

JOINS DRAWING PARK0001/21

- LEGEND**
GENERAL:-
- Top of batter.
 - Toe of batter.
 - Stormwater drain line.
 - Sewer main.
 - Sewer manhole.
 - Water main.
 - Irrigation conduits.
 - Stormwater drain line.
 - Sewer main.
 - Sewer manhole.
 - Water main.
 - Fence line.

- SEWERAGE RETICULATION:-**
- 2 - Manhole Number
 - 1A - Sewer line description
 - Sewer invert levels at manhole.
 - 1A - Sewer line description.
 - 150Ø uPVC Class SN10 - Diameter of pipe.
 - 28.50m at 1:108.4 - Distance between manholes, centreline to centreline and grade.
 - TM 15.650 - 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.
X = 0.000
Y = 0.000
Allotment connection dimension 'X'.
Allotment connection dimension 'Y'.
Type of junction (EX - Existing).
Level at top of riser cap.

- NOTES:**
- All sewer manholes are 1050Ø type C2 U.N.O.
 - All sewer manhole tops are type 2 class 'D' covers U.N.O.
 - All 150Ø & sewer mains & fittings are uPVC class SN10.

SEWER MANHOLES

Manhole No.	Easting	Northing
9/W03B	5394.52	71197.04
10/W03B	5392.78	71177.28
11/W03B	5385.58	71150.90
12/W03B	5347.04	71083.78
13/W03B	5398.04	71057.61
14/W03B	5410.43	71051.23
1/W03B2	5306.62	71241.86
2/W03B2	5313.44	71194.17
3/W03B2	5313.46	71187.75
4/W03B2	5306.80	71171.84
1/W03B3	5271.45	71197.66

- All dimensions are to centre of chamber.

ACCEPTED AS CONSTRUCTED

AS CONSTRUCTED
BRAZIER & MOTTI PTY.LTD. (ACN 066 411 041), 595 FLINDERS STREET, TOWNSVILLE HEREBY CERTIFY THAT THIS DRAWING ACCURATELY AND CORRECTLY DESCRIBES AND RECORDS THE NATURE AND THE LOCATION OF THE WORKS DEPICTED BY ASTERISKS (*) HEREON AS THEY HAVE BEEN CONSTRUCTED FOR SUBDIVISION

DIRECTOR
REGISTERED SURVEYOR AND DIRECTOR
DATED THIS DAY 31 OF MAY 2012
SEAL OF
ACN 066 411 041

REAL PROPERTY DESCRIPTION

Lot 2 on SP 232875
Parish of BOHLE
County of ELPHINSTONE
Geaney Lane - Deeragun

In Association with-



surveying | town planning | project management | mapping and GIS
Brazier Motti Pty Ltd (ACN 066 411 041)
595 Flinders St, Townsville, Q. 4810
Phone: 07 4772 1144, Fax: 07 4772 2557, Email: townsville@braziermotti.com.au

BASE SURVEY
Brazier Motti (06092/091)
TRUNCATED COORDINATES
E 6400, N 0.600
EQUIVALENT TO
E 460000, N 7800000

LEVEL DATUM A.M.D.
Horizontal Datum GDA' 94 Zone 55
Refer. P.M. 177233 RL. 13.514
Belt & washer in kerb.
Intersection SOMERTON/DUNDELLA

LAYOUT PLAN

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 & CIVIL ENGINEERING DRAWINGS.
VERIFY DIMENSIONS ON SITE BEFORE CONSTRUCTION.

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

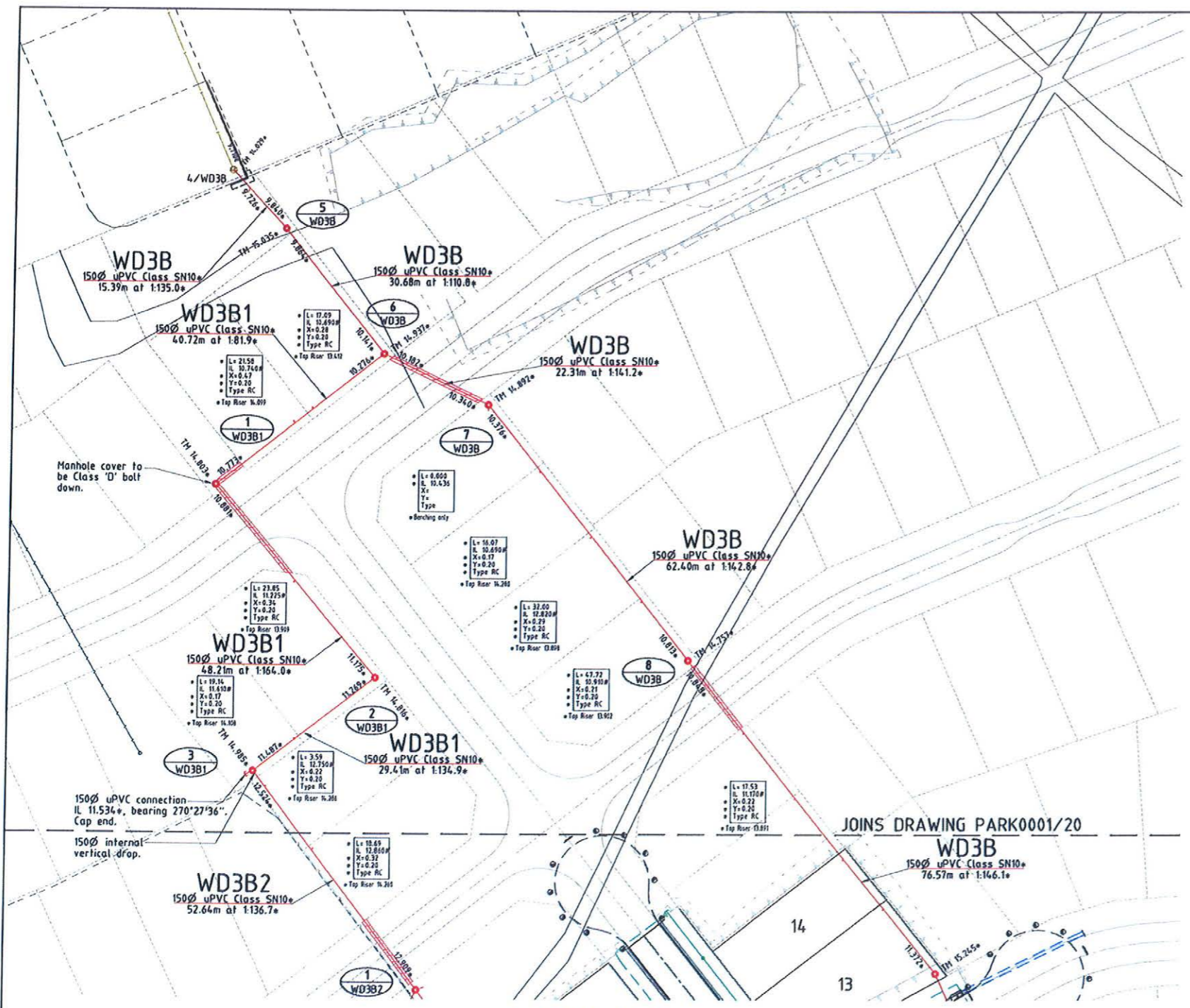


Civil & Structural Engineers
50 Punari Street, Currajong 4812
Phone: 07 4725 5550 Fax: 07 4725 5850
Email: mail@nceng.com.au
Milton Messer & Associates Pty. Ltd.
ACN 100 817 356

- Indicates calculated 'Y' junction level (200mm above sewer main invert)
* - Indicates as constructed information.

Issue	Description	Date
E	AMENDED TO AS CONSTRUCTED (HOUSE CONNECTION RISERS RAISED IN LOTS 8-11 & 13-16).	31/05/2012
D	AMENDED TO AS CONSTRUCTED (EARLY PLAN OF SURVEY RELEASE).	27/04/2012
C	AMENDED TO AS CONSTRUCTED (EARLY PLAN OF SURVEY RELEASE).	26/04/2012
B	PRELIMINARY - AMENDED TO AS CONSTRUCTED - ISSUED FOR CLIENT INFORMATION.	23/03/2012
A	ISSUED FOR CONSTRUCTION.	08/11/2011

Drawn	In Association With	Drawing Number	Issue
JHS	PARKSIDE DEVELOPMENT PTY LTD	PARK0001/20	E
Date	STAGE 1, 21 ALLOTMENT RESIDENTIAL SUBDIVISION BRENDALE WEST SOMERTON STREET, DEERAGUN		
24/06/2011			



LAYOUT PLAN
Scale 'A'

- LEGEND**
GENERAL:-
- Top of batter.
 - Toe of batter.
 - Stormwater drain line.
 - Sewer main.
 - Sewer manhole.
 - Water main.
 - Poly water main.
 - Sewer main.
 - Sewer manhole.
 - Fence line.
 - Over head power line.

- SEWERAGE RETICULATION:-**
- 2 - Manhole Number
 - 1A - Sewer line description
 - 2.800m - Sewer invert levels at manhole.
 - 1A - Sewer line description.
 - 150Ø uPVC Class SN10 - Diameter of pipe.
 - 28.50m at 1:108.4 - Distance between manholes, centreline to centreline and grade.
 - 11.650m - 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.
 X=0.000 - Allotment connection dimension 'X'.
 Y=0.000 - Allotment connection dimension 'Y'.
 Type JU - Type of junction (EX - Existing).
 Level at top of riser cap.

- NOTES:**
- All sewer manholes are 1050Ø type C2 U.N.O.
 - All sewer manhole tops are type 2 class 'D' covers U.N.O.
 - All 150Ø & sewer mains & fittings are uPVC class SN10.

AS CONSTRUCTED

BRAZIER & MOTTI PTY.LTD. (ACN 066 411 041), 595 FLINDERS STREET, TOWNSVILLE, HEREBY CERTIFY THAT THIS DRAWING ACCURATELY AND CORRECTLY DESCRIBES AND RECORDS THE NATURE AND THE LOCATION OF THE WORKS DEPICTED BY ASTERISKS (*) HEREON AS THEY HAVE BEEN CONSTRUCTED FOR SUBDIVISION

SEAL OF BRAZIER & MOTTI PTY. LTD.
 ACN 066 411 041
 DIRECTOR
 REGISTERED SURVEYOR AND DIRECTOR
 DATED THIS DAY 27 OF April 2012

SEWER MANHOLES

Manhole No.	Easting	Northing
5/W03B	5354.29m	71382.68m
6/W03B	5359.29m	71352.41m
7/W03B	5372.17m	71334.19m
8/W03B	5382.15m	71272.60m
1/W03B1	5319.11m	71345.80m
2/W03B1	5328.26m	71298.47m
3/W03B1	5299.20m	71293.97m

- All dimensions are to centre of chamber.

REAL PROPERTY DESCRIPTION

Lot 2 on SP 232875
 Parish of BOHLE
 County of ELPHINSTONE
 Geaney Lane - Deeragun

In Association with:-

 surveying | town planning | project management | mapping and GIS
 Brazier Motti Pty Ltd (ACN 066 411 041)
 595 Flinders St, Townsville, Q. 4810
 Phone: 07 4772 1144, Fax: 07 4772 2557, Email: townsville@braziermotti.com.au

ACCEPTED AS CONSTRUCTED

BASE SURVEY
 Brazier Motti (06092/091)
 TRUNCATED COORDINATES
 E 0.000, N 0.000
 EQUIVALENT TO
 E 460000, N 7800000

LEVEL DATUM A.M.D.
 Horizontal Datum GDA' 94 Zone 55
 Refer P.M. 177233 RL. 13.514
 Bolt & washer in kerb.
 Intersection SOMERTON/DUNDABELLA

Scale 'A' 0 10 20 30 40
 Scale 'B' 0 100 200 300 400

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 AS REPRODUCTION (ANY DISTORTION SIZE & SHAPE) USE ONLY THE DIMENSIONS PROVIDED ON ARCHITECTURAL &/OR ENGINEERING DRAWINGS.
 VERIFY DIMENSIONS ON SITE BEFORE CONSTRUCTION.

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

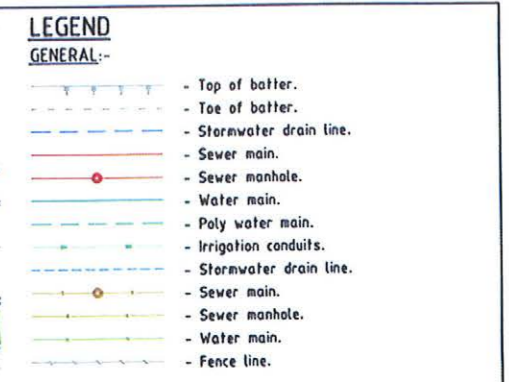
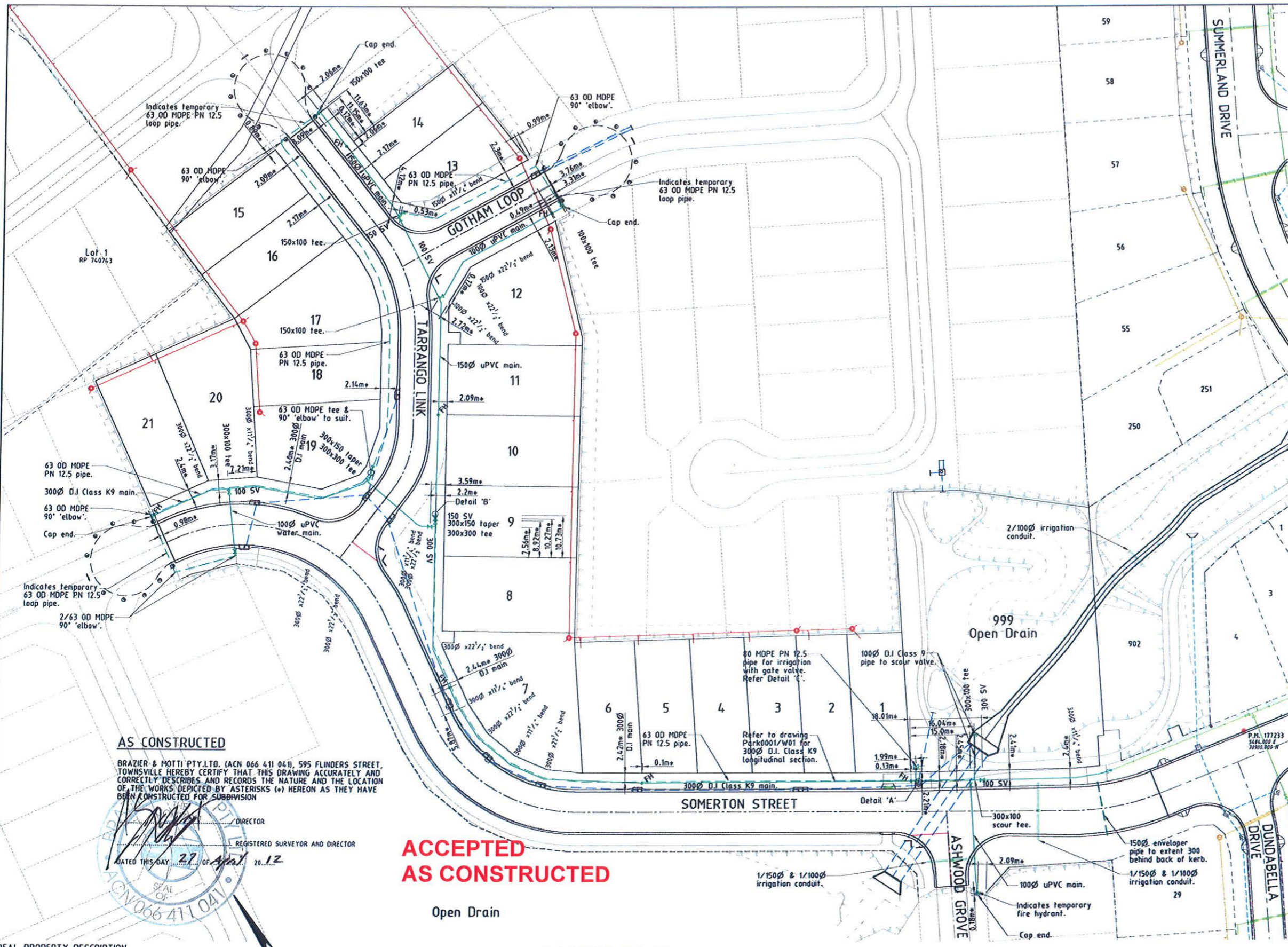
NORTHERN CONSULTING
 engineers
 Civil & Structural Engineers
 50 Punari Street, Currango 4812
 Phone: 07 4725 5550 Fax: 07 4725 5850
 Email: mail@nceng.com.au
 Milton Mowbray & Associates Pty. Ltd.
 ACN 100 817 395

- # - Indicates calculated 'Y' junction level (200mm above sewer main invert)
- 's' - Indicates as constructed information.

Issue	Description	Date
D	AMENDED TO AS CONSTRUCTED (EARLY PLAN OF SURVEY RELEASE).	27/04/2012
C	AMENDED TO AS CONSTRUCTED (EARLY PLAN OF SURVEY RELEASE).	26/04/2012
B	PRELIMINARY - AMENDED TO AS CONSTRUCTED - ISSUED FOR CLIENT INFORMATION.	13/03/2012
A	ISSUED FOR CONSTRUCTION.	08/11/2011
P1	PRELIMINARY - NOT FOR CONSTRUCTION - ISSUED FOR COUNCIL APPROVAL (OPW).	24/06/2011

Drawn	JHS	In Association With	PARKSIDE DEVELOPMENT PTY LTD
Date	24/06/2011		
Checked			
Approved			
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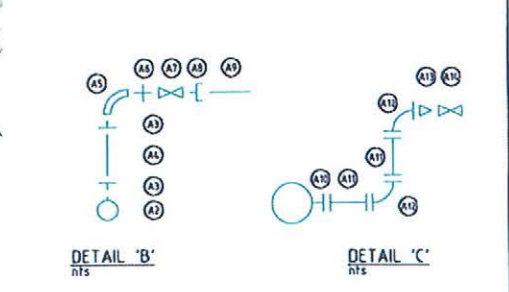
SEWERAGE RETICULATION PLAN	
Drawing Number	PARK0001/21
Issue	D



WATER RETICULATION:-

FH Fire Hydrant.
SV Stop Valve.

Fitting No.	Description
A1	300Ø x50 Direct tapping band
A2	150Øx50 Tapping band
A3	Male tube bush (Braze on)
A4	50Ø Copper pipe (length to suit)
A5	50Øx90° Copper bend (M and F)
A6	50Ø brass hex nipple
A7	50Ø bronze gate valve (F and F)
A8	50 M - 63 OD end connector.
A9	63 OD MDPE PN 12.5 pipe
A10	300x100 Tee (FL-FL)
A11	100Ø D.J Class 9 pipe (FL-FL length to suit)
A12	100Øx90° bend (FL-FL)
A13	100Ø taper (FL-FL)
A14	80Ø gate valve (blank flange)



- NOTES:**
AS CONSTRUCTED WATER RETICULATION:
- All water supply fixtures (FH, SV etc.) have been installed in accordance with Townsville City Council standards, i.e. adjacent to boundary intersection, U.N.O.
 - All uPVC water mains & fittings are Class 16 cast iron outside diameter compatible unless shown otherwise.
 - Irrigation conduits are Class 9 with a minimum cover of 600mm but no deeper than 800mm & extent 1.0m behind back of kerb.

AS CONSTRUCTED

BRAZIER & MOTTI PTY.LTD. (ACN 066 411 041), 595 FLINDERS STREET, TOWNSVILLE HEREBY CERTIFY THAT THIS DRAWING ACCURATELY AND CORRECTLY DESCRIBES AND RECORDS THE NATURE AND THE LOCATION OF THE WORKS DEPICTED BY ASTERISKS (*) HEREON AS THEY HAVE BEEN CONSTRUCTED FOR SUBDIVISION

DIRECTOR
REGISTERED SURVEYOR AND DIRECTOR

DATED THIS DAY 27 of April 2012

SEAL OF DIRECTOR
ACN066411041

ACCEPTED AS CONSTRUCTED

Open Drain

LAYOUT PLAN

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

* - Indicates as constructed information.

REAL PROPERTY DESCRIPTION

Lot 2 on SP 232875
Parish of BOHLE
County of ELPHINSTONE
Geaney Lane - Deeragun

In Association with:-



surveying | town planning | project management | mapping and GIS

BASE SURVEY
Brazier Motti 106092/091
TRUNCATED COORDINATES
E 6500, N 6500
EQUIVALENT TO
E 660000, N 7800000

LEVEL DATUM A.H.D.
Horizontal Datum GDA' 94 Zone 55
Refer P.M. 177233 RL: 13.514
Bolt & washer in kerb
Intersection SOMERTON/DUNDABELLA



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NORTHERN CONSULTING
engineers

Civil & Structural Engineers
50 Punari Street, Currajong 4812
Phone: 07 4725 5550 Fax: 07 4725 5850
Email: mail@nceng.com.au
Milton Mowbray & Associates Pty. Ltd.
ACN 100 817 356

Issue	Description	Date
B	AMENDED TO AS CONSTRUCTED EARLY PLAN OF SURVEY RELEASED.	26/04/2012
A	ISSUED FOR CONSTRUCTION.	08/11/2011
P2	PRELIMINARY - NOT FOR CONSTRUCTION - AMENDED TO COUNCIL R.O.L. NOTICE - ISSUED FOR COUNCIL APPROVAL (OPW).	23/08/2011
P1	PRELIMINARY - NOT FOR CONSTRUCTION - ISSUED FOR COUNCIL APPROVAL (OPW).	24/06/2011

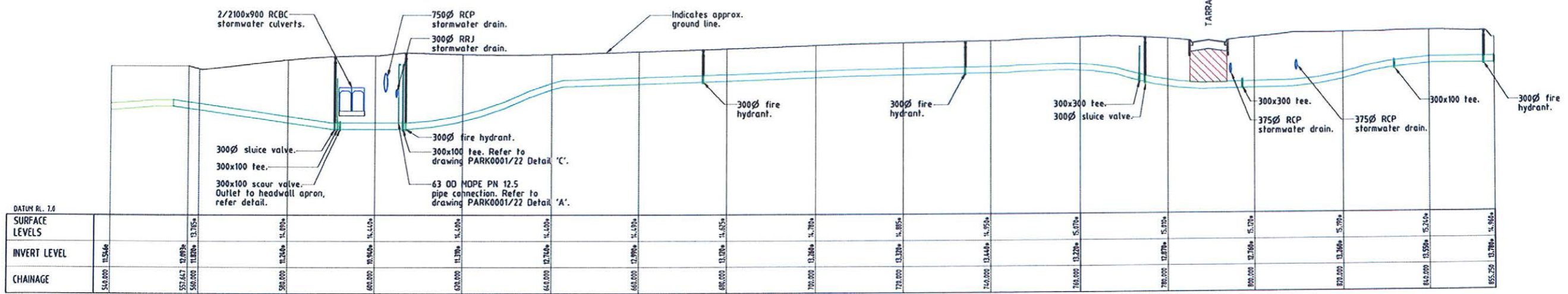
In Association With
PARKSIDE DEVELOPMENT PTY LTD

Checked
Date 24/06/2011

Approved

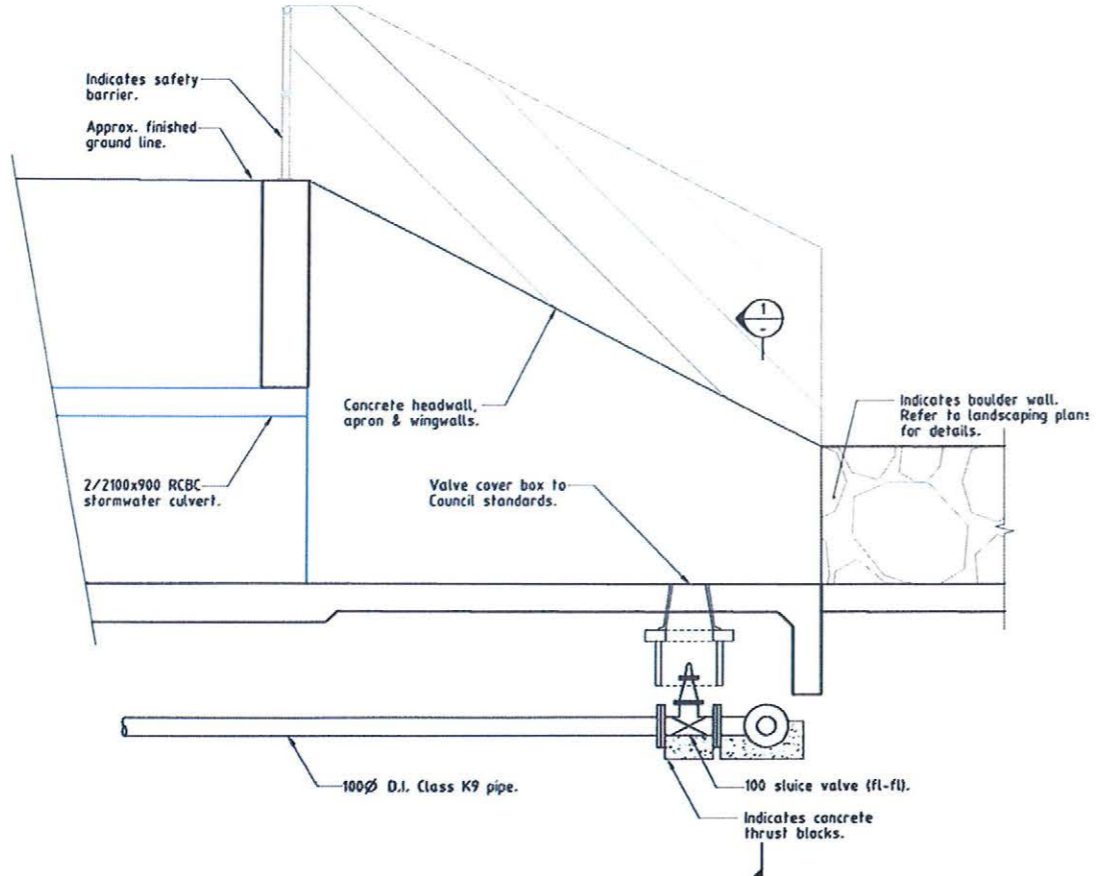
STAGE 1, 21 ALLOTMENT RESIDENTIAL SUBDIVISION BRENDALE WEST SOMERTON STREET, DEERAGUN

WATER RETICULATION PLAN	
Drawing Number	Issue
PARK0001/22	B



300Ø D.I. CLASS K9 TRUNK WATER MAIN

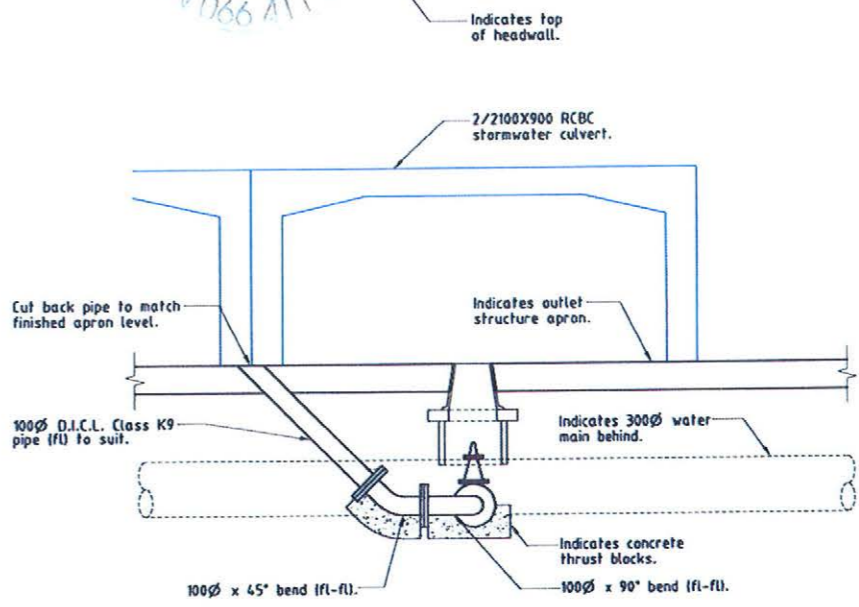
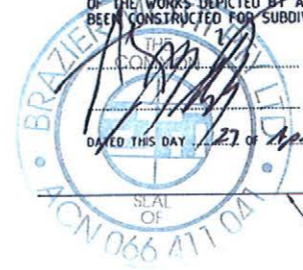
LONGITUDINAL SECTION
Scale 'A' - Horizontal
Scale 'B' - Vertical



SCOUR VALVE IN APRON
Scale 'C'

AS CONSTRUCTED

BRAZIER & MOTTI PTY.LTD. (ACN 066 411 041), 595 FLINDERS STREET, TOWNSVILLE HEREBY CERTIFY THAT THIS DRAWING ACCURATELY AND CORRECTLY DESCRIBES AND RECORDS THE NATURE AND THE LOCATION OF THE WORKS DEPICTED BY ASTERISKS (*) HEREON AS THEY HAVE BEEN CONSTRUCTED FOR SUBDIVISION



SECTION 1
Scale 'C'

ACCEPTED AS CONSTRUCTED

REAL PROPERTY DESCRIPTION

Lot 2 on SP 232875
Parish of BOHLE
County of ELPHINSTONE
Geaney Lane - Deeragun

In Association with:-

surveying | town planning | project management | mapping and GIS
Brazier Motti Pty Ltd (ACN 066 411 041)
595 Flinders St. Townsville, Q. 4810
Phone: 07 4772 1144, Fax: 07 4772 2557, Email: townsville@braziermotti.com.au

BASE SURVEY
Brazier Motti (06092/091)
TRUNCATED COORDINATES
E 8,000, N 6,000
EQUIVALENT TO
E 466000, N 7800000

LEVEL DATUM A.H.D.
Horizontal Datum GDA '94 Zone 55
Refer P.M. 177233 RL, 13.514
Bolt & washer in kerb
Intersection SOMERTON/DUNDABELLA

Scale 'A' 0 5 10 15 20m
Scale 'B' 0 1 2 3 4m
Scale 'C' 0 100 200 300 400 500 600 700 800

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50 Punari Street, Currajong 4812
Phone: 07 4725 5550 Fax: 07 4725 5850
Email: rmail@nceng.com.au
Milton Messer & Associates Pty. Ltd.
ACN 100 817 355

Issue	Description	Date
B	AMENDED TO AS CONSTRUCTED (EARLY PLAN OF SURVEY RELEASE).	26/04/2012
A	ISSUED FOR CONSTRUCTION.	08/11/2011
P1	PRELIMINARY - NOT FOR CONSTRUCTION - ISSUED FOR COUNCIL APPROVAL (OPW).	24/05/2011

Drawn JHS Date 24/05/2011	In Association With PARKSIDE DEVELOPMENT PTY LTD	300Ø D.I. WATER MAIN LONGITUDINAL SECTION & SCOUR VALVE DETAILS
Checked [Signature] Approved [Signature]	STAGE 1, 21 ALLOTMENT RESIDENTIAL SUBDIVISION BRENDALE WEST SOMERTON STREET, DEERAGUN	
COPYRIGHT ©		Drawing Number PARK0001/W01
		Issue B