

LEGEND

2/1	- Pit No. 2/Drainline No. 1
→	- Stormwater flow arrow.
- - - - -	- RP boundary.
- - - - -	- Top of batter.
- - - - -	- Toe of batter.
- - - - -	- Sewer main.
- - - - -	- Sewer manhole.
- - - - -	- uPVC water main.
- - - - -	- Poly water main.
- - - - -	- Stormwater drain line.
- - - - -	- Subsoil drainage.
- - - - -	- Stormwater drain line.
- - - - -	- Subsoil drainage.
- - - - -	- Sewer main.
- - - - -	- Sewer manhole.
- - - - -	- Water main.
- - - - -	- Underground electrical supply.
- - - - -	- National Broadband Network.

LAYOUT PLAN

ACCEPTED AS CONSTRUCTED

AS CONSTRUCTED

I Laurence John Nolan of ROWLANDS SURVEYS Pty. Ltd. hereby certify that this drawing accurately describes and records the nature and the location of the works depicted hereon as they have been constructed for the purposes of the development.

(Signature) Date: 11/12/12
 Laurence John Nolan
 Director/Registered Surveyor

SUNLAND GROUP
 REAL PROPERTY DESCRIPTION
 Lot 901 on SP 226447,
 Lot 902 on SP 218628,
 Lot 4 & 5 on RP 743005
 Parish of BOHLE
 County of ELPHINSTONE
 Holbourne Street - Bushland Beach

In Association with:-
ROWLANDS SURVEYS PTY LTD
 22 GORDEN STREET
 GARDUTT. 4014
 Ph. (07)47755077



BASE SURVEY
 Rowlands Surveys (42821/03)
 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. 174438 RL. 4.820
 Ball & washer in kerb.
 Cnr HILLOCK CR. & GLENDOWER ST.

Scale
 0 5 10 15 20m

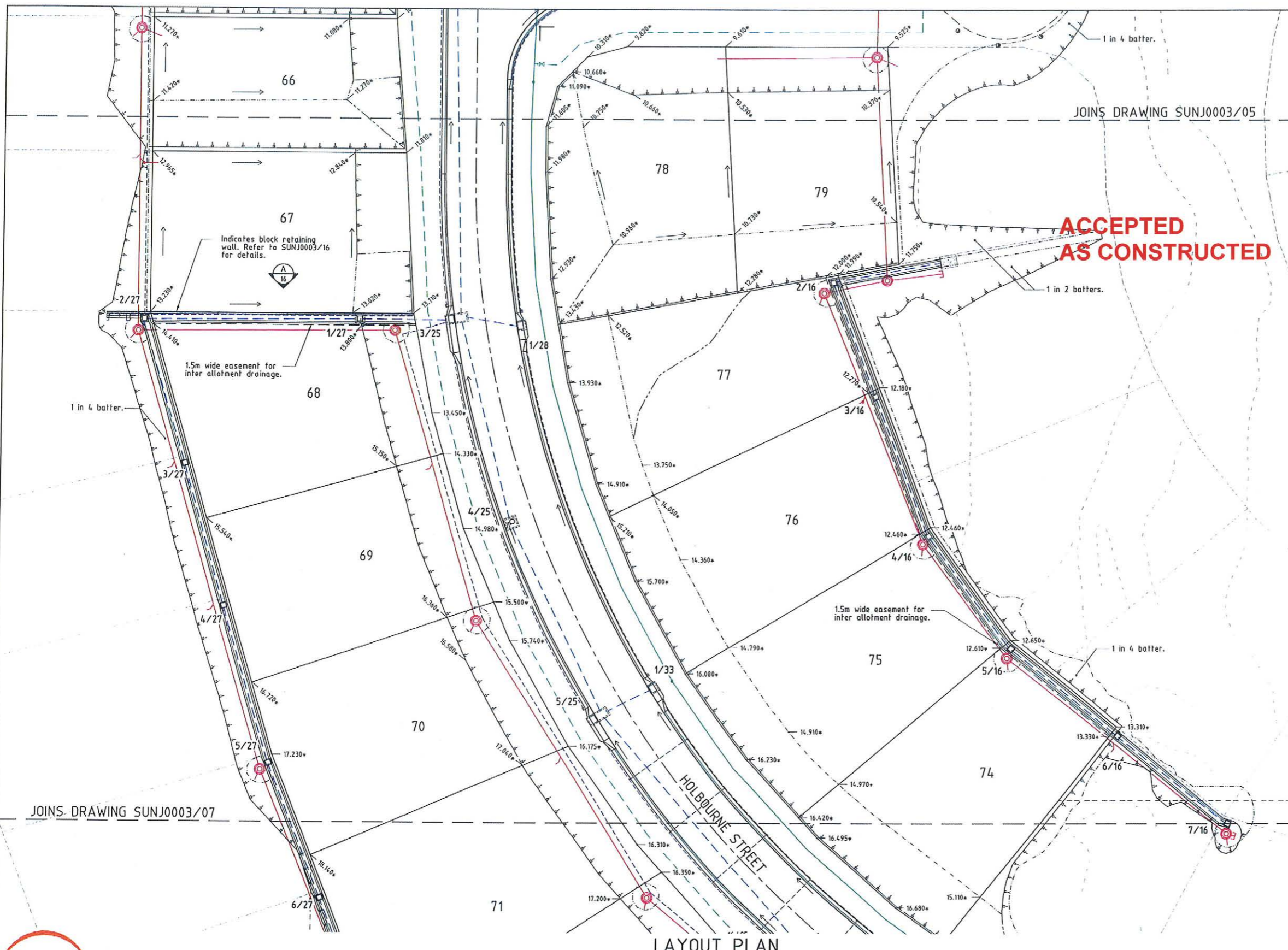
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* - Indicates as constructed information.

All work is carried out in accordance with LOCAL AUTHORITIES standard details. REFER TO DRAWING SUNJ0003/09 FOR ROAD TYPICAL SECTIONS.

NORTHERN CONSULTING
 engineers
 Civil & Structural Engineers
 50 Punar Street, Currajong 4812
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 Email: mail@nceng.com.au
 Milton Messer & Associates Pty. Ltd.
 ACN 100 817 356

B	AMENDED TO AS CONSTRUCTED.	11/12/2012
P1	PRELIMINARY - NOT FOR CONSTRUCTION - ISSUED FOR OPERATIONAL WORKS APPROVAL.	28/05/2012
Issue	Description	Date
Drawn DC	In Association With	
Date 03/11/2011	SUNLAND GROUP LIMITED	
Checked	STAGE 3, 20 TRADITIONAL RESIDENTIAL LOT SUBDIVISION	
Approved	HOLBOURNE STREET BUSHLAND BEACH	
COPYRIGHT ©	Drawing Number	Issue
	SUNJ0003/03	B



JOINS DRAWING SUNJ0003/05

**ACCEPTED
AS CONSTRUCTED**

- LEGEND**
- 12.000+ - As constructed surface levels.
 - - Stormwater flow arrow.
 - - - - - RP boundary.
 - - - - - Top of batter.
 - - - - - Toe of batter.
 - - - - - Stormwater drain line.
 - - - - - Subsoil drainage.
 - - - - - Sewer main.
 - - - - - Sewer manhole.
 - - - - - uPVC water main.
 - - - - - Poly water main.
 - - - - - Stormwater drain line.
 - - - - - Subsoil drainage.
 - - - - - Sewer main.
 - - - - - Sewer manhole.
 - - - - - Water main.

NOTES:
1. All Q50 flows remain within the road reserve.

AS CONSTRUCTED
I Laurence John Nolan of ROWLANDS SURVEYS Pty. Ltd. hereby certify that this drawing accurately describes and records the nature and the location of the works depicted hereon as they have been constructed for the purposes of the development.

Laurence John Nolan
Director/Registered Surveyor
Date: 11/12/12

Q50 STORMWATER LEVELS

Road Name	Chainage	Description	Q50 Level
Holbourne Street	125.187	Pit 3/25	13.069
	176.190	Pit 5/25	15.947

JOINS DRAWING SUNJ0003/07

LAYOUT PLAN

SUNLAND GROUP
REAL PROPERTY DESCRIPTION
Lot 901 on SP 226447,
Lot 902 on SP 218620,
Lot 4 & 5 on RP 743005
Parish of BOHLE
County of ELPINSTONE
Holbourne Street - Bushland Beach

In Association with:-
ROWLANDS SURVEYS PTY LTD
22 GORDON STREET
GARBUTT, 4014
Ph. (07)47755077



BASE SURVEY
Rowlands Surveys (42821/03)
TRUNCATED COORDINATES
E 0.000, N 0.000
EQUVALENT TO
E 460000, N 7800000

LEVEL DATUM A.H.D.
Horizontal Datum GDA' 94, Zone 55
Refer P.M. 174-38 RL. 4.820
Belt & washer in kerb.
Cnr HILLOCK CR. & GLENDOWER ST.

Scale
0 2.5 5 7.5 10m

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REFER TO DRAWING SUNJ0003/09 FOR ROAD TYPICAL SECTIONS.

NORTHERN CONSULTING
engineers

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Milton Messer & Associates Pty. Ltd.
ACN 100 817 358

Issue	Description	Date
B A P1	AMENDED TO AS CONSTRUCTED. ISSUED FOR CONSTRUCTION. PRELIMINARY - NOT FOR CONSTRUCTION - ISSUED FOR OPERATIONAL WORKS APPROVAL.	11/12/2012
Issue		28/05/2012
Issue		03/11/2011

In Association With
SUNLAND GROUP LIMITED

STAGE 3, 20 TRADITIONAL
RESIDENTIAL LOT SUBDIVISION
HOLBOURNE STREET
BUSHLAND BEACH

CUT / FILL
LAYOUT PLAN

Drawing Number
SUNJ0003/06

Issue
B

JOINS-DRAWING SUNJ0003/06

- LEGEND**
- 12.000+ - As constructed surface levels.
 - Stormwater flow arrow.
 - RP boundary.
 - Top of batter.
 - Toe of batter.
 - Stormwater drain line.
 - Subsoil drainage.
 - Sewer main.
 - Sewer manhole.
 - uPVC water main.
 - Poly water main.
 - Stormwater drain line.
 - Subsoil drainage.
 - Sewer main.
 - Sewer manhole.
 - Water main.

**ACCEPTED
AS CONSTRUCTED**

- NOTES:**
- All Q50 flows remain within the road reserve.

AS CONSTRUCTED

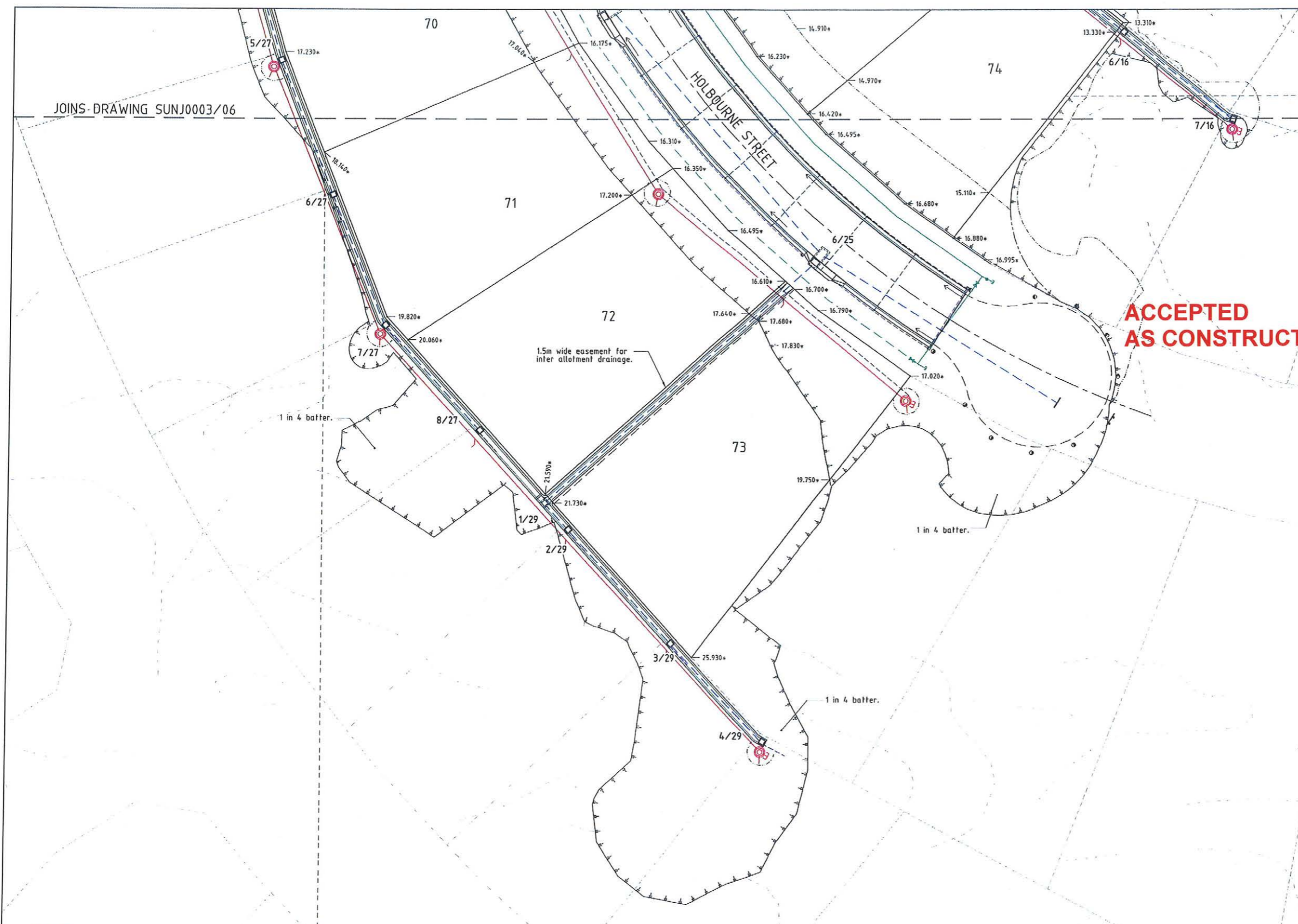
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[Signature] Date: 11/12/12
 Laurence John Nolan
 Director/Registered Surveyor

Q50 STORMWATER LEVELS

Road Name	Chainage	Description	Q50 Level
Halbourne Street	214.953	Pit 6/25	16.526

LAYOUT PLAN



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Issue	Description	Date
B	AMENDED TO AS CONSTRUCTED.	11/12/2012
A	ISSUED FOR CONSTRUCTION.	28/05/2012
P1	PRELIMINARY - NOT FOR CONSTRUCTION - ISSUED FOR OPERATIONAL WORKS APPROVAL.	03/11/2011

SUNLAND GROUP

REAL PROPERTY DESCRIPTION
 Lot 901 on SP 226447,
 Lot 902 on SP 218628,
 Lot 4, 8 & 5 on RP 743005
 Parish of BOHLE
 County of ELPHINSTONE
 Holbourne Street - Bushland Beach

In Association with:-
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 22 GORDEN STREET
 GARBUTT, 4814
 Ph. (07)47755077



BASE SURVEY
 Rowlands Surveys (42821/03)
 TRUNCATED COORDINATES
 E 5000, N 0.800
 EQUIVALENT TO
 E 460000, N 7800000

LEVEL DATUM A.H.D.
 Horizontal Datum GDA' 94 Zone 55
 Refer: P.M. 174.38 RL, 4.820
 Bolt & washer in kerb.
 Cnr HILLOCK CR. & GLENDOWER ST.

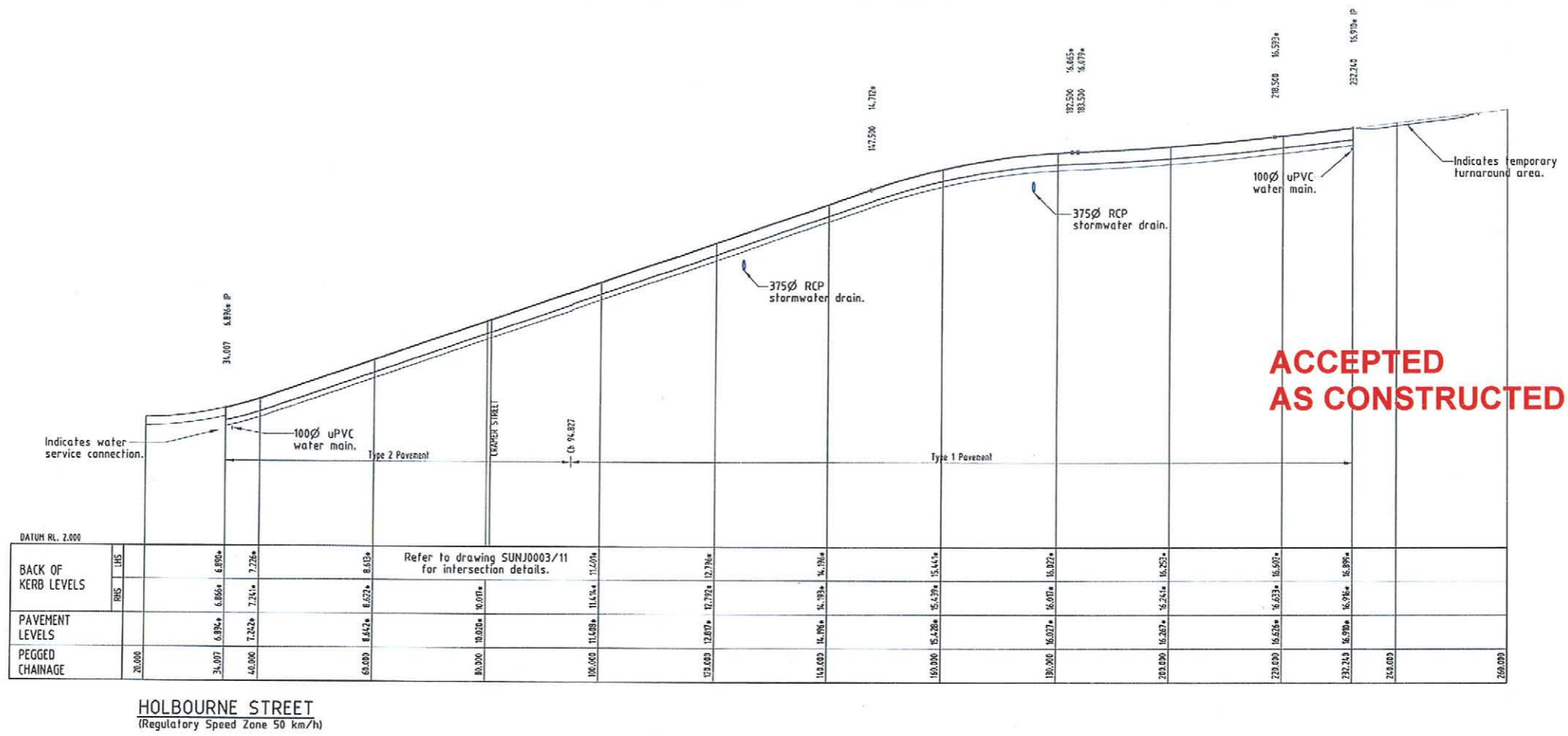
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NORTHERN CONSULTING
 engineers

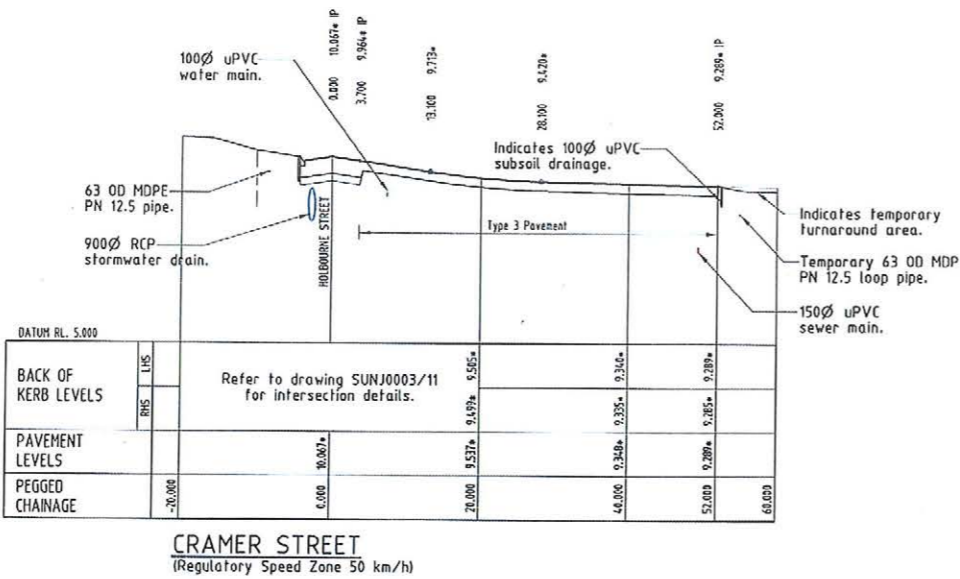
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 Email: mail@nceng.com.au
 Millon Messer & Associates Pty. Ltd.
 ACN 100 817 350

Drawn	In Association With	CUT / FILL LAYOUT PLAN
KR	SUNLAND GROUP LIMITED	
Date	STAGE 3, 20 TRADITIONAL RESIDENTIAL LOT SUBDIVISION	
03/11/2011	HOLBOURNE STREET	
Checked	BUSHLAND BEACH	
Approved		
COPYRIGHT ©		Drawing Number SUNJ0003/07
		Issue B



ACCEPTED AS CONSTRUCTED

HOLBOURNE STREET
(Regulatory Speed Zone 50 km/h)



CRAMER STREET
(Regulatory Speed Zone 50 km/h)

PAVEMENT TYPE	PAVEMENT DESCRIPTION
TYPE 1	30mm DG10 Asphalt. 10mm Primer seal. 100mm Base course gravel Type 2.1 CBR 80 100mm Sub-base course gravel Type 2.3 CBR 45 180mm Lower sub-base course gravel Type 2.5 CBR 15 200mm Working platform CBR 10
TYPE 2	30mm DG10 Asphalt. 10mm Primer seal. 100mm Base course gravel Type 2.1 CBR 80 100mm Sub-base course gravel Type 2.3 CBR 45 210mm Lower sub-base course gravel Type 2.5 CBR 15 200mm Working platform CBR 10
TYPE 3	30mm DG10 Asphalt. 10mm Primer seal. 100mm Base course gravel Type 2.1 CBR 80 120mm Sub-base course gravel Type 2.3 CBR 45

AS CONSTRUCTED

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Laurence John Nolan
Director/Registered Surveyor
Date: 11/12/12

AS CONSTRUCTED

Northern Consulting Engineers hereby certify that the works detailed on this drawing have been constructed to the dimensions and levels detailed.

Derek Robert Conley Saw
Date: 12-12-12

LONGITUDINAL SECTIONS

Scale 'A' - Horizontal
Scale 'B' - Vertical

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

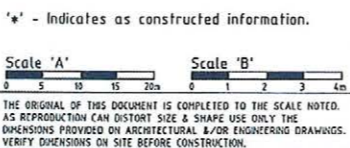
REFER TO DRAWING SUNJ0003/09 FOR ROAD TYPICAL SECTIONS.

SUNLAND GROUP
REAL PROPERTY DESCRIPTION
Lot 901 on SP 226447,
Lot 902 on SP 218628,
Lot 4 & 5 on RP 743005
Parish of BOHLE
County of ELPHINSTONE
Holbourne Street - Bushland Beach

In Association with:-
ROWLANDS SURVEYS PTY LTD
22 GORDEN STREET
GARBUTT. 4814
Ph. (07)47755077

BASE SURVEY
Rowlands Surveys (42821/03)
TRUNCATED COORDINATES
E 0.000, N 0.000
EQUIVALENT TO
E 460000, N 7800000

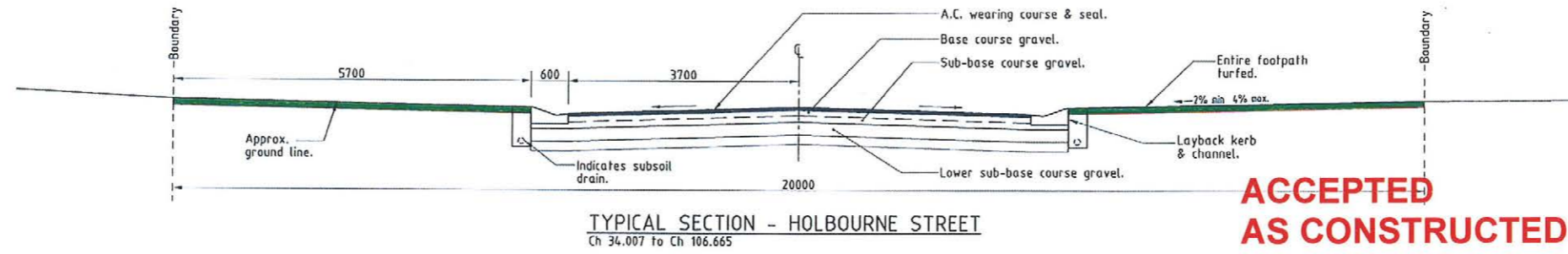
LEVEL DATUM A.H.D.
Horizontal Datum GDA '94 Zone 55
Refer P.M. 174438 RL. 4.820
Bolt & washer in kerb.
Car HILLOCK CR. & GLENDOWER ST.



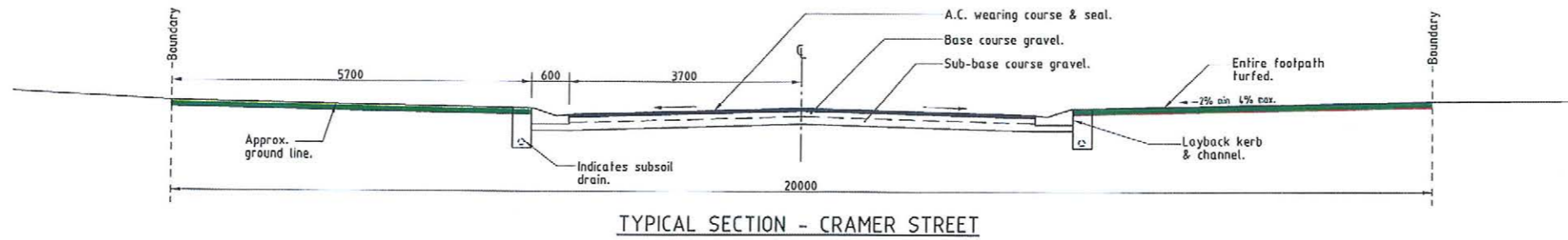
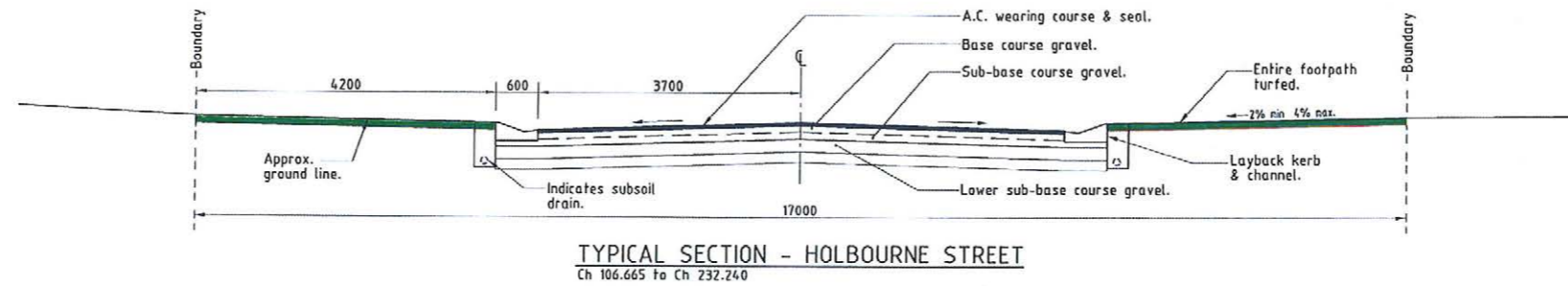
NORTHERN CONSULTING
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ACN 100 817 350

Issue	Description	Date
C	AMENDED TO AS CONSTRUCTED.	11/12/2012
D	ROAD PAVEMENT DESIGN AMENDED.	07/08/2012
A	ISSUED FOR CONSTRUCTION.	28/05/2012
P1	PRELIMINARY - NOT FOR CONSTRUCTION - ISSUED FOR OPERATIONAL WORKS APPROVAL.	03/11/2011

Drawn	In Association With	Drawing Number	Issue
DC	SUNLAND GROUP LIMITED	SUNJ0003/08	C
Date			
03/11/2011			
Checked			
Approved			
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**ACCEPTED
AS CONSTRUCTED**



AS CONSTRUCTED

Northern Consulting Engineers hereby certify that the works detailed on this drawing have been constructed to the dimensions and levels detailed.

[Signature]
Date: 12-12-12
Derek Robert Conley Saw



REAL PROPERTY DESCRIPTION

Lot 901 on SP 226447,
Lot 902 on SP 218628,
Lot 4 & 5 on RP 743005
Parish of BOHLE
County of ELPHINSTONE
Holbourne Street - Bushland Beach

In Association with:-



ROWLANDS SURVEYS PTY LTD

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GARBUTT, 4814
Ph. (07)47755077

BASE SURVEY
Rowlands Surveys (42821/03)
TRUNCATED COORDINATES
E 0.000, N 0.000
EQUIVALENT TO
E 460000, N 7800000

LEVEL DATUM A.H.D.
Horizontal Datum GDA '94 Zone 55
Refer P.M. 176438 RL. 4.820
Bolt & washer in kerb.
Chr. HILLOCK CR. & GLENDOWER ST.



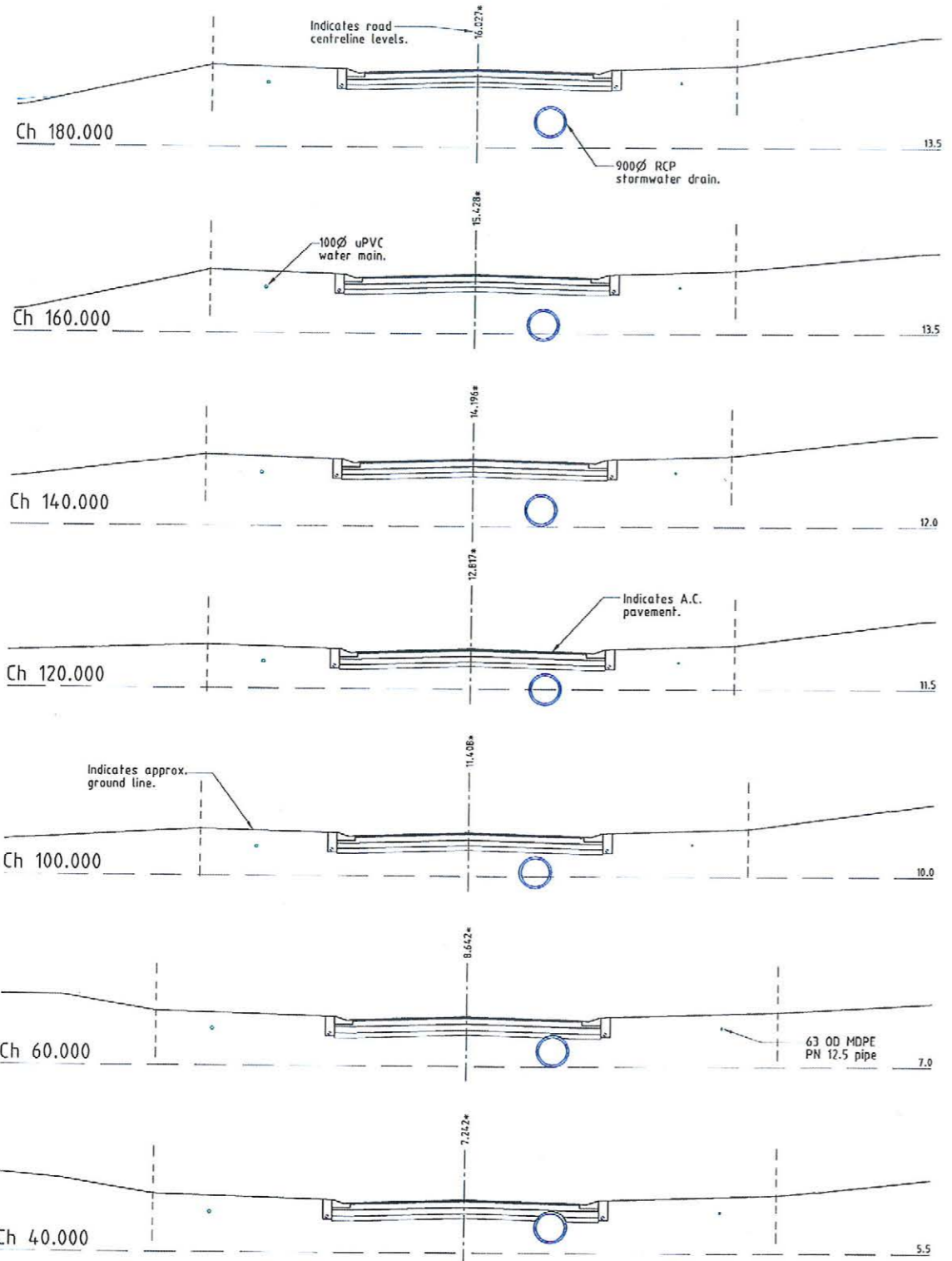
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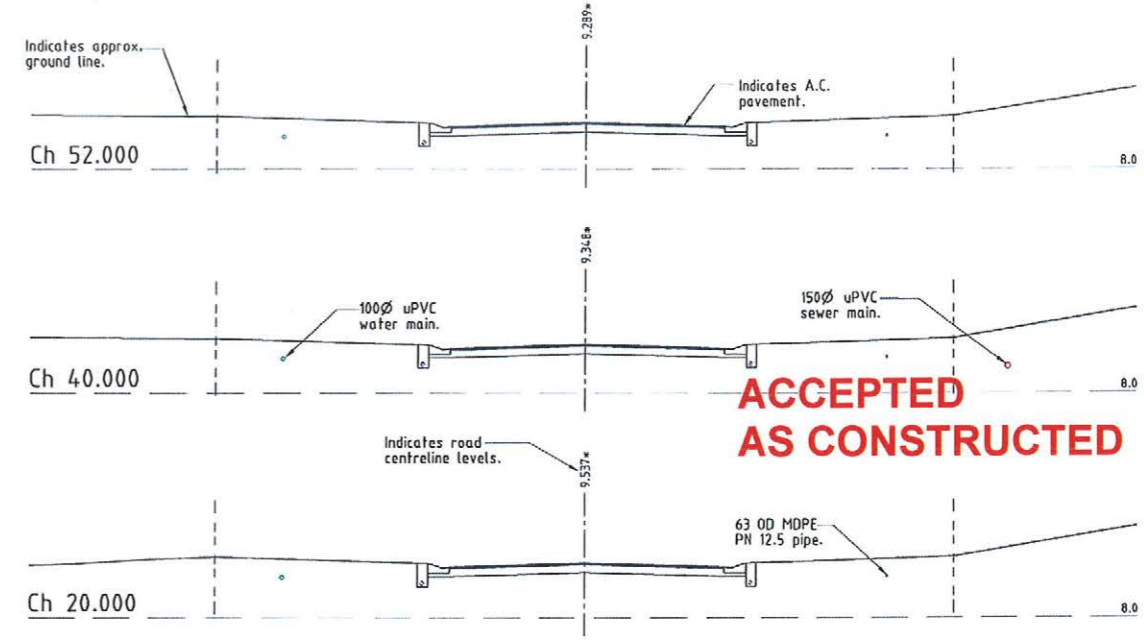


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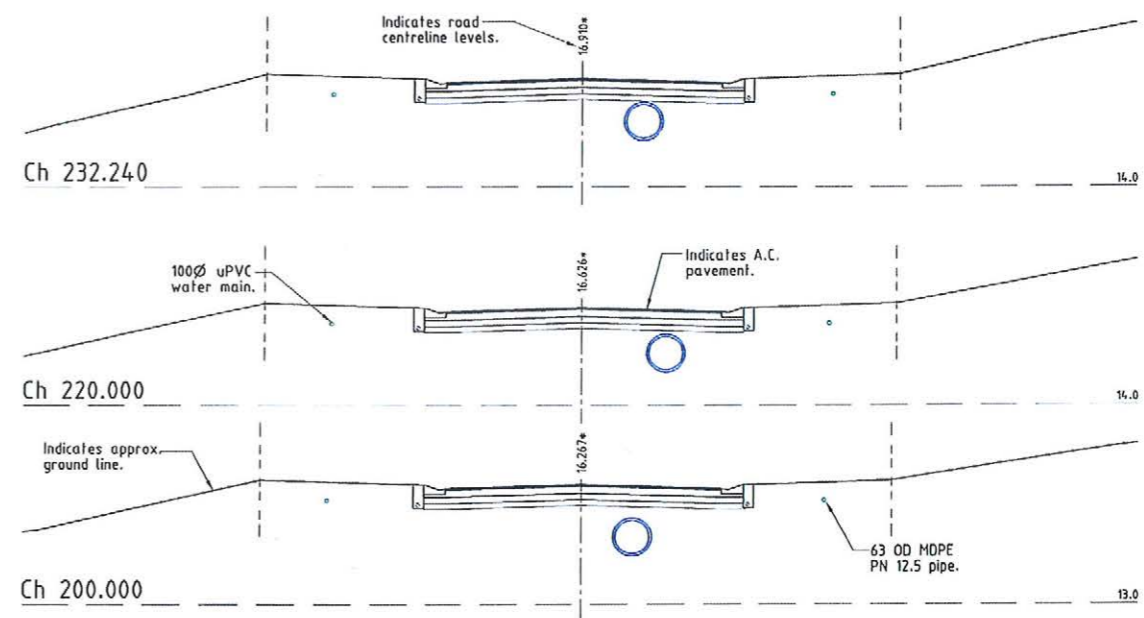
B	AMENDED TO AS CONSTRUCTED.	11/12/2012
A	ISSUED FOR CONSTRUCTION.	28/05/2012
P1	PRELIMINARY - NOT FOR CONSTRUCTION - ISSUED FOR OPERATIONAL WORKS APPROVAL.	03/11/2011
Issue	Description	Date
Drawn DC	In Association With SUNLAND GROUP LIMITED	
Date 03/11/2011	ROAD TYPICAL SECTIONS	
Checked [Signature]	STAGE 3, 20 TRADITIONAL RESIDENTIAL LOT SUBDIVISION	
Approved [Signature]	HOLBOURNE STREET BUSHLAND BEACH	
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Drawing Number SUNJ0003/09		Issue B



HOLBOURNE STREET



CRAMER STREET



HOLBOURNE STREET cont.

SUNLAND GROUP
REAL PROPERTY DESCRIPTION
 Lot 901 on SP 226447,
 Lot 902 on SP 218628,
 Lot 4 & 5 on RP 743005
 Parish of BOHLE
 County of ELPHINSTONE
 Holbourne Street - Bushland Beach

In Association with:-
ROWLANDS SURVEYS PTY LTD
 22 GORDON STREET
 GARBUTT, 4814
 Ph. (07)4775077

AS CONSTRUCTED

I Laurence John Nolan of ROWLANDS SURVEYS Pty. Ltd. hereby certify that this drawing accurately describes and records the nature and the location of the works depicted herein as they have been constructed for the purposes of the development.

Signature: Laurence John Nolan
 Director/Registered Surveyor
 Date: 11/12/10

BASE SURVEY
 Rowlands Surveys (42821/03)
 TRUNCATED COORDINATES
 E 0.000, N 0.000
 EQUIVALENT TO
 E 460000, N 7800000

LEVEL DATUM A.H.D.
 Horizontal Datum GDA' 94 Zone 55
 Refer P.M. 174438 RL. 4.820
 Bolt & washer in kerb.
 Cnr HILLOCK CR. & GLENDOWER ST.

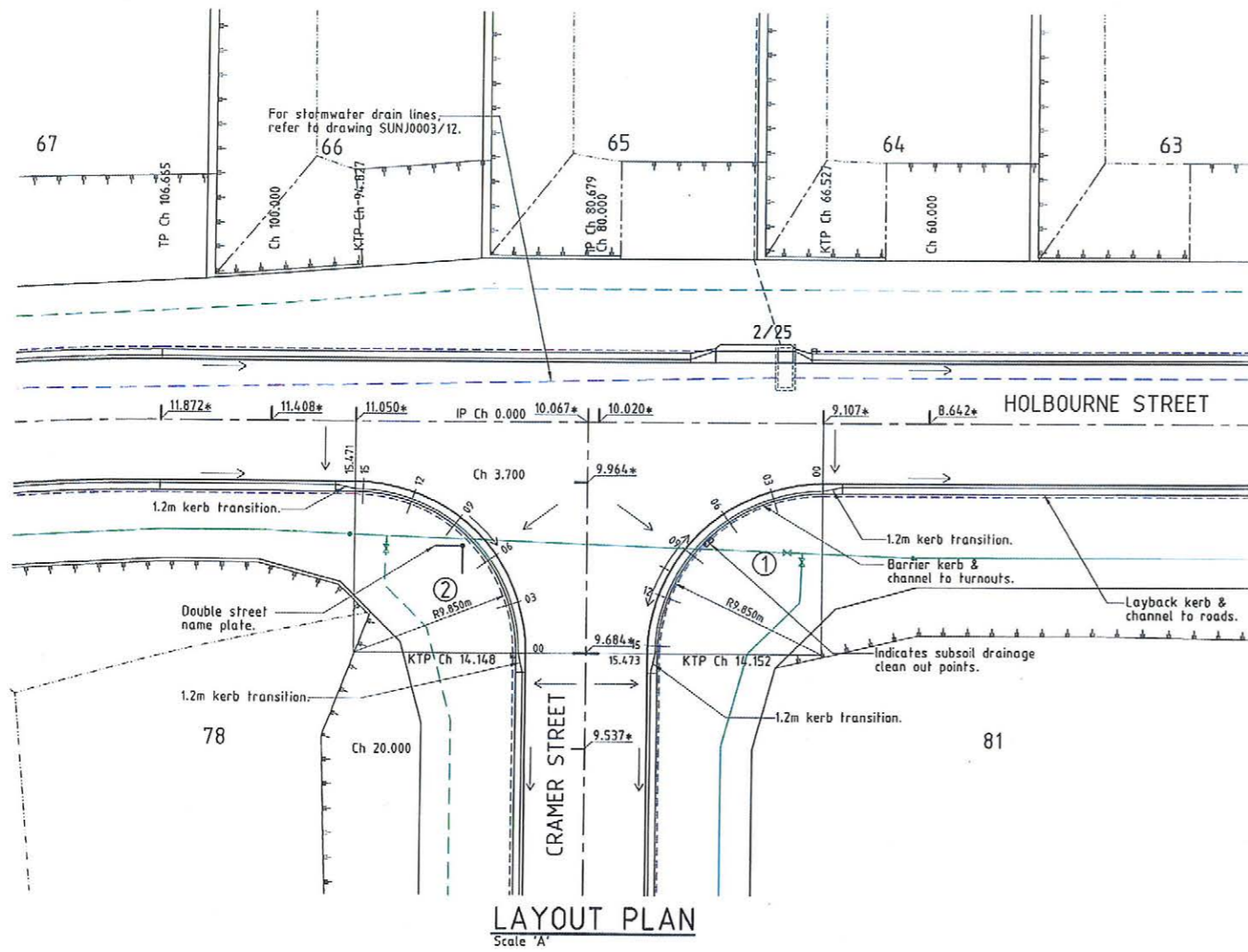


CROSS SECTIONS

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 ACN 100 817 356

B A P1	AMENDED TO AS CONSTRUCTED. ISSUED FOR CONSTRUCTION. PRELIMINARY - NOT FOR CONSTRUCTION - ISSUED FOR OPERATIONAL WORKS APPROVAL.	11/12/2012 28/05/2012 03/11/2011
Issue	Description	Date
Drawn DC Date 03/11/2011	In Association With SUNLAND GROUP LIMITED	ROAD CROSS SECTIONS
Checked R Approved M	STAGE 3, 20 TRADITIONAL RESIDENTIAL LOT SUBDIVISION HOLBOURNE STREET BUSHLAND BEACH	
Drawing Number SUNJ0003/10		Issue B



LAYOUT PLAN
Scale 'A'

LEGEND

- 12.000* - As constructed surface level.
- - Direction of fall.
- - Top of batter.
- - Toe of batter.
- - Stormwater drain line.
- - Subsoil drainage.
- - uPVC water main.
- - Poly water main.

AS CONSTRUCTED

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Laurence John Nolan
Director/Registered Surveyor
Date: 11/12/12

SUNLAND GROUP
REAL PROPERTY DESCRIPTION
Lot 901 on SP 226447,
Lot 902 on SP 218628,
Lot 4 & 5 on RP 743005
Parish of BOHLE
County of ELPINSTONE
Holbourne Street - Bushland Beach

In Association with:-
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22 GORDEN STREET
GARDUTT, 4814
Ph. (07)47755077

BASE SURVEY
Rowlands Surveys (42821/03)
TRUNCATED COORDINATES
E 0.000, N 0.000
EQUIVALENT TO
E 460000, N 7800000

LEVEL DATUM A.H.D.
Horizontal Datum GDA' 94 Zone 55
Refer P.M. 174.3B RL. 4.820
Ball & washer in kerb.
Car HILLOCK CR. & GLENDOWER ST.

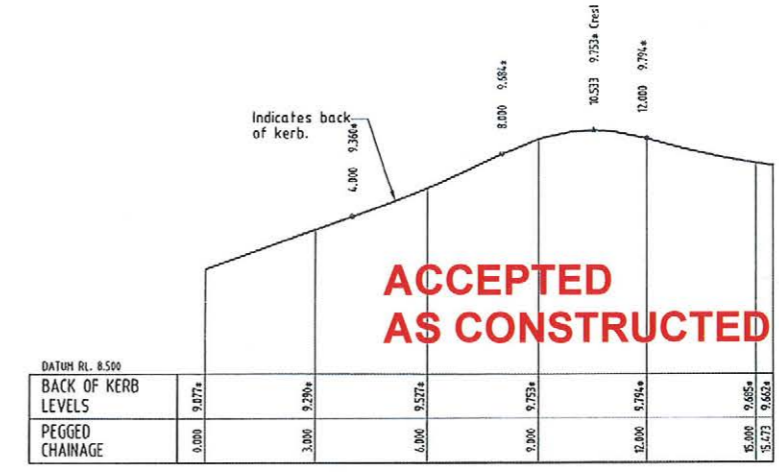
Scale 'A' 0 2 4 6 8m
Scale 'B' 0 1 2 3 4m
Scale 'C' 0 0.2 0.4 0.6m

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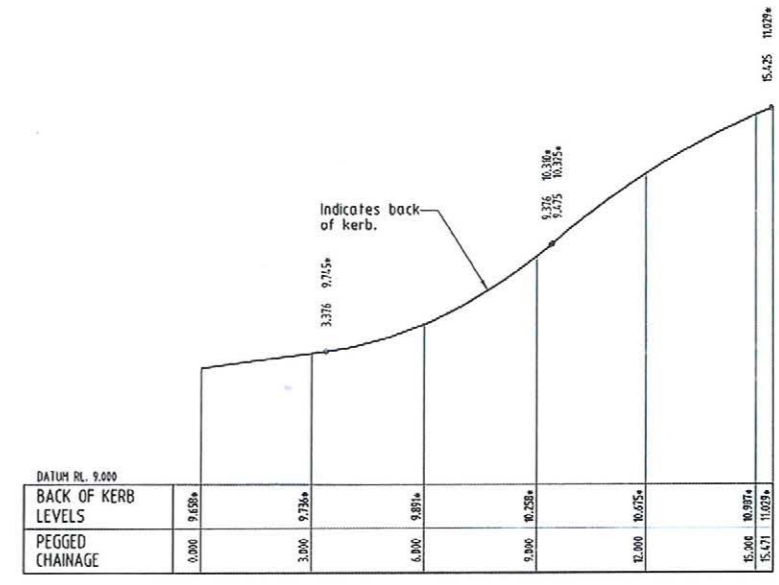
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NORTHERN CONSULTING
engineers
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Email: mail@nceng.com.au
Milton Messer & Associates Pty. Ltd.
ACN 100 817 358



TURNOUT 1
Scale 'B' - Horizontal
Scale 'C' - Vertical



TURNOUT 2
Scale 'B' - Horizontal
Scale 'C' - Vertical

B A P1	AMENDED TO AS CONSTRUCTED. ISSUED FOR CONSTRUCTION. PRELIMINARY - NOT FOR CONSTRUCTION - ISSUED FOR OPERATIONAL WORKS APPROVAL.	11/12/2012 28/05/2012 03/11/2011
Issue	Description	Date
Drawn DC Date 03/11/2011	In Association With SUNLAND GROUP LIMITED	INTERSECTION DETAILS
Checked Approved	STAGE 3, 20 TRADITIONAL RESIDENTIAL LOT SUBDIVISION HOLBOURNE STREET BUSHLAND BEACH	
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		Issue B