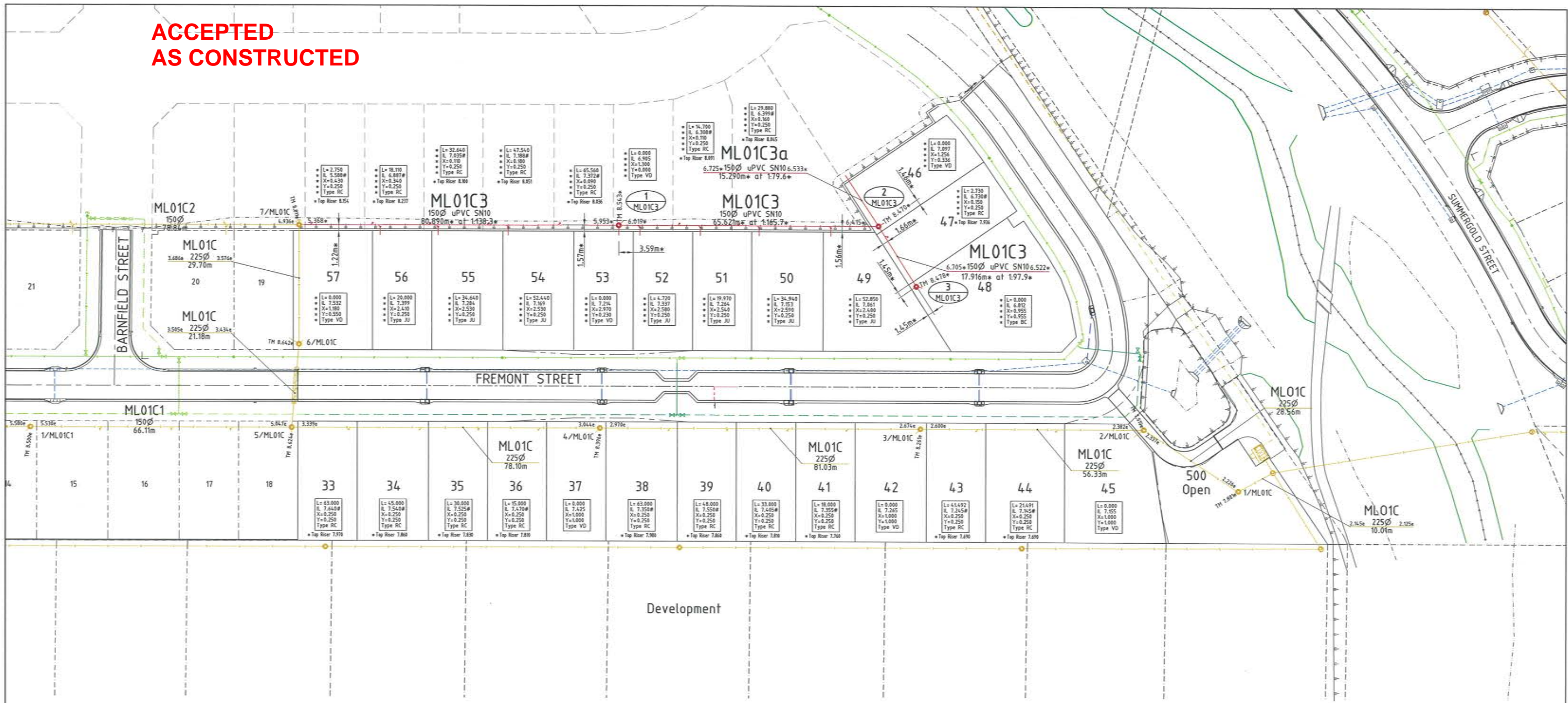


**ACCEPTED
AS CONSTRUCTED**



Development

LAYOUT PLAN

SEWER MANHOLES

Manhole No.	Easting	Northing
1/ML01C3	464715.740*	7874652.610*
2/ML01C3	464781.100*	7874646.760*
3/ML01C3	464789.260*	7874630.810*

- All dimensions are to centre of chamber.

AS CONSTRUCTED

Rowlands Surveys Pty Ltd (ACN 010 025 260) hereby certify that the works detailed on this drawing, denoted *, have been constructed to the dimensions and levels shown.

Signature: Laurence John Nolan
Director/Registered Surveyor
Date: 17/12/13

NOTES:

- All sewer manholes are 1050Ø as per Council details U.N.O.
- All sewer manhole tops are type 2 class 'B' covers U.N.O.
- All 225Ø & 150Ø sewer mains & fittings are uPVC class SN10.
- All 100Ø sewer mains & fittings are uPVC class SN10.
- Service connection invert levels marked with a '#' indicates the invert level on the sewer main +200mm with allotment drainage capable of connecting between the top of riser & sewer main invert levels.

LEGEND

- GENERAL:-**
- RP boundary.
 - Top of batter.
 - Toe of batter.
 - Stormwater drain line.
 - Sewer main.
 - Sewer manhole.
 - uPVC water main.
 - Poly water main.
 - Stormwater drain line.
 - Sewer main.
 - Sewer manhole.
 - Water main.
 - Poly water main.

SEWERAGE RETICULATION:-

- Manhole Number
- Sewer line description
- As constructed sewer invert levels at manhole.
- Sewer line description.
- Diameter of pipe, type & class.
- Distance between manholes, centerline to centerline and grade.
- As constructed top of manhole level.

SERVICES:-

- Direct connection (DC)
- Jump up connection (JU)
- Riser connection (RC)
- 100Ø manhole connection - Benching (BC) - Vertical Drop (VD)
- Distance from downstream manhole to 'Y-junction - dimension 'L'.
- Invert level at limit of house connection branch.
- Allotment connection dimension 'X'.
- Allotment connection dimension 'Y'.
- Type of junction (EX - Existing).
- Level at top of riser cap.

All work has been carried out in accordance with LOCAL AUTHORITIES standard details.



Civil & Structural Engineers
50 Punari Street, Currarong 4812
Phone: (07) 4725 5550 Fax: (07) 4725 5850
Email: mail@noeng.com.au
Milton Messer & Associates Pty. Ltd.
ACN 100 817 356

REAL PROPERTY DESCRIPTION
Lot 900 on SP24-3626
Parish of BOHLE
County of ELPHINSTONE
Conway Street - Mount Low

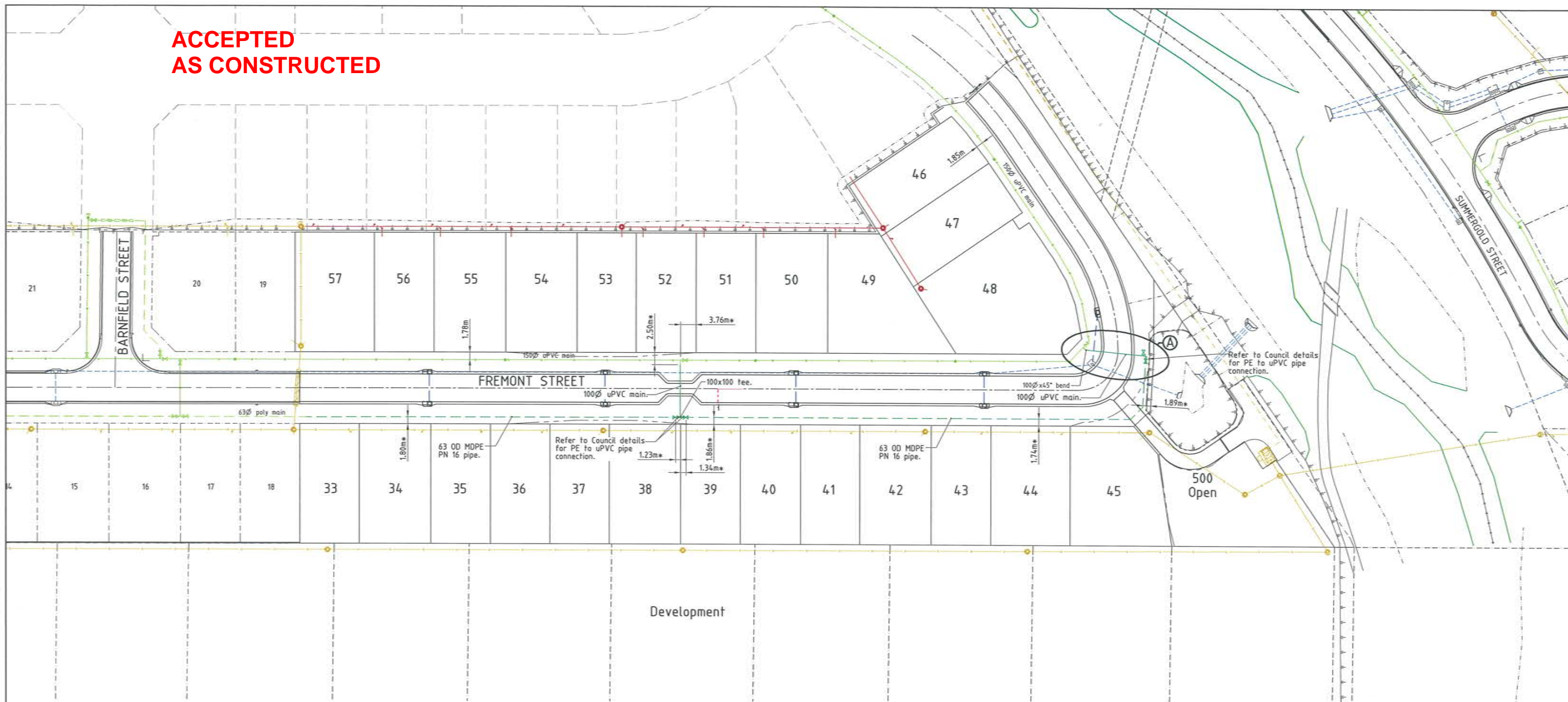
LEVEL DATUM A.H.D. (Der)
Horizontal Datum MGA '94 Zone 55
Refer PH 17367 RL: 8.077
Bolt and washer in kerb
GUNDABLUY CRESENT.

Scale
0 5 10 15 20m
THE ORIGINAL OF THIS DOCUMENT IS COMPLETED TO THE SCALE NOTED.
AS REPRODUCTION CAN DISTORT SIZE & SHAPE USE ONLY THE
DIMENSIONS PROVIDED ON ARCHITECTURAL &/OR ENGINEERING DRAWINGS.
VERIFY DIMENSIONS ON SITE BEFORE CONSTRUCTION.

Issue	Description	Date
B	AMENDED TO AS CONSTRUCTED.	17/12/2013
A	ISSUED FOR CONSTRUCTION.	12/04/2013
P2	PRELIMINARY - NOT FOR CONSTRUCTION - ISSUED FOR OPERATIONAL WORKS APPROVAL.	28/02/2013
P1	PRELIMINARY - NOT FOR CONSTRUCTION - ISSUED FOR INFORMATION.	12/2/2013

Drawn	In Association With	SEWERAGE RETICULATION PLAN
LJ	BUSHLAND GROVE PTY LTD	
Date		Drawing Number TUR0809/10
12/2/2013		
Checked	BUSHLAND GROVE ESTATE STAGE 9, 25 ALLOTMENT RESIDENTIAL SUBDIVISION, MOUNT LOW	Issue B
Approved		
COPYRIGHT ©		

**ACCEPTED
AS CONSTRUCTED**



Development

LAYOUT PLAN

- LEGEND**
GENERAL:-
- RP boundary.
 - Top of batter.
 - Toe of batter.
 - Stormwater drain line.
 - Sewer main.
 - Sewer manhole.
 - uPVC water main.
 - Poly water main.
 - Stormwater drain line.
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 - Sewer manhole.
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 - Poly water main.

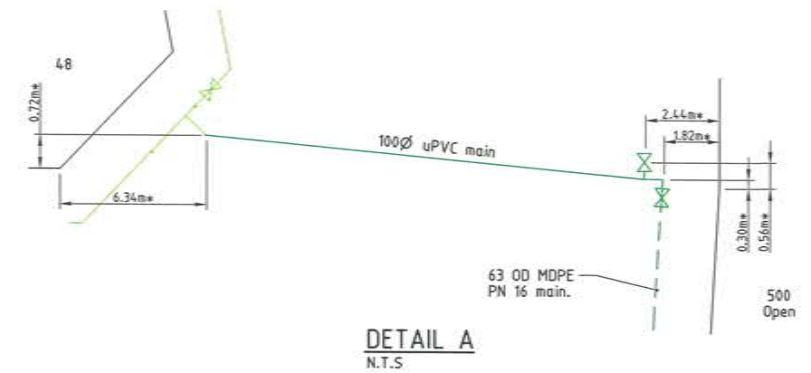
- NOTES:**
AS CONSTRUCTED WATER RETICULATION:
- All water supply fixtures (FH, SV etc.) have been installed in accordance with Townsville City Council standards, ie. adjacent to boundary intersection, U.N.O.
 - All uPVC water mains & fittings are Class 16 cast iron outside diameter compatible unless shown otherwise.

- WATER RETICULATION:-**
- FH Fire Hydrant.
 - SV Stop Valve.

AS CONSTRUCTED
Rowlands Surveys Pty Ltd (ACN 010 025 260) hereby certify that the works detailed on this drawing, denoted *, have been constructed to the dimensions and levels shown.

Laurence John Nolan
Director/Registered Surveyor
Date: 17/12/13

All work has been carried out in accordance with LOCAL AUTHORITIES standard details.



REAL PROPERTY DESCRIPTION
Lot 900 on SP243626
Parish of BOHLE
County of ELPHINSTONE
Conway Street - Mount Low

LEVEL DATUM A.H.D. (Der)
Horizontal Datum MGA 94 Zone 55
Refer PH 177367 RL, 8.077
Bolt and washer in kerb
GUNDABLUKEY CRESENT.

Scale
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Issue	Description	Date
B	AMENDED TO AS CONSTRUCTED.	17/12/2013
A	ISSUED FOR CONSTRUCTION.	12/04/2013
P1	PRELIMINARY - NOT FOR CONSTRUCTION - ISSUED FOR INFORMATION.	12/2/2013

Drawn LJ	In Association With BUSHLAND GROVE PTY LTD	WATER RETICULATION PLAN
Date 12/2/2013	BUSHLAND GROVE ESTATE STAGE 9, 25 ALLOTMENT RESIDENTIAL SUBDIVISION, MOUNT LOW	
Checked <i>[Signature]</i>	Drawing Number TUR0809/11	Issue B
Approved <i>[Signature]</i>		