YOUR REF:
OUR REF: 2016/2116 (768627)

2 March 2016

S J Lundgren
PO Box 2184
WARWICK WA 6024

Attention:

Dear Sir/Madam

DECISION NOTICE UNDER S 335 SUSTAINABLE PLANNING ACT 2009: DEVELOPMENT APPLICATION FOR A HOUSE AT LOT 7 BANABILLA ROAD DEGARRA

With reference to the abovementioned Development Application, which was determined under Instrument of Delegation on 2 March 2016, please find attached the relevant Decision Notice.

The Notice includes extracts from the Act with respect to making representations about conditions, negotiated decisions, suspension of the appeal period, and lodging an Appeal.

Should you have any enquiries in relation to this Decision Notice, please contact Simon Clarke of Development Assessment and Coordination on telephone number 07 4099 9480.

Yours faithfully

Paul Hoye | General Manager Operations
Sustainable Communities | Douglas Shire Council

Att

DECISION NOTICE DETAILS
SUSTAINABLE PLANNING ACT 2009

APPLICANT DETAILS
S J Lundgren
PO Box 2184
WARWICK WA 6024

ADDRESS
Lot 7 Banabilla Road, Degarra

REAL PROPERTY DESCRIPTION
Lot 7 on SP123877

PROPOSAL
House

DECISION
Approved subject to conditions (refer to approval package below).

DECISION DATE
2 March 2016

TYPE
Material Change of Use (Development Permit)

REFERRAL AGENCIES

None Applicable

SUBMISSIONS
There were no submissions for this application.

FURTHER DEVELOPMENT PERMITS REQUIRED
Development Permit for Building Works

CODES TO COMPLY WITH FOR SELF-ASSESSABLE DEVELOPMENT
None

DOES THE ASSESSMENT MANAGER CONSIDER THE APPLICATION TO BE IN CONFLICT WITH APPLICABLE CODES, PLANNING SCHEME, STATE PLANNING POLICIES OR PRIORITY INFRASTRUCTURE PLAN (IF YES, INCLUDE STATEMENT OF REASONS)
Not in conflict

APPROVED DRAWING(S) AND / OR DOCUMENT(S)
The term 'approved drawing(s) and / or document(s)' or other similar expressions means:

Drawing or Document	Reference	Date
2 Bedroom Dwelling (Springmount)	29-531 Sheet 2 prepared by Queensland Kit Homes	October 2009
Site Plan	SI259-15 Report Page 10 within the report submitted by Earth Test dated August 2015 (Council Reference #768129)	August 2015
Clearing Plan	Lot Banabilla Road	2 March 2016

ASSESSMENT MANAGER CONDITIONS

1. Carry out the approved development generally in accordance with the approved drawing(s) and/or document(s), and in accordance with:-

   a. The specifications, facts and circumstances as set out in the application submitted to Council, including recommendations and findings confirmed within technical reports; and

   b. The following conditions of approval and the requirements of Council's Planning Scheme and the FNQROC Development Manual.

   Except where modified by these conditions of approval.

Timing of Effect

2. The conditions of the Development Permit must be satisfied prior to Commencement of Use, except where specified otherwise in these conditions of approval.

Lawful Point of Discharge

3. The flow of all external stormwater from the property must be directed to a lawful point of discharge such that it does not adversely affect surrounding properties or properties downstream from the development.

Water Supply

4. Water storage tank(s) with a minimum capacity not less than 30,000 litres must be installed prior to occupation of the premises. Details of the water tank(s) must be shown

on plans submitted with the Building Application. Such water tank(s) must be provided with:

a. Mosquito-proof screens of brass, copper, aluminium or stainless steel gauze not coarser than one (1) mm aperture mesh of substantial construction and installed in such manner as not to cause or accelerate corrosion; or

b. Flap valve at every opening of the tank or other receptacle; or

c. Other approved means for preventing the ingress or egress of mosquitoes; and

d. Where a tank or other receptacle is provided with a manhole, the manhole must have a diameter of no more than 40cm; and

e. A 50mm ball valve with a camlock fitting.

On-site Effluent Disposal

5. The method of on-site effluent disposal must be in accordance with the Plumbing and Drainage Act 2002. Details of the wastewater treatment system to be installed must be in accordance with report submitted by Earth Test dated August 2015 (Council Reference #768129).

Landscaping

6. All landscaping to be installed adjacent the boundaries of the site as detailed on the Landscape Plan submitted with the application must consist of native and endemic species only and planted in an irregular and random fashion to blend with existing vegetation in the locality.

   A ten (10) metre wide landscape buffer must be provided along the Banabilla Road frontage.

Building Colours

7. The exterior finishes and colours of Buildings are non-reflective and blend with the natural colours of the surrounding environment. Roofs and structures (including water tanks) must be of moderately dark to darker shades of green, grey, blue and brown.

   The above requirements must be made known in writing to all prospective purchasers if the land is on sold.

Sediment and Erosion Control

8. Soil and water management measures must be installed/implemented prior to discharge of water from the site, such that no external stormwater flow from the site adversely affects surrounding or downstream properties (in accordance with the requirements of the *Environmental Protection Act 1994*, and the FNQROC Development Manual).

External Works

9. Undertake the following external works:

   a. Construct a rural allotment access in accordance with FNQROC Development Manual Standard Drawing S1105. A copy is attached at Appendix 2.

      The crossover must not impact on stormwater flows in minor and major flow events.

ADVICE

1. This approval, granted under the provisions of the *Sustainable Planning Act 2009,* shall lapse four (4) years from the day the approval takes effect in accordance with the

provisions of Section 339 and Section 341 of the *Sustainable Planning Act 2009.*

2. The applicant/owner is advised that this approval does not approve the construction of the building work. A Development Permit for Building Work must be obtained in order for construction to commence.

3. All building site managers must take all action necessary to ensure building materials and / or machinery on construction sites are secured immediately following the first cyclone watch and that relevant emergency telephone contacts are provided to Council Officers, prior to commencement of works.

4. This approval does not negate the requirement for compliance with all other relevant Local Laws and other statutory requirements.

5. For information relating to the *Sustainable Planning Act 2009* log on to www.dsdip.qld.gov.au. To access FNQROC Manual, Local Laws and other applicable Policies log on to www.cairns.qld.gov.au.

DEFINITIONS

Land Use*

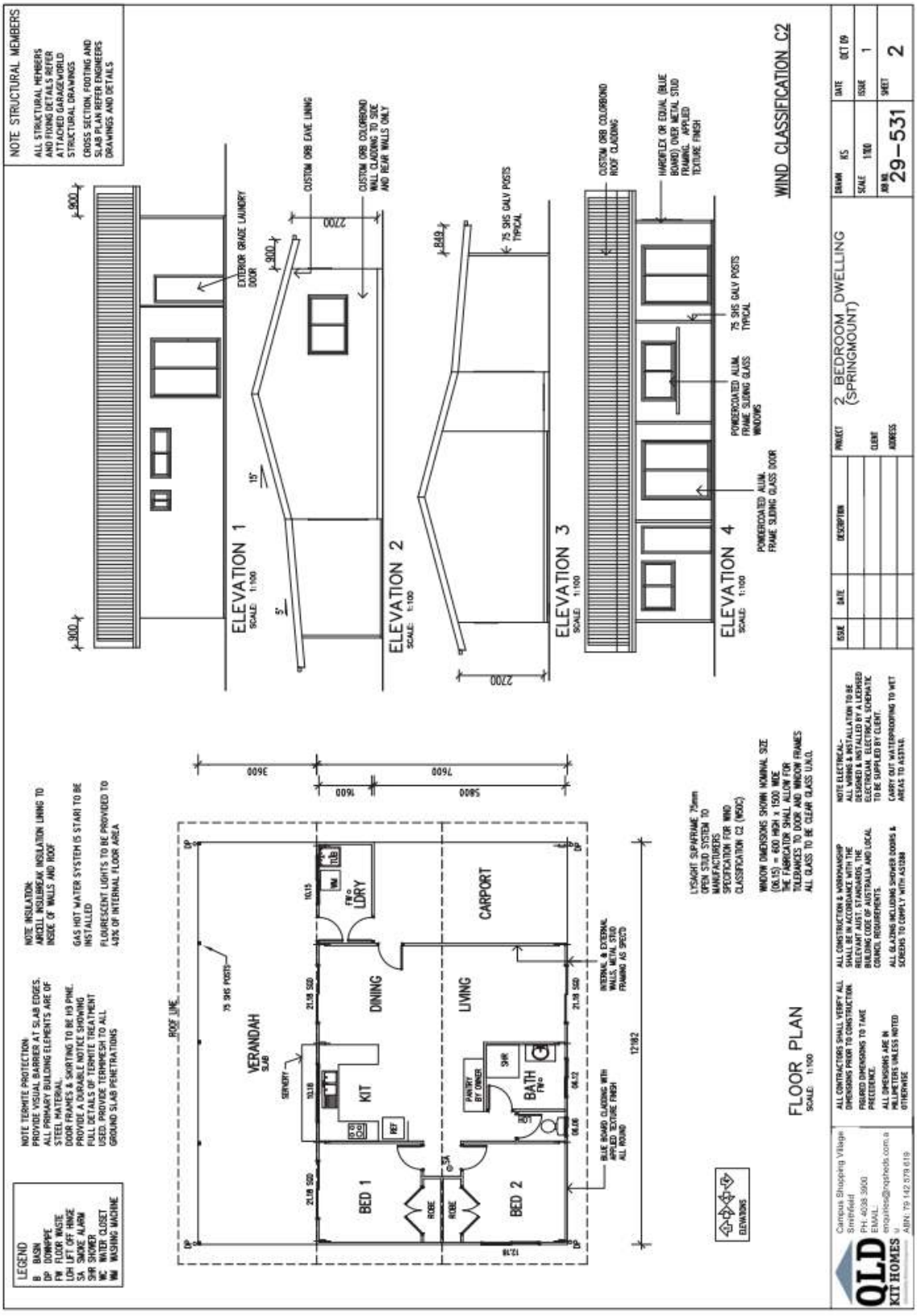
In accordance with the 2008 Douglas Shire Planning Scheme the approved land use of House is defined as:

Means the use of premises comprising one (1) Dwelling Unit, located on one (1) lot for the exclusive residential use of one (1) Household. The use includes:

- *outbuildings / structures incidental to and necessarily associated with the residential use;*
- *the care of children in accordance with the Child Care (Family Day Care) Regulation 1991;*
- *accommodation for a member or members of the extended family of the Household occupying the House and for personal staff; and*
- *a display house which displays to the general public the type of construction or design offered by a builder / developer, for a maximum period of 12 months and which then converts to a House for the exclusive use of one (1) Household.*

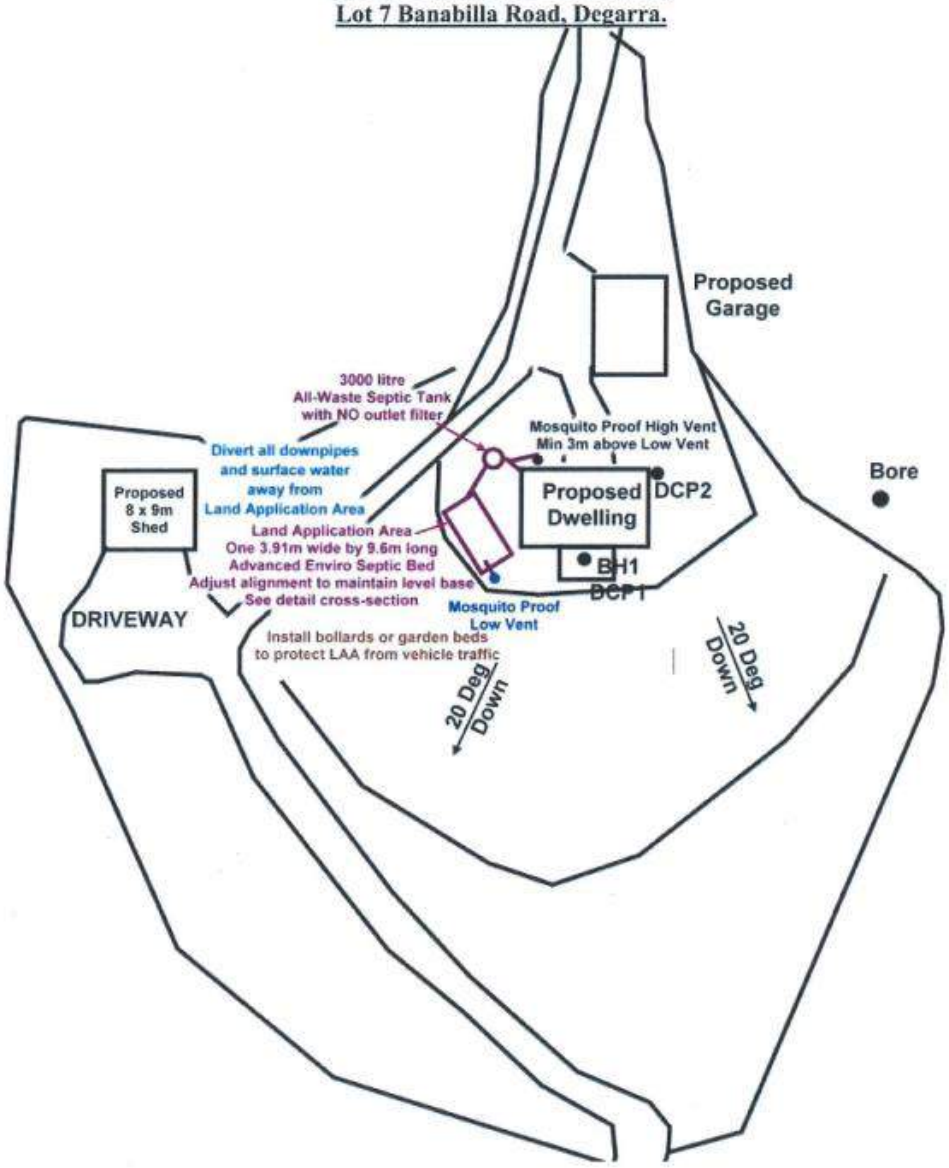
*This definition is provided for convenience only. This Development Permit is limited to the specifications, facts and circumstances as set out in the application submitted to Council and is subject to the abovementioned conditions of approval and the requirements of Council's Planning Scheme and the *FNQROC Development Manual*.

APPENDIX 1: APPROVED DRAWING(S) & DOCUMENT(S)



EARTH TEST QBSA Lic No. 1017941.

SITE PLAN NOT TO SCALE
Lot 7 Banabilla Road, Degarra.



Clearing Plan Lot Banabilla Road.
2 March 2016

EARTH TEST

Site Classification

And

Wastewater Management System

For

Sixten Lundgren

At

Lot 7 Banabilla Road

Degarra

Postal address: Earth Test, PO Box 1042, Tolga, Qld 4882. Phone: 4095 4734
e-mail: len@earthtest.com.au

EARTH TEST QBSA Lic No. 1017941.

INTRODUCTION:

Earth Test has been engaged by Sixten Lundgren to assess, design and report on Site Classification and a Domestic Wastewater Management System at Lot 7 Banabilla Road, Degarra.
Real Property Description:
Lot 7, SP 123877
Local Authority: Douglas Shire Council.

It is understood the intention is to construct a new dwelling at the site.
A site and soil evaluation was carried out in July 2015.

SITE FACTORS:

The site was identified by its site address, a photo is included to confirm the sites identity.
The site is predominately covered with short regrowth in cleared area in the forest and has a level to 20 degree fall to the West North-West. The water supply to the site will be from a bore on-site.
No rock outcrops were noted at the site. An intermittent watercourse is shown on the site plan.
Two Dynamic Cone Penetrometer tests were performed at locations DCP1 and DCP2 and one borehole BH1 as shown on the site plan.
Atterberg Limits tests were performed on a disturbed sample from Borehole1.

BH1 being drilled at Lot 7 Banabilla Road, Degarra

EARTH TEST QBSA Lic No. 1017941.

SITE INVESTIGATION REPORT

BOREHOLE LOG

CLIENT: Sixten Lundgren. **PROJECT:** Lot 7 Banabilla Road, Degarra. **REPORT DATE:** 5/08/2015	**DATE SAMPLED:** 20/07/2015 **Sampled by:** L. Quinn

BOREHOLE No: BH1

DEPTH (m)	DESCRIPTION	COMMENTS
0.0-2.0	Orange-Brown Silty-Clay with Gravel	Disturbed sample 0.6- 0.9m. Watertable not encountered

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ATTERBERG LIMITS TEST REPORT

CLIENT: Sixten Lundgren

PROJECT: Lot 7 Banabilla Road, Degarra

SAMPLE DETAILS: BH1 0.6-0.9m

REPORT DATE: 5/08/2015

SAMPLE No: SI 259-15

DATE SAMPLED: 20/07/2015

Sampled by: L. Quinn

Tested By: P. Weigand

TEST METHOD		RESULT
Liquid Limit:	AS 1289.3.1.2-2009	40%
Plastic Limit:	AS 1289.3.2.1-2009	22%
Plasticity Index:	AS 1289.3.3.1-2009	18%
Linear Shrinkage:	AS 1289.3.4.1-2008	10.5%
Length Of Mould:		125.1mm
Cracking, Crumbling, Curling, Number Of Breaks:		One Break
Sample History:		Air Dried
Preparation Method:		Dry Sieved
Insitu Moisture Content:		11.7%

EARTH TEST QBSA Lic No. 1017941.

DYNAMIC CONE PENETROMETER REPORT
AS 1289.6.3.2

CLIENT: Sixten Lundgren

PROJECT: Lot 7 Banabilla Road, Degarra.

SAMPLE DETAILS: Sites "DCP1 & DCP2" as per site plan.

REPORT DATE: 5/08/2015

SAMPLE No: SI 259-15

DATE SAMPLED: 20/07/2015

Tested By: L. Quinn & P. Weigand

DEPTH (Metres)	Site: DCP1	Site: DCP2
	No Blows	No Blows
0.0 – 0.1	5	6
0.1 – 0.2	6	6
0.2 – 0.3	9	8
0.3 – 0.4	10	9
0.4 – 0.5	12	11
0.5 – 0.6	12	13
0.6 – 0.7	30	20
0.7 – 0.8	REFUSAL	30
0.8 – 0.9		REFUSAL
0.9 – 1.0		
1.0 – 1.1		
1.1 – 1.2		
1.2 – 1.3		
1.3 – 1.4		
1.4 – 1.5		
1.5 – 1.6		
1.6 – 1.7		
1.7 – 1.8		
1.8 – 1.9		
1.9 – 2.0		

EARTH TEST QBSA Lic No. 1017941.

SITE CLASSIFICATION

Lot 7 Banabilla Road, Degarra.

The Dynamic Cone Penetrometer test results indicate adequate allowable bearing pressure to 1.5m.

The Atterberg Limits test results indicate a slightly reactive soil.

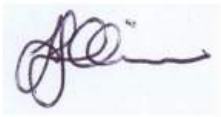
The characteristic surface movement (y_s) is estimated to be in the $0 < y_s \leq 20$mm range. According to TABLE 2.3 of AS 2870-2011 the site must be classified **CLASS-"S".**

To comply with the "Building Services Board Subsidence Policy" advice should be sought from a Registered Professional Engineer for footing design.

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

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

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



Leonard Quinn.
Earth Test.

EARTH TEST QBSA Lic No. 1017941.

SITE AND SOIL EVALUATION

Lot 7 Banabilla Road, Degarra.

The site and soil evaluation carried out on 20/07/2015 provided the following results.

Site Assessment

Site Factor	Result
Slope	0 to 20 Degrees
Shape	Waxing Divergent
Aspect	West-North-West
Exposure	Good
Erosion/land slip	Not noted.
Boulders/rock outcrop	Not noted
Vegetation	Short regrowth in cleared area in forest
Watercourse/Bores	As shown on site plan.
Water table	Not encountered during investigation.
Fill	Not found.
Flooding	Not likely.
Channelled run-off	Not found
Soil surface conditions	Firm, Moist
Other site specific factors	Nil

Soil Assessment

Soil Property	Result
Colour	Orange-Brown
Texture	Clay-Loam
Structure	Moderate
Coarse Fragments	10%
Measured Permeability Ksat (m/d)	Not measured
Dispersion	Slakes
Soil Category	4
Resultant Design Load Rate, DLR (mm/day)	20

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WASTEWATER MANAGEMENT SYSTEM

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

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

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

SYSTEM SIZING FACTORS.

A population equivalent of five (5) persons has been chosen for the proposed three bedroom dwelling.

The site will be connected to a bore water supply system.

Standard water-reduction fixtures must be used to ensure the integrity of the system.
They shall include:-

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

Note: - Garbage grinders are not permitted.

As per AS/NZ 1547:2012 Appendix H, Table H1 the "Typical wastewater design flow" for a "Reticulated water supply" gives a flow allowance of 150 L/Person/day.

The daily flow for the dwelling (5 persons @ 150 L/person/day) will be 750 L/day.

From AS/NZ 1547:2012 Table J1 the minimum capacity of the All-Waste septic tank required is 3000 L.
The tank must NOT be fitted with an outlet filter.

LAND-APPLICATION SYSTEM

DISPOSAL AREA SIZING

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

L = Q / (DLRxW)
Where:
L = length in m
Q = design daily flow in L/day
DLR = Design Loading Rate in mm/d
W = Width in m

L = 750/(20*3.91)
= 9.6m.

Use one 3.91m wide by 9.6m long Advanced Enviro-Septic bed.
See site plan and detail cross-section.

SYSTEM SAND

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

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

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

EARTH TEST QBSA Lic No. 1017941.

SYSTEM INSTALLATION

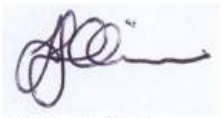
The plumber must notify Earth Test of the proposed date of installation so that an inspection can be made to satisfy the local council requirement of a Form 8.

A further charge will be made to carry out the inspection and complete the From 8.

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

Operation and Maintenance

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



Leonard Quinn
Earth Test

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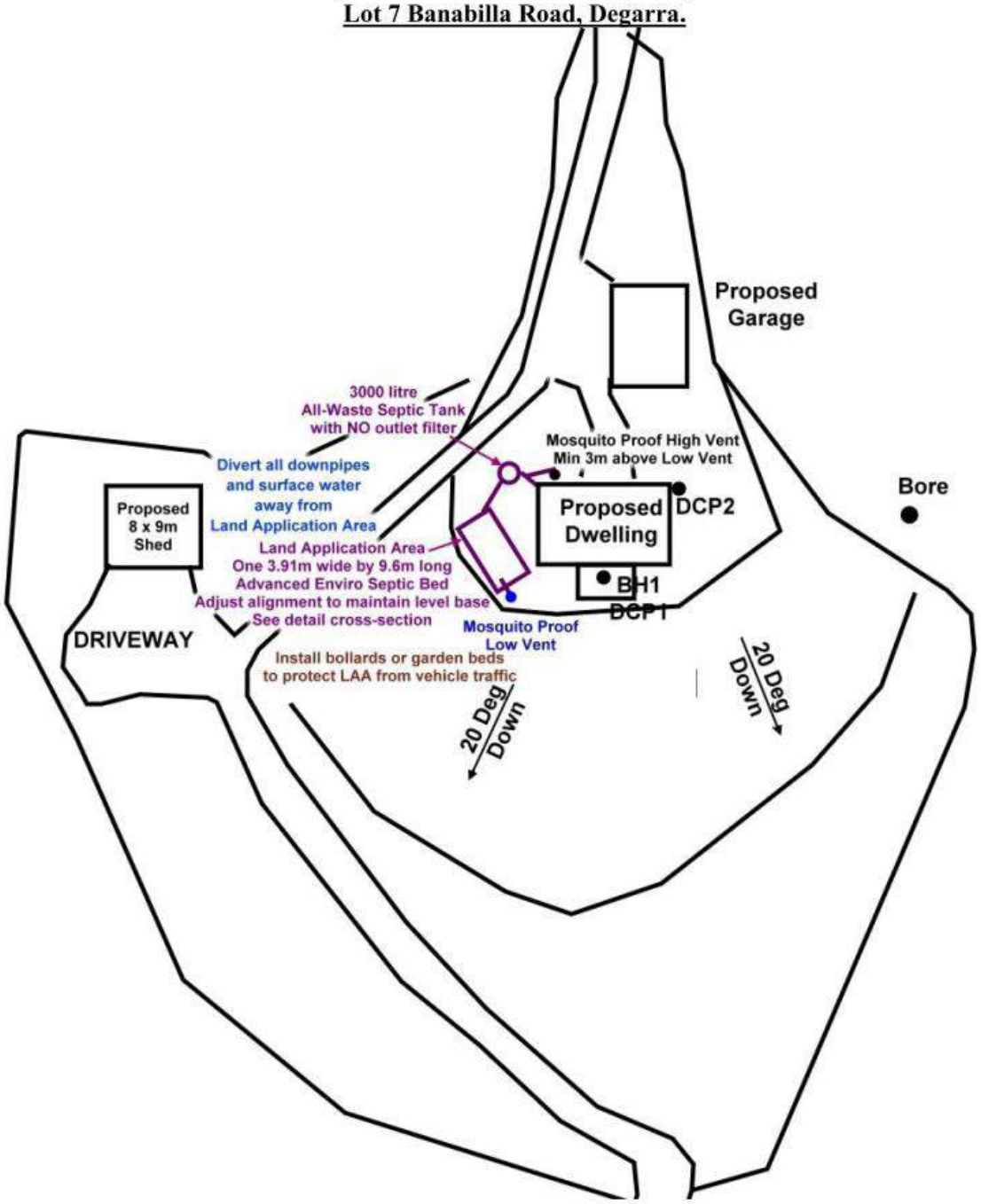
SITE PLAN NOT TO SCALE
Lot 7 Banabilla Road, Degarra.



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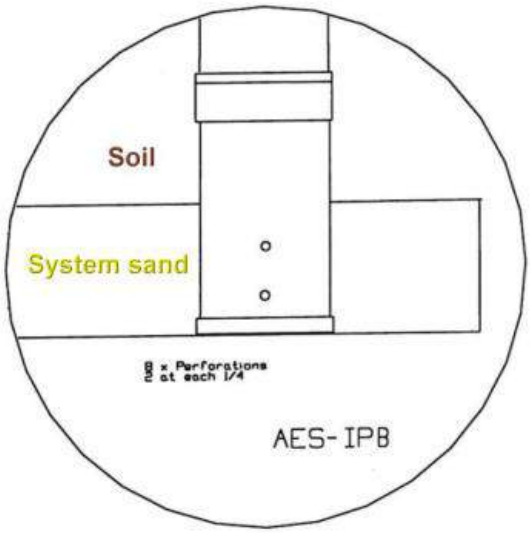
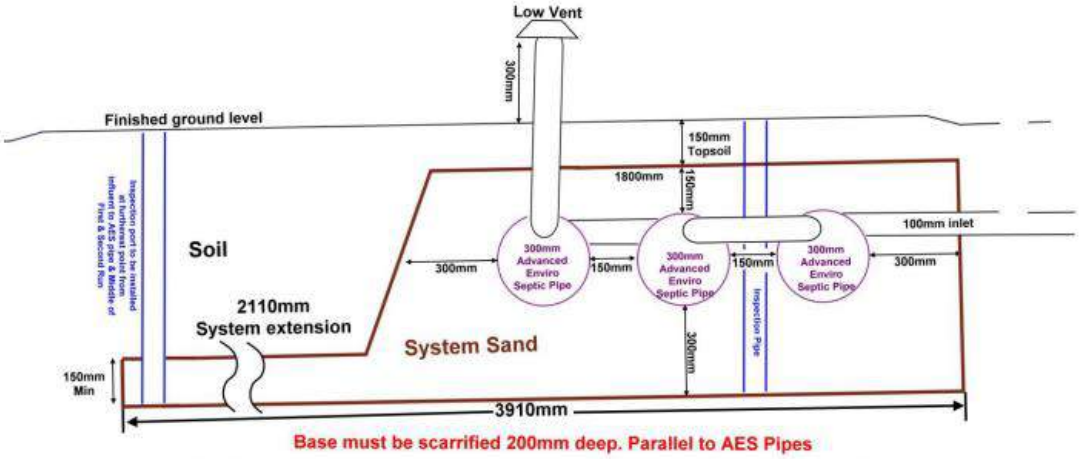
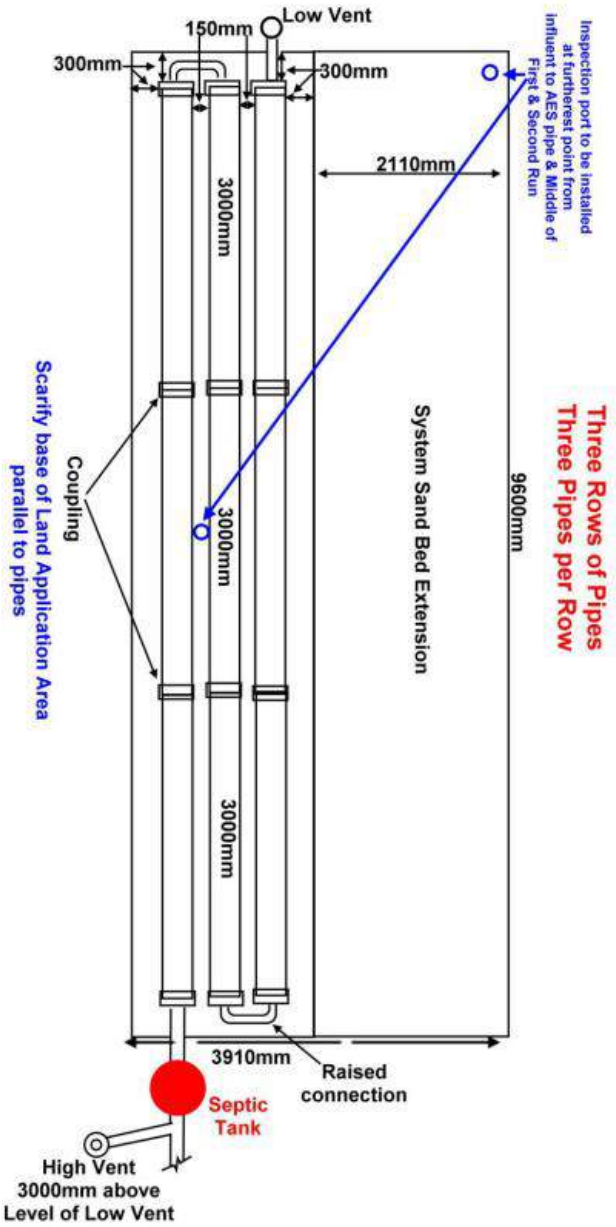


AES Inspection point detail



3910mm Wide Three Pipe Advanced Enviro-Septic Cross-Section

Overhead view of Land Application Area



EARTH TEST QBSA Lic No. 1017941.

ADVANCED ENVIRO-SEPTIC™ "Always The First Option"

Advanced Enviro-septic Design Calculator V8.1

"Always the BEST Option" until site and soil conditions rule it out.

Site Address	Lot 7 Banabilla Road Degarra				
Client Name	Sixten Lundgren				
Designed By	Earth Test	Designers Ph Number	40954734	QBSA Lic Number	1017941
Lic Plumber Name		Plumber Ph Number		Plumb / Drainer Lic Number	
Council Area	Cook Shire Council	AES Certif Number		Date	

This Calculator is a guide only, receiving soil classification, surface water, water tables and all other site constraints addressed by the design.

System Designers site and soil calculation data entry		IMPORTANT NOTES
Is this a new home installation Y or N	Y	>> Minimun single vent size is 80mm or 2 x 50mm house vents
Number of person	5	a septic tank outlet filter is NOT RECOMMENDED
Daily Design Flow Allowance Litre/Person/Day	150	
Number of rows required to suit site constraints	3	>> Longer AES runs are better than multiplule short runs.
Infiltration surface Soil Category as established by site and soil evaluation. CATEGORY	4	>> Catagory may require design considerations. Ref AS1547
Design Loading Rate based on site & soil evaluation DLR (mm/day)	20	>> Soil conditioning may be necessary. Ref AS1547 & Comments.
Bore log depth below system Basel area	1400	>> Min depth below basel area is 600 mm to establish water table or restrictive layer
Enter System footprint Slope in % for standard AES systems to calculate extension	0	
Is this design a gravity system with no outlet filter? Y or N	Y	>> A House Vent & LOW VENT required on this system
PLEASE CHECK YOU HAVE FALL FROM TANK TO AES SYSTEM PIPES		

COMMENTS :- *" The outcome must be important to everyone. "*

- Ripping of receiving surface is required in clay soil structures in Cat 4,5,6. In addition refer to AS 1547. Always excavate and rip parallel to the site slope/AES pipe.
- Specialist soils advice and special design techniques will be required for clay dominated soil having dispersive or shrink/swell behaviour. Refer AS1547

- Plumbers are reminded that good construction techniques as per AS1547 are especilly important in these soil types. Refer AS1547 & AES installation Instructions

AES System Calculator Outcomes		
Total System load - litres / day (Q).	750	l/d
Min Length of AES pipe rows to treat loading	8.3	lm
Number of FULL AES Pipe lengths per row	3	lths
Total Capacity of AES System pipe in Litres	1908	ltr.

AES dimensions	AES System	System Extension
Lth m : (L)	9.6	9.6
Width m:(W)	1.80	2.11
Sand Depth :	0.75	0.15
Area m2	17.3	20.2

DO YOU WISH TO USE CUT LENGTHS OF PIPE IN THIS DESIGN? (ENTER Y)

IF YOU WISH TO USE A TRENCH EXTENSION DESIGN OPTION ENTER "Y" — Enter Custom Width m >

AES INFILTRATION FOOT PRINT AREA - L = Q / (DLR x W)	Length		Width		Minimum AES foot print required .	
for this Basic Serial design is	9.6	x	3.91	=	37.5	m2 total

Code	AES System Bill of Materials.		
AES-PIPE	AES 3 mtr Lths required	9	lths
AESC	AESC Couplings required	6	
AESO	AESO Offset adaptors	6	
AESODV	AES Oxgen demand vent	1	
AES-IPB	AES 90mm Inspection port base	2	
	TOTAL SYSTEM SAND REQUIRED (Guide Only)	19	m3

PLEASE email your AES CALC and Drawings to
DESIGNREVIEW@ENVIRO-SEPTIC.COM.AU

Chankar Environmental Use Only

ADVANCED ENVIRO-SEPTIC™ "Always The First Option"

Digitally signed by Kane Dickson
DN: cn=Kane Dickson, o=Chankar Environmental, ou=Design Review, email=designreview@enviro-septic.com.au, c=AU
Date: 2015.08.06 08:34:00 +10'00'

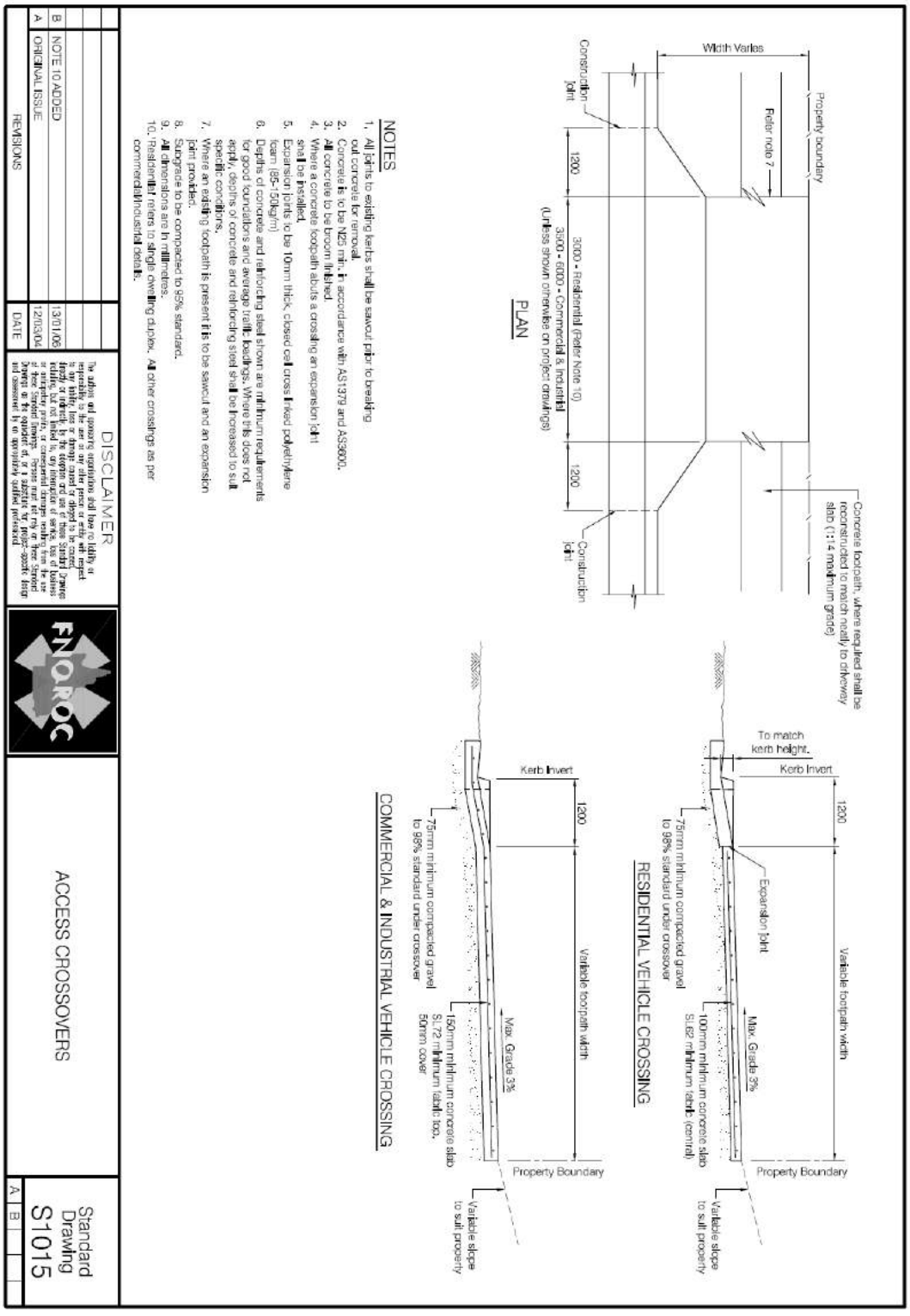
Designreview@enviro-septic.com.au

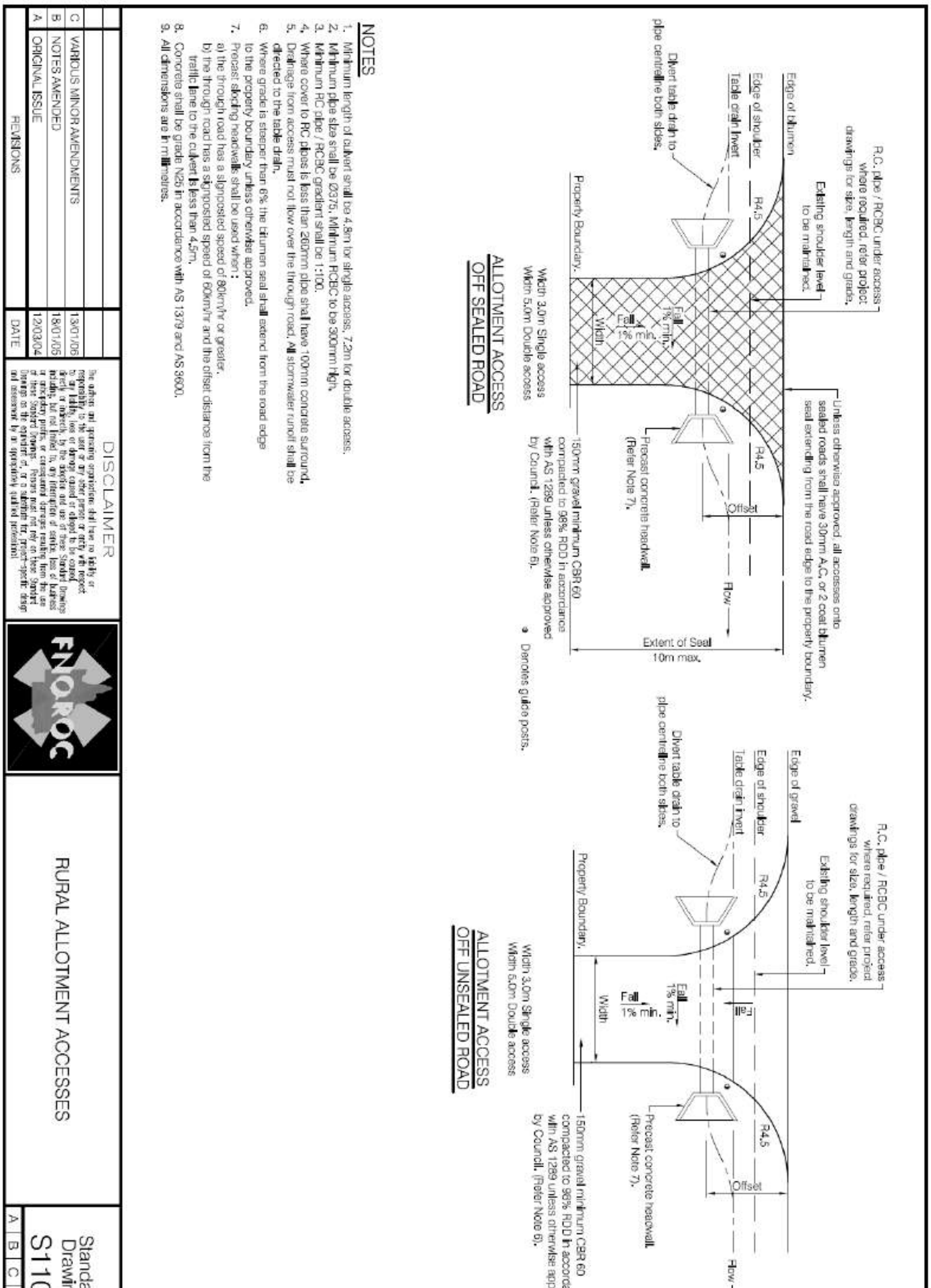
> The AES Calculator is a design aid to allow checking of the AES components and configuration and is a guide only. Site and soil conditions referencing AS 1547:2012 are calculated and designed by a Qualified Designer

> Chankar Environmental has no responsibility for the soil evaluation, loading calculations or DLR entered by the designer for this calculator.

> AES pipes can be cut to lenght on site. They are supplied in 3 meter lths only.

APPENDIX 2: STANDARD DRAWING – ACCESS CROSSOVER





RIGHTS OF APPEAL
Attached

End of Decision Notice