U021320

SMART ASSOCIATES LTD
ENGINEERS & ARCHITECTS

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Email design@smartassociates.co.nz

TED TO
PL EVIEW

13 February 2003

Mr Angus Laird
Marlborough District Council
Seymour Square
PO Box 443
BLENHEIM

Dear Angus,

Application for Resource Consent - Proposed Bach Extension For Mr & Mrs Stevens, Tara Bay, Kenepuru Sound
Project S2002-522h, RC No: U021320

Further to our telephone conversation today please find attached our revised wastewater disposal layout.

As discussed, the layout now includes a distribution valve to allow some of the trenching to be rested, and a distribution box on the lower section to enable the four lines to be dosed equally; in accordance with NZS 1547:2000.

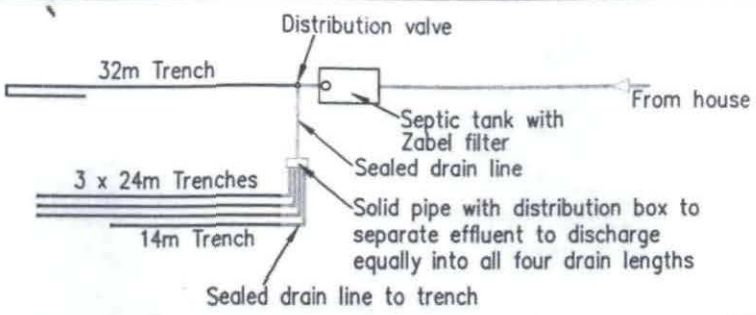
We trust the above information is sufficient for the resource consent application to proceed, however, please do not hesitate to contact the undersigned should you have any further queries.

Yours sincerely

Matthew Harris
Design Engineer
for Smart Associates Ltd

c.c. Dai Jones, Daisign Ltd, 72 New Renwick Road, Blenheim
Alex Stevens, 30 Brigham Drive, Christchurch 3

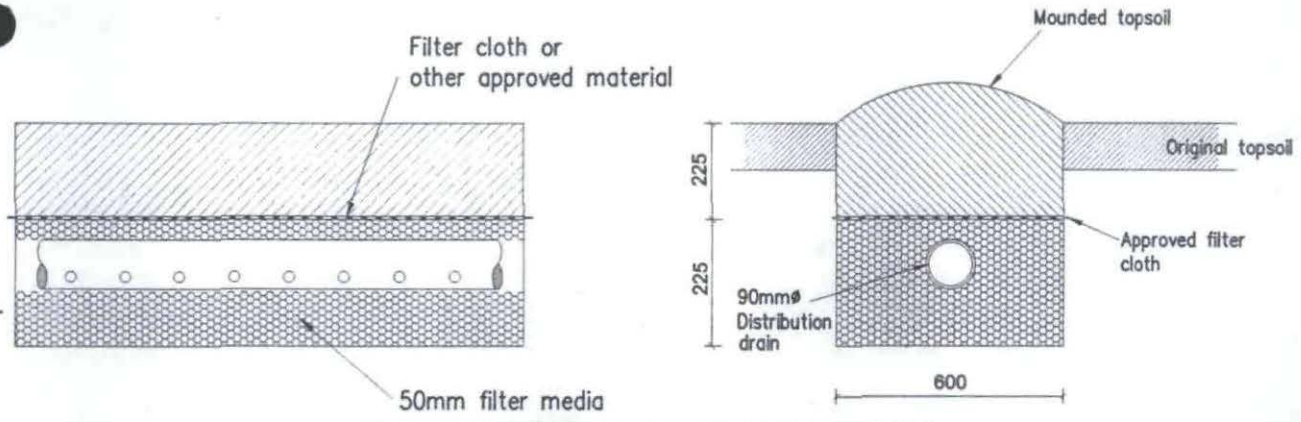
FILE No.:
OFFICER:
DATE RECV 14 FEB 2003



SCHEMATIC TRENCH LAYOUT

NOTE – TRENCHES
(1) Trench spacing 1m. minimum between centre lines

NOTE – GENERAL
(1). Distribution drains to be U–PVC 90mmø perforated pipe with perforations comprising at least 2% of surface area. (20mmø holes at 100mm centres at 4 & 8 o'clock positions).
2. Distribution pipes to be laid flat or at a gradient not greater than 1 in 200.
(3). Sides & base of trench to be carefully scratched with a pointed tool before laying filter media.



TYPICAL TRENCH CONSTRUCTION

SEPTIC TANK

SUGGESTED OPERATION & MAINTENANCE

1. The household sewage should not contain anything other than human waste and toilet paper, and food material such as may go down a kitchen sink drain. Garbage grinders are not recommended, although they need not be forbidden. More frequent de–sludging of the septic tank may be needed if a garbage grinder is used.

Normal use in the house of soaps, detergents, bleaches, plumbing fixture cleaners, drain cleaners and discinfectants will not harm the functioning of the septic tank or the soil absorption system.

2. Prohibited discharge to the septic tank
- Oil/grease from a deep frier (for example).
- Stormwater or any drainage other than sewerage generated in the house.
- Petrol, oil or other flammable/explosive substances
- Garden, garage, and workshop chemicals (e.g. pesticides, paint cleaners, photographic chemicals, motor oil or trade waste.
- Disposable nappies & sanitary napkins.

3. Septic tanks need to be pumped (septage removed when the scum layer comes down to within 75mm of the bottom of the outlet tee or when sludge and scum have accumulated to the extent that the clear space (between scum and sludge) has a volume less than 1000 litres. Septage removal may need to be done as often as every three years but no longer than five years.

BIO or ZABEL FILTER (FITTED TO OVERFLOW PIPE)

1. The septic tank should be pumped prior to removal of the filter to prevent any solids from escaping to the trenches when cartridge is removed for cleaning.

2. The Zabel filter shall be cleaned (removed & hosed down) at the same time as normal septic tank servicing (3 – 5 years).

3. Remove disc cartridge and rinse off with a garden hose, being careful to rinse all septage material back into the tank. It is not necessary that the discs be cleaned 'spotless'. The biomass growing on the filter aids in the pre–treatment process and should be left in the discs.

PROJECT	Mr & Mrs Stevens Bach Extension, Tara Bay.
PROJECT No.	S2002–522

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ACENZ

TITLE	DRAINAGE FIELD SPECIFICATION		DRAWING No. C.12.0
DRAWN MJH	CHECKED	SCALE NTS	DATE 11/02
COMPUTER FILE: MASTER\2002\STEVENS			REVISION A

PORTAGE TO LINKWATER ROAD

N

60.640 m

24.640 m

8.345

4.560

NEW STORMWATER CUTOFF DRAIN INSTALLED ABOVE PROPOSED EXTENSION AND CONNECTED INTO THE EXISTING STORMWATER DRAINAGE

ex tv

ex dp

ex ib

ex gt

existing sewer

existing house

proposed extension

new stormwater pipe under floor to connect to existing 100mm stormwater drain

DRIVE WAY

DISTRIBUTION VALVE

ex septic tank.

ex ip

existing filter drain 18.32 m long

SOLID PIPE WITH DISTRIBUTION BOX TO SEPARATE EFFLUENT TO DISCHARGE EQUALLY INTO ALL FOUR DRAIN LENGTHS

8
8
24
24
24
14

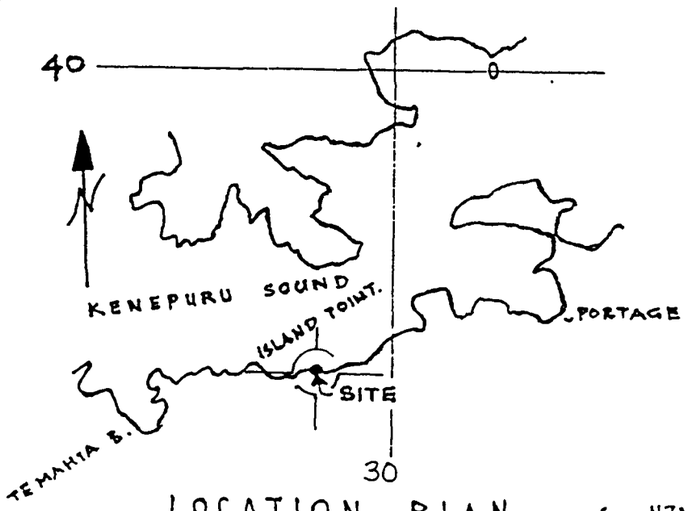
ex dp

new dp

9.000

4.83 m

59.74 m



LOCATION PLAN (N.T.S) ref NZMS 236.

DRAINAGE / SITE PLAN

1 : 200

FILE No.:	
OFFICER:	
DATE RECV'D	14 FEB 2003
MARLBOROUGH DISTRICT COUNCIL	

D A I S I G N

72 NEW RENWICK ROAD BLENHEIM Ph 578 1777 Fx 578 9990

SITE & DRAINAGE PLAN

NEW EXTENSION
MR A & MRS S STEVENS
TARA BAY
KENEPURU SOUND

DATE	AUG 2002
DESIGNED	DAIG JONES
JOB No	9240
DRAWING No	BC/07

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3 February 2003

Mr Angus Laird
Marlborough District Council
Seymour Square
PO Box 443
BLENHEIM

Dear Angus,

Application for Resource Consent - Proposed Bach Extension For Mr & Mrs Stevens, Tara Bay, Kenepuru Sound
Project S2002-522h, RC No: U021320

Further to your letter dated 6 January 2003 and in addition to our letter dated 8 January we are now able to confirm the existing septic tank details on behalf of our client, as follows:

1. Our client has confirmed that the existing septic tank at the above site holds in excess of 3000 litres.

2. Please find attached our revised Professional Opinion which now also covers the effluent disposal, as requested.

3. We now have more information regarding the setting out of the drainage trenches and, in order to be able to better follow the contours of the land and avoid the removal of several mature Manuka trees, the proposed drainage layout has been revised as shown on the attached site plan. The revised layout shows 120m of trench.

We trust the above information is sufficient for the resource consent procedure to proceed, however, please do not hesitate to contact the undersigned should you have any further queries.

Yours sincerely

Matthew Harris
Design Engineer
for Smart Associates Ltd

c.c. Dai Jones, Daisign Ltd, 72 New Renwick Road, Blenheim
Alex Stevens, 30 Brigham Drive, Christchurch 3

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3 January 2003

The General Manager,
Marlborough District Council,
P.O.Box 443,
BLENHEIM

STATEMENT OF PROFESSIONAL OPINION AS TO LAND STABILITY

Description of Work: **Proposed Extension to Existing Bach**
Lot 10, DP2999, Tara Bay, Kenepuru Sound

I **John Innes Smart** hereby confirm that:

I am a Registered Engineer experienced in the field of **soils engineering** and more particularly **land and foundation** stability and am authorised by Smart Associates Limited who are formally recognised by the Marlborough District Council. I am familiar with and understand the purpose of the Marlborough District Council's Engineers reporting standards. This professional opinion is furnished to the Marlborough District Council for the purpose of aiding its evaluation of this proposal

Previous plans and reports relied upon: Original section report by Neil Morris, Registered Engineer, report dated 29 January 1981.

A site investigation report formatted as required is attached.

Site investigations have been carried out under my direction and are described in our engineering report dated November 2002.
The following professional opinion is based on the assumption that the data obtained from these investigations is representative of the whole area under consideration. In my professional opinion having examined the site it is reasonable for Council to assume that the data referred to above is representative of the whole area under consideration.

In my professional opinion and having regard to the specifics of the site which I have investigated to the extent that acceptable engineering practices require, the plans and specifications, including wastewater treatment and disposal, are in accordance with acceptable engineering principles and practices and that a construction in accordance with such plans and specifications will meet proper engineering standards.

These works should be implemented under the guidance of a Registered Engineer experienced in soils engineering and slope stability. The work should be subject to a requirement from the builder of a Producer Statement (Construction), and from the Engineer of a Producer Statement (Construction Review).

This opinion remains valid for two years from this date.

JOHN SMART
Registered Engineer

RECEIVED
-4 FEB 2003
MARLBOROUGH DISTRICT COUNCIL

PORTAGE TO LINKWATER ROAD

N

60.640 m
24.640 m
8.345
4.560
9.000

NEW STORMWATER CUT OFF DRAIN INSTALLED ABOVE PROPOSED EXTENSION AND CONNECTED INTO THE EXISTING STORMWATER DRAINAGE

new stormwater pipe under floor to connect to existing 100mm stormwater drain

ex tv
ex dp
ex ib
ex gt
existing house
existing sewer
ex ip
exist. tank.
PROPOSED EXTENSION
ex dp
new dp

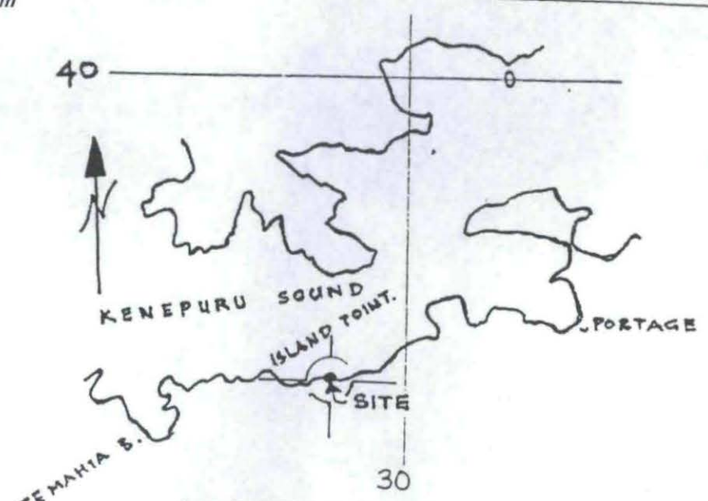
DRIVE WAY

existing filter drain 18 m long

Removed

8
8
8
16
24
24
14

4.83 m
59.74 m



LOCATION PLAN (N.T.S) ref NZMS 236.

DRAINAGE / SITE PLAN

1 : 200

D A I S I G N
72 NEW RENWICK ROAD BLENHEIM Ph 578 0777 FX 578 9090

SITE & DRAINAGE PLAN

NEW EXTENSION
MR A & MRS S STEVENS
TARA BAY
KENEPURU SOUND

DATE	AUG 2002
DESIGNED	DAIG JONES
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DRAWING No	BC/07

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8 January 2003

Mr Angus Laird
Marlborough District Council
Seymour Square
PO Box 443
BLENHEIM

Dear Angus,

Application for Resource Consent - Proposed Bach Extension For Mr & Mrs Stevens, Tara Bay, Kenepuru Sound
Project S2002-522h, RC No: U021320

Further to your letter dated 6 January 2003 to Daisign Ltd, and our subsequent telephone conversation this morning we write to confirm the following, on behalf on Daisign Ltd:

1. We concur that the building extension is located in a hazard zone and ask that the resource consent application be amended to apply for a land use consent in addition to the discharge permit previously applied for.

2. We have requested confirmation of the septic tank size and condition from the client. This information will be forwarded to the MDC as soon as it becomes available.

3. We confirm that the method used to assess the soil type with regard to using the correct hydraulic loading for the waste water system was as outlined in requirements and recommendations of NZS1547:2000, On-site domestic wastewater management.

We trust the above information is sufficient for your needs at this stage, however, please do not hesitate to contact the undersigned should you have any further queries.

Yours sincerely

Matthew Harris
Design Engineer
for Smart Associates Ltd

c.c. Dai Jones, Daisign Ltd, 72 New Renwick Road, Blenheim
Alex Stevens, 30 Brigham Drive, Christchurch 3

File Ref: U021320

Case Officer: Angus Laird

ISO 9002
Form Ref CI 421

6 January 2003

S88 RMA 1991
More info letter

Daisign Limited
72 New Renwick Road
BLENHEIM 7301

Dear Sir,

Receipt of application for resource consent - U021320 - Stevens, Alex - Tara Bay Kenepuru Sound

The Council acknowledges receipt of the following application(s) for resource consent:

> Extension to existing bach at Tara Bay requiring increased length of drainage trench (Lot 10 DP 2999)

I have been appointed as your case officer. I have assessed your application for completeness and have determined that further information is required to enable the application to be further processed. The information required is outlined as follows-

As the building extension is located in a hazard zone the application requires amending to include this.

The report outlines that the existing septic tank should be checked to verify that it has the required capacity of 3000 lts. As this is a critical part of the waste water discharge system the resource consent cannot be granted until this verification has been provided.

Also could you provide a description as to the method used to assess the soil type as this is critical with regard to the appropriate hydraulic load.

Please check that the summary of your application as outlined above and the location shown on the accompanying map are correct. Please notify me if any details are incorrect.

Once you have provided the information I will continue to process your application and determine whether or not -

- It needs to be publicly notified; and
- It contains sufficient information to enable it to be fully assessed and processed.

If your application is to be publicly notified, you will be contacted as soon as possible. If public notification is necessary, the Resource Management Act requires this to be done within 10 working days of an application being "accepted" for processing.

Applicants will be charged actual and reasonable costs for receiving and processing an application as described on the attached fees and charges sheet.

Fees are calculated on the basis of actual cost recovery, and vary for each application. The fee calculated is non-refundable, irrespective of the Council's decision on your application. If your application is withdrawn prior to a decision being issued, you will be liable for the costs incurred up to the time of the withdrawal.

Please do not hesitate to contact me if you have any questions or concerns regarding the above matters.

Yours faithfully

Angus Laird
RESOURCE MANAGEMENT OFFICER

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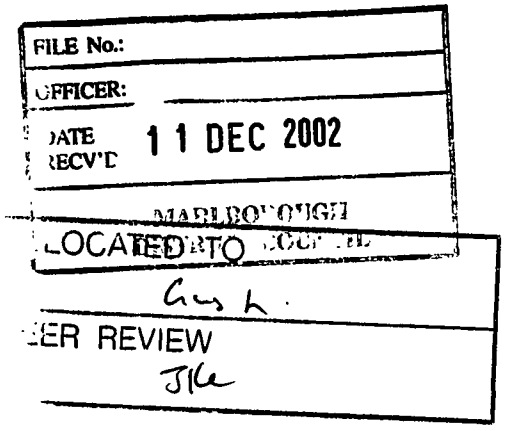

10 December 2002

Mr Angus Laird
Marlborough District Council
Seymour Square
PO Box 443
BLENHEIM

Dear Angus,

PROPOSED BACH EXTENSION FOR MR & MRS STEVENS
TARA BAY, KENEPURU SOUND
PROJECT S2002-522H

Please find enclosed the resource consent application for a discharge permit, for the above project.

We have also enclosed a copy of our report relating to this extension, which includes a site plan and an assessment of environmental effects, for your information.

We trust the enclosed is sufficient for your needs, however, please do not hesitate to contact the undersigned should you have any queries.

Yours sincerely

Matthew Harris
Design Engineer
for Smart Associates Ltd

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ENGINEERING REPORT

Proposed Extension to Existing Bach
Lot 10 DP2999, Tara Bay, Kenepuru Sound

For Mr & Mrs Stevens
Job No S2002-522

CONTENTS

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- **3.0** Recommendations
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- **7.0** Geotechnical Investigations
- **8.0** Geotechnical Assessment
- **9.0** Assessment of Environmental Impact of Development
- **10.0** Control or Implementation Measures
- **11.0** References

C Plans and Details
- **12.0** Site Plan
- **13.0** Site Photos
- **14.0** Smart Associates Wastewater Policy Statement

John Smart
Registered Engineer

November 2002

Directors:
J.I. Smart B.E. Registered Engineer
C.C. Pritchett B.Arch (Hons) ANZIA Registered Architect

A SYNOPSIS

1.0 Scope of the Investigation

This report has been prepared for Mr & Mrs Stevens, solely for the purpose of providing an engineering report in regard to the proposed extension to the their existing bach in Tara Bay, Kenepuru Sound.
The report covers the inspection of the site and soil characteristics in order to discuss site stability, foundation requirements, access, storm water control and wastewater disposal.

A site visit was made on 15th February 2002 by Matthew Harris and in April by John Smart, of Smart Associates Ltd.

2.0 Summary and Conclusions

This investigation and report concludes that the existing site is suitable for the proposed extension to be built as outlined in the drawings and details by Daisign Ltd, subject to the items listed in item 3.0, 'Recommendations', being carried out.

3.0 Recommendations

3.1 Any structural alterations outside the structural items shown in the detailed drawings by Daisign Ltd should be checked by a registered engineer to ensure changes are compatible with the development proposed.

3.2 Timber Poles should be cast into concrete footings following on-site inspection by resident engineer to ensure adequate bearing material, into stable sub-strata, is found.

3.3 Storm water control is to include cut-off drains uphill of the foundations, draining into the adjacent stream as described in this report.

3.4 The work should be subject to a requirement from the builder of a Producer Statement (Construction), and from the Engineer of a Producer Statement (Construction Review).

3.5 Alterations/Upgrading of the wastewater system should be carried out by a registered drain layer (as outlined in section B6, waste water control).

3.6 Storm water control measures should be installed (as outlined in section B6, storm water control).

3.7 A structural monitoring schedule should be issued by a registered engineer to confirm the requirement of any structural inspections.

4.0 Limitations

The report covers the inspection of the site and soil characteristics in order to discuss site stability, foundation requirements, access, storm water control and wastewater disposal only. Any other areas are outside the scope of this report.

This report is applicable to the site specified in the report only, on behalf of Mr & Mrs Stevens, and is valid for two years from issue.

Statement of professional opinion as to land stability

Refer letter on next page.

Smart Associates wastewater policy statement

Refer section C.14.

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19 November 2002

The General Manager,
Marlborough District Council,
P.O.Box 443,
BLENHEIM

STATEMENT OF PROFESSIONAL OPINION AS TO LAND STABILITY

Description of Work: **Proposed Extension to Existing Bach**
Lot 10, DP2999, Tara Bay, Kenepuru Sound

I **John Innes Smart** hereby confirm that:

I am a Registered Engineer experienced in the field of **soils engineering** and more particularly **land and foundation** stability and am authorised by Smart Associates Limited who are formally recognised by the Marlborough District Council. I am familiar with and understand the purpose of the Marlborough District Council's Engineers reporting standards. This professional opinion is furnished to the Marlborough District Council for the purpose of aiding its evaluation of this proposal

Previous plans and reports relied upon: Original section report by Neil Morris, Registered Engineer, report dated 29 January 1981.

A site investigation report formatted as required is attached.

Site investigations have been carried out under my direction and are described in our engineering report dated November 2002.
The following professional opinion is based on the assumption that the data obtained from these investigations is representative of the whole area under consideration. In my professional opinion having examined the site it is reasonable for Council to assume that the data referred to above is representative of the whole area under consideration.

In my professional opinion and having regard to the specifics of the site which I have investigated to the extent that acceptable engineering practices require, the plans and specifications are in accordance with acceptable engineering principles and practices and that a construction in accordance with such plans and specifications will meet proper engineering standards.

These works should be implemented under the guidance of a Registered Engineer experienced in soils engineering and slope stability. The work should be subject to a requirement from the builder of a Producer Statement (Construction), and from the Engineer of a Producer Statement (Construction Review).

This opinion remains valid for two years from this date.

JOHN SMART
Registered Engineer

B REPORT

5.0 Introduction

This report has been prepared for Mr & Mrs Stevens, solely for the purpose of providing an engineering report on their existing bach at Tara Bay in the Kenepuru Sound, taking into account the owners intention to build an extension.

The report covers the inspection of the site and soil characteristics in order to discuss site stability, foundation requirements, access, storm water control and wastewater disposal only.

The section has no access to connect into any existing reticulated water supply and sewerage systems.

A site visit was made on 15th February 2002 by Matthew Harris and in April by John Smart, of Smart Associates Ltd.

Legal description: Lot 10 DP2999 Linkwater SD IV
Area: 873m²

6.0 Site Description / Discussion

Lot 10 is situated in amongst regenerating bush cover on the hillside above Tara Bay with the land slope facing North. The land slopes generally across the site at approximately 20°.

Specific Items:

6.1 Foundations

Foundations will be suitable as braced pole frame foundations designed by a registered engineer to tie into the existing structure.

The habitable floor levels are to be kept at least 300mm above the adjacent ground level around the house. This will still allow for the new extension floor to match into the existing floor level throughout or for the new floor to be stepped down the slope.

6.2 Waste water Control

The existing two bedroom bach treats its waste water using a conventional septic tank system, with a drainage field to the east of the existing building.

This will need to be upgraded to have enough capacity to treat the waste from 5 people, based on the proposed 3 bedroom revised layout, and to ensure that the resultant liquid is treated to a satisfactory level before disposal on the property. (This upgraded size is based on the requirements of the current wastewater standard NZS 1547:2000, please refer to our wastewater policy statement)

Rather than specify an aerated system, it is recommended that the existing septic tank system be upgraded as these are more suitable for infrequent use, such as in this instance, for a bach.

A registered drain layer should check the existing septic tank to confirm that is has a minimum capacity of 3000 litres. (Table 4.3A1, NZS 1547:2000)

Assuming the bach contains standard fixtures (i.e. no water-reduction fixtures) the typical wastewater flow allowance will be 140L/person/day.

For a conventional loading trench (assuming 600mm wide) the minimum size required will be:
140x5 = 700litres/day.
Design loading rate for primary treated effluent (conservative) based on soil category 4, High/moderate structured Clay loam (Table 4.2A1, NZS 1547:2000):
(700/0.6)/10 = 116.7m.
Therefore, a minimum of 117m of 0.6m wide conventional drainage trench bed or filter drain is required.
The tank is currently connected to a filter drain, 32m in length, requiring an extension of 85m.

We recommend that the extended wastewater filter drain be installed by a registered drain layer and that the existing system should be upgraded to include a Zabel or similar approved filter on the outlet pipe, if not already installed.

Smart Associates also recommends that any wastewater treatment system be regularly serviced and maintained by a contractor experienced in this field.

Water reducing fixtures may be considered for use in the house in order to reduce the specified length of the filter drain.

6.3 Access

The existing driveway has been formed to come onto the site Westwards on the Portage to Linkwater Road. The driveway appears stable in its present form and will not be affected by the proposed extension works on the West side of the existing building.

6.4 Storm water Control

Cut off drains, consisting of buried 100mm drain coil in a gravel filled trench lined with filter fabric, are required above the uphill foundations of the house extension site. These are to connect into the existing storm water drain system, which should also pick up all additional rainwater collected by the new extension roof.

This property discharges storm water through 100mm PVC pipes to the nearby watercourse on the Western boundary, which is considered satisfactory.

7.0 Geotechnical Investigations

A visual inspection of the site was carried out during the recent site inspections in February and April 2002.

Due to knowledge of the similar sites in this area of the sounds together with inspections being required during any foundation construction, no ground Penetrometer tests were carried out for this report.

8.0 Geotechnical Assessment

The soil profile in this area is known to be made up of a topsoil approximately 200mm deep, bearing on a clayey silt strata, (clay loam), on underlying rock.

The site appears to be generally stable with a suitable 100Kpa bearing (as required by NZS3604) being obtainable if the extension is founded on pole footings augered down to good ground and cast into concrete. The depth should be inspected on site by a registered engineer prior to casting of the concrete around the timber pole footings, to ensure such a suitable footing has been found.

The existing banks appear stable, but as a precaution against any future instability caused by the flow of large quantities of surface water, a surface cut-off drain should be installed uphill of the foundations. This drain should be connected to the existing surface water drainage.

9.0 Assessment of Environmental Impact of Development

9.1 Actual/Potential effect on the environment

The proposed development is for an extension to an existing bach only, with the new building fabric constructed to match the existing.
This development is consistent with similar developments around the Marlborough Sounds and is not considered to present any adverse environmental impacts that require assessment.
Therefore there is no other significant impact other than the increase in the effluent disposal volume, which is taken care of by the upgraded wastewater, septic tank, system.

9.2 Risks from hazardous substances and installations

None

9.3 Risks from the discharge of any contaminant

None, The wastewater management system should be subject to regular maintenance by a registered drain layer or contractor experienced in this field.

9.4 Mitigation methods to prevent/reduce potential effects

None required other than the specified regular maintenance of the wastewater system by a registered drain layer or contractor experienced in this field.

9.5 Identification of interested or affected parties, consultation and responses

No affected parties are expected by this development.

10.0 Control or Implementation Measures

A structural monitoring schedule should be issued by a registered engineer to confirm the requirement of any structural inspections necessary, in order for that engineer to be able to issue a producer statement to cover the specific engineering design carried out for the proposed extension an this section.

11.0 References

1. Engineering Report, dated 29 Jan. 1981,
   by Neil Morris, Registered Engineer.
2. NZS 1547:2000, On-site Domestic Waste-water Management

Signed

JOHN SMART
Registered Engineer

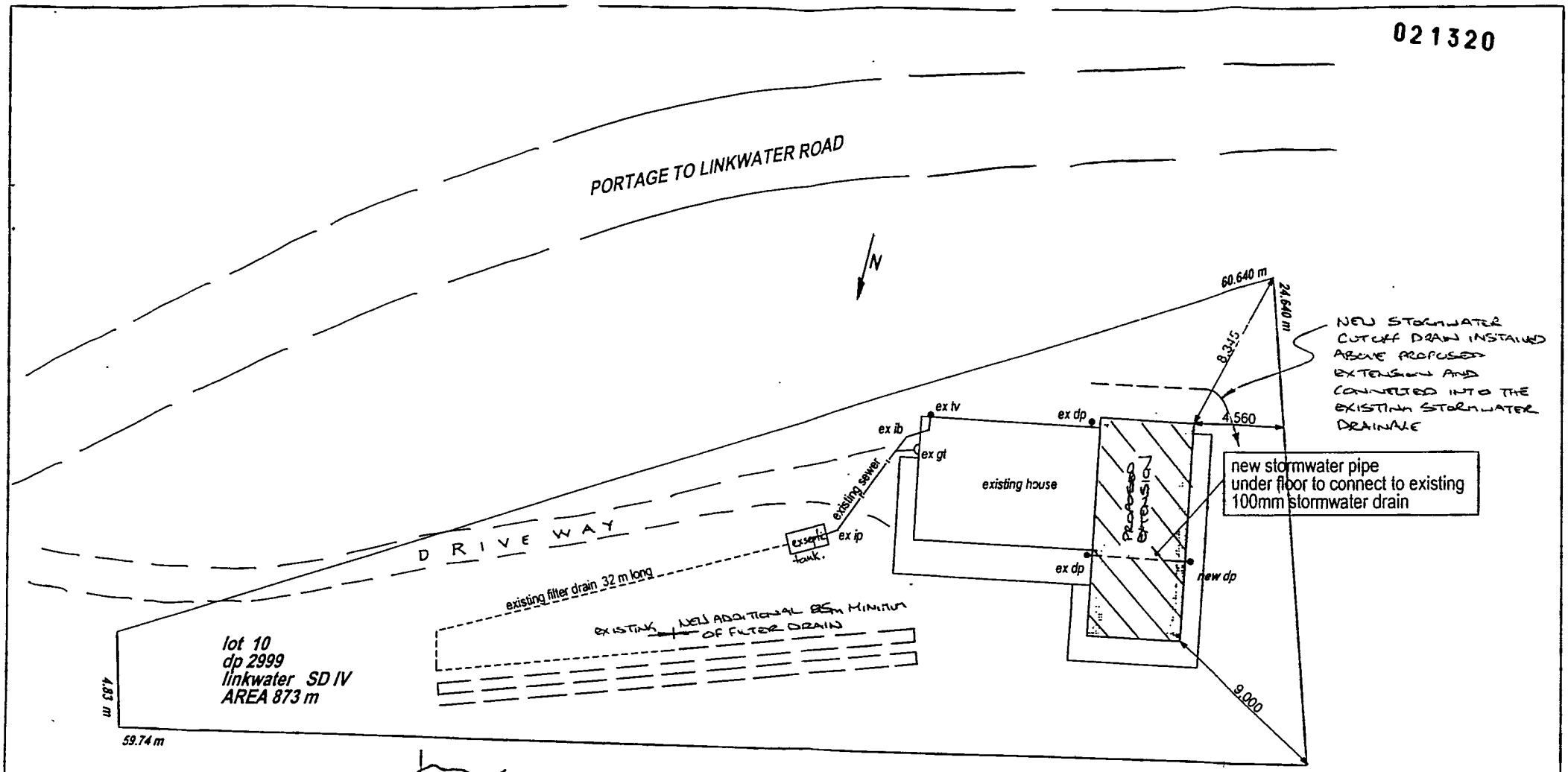
MATTHEW HARRIS
Design Engineer

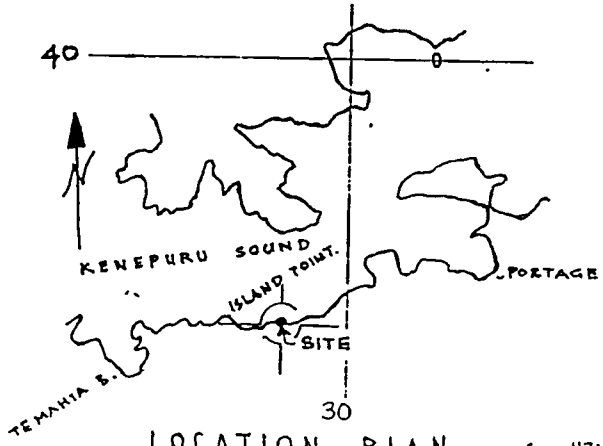
for
SMART ASSOCIATES Ltd
November 2002

C PLANS & DETAILS

12.0 Site Plan & Filter Drain Details

021320





LOCATION PLAN ref NZMS 23G.
(N.T.S)

DRAINAGE / SITE PLAN

1 : 200

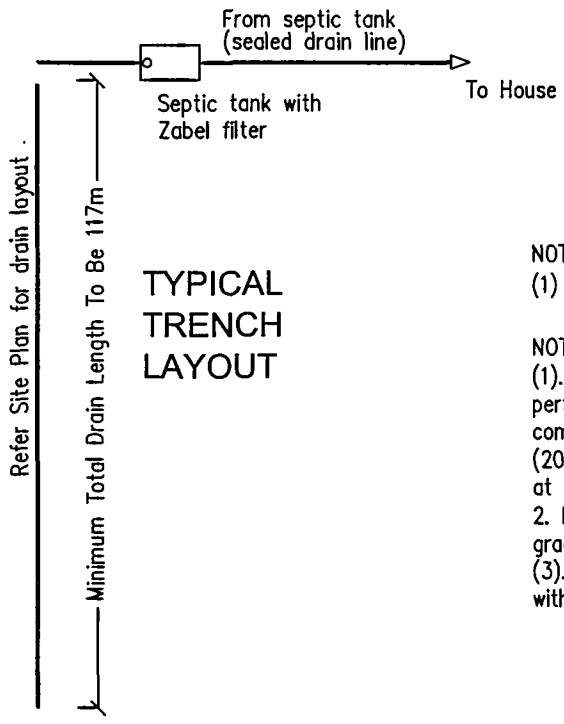
DAISIGN

72 NEW BRUNSWICK ROAD BLENHEIM Ph 57 8 277 Fx 578 [illegible]

SITE & DRAINAGE PLAN

NEW EXTENSION
MR A & MRS S STEVENS
TARA BAY
KENEPURU SOUND

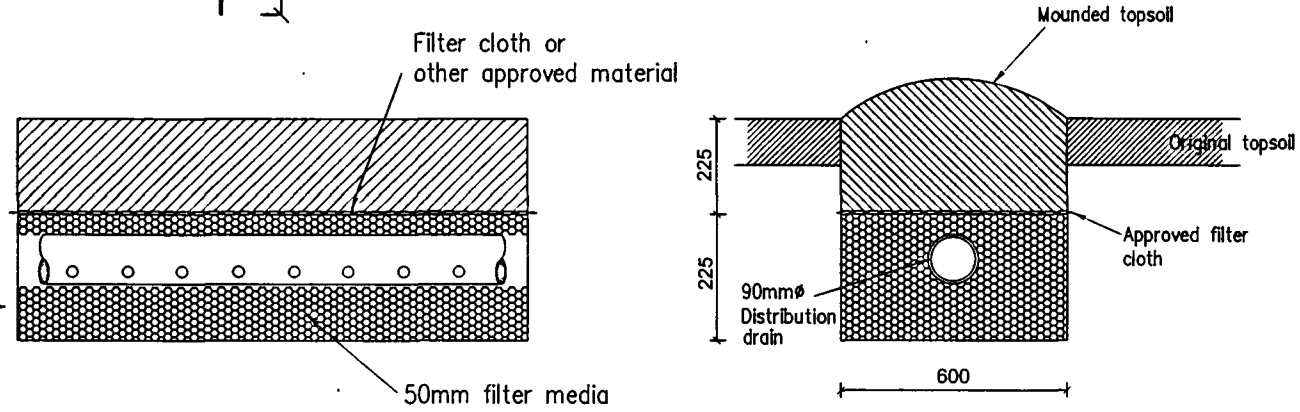
DATE AUG 2002
DESIGNED CRAIG JONES
JOB No 9240
DRAWING No BC/07



TYPICAL TRENCH LAYOUT

NOTE – TRENCHES
(1) Trench spacing 1m. minimum between centre lines

NOTE – GENERAL
(1). Distribution drains to be U-PVC 90mmø perforated pipe with perforations comprising at least 2% of surface area. (20mmø holes at 100mm centres at 4 & 8 o'clock positions).
2. Distribution pipes to be laid flat or at a gradient not greater than 1 in 200.
(3). Sides & base of trench to be carefully scratched with a pointed tool before laying filter media.



TYPICAL TRENCH CONSTRUCTION

SEPTIC TANK

SUGGESTED OPERATION & MAINTENANCE

1. The household sewage should not contain anything other than human waste and toilet paper, and food material such as may go down a kitchen sink drain. Garbage grinders are not recommended, although they need not be forbidden. frequent de-sludging of the septic tank may be needed if a garbage r is used.

Normal use in the house of soaps, detergents, bleaches, plumbing fixture cleaners, drain cleaners and disinfectants will not harm the functioning of the septic tank or the soil absorption system.

2. Prohibited discharge to the septic tank
* Oil/grease from a deep frier (for example).
* Stormwater or any drainage other than sewerage generated in the house.
* Petrol, oil or other flammable/explosive substances
* Garden, garage, and workshop chemicals (e.g. pesticides, paint cleaners, photographic chemicals, motor oil or trade waste.
* Disposable nappies & sanitary napkins.

3. Septic tanks need to be pumped (septage removed when the scum layer comes down to within 75mm of the bottom of the outlet tee or when sludge and scum have accumulated to the extent that the clear space (between scum and sludge) has a volume less than 1000 litres. Septage removal may need to be done as often as every three years but no longer than five years.

BIO or ZABEL FILTER (FITTED TO OVERFLOW PIPE)

1. The septic tank should be pumped prior to removal of the filter to prevent any solids from escaping to the trenches when cartridge is removed for cleaning.

2. The Zabel filter shall be cleaned (removed & hosed down) at the same time as normal septic tank servicing (3 – 5 years).

3. Remove disc cartridge and rinse off with a garden hose, being careful to rinse all septage material back into the tank. It is not necessary that the discs be cleaned 'spotless'. The biomass growing on the filter aids in the pre-treatment process and should be left in the discs.

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ACENZ

PROJECT	Mr & Mrs Stevens Bach Extension, Tara Bay.
PROJECT No.	S2002-522
TITLE	DRAINAGE FIELD SPECIFICATION
DRAWING No.	C.12.0
DRAWN MJH	CHECKED
SCALE	NTS
DATE	11/02
COMPUTER FILE: MASTER\2002\STEVENS	REVISION .

13.0 Site Photos

Existing Sub-floor Supports

Existing Sub-floor Supports

Existing Sub-floor, looking East

Existing property looking Southeast
from the Northwest corner of site

Looking South, up the site

Existing bank under proposed
position of extension

14.0 Smart Associates Wastewater Policy Statement

Septic Tanks / Effluent Soakage Design

Background
Investigations by the Standards Association of New Zealand (with representation by many respected bodies) into the performance of soakage fields has found that many soakage fields built according to the regulations at the time of construction, have failed, or have performed poorly. A failed soakage field can be offensive in odour, and generally results in the replacement of the field and rehabilitation of the failed area.

These investigations resulted in the issue of a new joint Australian / New Zealand standard AS/NZS 1547:2000: "On-site domestic-wastewater management".

Policy
SMART ASSOCIATES LIMITED have a policy to follow this new standard in designing wastewater systems, in line with our goal to incorporate best-practice and up-to-date techniques for the long-term benefit and satisfaction of our clients.

We recognise that following this new code (AS/NZS 1547) results in significantly higher costs than the previous design criteria required, however we do not wish to design systems which may not perform adequately as this will lead to problems in the future for our clients. We believe our clients engage us to protect them (and the subsequent users of the system) by following best current practice in all aspects of our work.

Conclusion
It may be that a client can find a consultant to certify according to the old system. If this is the case the client is free to engage such consultants to design the wastewater disposal system.

Note that the local authority may not necessarily accept new systems designed to the old standard, while still technically legal at this time.

021320

PORTAGE TO LINKWATER ROAD

N

60.640 m

24.640 m

8.345

4.560

NEW STORMWATER CUTOFF DRAIN INSTALLED ABOVE PROPOSED EXTENSION AND CONNECTED INTO THE EXISTING STORMWATER DRAINAGE

ex tv

ex dp

ex ib

ex gt

existing sewer

existing house

PROPOSED EXTENSION

new stormwater pipe under floor to connect to existing 100mm stormwater drain

D R I V E W A Y

ex ip

exseptic tank.

ex dp

new dp

existing filter drain 32 m long

EXISTING NEW ADDITIONAL 8.5m MINIMUM OF FILTER DRAIN

9.000

lot 10
dp 2999
linkwater SD IV
AREA 873 m

4.83 m

59.74 m

40

0

30

KENEPURU SOUND

ISLAND POINT.

PORTAGE

SITE

TEMAHIA B.

LOCATION PLAN (N.T.S) ref NZMS 236.

DRAINAGE / SITE PLAN

1 : 200

DAISIGN

72 NEW RENWICK ROAD BLENHEIM Ph 57 80 777 Fx 578 9090

SITE & DRAINAGE PLAN

NEW EXTENSION
MR A & MRS S STEVENS
TARA BAY
KENEPURU SOUND

DATE AUG 2002
DESIGNED DA'G JONES
JOB No 9240
DRAWING No BC/07