaces as identified in~~ Schedule 1 of this code. The parking spaces are to be accommodated within the area proposed to be cleared.
P2-P5	A2.1-5.1	Not applicable – disabled access is not required for a House; motorcycle and bicycle parking is readily accommodated within the curtilage of the building.
P6	A6.1-6.3	Complies – The proposed access point is located along a straight stretch of road, providing a safe access point with significant sight distance. Only one access point is proposed to be provided.
P7-P8	A7.1-8.2	Not applicable as the development is for a house only and does not have a parking layout or short term visitor parking – however there is sufficient room within the cartilage of the building for visitor parking.
P9	A9.1	Complies – The driveway is proposed to be 3.0 metres in width.
P10	A10.1	Complies – The driveway is proposed to be surfaced with road base, in keeping with the character of the roadway and the area.

P11-P14	A11.1-14.2	Not applicable as the Acceptable Solutions and Performance Criteria relate directly to large scale carparks.

3. Referral Agency Comments

Not Applicable. Referral Agency involvement was not triggered by this application.

CAIRNS ENGINEERING TESTING SERVICES

SITE CLASSIFICATION REPORT C06-299-01
Lot 131 Buchanan Creek Road, Cow Bay QLD 4873

CLIENT	Colin Disley	**REPORT:**	C06-299-01 dk
POSTAL ADDRESS	82 Speewah Road	**DATE:**	4th September 2006
	KURANDA QLD 4881	**ORDER No:**	*
INSPECTION DATE:	24th August 2006	**BSA NO:**	1057711

1.Authorisation and Scope

A site investigation was carried out at Lot 131 Buchanan Creek Road, Cow Bay to determine the foundation conditions and classify the site for a proposed residential building. The investigation was requested and authorised by the client.

The scope of the investigation allowed for augered boreholes to inspect the subsoil profile, with logging of soil types and evaluation of the subsoil density conditions. Allowable bearing values were determined by dynamic cone penetrometer testing to a depth of 1.5m.

The results of the field tests were to be evaluated, the site classification determined for the foundation, and a report provided to the client.

2. Site Description

Lot 131 is located on the Southern side of Buchanan Creek Road and is a property that has a gentle slope of approximately 5-7° in a Westerly direction. The property contained a thick coverage of Rainforrest trees and plants and no other obvious surface obstructions at the date of the investigation. The client met our representative on site and indicated where the proposed residential building is to be situated. Survey pegs were found at all corners of the lot andat the time of the investigation, drainage was assessed as being fair.

3. Site Investigation/Testing

Insitu testing was carried out by Dynamic Cone Penetrometer tests at locations P1, P2, P3 and P4 (see site plan and Dynamic Cone Penetrometer Report enclosed) to evaluate the foundation density conditions. Two boreholes were excavated with a hand auger to determine the subsoil profile and recover a disturbed sample for laboratory testing. (Marked Borehole 1 and 2 on the Site Plan).

4. Laboratory Testing

A disturbed material sample was taken at a depth of 0.6-0.7m from Borehole 1 and Atterberg Limits tests were performed on this sample (Atterberg Limits Test Report enclosed).

5. Evaluation of Foundation Conditions

The Dynamic Cone Penetrometer tests revealed firm to very stiff foundation conditions from surface level to depths of 1.5m across the site.

The Atterberg Limits tests indicate the subsoil is slightly reactive to changes in moisture content with an estimated predicted ground surface movement (ys) within Class S category (less than 20mm).

At the time of investigation, the water table was not encountered. However, it should be noted, that groundwater levels are affected by climatic conditions and by soil permeability, therefore groundwater levels may vary with time.

SITE CLASSIFICATION REPORT C06-299-01
Lot 131 Buchanan Creek Road, Cow Bay QLD 4873

Site Classification

The Site may be classified **CLASS – S** for footings designed in accordance with Australian Standard 2870 "Residential Slabs and Footings – Construction".

Note: It is strongly recommended all existing trees on the property within the footprint of the proposed residence and within recommended safe distances from the proposed residences footings are removed well prior to construction to allow the soils moisture conditions return to a state of equilibrium.

Note: Depressions formed by the removal of vegetation and all disturbed weakened soil should be cleaned out and be backfilled with compacted select fill that has been approved by a Qualified Engineer (a professional engineer with academic qualifications in geotechnical or structural engineering who also has extensive experience in the design of footing systems for houses or similar structures).

Note: This classification is subject to review should any cut earthworks in excess of 0.5m or any filling be carried out.

Note: RESPONSIBILITIES. (A.S.2870 Supp 1). Footing design and construction involves a number of steps; site classification, selection of the footing system, structural design, construction in accordance with the required design details and construction methods, and proper maintenance. In addition to the builder, this process may involve an engineer, the Building Authority, the owner, and all parties who share responsibility for any failure. In particular, the owner has a responsibility to ensure the site is properly maintained.

NOTE: 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, a Building Services Authority Registered Site Classifier or a Registered Practising Engineer must be notified immediately so that reappraisal of the classification can be made. Attention is drawn to the present or any future owners of their responsibilities for foundation maintenance as detailed in A.S. 2870 (Appendix A) and CSIRO Brochure "Foundation Maintenance and Footing Performance: A Homeowner's Guide."

SITE CLASSIFICATION REPORT C06-299-01
Lot 131 Buchanan Creek Road, Cow Bay QLD 4873

Looking North at the rear corner of the proposed residence. A mass of Wait A While and other rainforest shrubs and tree's.

SITE CLASSIFICATION REPORT C06-299-01
Lot 131 Buchanan Creek Road, Cow Bay QLD 4873

Looking North across the block.

SIGNED: _____

Michael Ganza (RPEQ 4449)
DIRECTOR

References:

1. A.S.1726 – Geotechnical Site Investigations
2. A.S. 2870 - 1996 Residential Slabs and Footings - Construction.
3. A.S. 3798 - Guidelines on Earthworks for Commercial and Residential Developments.

Attached: Dynamic Cone Penetrometer Report, Site Investigation Report, and Atterberg Limits Report.
CSIRO Brochure " Foundation Maintenance and Footing Performance: A Homeowner's Guide".

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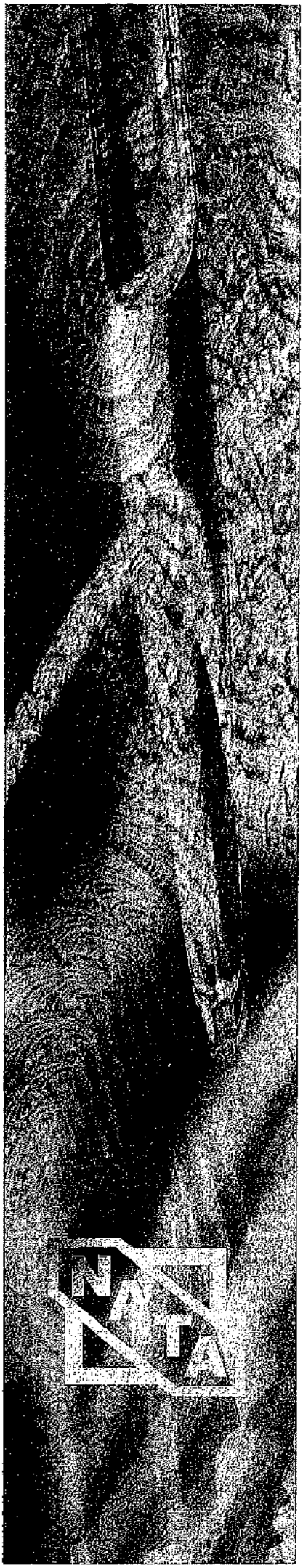

CAIRNS ENGINEERING TESTING SERVICES

DYNAMIC CONE PENETROMETER TEST -- REPORT — A.S. 1289 6.3.2

CLIENT	Colin Disley 82 Speewah Road KURANDA QLD 4881	**REPORT NUMBER**	C299-1
JOB NO	C06-299	**REPORT DATE**	04.09.06
		TEST DATE	24.08.06
PROJECT	Lot 131 Buchanan Creek Road COW BAY QLD 4873	**TECHNICIAN**	D.K.
SAMPLE LOCATION (See Site Plan)		**CLIENT ORDER No.**	*
SAMPLE DESCRIPTION (Soil Profile)		**CLIENT JOB No.**	*

DEPTH (Metres) — *TEST COMMENCED AT 0.0 m BELOW SURFACE LEVEL

	SITE: P1		SITE: P2		SITE: P3		SITE: P4		SITE:	
	No. Blows	Np	No. Blows	Np	No. Blows	Np	No. Blows	Np	No. Blows	Np
0.0 -- -- 0.1	6		5		3		4			
0.1 -- -- 0.2	8		5		7		4			
0.2 -- -- 0.3	5	19	6	16	4	14	4	12		
0.3 -- -- 0.4	4		5		5		5			
0.4 -- -- 0.5	4		4		5		4			
0.5 -- -- 0.6	4	12	3	12	5	15	4	13		
0.6 -- -- 0.7	5		4		6		4			
0.7 -- -- 0.8	6		4		6		4			
0.8 -- -- 0.9	6	17	5	13	5	17	4	12		
0.9 -- -- 1.0	5		4		4		5			
1.0 -- -- 1.1	6		5		4		3			
1.1 -- -- 1.2	7	18	8	17	4	12	3	11		
1.2 -- -- 1.3	6		7		4		3			
1.3 -- -- 1.4	5		6		5		4			
1.4 -- -- 1.5	5	16	5	18	6	15	5	12		
1.5 -- -- 1.6										
1.6 -- -- 1.7										
1.7 -- -- 1.8										
1.8 -- -- 1.9										
1.9 -- -- 2.0										
2.0 -- -- 2.1										
2.1 -- -- 2.2										
2.2 -- -- 2.3										
2.3 -- -- 2.4										
2.4 -- -- 2.5										

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WATER TABLE: 'Not encountered'

(Np) : Penetration Resistance
= blows per 300 mm

MOISTURE CONDITION Moist

R1289 6.3.2/to 2.5m REV (2) LJ 6.4.06

SIGNED BY:

Darren Koch
Laboratory Manager

PO Box 252, BUNGALOW QLD 4870
Ph: (07) 4031 1122 Fax: (07) 4051 9480 Mob: 0407 181 622 Email: info@ganza.com.au

CAIRNS ENGINEERING TESTING SERVICES

Site Investigation Report

Client:	Colin Disley	**Report Number:**	C299-01
Job Number:	C06-299	**Report Date:**	31-Aug-06
Project:	Lot 131 Buchanan Creek Road	**Order Number:**	*
Location:	COW BAY QLD 4873		**Page 1 of 1**

BOREHOLE NO: 1 **LAB NO: C299-01.1**

Depth (m)	Description of Subsoil	Consistency	Moisture Condition	Ground Water Level (m)	Sample Type & Depth (m)
0.0 - 0.25	Silty CLAY (CL) low plasticity, brown, with some fine-medium roots.	Stiff - very stiff	Moist	Free Ground Water Not Encountered	
0.25 - 0.8	Silty CLAY (CL) low plasticity, orange brown.	Stiff	Moist		Disturbed Sample @ 0.6 - 0.7m
0.8 - 1.2	Gravelly Silty CLAY (CL) low-medium plasticity, orange-orange brown, fine-medium grained gravel.	Stiff - very stiff	Moist		
1.2	Borehole Terminated.				

BOREHOLE NO: 2 **LAB NO: C299-01.2**

Depth (m)	Description of Subsoil	Consistency	Moisture Condition	Ground Water Level (m)	Sample Type & Depth (m)
0.0 - 0.25	Silty CLAY (CL) low plasticity, brown, with some fine-medium roots.	Stiff - very stiff	Moist	Free Ground Water Not Encountered	
0.25 - 0.8	Silty CLAY (CL) low plasticity, orange brown.	Stiff	Moist		
0.8 - 1.2	Gravelly Silty CLAY (CL) low-medium plasticity, orange-orange brown, fine-medium grained gravel.	Stiff	Moist		
1.2	Borehole Terminated.				

NATA WORLD RECOGNISED ACCREDITATION

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APPROVED SIGNATORY

Darren Koch

Nata Accred. No: 1833

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CAIRNS ENGINEERING TESTING SERVICES

ATTERBERG LIMITS TEST REPORT

Client	Colin Disley 82 Speewah Road KURANDA QLD 4881	**Report No.**	C299-01
		Report Date	31-Aug-06
Project	Lot 131 Buchanan Creek Road COW BAY QLD 4873	**Client Order No.**	*
Sample Location	Borehole 1 @ 0.6 - 0.7m	**Client Job No**	*
		Sampled by	D.K.
		Date	24-Aug-06
Sample Description		**Tested by**	A.C.
Silty CLAY (CL) low plasticity, orange brown.		**Date**	28-Aug-06

ATTERBERG LIMITS

TEST METHOD		Sample 1 Result	Sample 2 Result	Sample 3 Result	Sample 4 Result
Liquid Limit	A.S.1289 3.1.2 - 1995	39%	*	*	*
Plastic Limit	A.S.1289 3.2.1 - 1995	22%	*	*	*
Plasticity Index	A.S.1289 3.3.1 - 1995	17%	*	*	*
Linear Shrinkage	A.S.1289 3.4.1 - 1995	9.0%	*	*	*
Length Of Shrinkage Mould (mm)		250mm	*	*	*
Insitu Moisture Content	A.S. 1289 2.1.1 - 1992	17.5%	*	*	*

Sample History AIR DRIED
Sample Preparation DRY SIEVED
Moisture content To : AS1289 2.1.1

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SIGNED
Darren Koch
Laboratory Manager

R 1289 3.1.2 REV (1) / LTB 9/3/95

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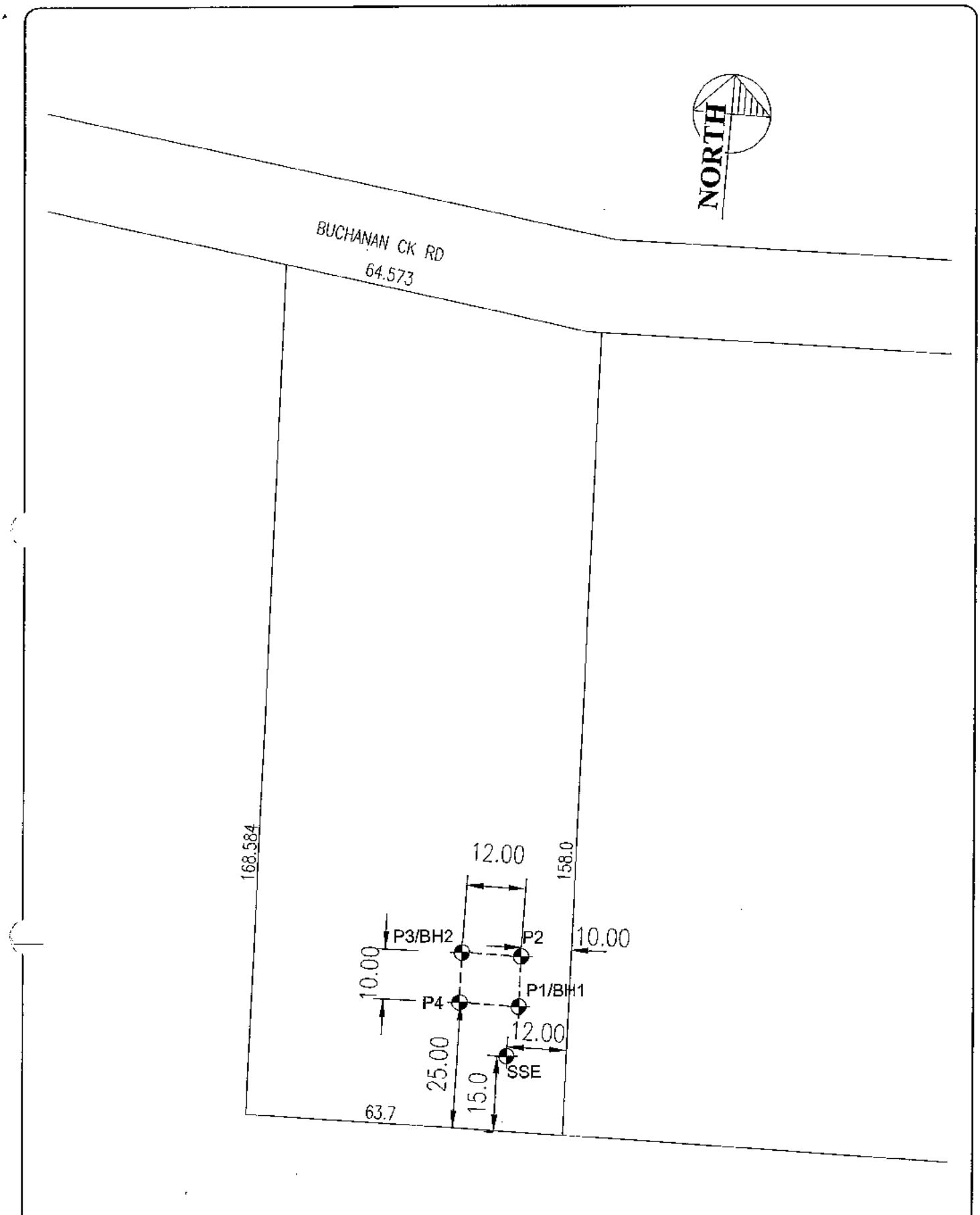

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DRAWN: VPP	CHECKED: GA	BOREHOLE LOCATIONS
DESIGNED: GA	CHECKED: MPG	COLIN DISLEY LOT 131 BUCHANAN CREEK ROAD COWBAY
CAD REF.: C06-299-LOT 131	DATE: 31/08/2006	
APPROVED	SCALE: N.T.S.	DRAWING NO.: C06-299-LOT 131 — REVISION: A

Foundation Maintenance and Footing Performance:
A Homeowner's Guide

CSIRO

BTF 18
replaces
Information
Sheet 10/91

Buildings can and often do move. This movement can be up, down, lateral or rotational. The fundamental cause of movement in buildings can usually be related to one or more problems in the foundation soil. It is important for the homeowner to identify the soil type in order to ascertain the measures that should be put in place in order to ensure that problems in the foundation soil can be prevented, thus protecting against building movement.

This Building Technology File is designed to identify causes of soil-related building movement, and to suggest methods of prevention of resultant cracking in buildings.

Soil Types

The types of soils usually present under the topsoil in land zoned for residential buildings can be split into two approximate groups – granular and clay. Quite often, foundation soil is a mixture of both types. The general problems associated with soils having granular content are usually caused by erosion. Clay soils are subject to saturation and swell/shrink problems.

Classifications for a given area can generally be obtained by application to the local authority, but these are sometimes unreliable and if there is doubt, a geotechnical report should be commissioned. As most buildings suffering movement problems are founded on clay soils, there is an emphasis on classification of soils according to the amount of swell and shrinkage they experience with variations of water content. The table below is Table 2.1 from AS 2870, the Residential Slab and Footing Code.

Causes of Movement

Settlement due to construction

There are two types of settlement that occur as a result of construction:

- Immediate settlement occurs when a building is first placed on its foundation soil, as a result of compaction of the soil under the weight of the structure. The cohesive quality of clay soil mitigates against this, but granular (particularly sandy) soil is susceptible.
- Consolidation settlement is a feature of clay soil and may take place because of the expulsion of moisture from the soil or because of the soil's lack of resistance to local compressive or shear stresses. This will usually take place during the first few months after construction, but has been known to take many years in exceptional cases.

These problems are the province of the builder and should be taken into consideration as part of the preparation of the site for construction. Building Technology File 19 (BTF 19) deals with these problems.

Erosion

All soils are prone to erosion, but sandy soil is particularly susceptible to being washed away. Even clay with a sand component of say 10% or more can suffer from erosion.

Saturation

This is particularly a problem in clay soils. Saturation creates a bog-like suspension of the soil that causes it to lose virtually all of its bearing capacity. To a lesser degree, sand is affected by saturation because saturated sand may undergo a reduction in volume – particularly imported sand fill for bedding and blinding layers. However, this usually occurs as immediate settlement and should normally be the province of the builder.

Seasonal swelling and shrinkage of soil

All clays react to the presence of water by slowly absorbing it, making the soil increase in volume (see table below). The degree of increase varies considerably between different clays, as does the degree of decrease during the subsequent drying out caused by fair weather periods. Because of the low absorption and expulsion rate, this phenomenon will not usually be noticeable unless there are prolonged rainy or dry periods, usually of weeks or months, depending on the land and soil characteristics.

The swelling of soil creates an upward force on the footings of the building, and shrinkage creates subsidence that takes away the support needed by the footing to retain equilibrium.

Shear failure

This phenomenon occurs when the foundation soil does not have sufficient strength to support the weight of the footing. There are two major post-construction causes:

- Significant load increase.
- Reduction of lateral support of the soil under the footing due to erosion or excavation.
- In clay soil, shear failure can be caused by saturation of the soil adjacent to or under the footing.

GENERAL DEFINITIONS OF SITE CLASSES

Class	Foundation
A	Most sand and rock sites with little or no ground movement from moisture changes
S	Slightly reactive clay sites with only slight ground movement from moisture changes
M	Moderately reactive clay or silt sites, which can experience moderate ground movement from moisture changes
H	Highly reactive clay sites, which can experience high ground movement from moisture changes
E	Extremely reactive sites, which can experience extreme ground movement from moisture changes
A to P	Filled sites
P	Sites which include soft soils, such as soft clay or silt or loose sands; landslip; mine subsidence; collapsing soils; soils subject to erosion; reactive sites subject to abnormal moisture conditions or sites which cannot be classified otherwise

Tree root growth
Trees and shrubs that are allowed to grow in the vicinity of footings can cause foundation soil movement in two ways:

- Roots that grow under footings may increase in cross-sectional size, exerting upward pressure on footings.
- Roots in the vicinity of footings will absorb much of the moisture in the foundation soil, causing shrinkage or subsidence.

Unevenness of Movement

The types of ground movement described above usually occur unevenly throughout the building's foundation soil. Settlement due to construction tends to be uneven because of:

- Differing compaction of foundation soil prior to construction.
- Differing moisture content of foundation soil prior to construction.

Movement due to non-construction causes is usually more uneven still. Erosion can undermine a footing that traverses the flow or can create the conditions for shear failure by eroding soil adjacent to a footing that runs in the same direction as the flow.

Saturation of clay foundation soil may occur where subfloor walls create a dam that makes water pond. It can also occur wherever there is a source of water near footings in clay soil. This leads to a severe reduction in the strength of the soil which may create local shear failure.

Seasonal swelling and shrinkage of clay soil affects the perimeter of the building first, then gradually spreads to the interior. The swelling process will usually begin at the uphill extreme of the building, or on the weather side where the land is flat. Swelling gradually reaches the interior soil as absorption continues. Shrinkage usually begins where the sun's heat is greatest.

Effects of Uneven Soil Movement on Structures

Erosion and saturation
Erosion removes the support from under footings, tending to create subsidence of the part of the structure under which it occurs. Brickwork walls will resist the stress created by this removal of support by bridging the gap or cantilevering until the bricks or the mortar bedding fail. Older masonry has little resistance. Evidence of failure varies according to circumstances and symptoms may include:

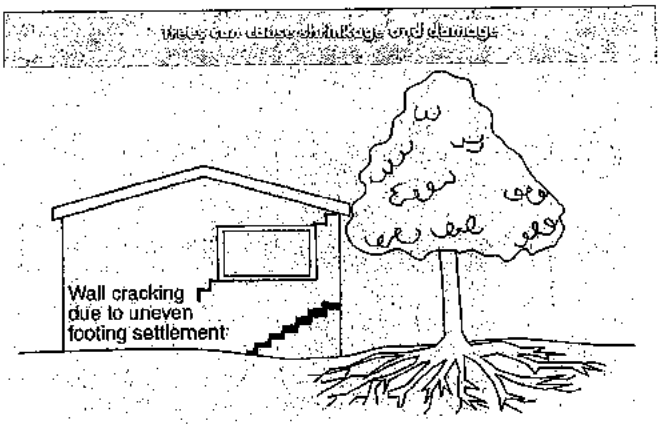
- Step cracking in the mortar beds in the body of the wall or above/below openings such as doors or windows.
- Vertical cracking in the bricks (usually but not necessarily in line with the vertical beds or perpends).

Isolated piers affected by erosion or saturation of foundations will eventually lose contact with the bearers they support and may tilt or fall over. The floors that have lost this support will become bouncy, sometimes rattling ornaments etc.

Seasonal swelling/shrinkage in clay
Swelling foundation soil due to rainy periods first lifts the most exposed extremities of the footing system, then the remainder of the perimeter footings while gradually permeating inside the building footprint to lift internal footings. This swelling first tends to create a dish effect, because the external footings are pushed higher than the internal ones.

The first noticeable symptom may be that the floor appears slightly dished. This is often accompanied by some doors binding on the floor or the door head, together with some cracking of cornice mitres. In buildings with timber flooring supported by bearers and joists, the floor can be bouncy. Externally there may be visible dishing of the hip or ridge lines.

As the moisture absorption process completes its journey to the innermost areas of the building, the internal footings will rise. If the spread of moisture is roughly even, it may be that the symptoms will temporarily disappear, but it is more likely that swelling will be uneven, creating a difference rather than a disappearance in symptoms. In buildings with timber flooring supported by bearers and joists, the isolated piers will rise more easily than the strip footings or piers under walls, creating noticeable doming of flooring.



As the weather pattern changes and the soil begins to dry out, the external footings will be first affected, beginning with the locations where the sun's effect is strongest. This has the effect of lowering the external footings. The doming is accentuated and cracking reduces or disappears where it occurred because of dishing, but other cracks open up. The roof lines may become convex.

Doming and dishing are also affected by weather in other ways. In areas where warm, wet summers and cooler dry winters prevail, water migration tends to be toward the interior and doming will be accentuated, whereas where summers are dry and winters are cold and wet, migration tends to be toward the exterior and the underlying propensity is toward dishing.

Movement caused by tree roots
In general, growing roots will exert an upward pressure on footings, whereas soil subject to drying because of tree or shrub roots will tend to remove support from under footings by inducing shrinkage.

Complications caused by the structure itself
Most forces that the soil causes to be exerted on structures are vertical – i.e. either up or down. However, because these forces are seldom spread evenly around the footings, and because the building resists uneven movement because of its rigidity, forces are exerted from one part of the building to another. The net result of all these forces is usually rotational. This resultant force often complicates the diagnosis because the visible symptoms do not simply reflect the original cause. A common symptom is binding of doors on the vertical member of the frame.

Effects on full masonry structures
Brickwork will resist cracking where it can. It will attempt to span areas that lose support because of subsided foundations or raised points. It is therefore usual to see cracking at weak points, such as openings for windows or doors.

In the event of construction settlement, cracking will usually remain unchanged after the process of settlement has ceased.

With local shear or erosion, cracking will usually continue to develop until the original cause has been remedied, or until the subsidence has completely neutralised the affected portion of footing and the structure has stabilised on other footings that remain effective.

In the case of swell/shrink effects, the brickwork will in some cases return to its original position after completion of a cycle, however it is more likely that the rotational effect will not be exactly reversed, and it is also usual that brickwork will settle in its new position and will resist the forces trying to return it to its original position. This means that in a case where swelling takes place after construction and cracking occurs, the cracking is likely to at least partly remain after the shrink segment of the cycle is complete. Thus, each time the cycle is repeated, the likelihood is that the cracking will become wider until the sections of brickwork become virtually independent.

With repeated cycles, once the cracking is established, if there is no other complication, it is normal for the incidence of cracking to stabilise, as the building has the articulation it needs to cope with the problem. This is by no means always the case, however, and monitoring of cracks in walls and floors should always be treated seriously.

Upheaval caused by growth of tree roots under footings is not a simple vertical shear stress. There is a tendency for the root to also exert lateral forces that attempt to separate sections of brickwork after initial cracking has occurred.

The normal structural arrangement is that the inner leaf of brickwork in the external walls and at least some of the internal walls (depending on the roof type) comprise the load-bearing structure on which any upper floors, ceilings and the roof are supported. In these cases, it is internally visible cracking that should be the main focus of attention, however there are a few examples of dwellings whose external leaf of masonry plays some supporting role, so this should be checked if there is any doubt. In any case, externally visible cracking is important as a guide to stresses on the structure generally, and it should also be remembered that the external walls must be capable of supporting themselves.

Effects on framed structures
Timber or steel framed buildings are less likely to exhibit cracking due to swell/shrink than masonry buildings because of their flexibility. Also, the doming/dishing effects tend to be lower because of the lighter weight of walls. The main risks to framed buildings are encountered because of the isolated pier footings used under walls. Where erosion or saturation cause a footing to fall away, this can double the span which a wall must bridge. This additional stress can create cracking in wall linings, particularly where there is a weak point in the structure caused by a door or window opening. It is, however, unlikely that framed structures will be so stressed as to suffer serious damage without first exhibiting some or all of the above symptoms for a considerable period. The same warning period should apply in the case of upheaval. It should be noted, however, that where framed buildings are supported by strip footings there is only one leaf of brickwork and therefore the externally visible walls are the supporting structure for the building. In this case, the subfloor masonry walls can be expected to behave as full brickwork walls.

Effects on brick veneer structures
Because the load-bearing structure of a brick veneer building is the frame that makes up the interior leaf of the external walls plus perhaps the internal walls, depending on the type of roof, the building can be expected to behave as a framed structure, except that the external masonry will behave in a similar way to the external leaf of a full masonry structure.

Water Service and Drainage

Where a water service pipe, a sewer or stormwater drainage pipe is in the vicinity of a building, a water leak can cause erosion, swelling or saturation of susceptible soil. Even a minuscule leak can be enough to saturate a clay foundation. A leaking tap near a building can have the same effect. In addition, trenches containing pipes can become watercourses even though backfilled, particularly where broken rubble is used as fill. Water that runs along these trenches can be responsible for serious erosion, interstrata seepage into subfloor areas and saturation.

Pipe leakage and trench water flows also encourage tree and shrub roots to the source of water, complicating and exacerbating the problem.
Poor roof plumbing can result in large volumes of rainwater being concentrated in a small area of soil:

- Incorrect falls in roof guttering may result in overflows, as may gutters blocked with leaves etc.
- Corroded guttering or downpipes can spill water to ground.
- Downpipes not positively connected to a proper stormwater collection system will direct a concentration of water to soil that is directly adjacent to footings, sometimes causing large-scale problems such as erosion, saturation and migration of water under the building.

Seriousness of Cracking

In general, most cracking found in masonry walls is a cosmetic nuisance only and can be kept in repair or even ignored. The table below is a reproduction of Table C1 of AS 2870.

AS 2870 also publishes figures relating to cracking in concrete floors, however because wall cracking will usually reach the critical point significantly earlier than cracking in slabs, this table is not reproduced here.

Prevention/Cure

Plumbing
Where building movement is caused by water service, roof plumbing, sewer or stormwater failure, the remedy is to repair the problem. It is prudent, however, to consider also rerouting pipes away from the building where possible, and relocating taps to positions where any leakage will not direct water to the building vicinity. Even where gully traps are present, there is sometimes sufficient spill to create erosion or saturation, particularly in modern installations using smaller diameter PVC fixtures. Indeed, some gully traps are not situated directly under the taps that are installed to charge them, with the result that water from the tap may enter the backfilled trench that houses the sewer piping. If the trench has been poorly backfilled, the water will either pond or flow along the bottom of the trench. As these trenches usually run alongside the footings and can be at a similar depth, it is not hard to see how any water that is thus directed into a trench can easily affect the foundation's ability to support footings or even gain entry to the subfloor area.

Ground drainage
In all soils there is the capacity for water to travel on the surface and below it. Surface water flows can be established by inspection during and after heavy or prolonged rain. If necessary, a grated drain system connected to the stormwater collection system is usually an easy solution.

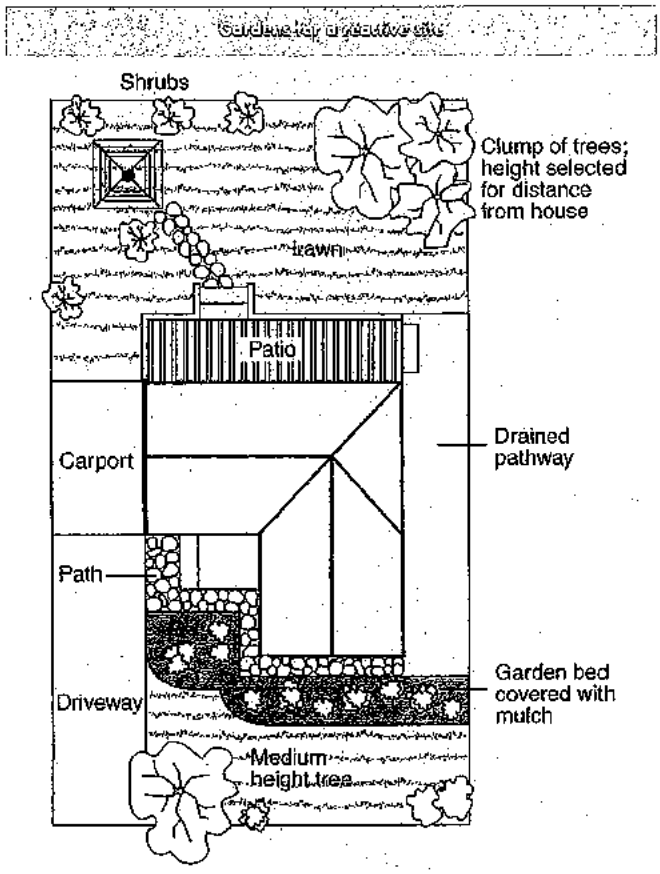
It is, however, sometimes necessary when attempting to prevent water migration that testing be carried out to establish watertable height and subsoil water flows. This subject is referred to in BTF 19 and may properly be regarded as an area for an expert consultant.

Protection of the building perimeter
It is essential to remember that the soil that affects footings extends well beyond the actual building line. Watering of garden plants, shrubs and trees causes some of the most serious water problems.

For this reason, particularly where problems exist or are likely to occur, it is recommended that an apron of paving be installed around as much of the building perimeter as necessary. This paving

CLASSIFICATION OF DAMAGE WITH REFERENCE TO WALLS

Description of typical damage and required repair	Approximate crack width limit (see Note 3)	Damage category
Hairline cracks	<0.1 mm	0
Fine cracks which do not need repair	<1 mm	1
Cracks noticeable but easily filled. Doors and windows stick slightly	<5 mm	2
Cracks can be repaired and possibly a small amount of wall will need to be replaced. Doors and windows stick. Service pipes can fracture. Weathertightness often impaired	5–15 mm (or a number of cracks 3 mm or more in one group)	3
Extensive repair work involving breaking-out and replacing sections of walls, especially over doors and windows. Window and door frames distort. Walls lean or bulge noticeably, some loss of bearing in beams. Service pipes disrupted	15–25 mm but also depend on number of cracks	4



should extend outwards a minimum of 900 mm (more in highly reactive soil) and should have a minimum fall away from the building of 1:60. The finished paving should be no less than 100 mm below brick vent bases.

It is prudent to relocate drainage pipes away from this paving, if possible, to avoid complications from future leakage. If this is not practical, earthenware pipes should be replaced by PVC and backfilling should be of the same soil type as the surrounding soil and compacted to the same density.

Except in areas where freezing of water is an issue, it is wise to remove taps in the building area and relocate them well away from the building – preferably not uphill from it (see BTF 19).

It may be desirable to install a grated drain at the outside edge of the paving on the uphill side of the building. If subsoil drainage is needed this can be installed under the surface drain.

Condensation

In buildings with a subfloor void such as where bearers and joists support flooring, insufficient ventilation creates ideal conditions for condensation, particularly where there is little clearance between the floor and the ground. Condensation adds to the moisture already present in the subfloor and significantly slows the process of drying out. Installation of an adequate subfloor ventilation system, either natural or mechanical, is desirable.

Warning: Although this Building Technology File deals with cracking in buildings, it should be said that subfloor moisture can result in the development of other problems, notably:

- Water that is transmitted into masonry, metal or timber building elements causes damage and/or decay to those elements.
- High subfloor humidity and moisture content create an ideal environment for various pests, including termites and spiders.
- Where high moisture levels are transmitted to the flooring and walls, an increase in the dust mite count can ensue within the living areas. Dust mites, as well as dampness in general, can be a health hazard to inhabitants, particularly those who are abnormally susceptible to respiratory ailments.

The garden

The ideal vegetation layout is to have lawn or plants that require only light watering immediately adjacent to the drainage or paving edge, then more demanding plants, shrubs and trees spread out in that order.

Overwatering due to misuse of automatic watering systems is a common cause of saturation and water migration under footings. If it is necessary to use these systems, it is important to remove garden beds to a completely safe distance from buildings.

Existing trees

Where a tree is causing a problem of soil drying or there is the existence or threat of upheaval of footings, if the offending roots are subsidiary and their removal will not significantly damage the tree, they should be severed and a concrete or metal barrier placed vertically in the soil to prevent future root growth in the direction of the building. If it is not possible to remove the relevant roots without damage to the tree, an application to remove the tree should be made to the local authority. A prudent plan is to transplant likely offenders before they become a problem.

Information on trees, plants and shrubs

State departments overseeing agriculture can give information regarding root patterns, volume of water needed and safe distance from buildings of most species. Botanic gardens are also sources of information. For information on plant roots and drains, see Building Technology File 17.

Excavation

Excavation around footings must be properly engineered. Soil supporting footings can only be safely excavated at an angle that allows the soil under the footing to remain stable. This angle is called the angle of repose (or friction) and varies significantly between soil types and conditions. Removal of soil within the angle of repose will cause subsidence.

Remediation

Where erosion has occurred that has washed away soil adjacent to footings, soil of the same classification should be introduced and compacted to the same density. Where footings have been undermined, augmentation or other specialist work may be required. Remediation of footings and foundations is generally the realm of a specialist consultant.

Where isolated footings rise and fall because of swell/shrink effect, the homeowner may be tempted to alleviate floor bounce by filling the gap that has appeared between the bearer and the pier with blocking. The danger here is that when the next swell segment of the cycle occurs, the extra blocking will push the floor up into an accentuated dome and may also cause local shear failure in the soil. If it is necessary to use blocking, it should be by a pair of fine wedges and monitoring should be carried out fortnightly.

This BTF was prepared by John Lewer FAIB, MIAMA, Partner, Construction Diagnosis.

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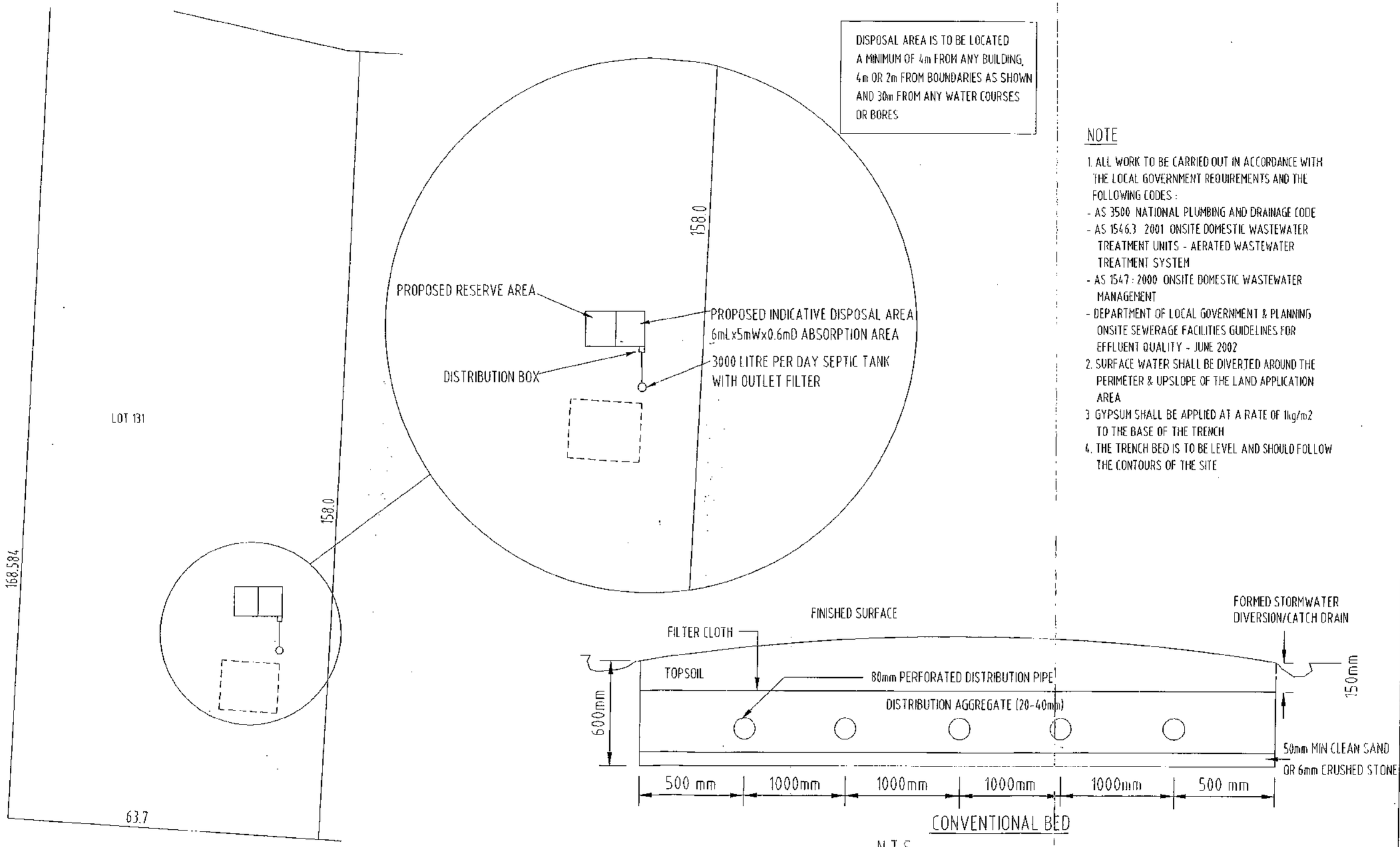

CONVENTIONAL BED

N.T.S

NOTE

1. ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH THE LOCAL GOVERNMENT REQUIREMENTS AND THE FOLLOWING CODES :
   - AS 3500 NATIONAL PLUMBING AND DRAINAGE CODE
   - AS 1546.3 2001 ONSITE DOMESTIC WASTEWATER TREATMENT UNITS - AERATED WASTEWATER TREATMENT SYSTEM
   - AS 1547 : 2000 ONSITE DOMESTIC WASTEWATER MANAGEMENT
   - DEPARTMENT OF LOCAL GOVERNMENT & PLANNING ONSITE SEWERAGE FACILITIES GUIDELINES FOR EFFLUENT QUALITY - JUNE 2002
2. SURFACE WATER SHALL BE DIVERTED AROUND THE PERIMETER & UPSLOPE OF THE LAND APPLICATION AREA
3. GYPSUM SHALL BE APPLIED AT A RATE OF 1kg/m2 TO THE BASE OF THE TRENCH
4. THE TRENCH BED IS TO BE LEVEL AND SHOULD FOLLOW THE CONTOURS OF THE SITE

REVISIONS				
	B	13/09/06	REVISED TRENCH AREAS	
	A	7/09/06	PRELIMINARY ISSUE	
	NO	DATE	DESCRIPTION	APPD

CLIENT: DISLEY

ASSOCIATED CONSULTANTS

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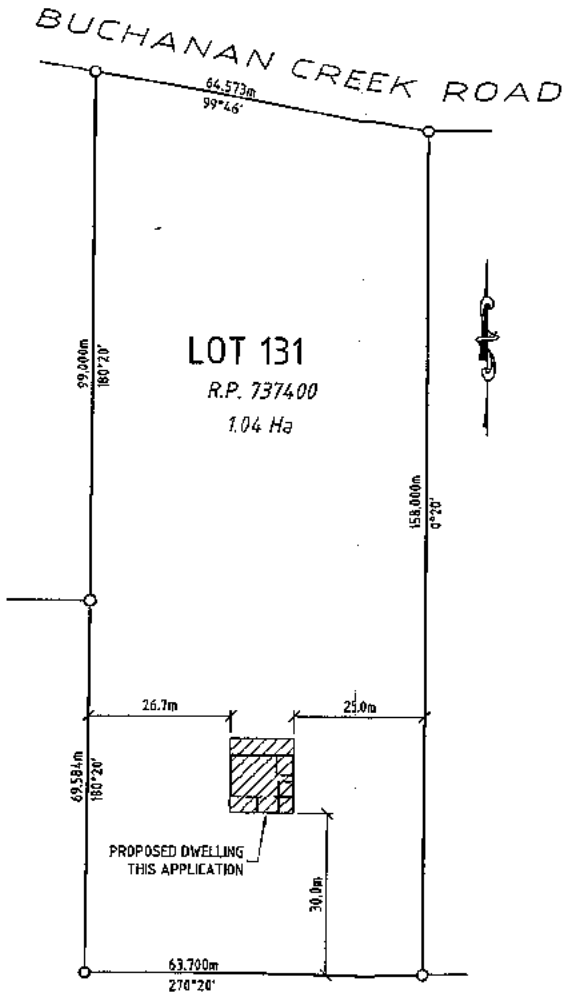
BSA 1057711
ACN 087 293 598

DRAWN VPP	CHECKED BH	ONSITE SEWERAGE ASSESSMENT	
DESIGNED BH	CHECKED BH	FIGURE 1 - INDICATIVE DISPOSAL AREAS ABSORPTION TRENCH LOT 131 BUCHANAN CK RD, COW BAY	
CAD REF GCS06-148-FIG1	DATE 9/09/2006		
APPROVED		SIZE A3 / SCALE NOT TO SCALE / DRAWING NO GCS06-148-FIG1 / REVISION B	



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PROPOSED NEW DWELLING
LOT 131 ON RP 737400
BUCHANAN CREEK ROAD

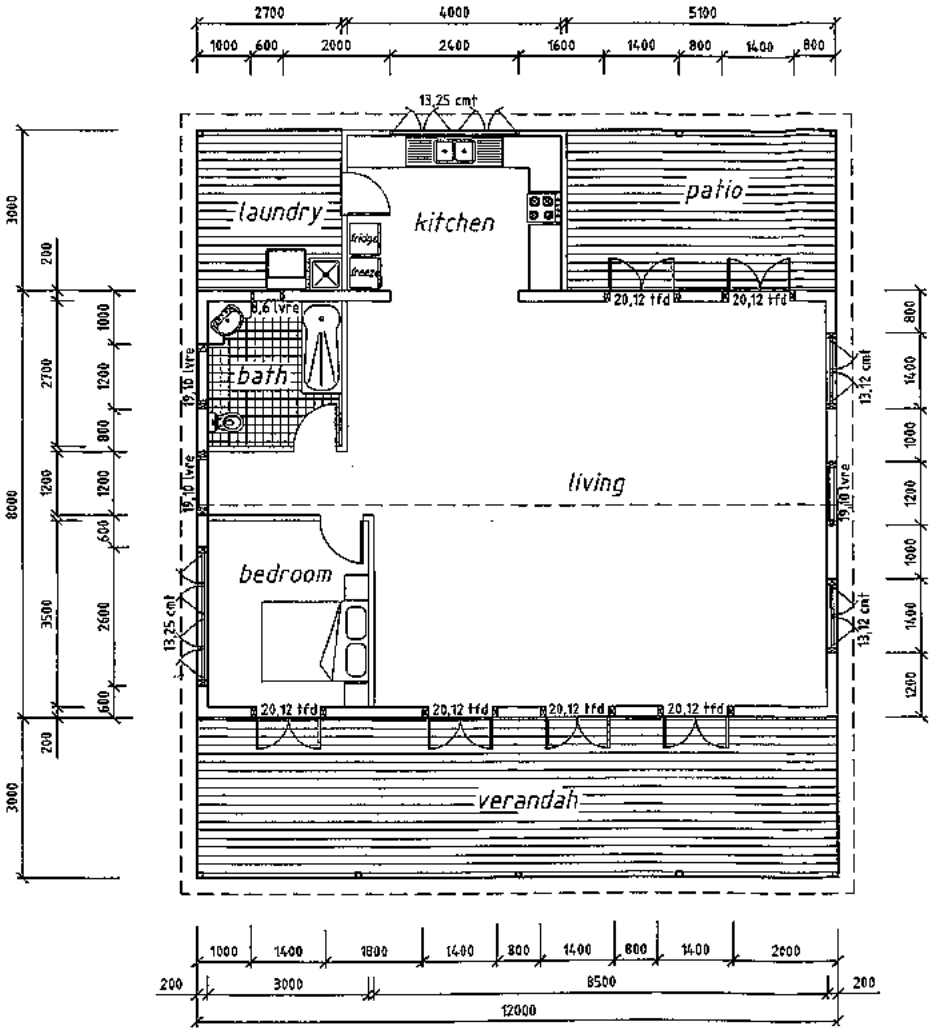
Parish of Alexandra
County of Solander

SITE PLAN, NOTES

CLIENT
C Disley

JOB No. 607101

SHEET No. 1



FLOOR PLAN
1:100

ELEVATION KEY

DATE	SUBJECT
28 Aug 06	Issued for CLIENT APPROVAL

AMENDMENTS

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Building Design - Medium Rise

PROPOSED NEW DWELLING
LOT 131 ON RP 737400
BUCHANAN CREEK ROAD

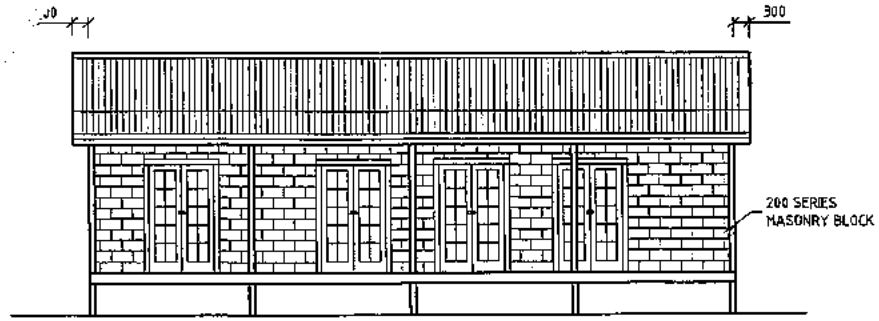
Parish of Alexandra
County of Solander

FLOOR PLAN

CLIENT
C Disley

JOB No. 607101

SHEET No. 2



ELEVATION 1
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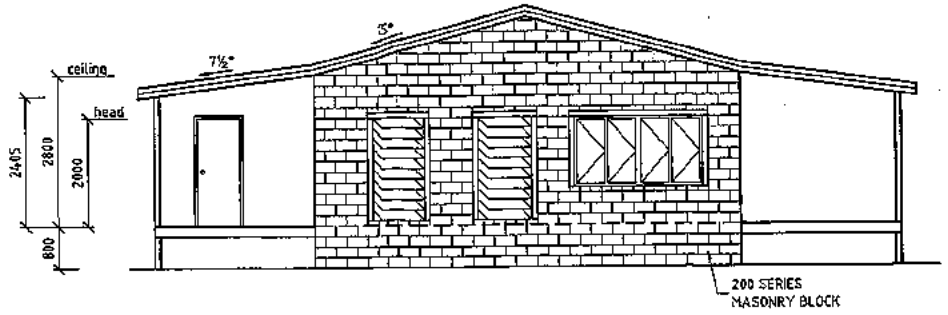
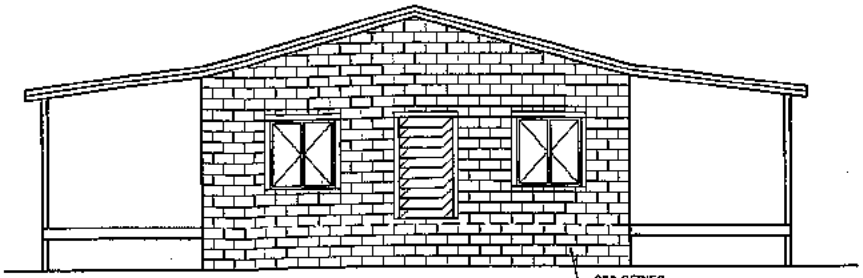


ELEVATION 2
1:100

ELEVATION 3
1:100



ELEVATION 4
1:100

DATE	SUBJECT
28 Aug 06	Issued for CLIENT APPROVAL

AMENDMENTS

Robert EDWARDS (Ass.Dip.Civ.Eng.)
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Building Design - Medium Rise

PROPOSED NEW DWELLING
LOT 131 ON RP 737400
BUCHANAN CREEK ROAD

Parish of Alexandra
County of Solander

ELEVATIONS

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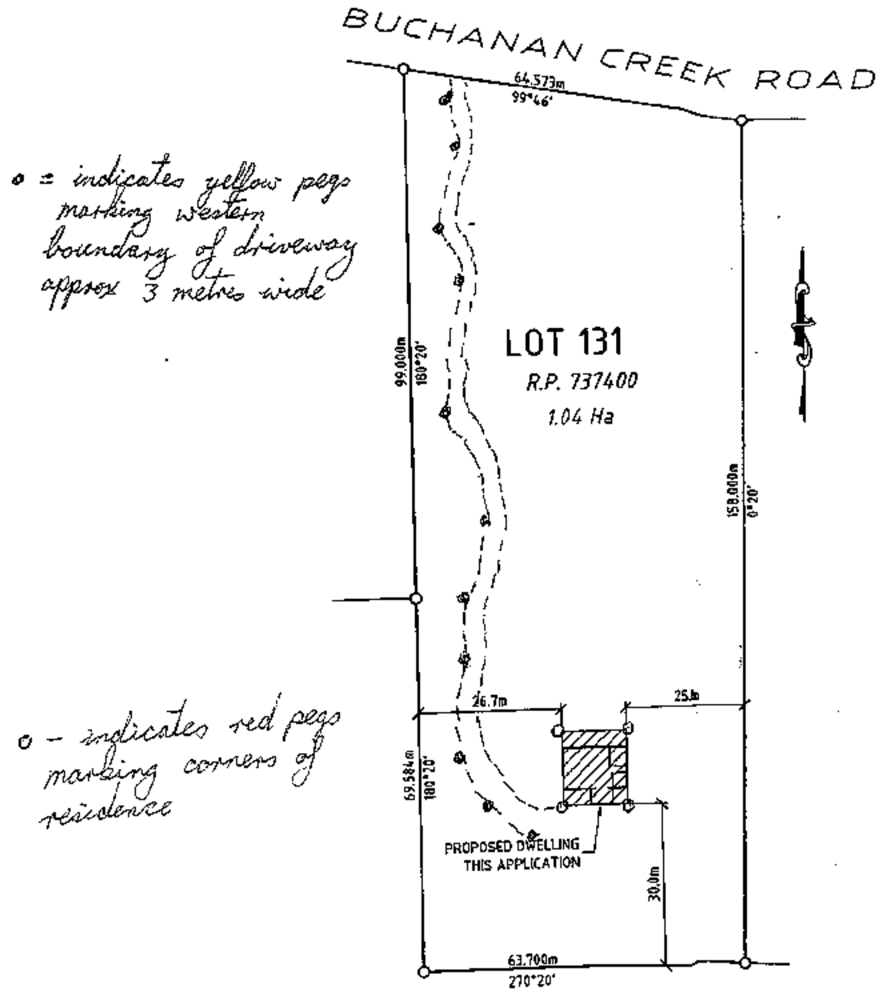
SHEET No. 3



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PROPOSED NEW DWELLING
LOT 131 ON RP 737400
BUCHANAN CREEK ROAD

Parish of Alexandra
County of Solander

SITE PLAN, NOTES
with ~~[illegible]~~ proposed drive

CLIENT
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JOB No.	SHEET No.
607101	4

607101 1