FITZGERALD BUILDING CERTIFIERS

1-3 Thornleigh St,
Thornleigh NSW 2120
P: 9980 2155
F: 9980 2166
E: admin@fbcc.com.au

5 January 2011

Council Copy

Cherie White C/- Rawson Homes
PO Box 3094
North Strathfield NSW 2137

Interim Occupation Certificate

Occupation Certificate No: 2011/0027(I) Approval Date: 05/01/2011
Complying Development No: 2010/134 Approval Date: 11/03/2010
Council: Manly

MANLY COUNCIL
REGISTERED BY RECC
7 JAN 2011
RESPONSIBLE OFFICER
DOCUMENT NUMBER

Applicant/Owner Details

Name: Cherie White C/- Rawson Homes
Address: PO Box 3094, North Strathfield NSW 2137

Development Particulars

No: 3 Street: Castle Circuit Suburb: Seaforth
Description of Development: Construction of a new dwelling

Record Of Inspections

1.	Commencement of building work	Satisfactory
2.	Piers prior to pour	Satisfactory
3.	Footings prior to pouring of concrete	Satisfactory
4.	Timber frame prior to lining	Satisfactory
5.	Waterproofing of wet areas	Satisfactory
6.	Storm water pipes prior to backfilling	Satisfactory
7.	Final Inspection – Issue of Interim Occupation Certificate	Satisfactory

Attachments

- **Smoke Alarm Certificate**
- **Pest Control Certificate**
- **Waterproofing Certificate**
- **Basix Completion Certificate**
- **Engineers certificate for piers/slab/frame**
- **Engineers certificate for on-site detention**
- **Electrical Compliance Certificate**
- **Hydraulic Details**

Outstanding Works

The following work is to be carried out prior to the issue of an occupation certificate:

- Complete landscaping works
- Complete driveway

Certification

I, Paul Fitzgerald, as the certifying authority am satisfied that the building will not constitute a hazard to the health or safety of the occupants of the building and a current development consent is in force for the building, or a current complying development/construction certificate has been issued for the building in respect to the plans and specifications for the building and specifications for the building, the building is suitable for its use under the Building Code of Australia and, all the pre-conditions of development consent have been satisfied.

PCA: Paul Fitzgerald
Corporate Accreditation No: ABC 2
PCA Accreditation No: BPB 0119
Accreditation Body: Building Professionals Board

CERTIFIER
$30
R748282.
7-1-11

Signature of PCA: _____ **Date:** 5 January 2011

RESIDENTIAL ENGINEERING

29 April 2010

Rawson Homes
PO Box 3094
North Strathfield NSW 2137

Our Ref RW236
Your Ref 113115

White
Lot 14 (3) Castle Circuit, Seaforth

The footings for the slab for the above residence were required to be piered due to a variation in the bearing capacity of the foundation material

It is certified that all pier holes were excavated to a firm and uniform rock foundation

A W McCarthy

B Sc (Eng) MIEAust CPEng

RESIDENTIAL ENGINEERING

11 May 2010

Rawson Homes
PO Box 3094
North Strathfield NSW 2137

Our Ref RW236
Your Ref 110115

White
Lot 14 (3) Castle Circuit. Seaforth

We hereby certify that the membrane and reinforcing steel to the slab were all placed to our satisfaction in accordance with the structural details ready for the placing of the concrete and that the completed slab will satisfactorily support all normal domestic loads acting upon it and that the building has been located generally in accordance with the approved site plan

It should be noted that this certification applies to the structural components of the floor slab and does not warrant the dimensional accuracy of the building

A W McCarthy
B Sc (Eng) MIEAust CPEng

RESIDENTIAL ENGINEERING

4 August 2010

Rawson Homes
PO Box 3094
North Strathfield NSW 2137

Our Ref RW236
Your Ref 113115

White
Lot 14 (3) Castle Circuit, Seaforth

This is to certify that an inspection was made of the reinforcing steel to the Bondek suspended slab at the above address on 4 August 2010 and we are satisfied that all have been placed in accordance with the structural details and our instructions ready for the placing of concrete

A W McCarthy

B Sc (Eng) MIEAust CPEng

December 14 2010

Fitzgerald Building Certifiers

Dear Sir/Madam

Re: 3 Castle Circuit Seaforth

Please be advised that the dwelling constructed at the above mentioned address complies with the Basix Certificate # 286490SS dated 7th December 2009

This includes the installation of wall & ceiling insulation, 5 star gas storage hot water system & 22500L Rain Water Tank.

We note that installation of all electrical requirements as noted on the above mentioned certificate have also been installed by a qualified electrician

Yours Sincerely,
RAWSON HOMES PTY LTD
Sydney Region

Michelle McKenzie
Customer Service Officer

FIBREFLASH

RAWSON HOMES PTY LIMITED
PO BOX 3094
NORTH STRATHFIELD NSW [illegible]

[illegible] September [illegible]

SUBJECT: **WATERPROOFING CERTIFICATE**
[illegible]

This certifies that **FIBRE**FLASH Waterproof Solutions completed installation of the waterproofing to the internal wet areas at the address below on [illegible] September [illegible]

Lot 14 [No 3] CASTLE [illegible] SEAFORTH 2092

STAGE 1 [illegible] install the waterproofing membrane to the shower tray, perimeter walls and floor to all required wet areas.

STAGE 2 [illegible] provide waterproofing treatment to shower penetrations, bath seals, spindle seals and installation of the waterstop at doorways to all required wet areas.

This work was completed in accordance with Tables [illegible] and Section [illegible] of Australian Standard 3740 – 2004 and the Building Code of Australia.

Yours faithfully

Jeff SALE
Operations Manager
FIBREFLASH Waterproof Solutions
GOLD LICENCE: 177900

P&N ROGERS
ELECTRICAL CONTRACTORS

A.C.N. 002 761 686 A.B.N. 83 270 753 325 LICENCE NO. EC29586

PO BOX 3037, NARELLAN NSW 2567 • PH: (02) 4647 0800 • FAX: (02) 4647 0900

SMOKE ALARM

For Residential Housing
Installation & Test Report

Smoke Alarms have been installed in accordance with AS 3786-1993
Part 3.7.2 of Building Code of Australia - Housing Provisions
Tested and Passed by SSL to AS3786 - Listed on SSL Register of Approved Products

Builder: [illegible]

Address: [illegible]
Seaford

Building Application No.:

Clients Name: White

Type of System

[ ] New

[ ] Addition to Existing

Alarm Details

Manufacturer: Firesteel

Product Model No.: FH 3040

Location of Detectors (Wired to Mains Power and Interlinked)

[ ] Entry

[ ] Bedroom

[ ] Other .....

Installers Details

Name: P&N Rogers Electrical Contractors Pty Ltd

Address: PO Box 3037, Narellan DC N S W 2567

Phone: (02) 4647 0800 Fax: (02) 4647 0900

Date of Installation & Testing: .....

Signature: .....

CERTIFICATE OF COMPLIANCE
ELECTRICAL WORK

Customer COPY

1133543

CUSTOMER DETAILS

INSTALLATION WORK DETAILS

Type of installation

Special conditions

...complies with AS/NZS 3000...

CERTIFICATION

...Electrical Contractor...

Name of DNSP ... that the work described ...

Electricity Consumer Safety Regulation 2006

ELECTRICITY DISTRIBUTOR (DNSP) REMARKS

neca

TRITHOR WAYS BETTER TERMITE PROTECTION

Certificate of Compliance
in accord AS 3660.1-2000

[illegible]

TRITHOR

NB a copy of this Report is to be attached to the Trithor Termite Damage Warranty N 2010.05.0006273.TB

Installation Date [illegible] May 20[illegible]

Installation Address 5 Castle [illegible]

SEAFORTH NSW 2092

Builder Rawson Homes Pty Limited

Building Description	Residential Building
Total Square Metres Installed	0
No of Service Penetrations Protected	11
Linear Metres of Building Protected	69.5

Comments

Installed Trithor termite protection to the pipe penetrations and perimeter cavity of the residential building on site

Rentokil Termite Barriers

Signed by ....

Dial 1300 855 822

www.rentokilpest[illegible]

TRITHOR WAYS BETTER TERMITE PROTECTION

Trithor Termite Protection System

TRITHOR

NASSERI ASSOCIATES

CIVIL HYDRAULIC & STRUCTURAL ENGINEERING
Suite 5.1, No. 14 Narabang Way, Belrose NSW 2085
P.O Box 714 Balgowlah NSW 2093
Phone: (02) 9986 3875 Fax:(02) 9986 3870
Mobile: 0413 308 364

YOUR REFERENCE	OUR REFERENCE	DATE
Rawson Homes	DA39	18 February 2010

To Manly Council.

DESIGN CERTIFICATE

RE: - Lot 14 (H/No. 3) Castle Circuit, Seaforth

This is to certify that the hydraulic design from Nasseri Associates job no. DA39 dated 18 February 2010 for the above mentioned property is in accordance with Manly Council's Specification for On Site Stormwater Management for residential dwellings, Basix Certificate and appropriate National Plumbing and Drainage Code and Australian Standard AS 3500.3.

If you require further information on the above matters, please contact the undersigned on the above telephone numbers.

Yours faithfully

J. NASSERI
BE, FIEAust
NPER/CPEng.
Accredited Certifier

TAX INVOICE

NASSERI ASSOCIATES

[illegible] HYDRAULIC & STRUCTURAL ENGINEERS
Suite 51 No. 14 Narabang Way Belrose NSW 2085
[illegible] 14 [illegible] NSW [illegible]
Phone: [illegible] Fax: [illegible]
ABN [illegible]

Invoice No: D2336 Date: 18 February 2010

To: Rawson Homes Pty Ltd
P O Box 3094
North Strathfield, NSW 2137

Requested By: Ms Alicia Trimboli (Rawson Homes)
Purchase Order No. 4500051707

Job Name: Hydraulic Design & Drainage Plans

Address: Lot [illegible] Castle Circuit, Seaforth

Fees: Hydraulic design including:
Design Certificate, Aboveground Rainwater Tanks Details,
Elevations Details, Overland Flow Path Details, OSD Calculations,
OSD Tank Details, Driveway Long section Details
& Stormwater System $1,700.00

GST $170.00

TOTAL AMOUNT PAYABLE $1,870.00

IMPORTANT NOTE:
This is a 14 days account. A cheque for the above amount payable to Nasseri Associates should be made by 4 March 2010 and send to Suite 51 No. 14 Narabang Way, Belrose NSW 2085
THANK YOU

Hydraulic Design
Including OSD Calculations,
Underground Detention Tank Details,
Aboveground Rainwater Tanks Details,
Driveway Long-Section Details,
Overland Flow Path Details,
Elevations Details
and
Stormwater Systems
for
Proposed Single Residential Development at

Lot 14, D.P. 1112545,
(H/No. 3) Castle Circuit,
SEAFORTH

18 February 2010

Manly Council
Our Job Number: D2339

Nasseri Associates
Civil, Hydraulic and Structural Engineering
Suite 51, No. 14 Narabang Way, Belrose NSW 2085
P O Box 714, Balgowlah NSW 2093
Phone: (02) 9986 3875
Mobile: 0410 308 064
Fax: (02) 9986 3876
Email: nasseriassociates@bigpond.com
Web Site: www.nasseriassociates.com.au

Table of Content Sheet

On-Site Detention Calculations (DESAX)

Hydraulic Details:

IMPORTANT NOTE:

The following hydraulic plans should be read in conjunction with:

1. Architectural plans from Rawson Homes job no. J001139 revision B dated 21 January 2010 (Phone: (02) 9764 6442).
2. Manly Council policy on Stormwater Requirements for residential developments and BASIX Requirements.
3. Discussion with Council's Engineer dated 12 February 2010 in regard to the stormwater issues for the development.

[illegible] year [illegible] proposed
[illegible] 100 year

[illegible] NO. [illegible]
PEAK FLOWS AMONG RUNOFFS FROM [illegible] RAINFALL PATTERNS
(The following lines give Branch and Reach names,
 Maximum surface flow arriving at an entry point or pit,
 Maximum flow in the pit before routing through downstream reach,
 Maximum surface overflow and total flows to this point (m3/s),
 Pipe Diameter or Normal Depth (open sections) (mm) & capacity (m3/s)
 Other information is given for non circular reaches
   refer to the program code for details.)

ONE AAA	.033	.033	.000	.033	38[illegible]	[illegible]

END

Proposed [illegible] 100 years

[illegible] NO. [illegible]
PEAK FLOWS AMONG RUNOFFS FROM [illegible] RAINFALL PATTERNS
(The following lines give Branch and Reach names,
 Maximum surface flow arriving at an entry point or pit,
 Maximum flow in the pit before routing through downstream reach,
 Maximum surface overflow and total flows to this point (m3/s),
 Pipe Diameter or Normal Depth (open sections) (mm) & capacity (m3/s)
 Other information is given for non circular reaches
   refer to the program code for details.)

OSD Dev	.033	.000	.020	.013	38[illegible]	.908
OSD Out	.020	.013	.000	.033	38[illegible]	.276
Pit Ude	.003	.003	.000	.003	38	.276
OSD Out	.000	.013	.000	.013	38	.276

END

GENERAL NOTES

1. ALL WORKS TO BE IN ACCORDANCE WITH MANLY COUNCIL STANDARD SPECIFICATIONS AND TO THE SUPERVISING ENGINEERS SATISFACTION

   THESE PLANS TO BE READ IN CONJUNCTION WITH ARCHITECTURAL PLANS FROM RAWSON HOMES (PH TEL 308 No 1000289 REVISION DATED 21 JANUARY 2010 (PHONE 9905 6111)

2. ALL STORMWATER PIPES TO BE 100 DIA UPVC UNLESS NOTED OTHERWISE. PIPES UNDER DRIVEWAY TO BE SEWER GRADE

3. DEPTH AND LOCATION OF SEWER & SERVICES TO BE CONFIRMED PRIOR TO COMMENCEMENT OF DRAINAGE WORKS

4. THE CONTRACTOR SHALL IMPLEMENT EROSION AND SEDIMENTATION CONTROL MEASURES AS NECESSARY AND TO THE SATISFACTION OF COUNCIL PRIOR TO COMMENCEMENT OF CONSTRUCTION AND DURING CONSTRUCTION

5. ENSURE FINISHED GROUND LEVEL ARE SLOPING AWAY FROM THE DEVELOPMENT & INTO PIT OR YARD GRATE AS SHOWN ON PSE ATTACHED DRAINAGE PLAN

6. HYDRAULIC PLAN ARE SUBJECT TO COUNCIL APPROVAL

OSD CALCULATIONS

MANLY COUNCIL REQUIRES THE FOLLOWING

A DETAILED STORMWATER MANAGEMENT PLAN SHALL BE PREPARED TO FULLY COMPLY WITH COUNCIL'S "SPECIFICATIONS FOR ON SITE STORMWATER MANAGEMENT 2003" AND SHALL BE SUBMITTED WITH THE CONSTRUCTION CERTIFICATE APPLICATION

IT IS A NEW ALLOTMENT CREATED FROM A GREENFIELDS SUBDIVISION IN THIS CASE, AN OSD SYSTEM SHALL BE REQUIRED FOR ANY DEVELOPMENT ON THIS ALLOTMENT

USING ILSAX TO CALCULATE OSD VOLUME (REFER TO OSD CALCULATION ATTACHED)

VOLUME REQUIRED	15.40 m³	ORIFICE	70 mm
EXISTING PSD_5	15 l/sec	PROPOSED PSD_5	7.1 l/sec
EXISTING PSD_{100}	33 l/sec	PROPOSED PSD_{100}	33 l/sec

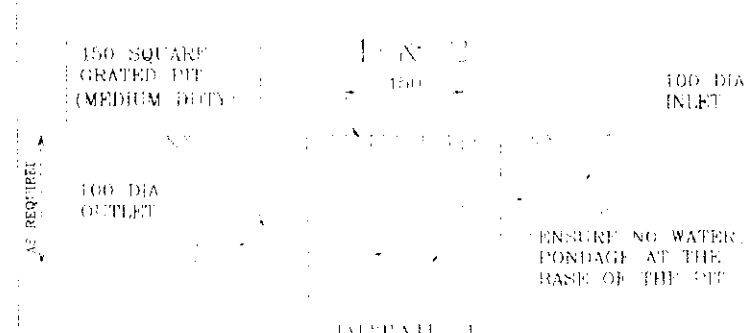
*PROVIDED 10,000 LITRES CAPACITY RWT FOR RETENTION SYSTEM
*PROVIDED 5.40m³ UNDERGROUND OSD TANK FOR DETENTION SYSTEM

BASIX REQUIREMENT

220Q LITRES CAPACITY RAINWATER TANK FOR 85 m² OF ROOF AREA
PROVIDED 10,000 LITRES CAPACITY RWT FOR TOTAL ROOF AREA

CALCULATIONS

TOTAL SITE AREA 600.0 m²
TOTAL ROOF AREA INTO RWT 329.00 m²
TOTAL EXISTING IMPERVIOUS AREA VACANT BLOCK
TOTAL PROPOSED IMPERVIOUS AREA 395.5 m² (65.9%)
INCLUDING ROOF, GARAGE, DRIVEWAY & PAVED AREAS



DETAIL 1
TYPICAL PIT DETAILS
SCALE 1:20

IMPORTANT NOTES:

1. DISCUSSED THE STORMWATER ISSUES WITH COUNCILS ENGINEER ON 12 FEBRUARY 2010. THE SITE REQUIRES OSD SYSTEM (GREENFIELDS AREA) AND RAINWATER TANK DESIGN OSD CALCULATION CAN BE DONE BY USING ILSAX PROGRAM. COUNCIL AGREED THAT THE RAINWATER TANK VOLUME CAN BE PLUS MINUS FROM THE TOTAL OSD STORAGE

2. TWO ABOVEGROUND RAINWATER TANKS WITH TOTAL CAPACITY OF 10,000 LITRES (5,000 LITRES EACH) HAVE BEEN PLACED ON BOTH SIDES OF DWELLING TO COLLECT ALL ROOF WATER ONLY FOR RE-USE OF WATER SUCH AS TOILET FLUSHING, LAUNDRY & IRRIGATION SYSTEMS. 100 DIA SEWER GRADE OVERFLOW FROM TOP OF EACH RWT TO BE CONNECTED TO STORMWATER LINE PRIOR TO DISCHARGING TO DETENTION TANK AS PER MIN FALL GRADES TO DRAINAGE PLAN IN SHEET No 2

3. AN UNDERGROUND OSD DETENTION TANK HAS BEEN DESIGNED UNDER THE PROPOSED DRIVEWAY TO COLLECT STORMWATER & OVERFLOW FROM TOP OF THE RWTS PRIOR TO DISCHARGING TO "TRAFFIC" GUTTER VIA 100 DIA SEWER GRADE OUTLET AT 1% MIN FALL AT THE FRONT BOUNDARY (CHANGE TO EXISTING GRADES DUE TO DROPPED KERB UNDER DRIVEWAY) REFER TO DETENTION TANK DETAILS ON SHEET No 2 & 3

4. FALLS ARE SUBJECT TO ANY CHANGE UPON COUNCILS APPROVAL

5. PRIOR TO BACKFILLING STORMWATER LINE AND PITS, CONCRETE FOR BASE SLAB OF DETENTION TANK CONTACT ENGINEER FOR AN INSPECTION

6. WORK AS EXECUTED PLAN & COMPLIANCE CERTIFICATE WILL BE REQUIRED AFTER COMPLETION OF ALL HYDRAULIC WORKS

NASSERI ASSOCIATES
CIVIL, HYDRAULIC & STRUCTURAL ENGINEERING
SUITE 51, No 14 NARABANG WAY, BELROSE 2085
PO BOX 714, BALGOWLAH, NSW 2093
TEL (02) 9986 3875
FAX (02) 9986 3876
MOB 0410 308 064
EMAIL nasseriassoc@bigpond.com

I NASSERI
BE, FIEAust,
NPER, CPEng

SYMBOLS & NOTATIONS

STORMWATER LINES
DOWNPIPE
100 DIA YARD SUMP
225x100 GRATED BOX TRAP
SEWER LEVEL (RISE) PIT
FSL FINISHED SURFACE LEVEL
FFL FINISHED FLOOR LEVEL
FPL FINISHED PLATFORM LEVEL
SEDIMENT CONTROL BARRIER
PROPOSED BOUNDARY
SEWER

ISSUE	AMENDMENTS	DATE

CLIENT: RAWSON HOMES (MRS WHITE)
LOT 14, (H/No 3) CASTLE CIRCUIT, SEAFORTH

DESIGN: HA DRAWN: HA CHECKED: NI SCALE: AS SHOWN

HYDRAULIC DETAILS

NOTES, CALCULATIONS & PIT DETAILS

CAD REF: ENG/RAWSON	JOB No: 02339	SHEET No: 1

LOT 14
600.60 m2

N

100 DIA SEWER GRADE TO ... DETENTION TANK AT 1% MIN FALL ... CONNECTION MH ... 0.6 ABOVE TWL

UNDERGROUND ON SITE DETENTION TANK (REFER TO SHEET No. ... FOR DETAILS)

150 DIA GRATED PIT ... (REFER TO DETAIL ... ON SHEET No. ...)

100 DIA SEWER GRADE TO TAKE ROOF WATER TO TOP OF RWT1 (ALL DOWNPIPES TO BE SEALED)

RWT1 ... 5000 LITRES CAPACITY ABOVE GND RAINWATER TANK (REFER TO ELEVATION ON SHEET No. ...)

CREATE A SWALE OR EARTH MOUND TO DIVERT SURFACE WATER TO FRONT OF LOT AND INTO GRATED DRAIN IN FRONT OF THE PROPERTY INTO GRD BASIN (REFER TO DETAIL 2)

100 DIA UPVC TO PIT 01 AT 1% MIN FALL

225 x 100 GRATED BOX DRAIN ... INV 81.56 (APPROX) ... (CONNECT TO PIT OUTLET PIPE)

DRIVEWAY CROSSING IN ACCORDANCE WITH COUNCIL'S REQUIREMENTS

DUE TO BOUNDARY LEVELS BOX DRAIN CAN NOT BE CONNECTED TO GRD TANK ... CONNECT 100 DIA SEWER GRADE TO THE OUTLET PIPE (MAKE GOOD)

CASTLE CIRCUIT

BM 15
NAIL IN KERB
RL 81.34
(AHD)

PROPOSED RESIDENCE
FFL 83.335

GARAGE
FFL 82.825

42.7

14.065

FALL

DPS RWT2

100 DIA YARD SUMP OR 250 SQUARE GRATED PIT (TYPICAL)

ENSURE NO WATER PONDAGE OCCURS AROUND DWELLING ... SLOPE FINISHED GROUND LEVEL TOWARDS YARD SUMPS OR SITE (AS SHOWN)

CREATE A SWALE OR EARTH MOUND OR DISH DRAIN TO DIVERT SURFACE WATER TO PIT #2 AND FRONT OF THE PROPERTY (REFER TO DETAIL 2)

... INV 81.1

100 DIA SEWER GRADE OUTLET AT 1% MIN FALL TO FRONT BOUNDARY ... CHANGE TO 150x150x90° ... JOIN (BY OTHERS) GALV UNDER FOOTPATH AREA (MAKE GOOD)

100 DIA SEWER GRADE TO TAKE ROOF WATER TO TOP OF RWT2 (ALL DOWNPIPES TO BE SEALED)

100 DIA SEWER GRADE TO PIT #2 AT 1% MIN FALL

RWT 2 ... 5000 LITRE CAPACITY ABOVE GND RAINWATER TANK (REFER TO ELEVATION ON SHEET No. ...)

100 DIA SEWER GRADE OVERFLOW FROM TOP OF RWT2 TO BE CONNECTED TO STORMWATER LINE AT 1% MIN FALL

APPROXIMATE LOCATION OF SEWER MAIN

450 SQ GRATED PIT ... INV 82.46 (APPROX) ... (SHALLOW PIT) ... (REFER TO DETAIL ON SHEET No. ...)

CONCRETE DRIVEWAY ... PAVED AREAS

LEGEND

100 DIA UPVC OR SEWER GRADE FOR SURFACE WATER DRAINAGE

100 DIA SEWER GRADE FOR ROOF WATER DRAINAGE ONLY

ELEVATION A

ELEVATION B

DRAINAGE PLAN
SCALE 1:200

... OR 300 ... 50 OR 30 ...

DETAIL 2

500 OR 300mm WIDE EARTH MOUND OR DISH DRAIN
NTS

NASSERI ASSOCIATES
CIVIL, HYDRAULIC & STRUCTURAL ENGINEERING
SUITE 51, No 14 NARABANG WAY, BELROSE 2085
PO BOX 714, BALGOWLAH, NSW 2093
TEL (02) 9986 3875
FAX (02) 9986 3876
MOB 0410 308 064
EMAIL nasseriassociates@bigpond.com

J.NASSERI
BE, FIEAust
NPER, CPEng
15 Feb. '06

SYMBOLS & NOTATIONS

STORMWATER LINES ... DOWNPIPE ... 100 DIA YARD SUMP ... 225x100 GRATED BOX DRAIN ... INV INVERT LEVEL (PIPE / PIT)

FL FINISHED SURFACE LEVEL ... FFL FINISHED FLOOR LEVEL ... FPL FINISHED PLATFORM LEVEL ... SEDIMENT CONTROL BARRIER ... PROPOSED BOUNDARY ... SEWER

ISSUE ... AMENDMENTS ... DATE

CLIENT: RAWSON HOMES (MRS WHITE)

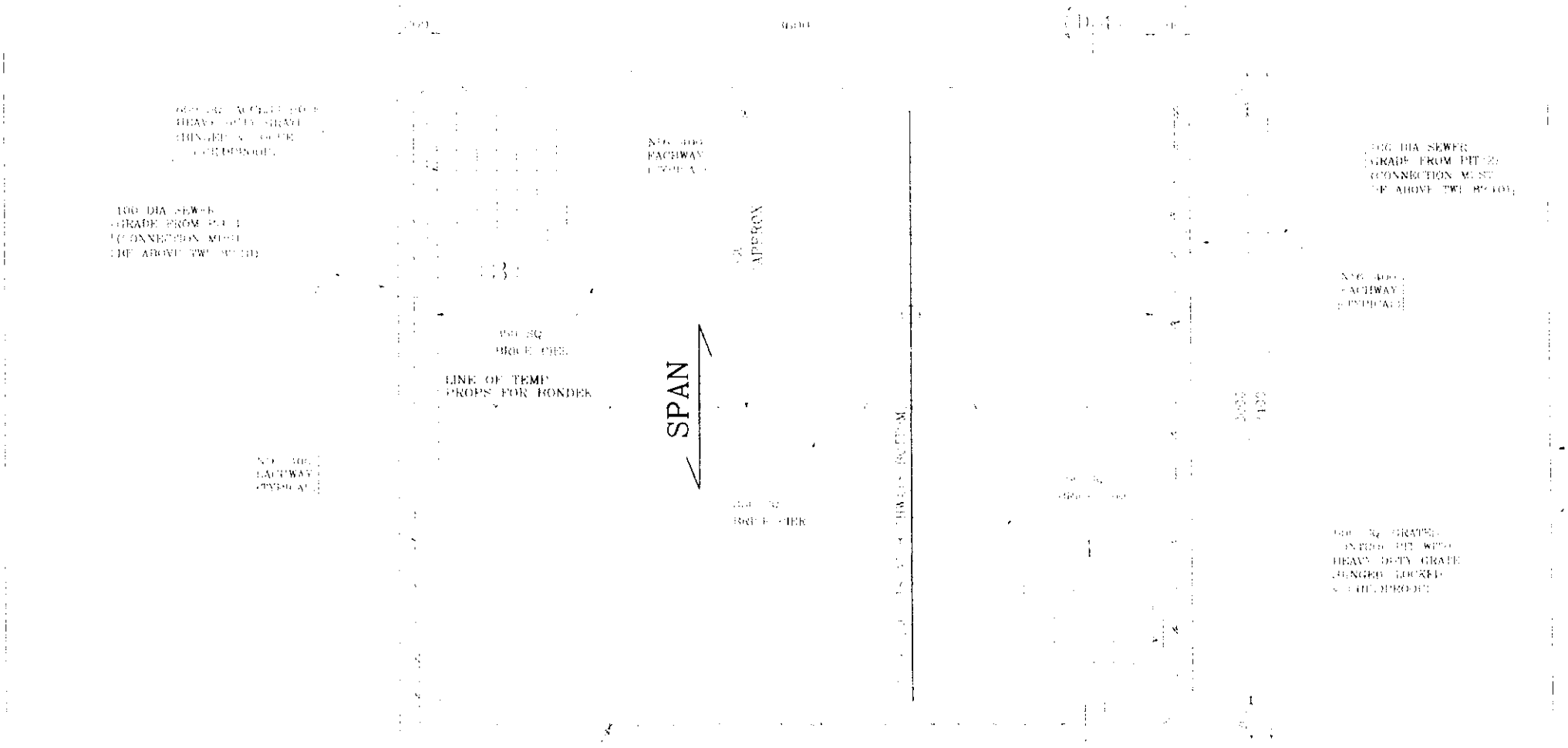
LOT 14, (H/No.3) CASTLE CIRCUIT, SEAFORTH

DESIGNED: HA ... DRAWN: HA ... CHECKED: JN ... SCALE: AS SHOWN

REF: SEE ENG/RAWSON ... JOB No: 02339 ... SHEET No: 2

HYDRAULIC DETAILS

DRAINAGE PLAN



TOTAL OSD VOLUME PROVIDED
(3.60 x 3.00 x 0.85 DEEP)
(2 x 0.785 x 0.85 DEEP)
= 9.23 m³ > 9.10 m³ OK

ON SITE DETENTION TANK
(PLAN VIEW)
SCALE 1:20

NASSERI ASSOCIATES
CIVIL, HYDRAULIC & STRUCTURAL ENGINEERING
SUITE 51, No 14 NARABANG WAY BELROSE 2085
PO BOX 714, BALGOWLAH, NSW 2093
TEL (02) 9986 3875
FAX (02) 9986 3876
MOB 0410 308 064
EMAIL nasserlassociates@bigpond.com

J NASSERI
BE, FIEAust,
NPER, CPEng

SYMBOLS & NOTATIONS

STORMWATER LINES
DOWNPIPE
100 DIA YARD SUMP
225x100 GRATED BOX DRAIN
INVERT LEVEL (TYP. = RL)
FINISHED SURFACE LEVEL
FINISHED FLOOR LEVEL
FINISHED PLATFORM LEVEL
SEDIMENT CONTROL BARRIER
PROPOSED BOUNDARY
SEWER

AMENDMENTS DATE

CLIENT: RAWSON HOMES (MRS WHITE)
LOT 14, (H/No.3) CASTLE CIRCUIT, SEAFORTH

HYDRAULIC DETAILS

ON-SITE DETENTION TANK (PLAN VIEW)

CAD REF: ENG/RAWSON JOB No. 02339 SHEET No. 3

ON SITE DETENTION TANK

SECTION D
SCALE 1:20

ORIFICE DETAILS

SCALE 1:5

HYDRAULIC DETAILS

DETENTION TANK DETAILS (SECTION D)

NASSERI ASSOCIATES
CIVIL, HYDRAULIC & STRUCTURAL ENGINEERING
SUITE 51, No 14 NARABANG WAY, BELROSE 2085
PO BOX 716, BALGOWLAH NSW 2093
TEL (02) 9986 3875
FAX (02) 9986 2876
MOB 0410 308 064
EMAIL nasseri@ozemail.com.au

NASSERI
BE, FIEAust
NPER CPEng

SYMBOLS & NOTATIONS

STORMWATER LINES
DOWNPIPE
100 DIA YARD SUMP
GRATED DRAIN
SWEPT LEVEL SPIRE
FINISHED SURFACE LEVEL
FINISHED FLOOR LEVEL
FINISHED PLATFORM LEVEL
SEDIMENT CONTROL BARRIER
PROPOSED BOUNDARY
SEWER

ISSUE | AMENDMENTS | DATE

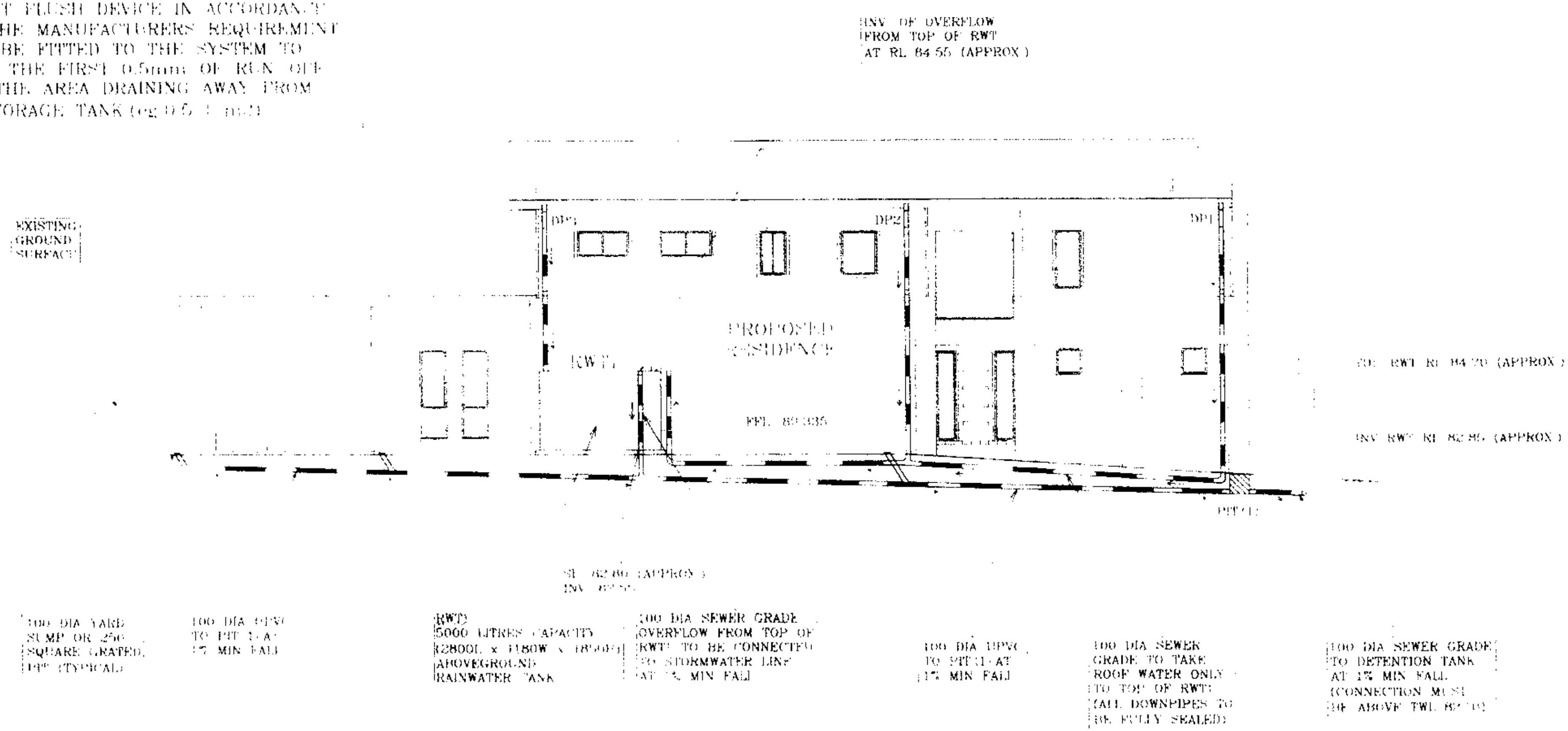
CLIENT: RAWSON HOMES (MRS WHITE)
LOT 14, (H/No 5) CASTLE CIRCUIT, SEAFORTH

DESIGN HA | DRAWN HA | CHECKED JN | SCALE AS SHOWN | CAD REF ENG/RAWSON | JOB No 02339 | SHEET No. 4

IMPORTANT NOTES

1 RAINWATER TANK IS FROM BLUESCOPE WATER PTY LTD OR SIMILAR (PH 9625 2111)

2 A FIRST FLUSH DEVICE IN ACCORDANCE WITH THE MANUFACTURERS REQUIREMENT SHALL BE FITTED TO THE SYSTEM TO DIVERT THE FIRST 0.5mm OF RUN OFF FROM THE AREA DRAINING AWAY FROM THE STORAGE TANK (eg 0.5 – 1 m2)



ELEVATION (A)

SCALE 1:100

NASSERI ASSOCIATES
CIVIL, HYDRAULIC & STRUCTURAL ENGINEERING
SUITE 51, No 14 NARABANG WAY, BELROSE 2085
PO BOX 714, BALGOWLAH NSW 2093
TEL (02) 9986 3875
FAX (02) 9986 3876
MOB 0410 308 064
EMAIL nasseriassociates@bigpond.com

J NASSERI
BE FIEAust
NPER CPEng

SYMBOLS & NOTATIONS

STORMWATER LINES	FINISHED SURFACE LEVEL
DOWNPIPE	FINISHED FLOOR LEVEL
100 DIA YARD SUMP	FINISHED PLATFORM LEVEL
225x100 GRATED BOX DRAIN	SEDIMENT CONTROL BARRIER
INVERT LEVEL (PIPE / PIT)	PROPOSED BOUNDARY
	SEWER

ISSUE | AMENDMENTS | DATE

CLIENT: RAWSON HOMES (MRS WHITE)
LOT 14, (H/No 3) CASTLE CIRCUIT, SEAFORTH

HYDRAULIC DETAILS

ELEVATION (A) & RWT1 DETAILS

DESIGNED HA | DRAWN HA | CHECKED JN | SCALE AS SHOWN | CAD REF. ENG/RAWSON | JOB No 02359 | SHEET No 5

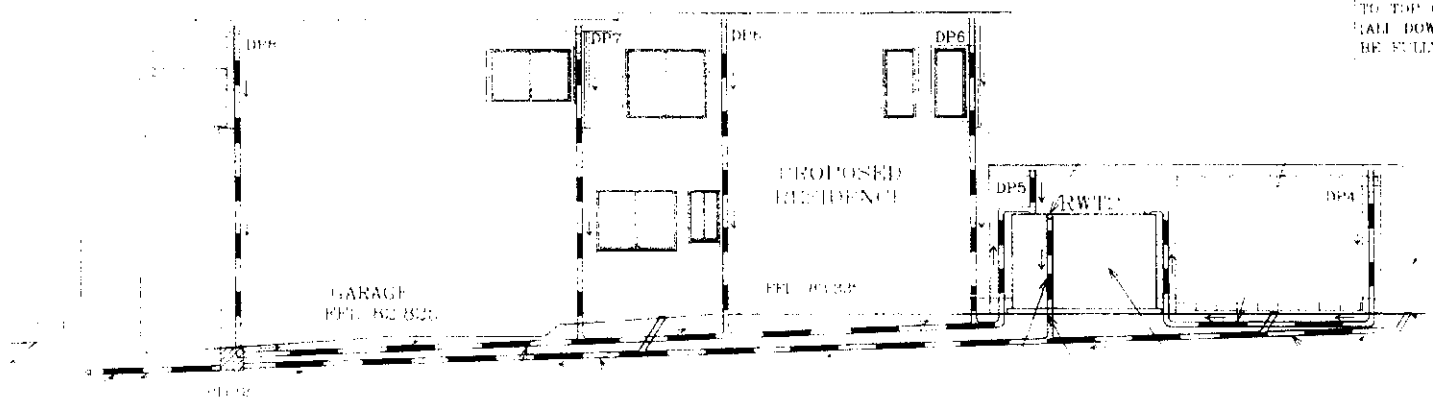
IMPORTANT NOTE:

1 RAINWATER TANK IS FROM BELGICOM WATER PTY LTD OR SIMILAR (PH: 9625 4111)

2 A FIRST FLUSH DEVICE IN ACCORDANCE WITH THE MANUFACTURERS' REQUIREMENTS SHALL BE FITTED TO THE SYSTEM TO DIVERT THE FIRST 0.5mm OF RUN OFF FROM THE AREA DRAINING AWAY FROM THE STORAGE TANK (e.g. 0.5 x 1 m²)

INV OF OVERFLOW FROM TOP OF RWT AT RL 84.70 (APPROX)

100 DIA SEWER GRADE TO TAKE ROOF WATER ONLY TO TOP OF RWT2 (ALL DOWNPIPES TO BE FULLY SEALED)



100 DIA SEWER GRADE TO DETENTION TANK AT 1% MIN FALL (CONNECTED 90° ABOVE FFL 82.85)

100 DIA SEWER GRADE TO PIT 2 AT 1% MIN FALL

100 DIA SEWER GRADE OVERFLOW FROM TOP OF RWT2 TO BE CONNECTED TO STORMWATER LINE AT 1% MIN FALL

RWT2
5000 LITRES (CAPACITY)
(2800L x 1180W x 1850H)
ABOVEGROUND
RAINWATER TANK

100 DIA UPVC TO PIT 2 AT 1% MIN FALL

100 DIA YARD SUMP OR 250 SQUARE GRATED PIT (TYPICAL)

ELEVATION (B)
SCALE 1:100

NASSERI ASSOCIATES
CIVIL, HYDRAULIC & STRUCTURAL ENGINEERING
SUITE 51, No 14 NARABANG WAY BELROSE 2085
PO BOX 414, BALGOWLAH, NSW 2093
PH: (02) 9886 3875
FAX: (02) 9986 3876
MOB: 0410 308 064
EMAIL: nasserisociates@bigpond.com

J NASSERI
BE FIEAust
NPER, CPEng
15 Feb 2010

SYMBOLS & NOTATIONS

STORMWATER LINES	FINISHED SURFACE LEVEL
DOWNPIPE	FINISHED FLOOR LEVEL
100 DIA YARD SUMP	FINISHED PLATFORM LEVEL
225x100 GRATED BOX DRAIN	SEDIMENT CONTROL BARRIER
INVERT LEVEL PIPE / PIT	PROPOSED BOUNDARY
	SEWER

ISSUE | AMENDMENTS | DATE

CLIENT: RAWSON HOMES (MRS WHITE)

LOT 14, (H/No.3) CASTLE CIRCUIT, SEAFORTH

DESIGN HA | DRAW HA | CHECK JN | SCALE AS SHOWN

HYDRAULIC DETAILS

ELEVATION (B) & RWT2 DETAILS

CAD REF ENG/RAWSON | JOB No 02359 | SHEET No. 6