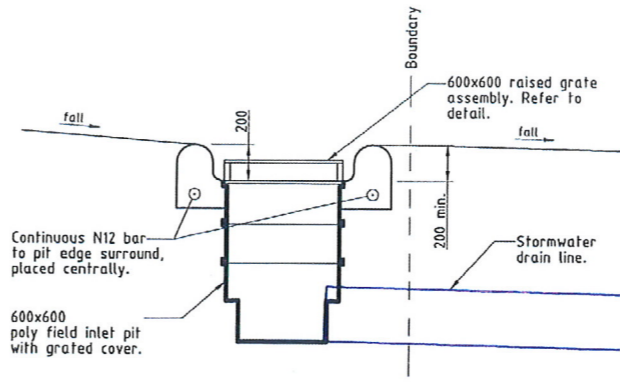
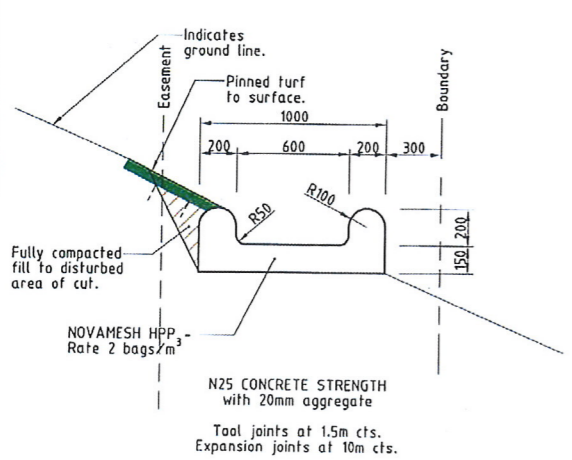
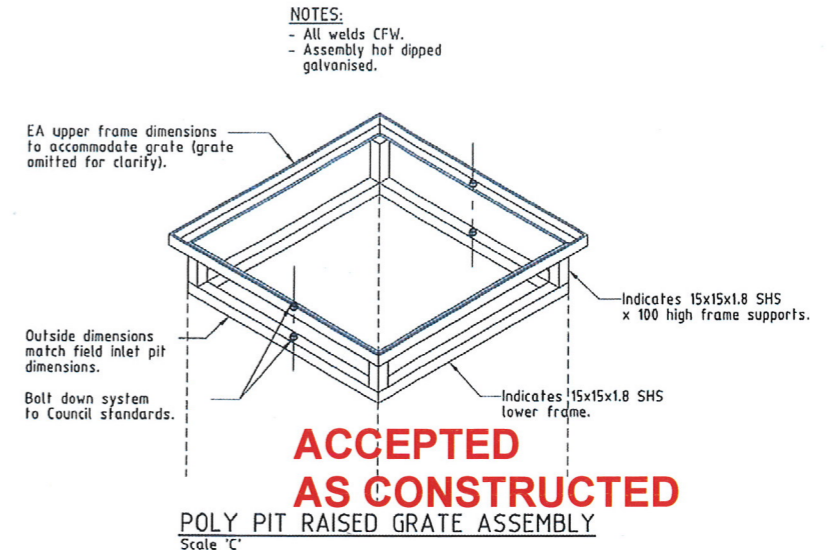


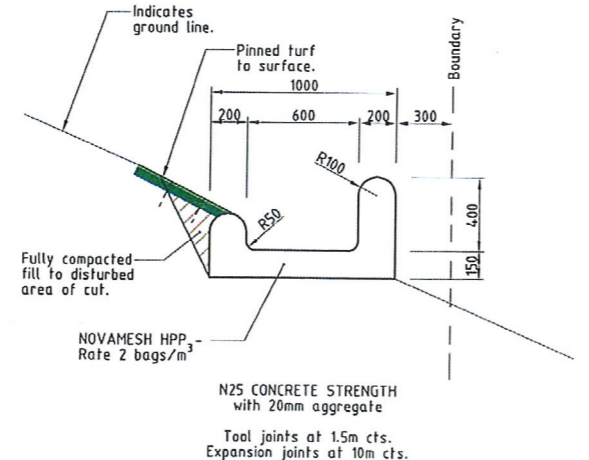
FOOTPATH SERVICE ALLOCATIONS
Scale 'A'



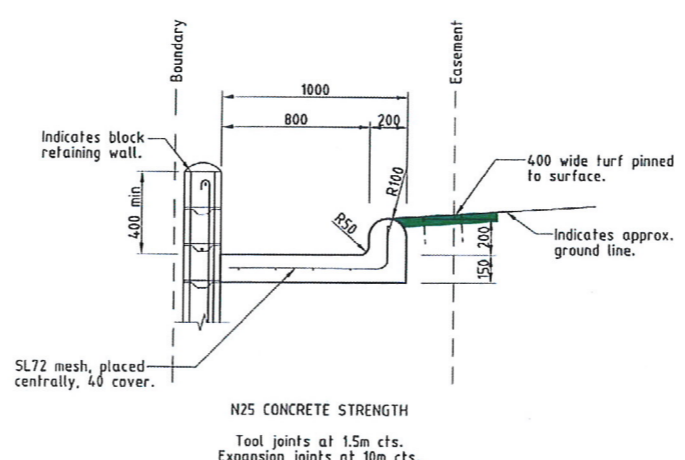
600x600 POLY FIELD INLET PIT (TYPICAL)
Scale 'B'



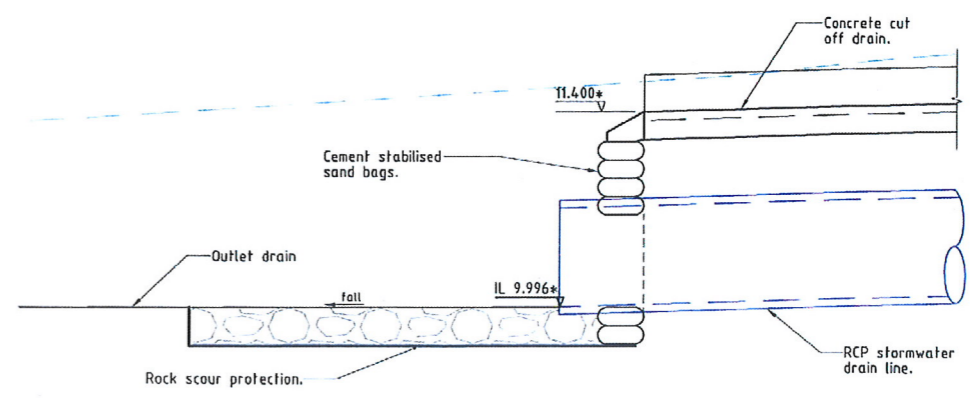
CONCRETE CUT OFF DRAIN CD-A (TYPICAL)
Scale 'B'



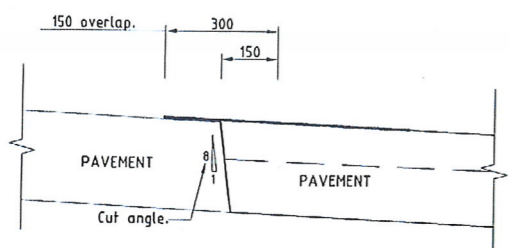
CONCRETE CUT OFF DRAIN CD-B (TYPICAL)
Scale 'B'



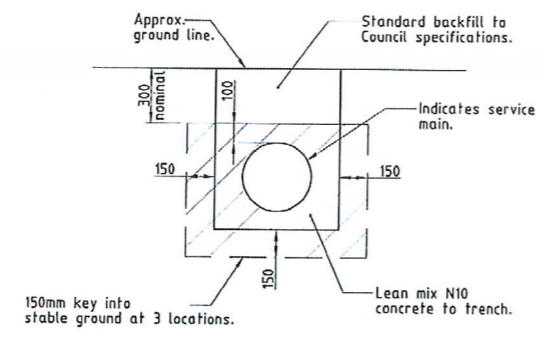
CONCRETE CUT OFF DRAIN CD-C (TYPICAL)
Scale 'B'



TEMPORARY SAND BAG HEADWALL
Scale 'B'



PAVEMENT TRIMMING DETAIL
N.T.S.



CONCRETE ENCASEMENT TO PIPE
Scale 'B'

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

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: 12-12-12

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 ELPHINSTONE
Halbourne Street - Busland Beach

In Association with:-

ROWLANDS SURVEYS PTY LTD

22 GORDEN STREET
GARbutt. 4014
Ph. (07)4775077

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.H. 17428 RL. 4.820
Bolt & washer in kerb
Cnr HILLOCK CR. & GLENDOWER ST.

Scale 'A'

Scale 'B'

Scale 'C'

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VERIFY DIMENSIONS ON SITE BEFORE CONSTRUCTION.

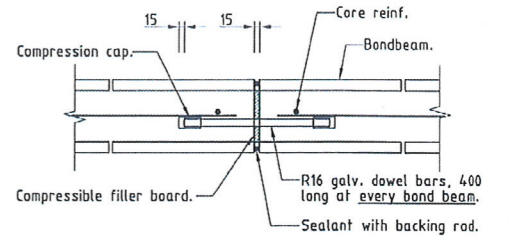
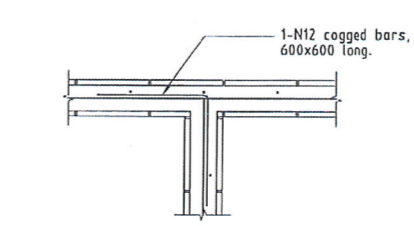
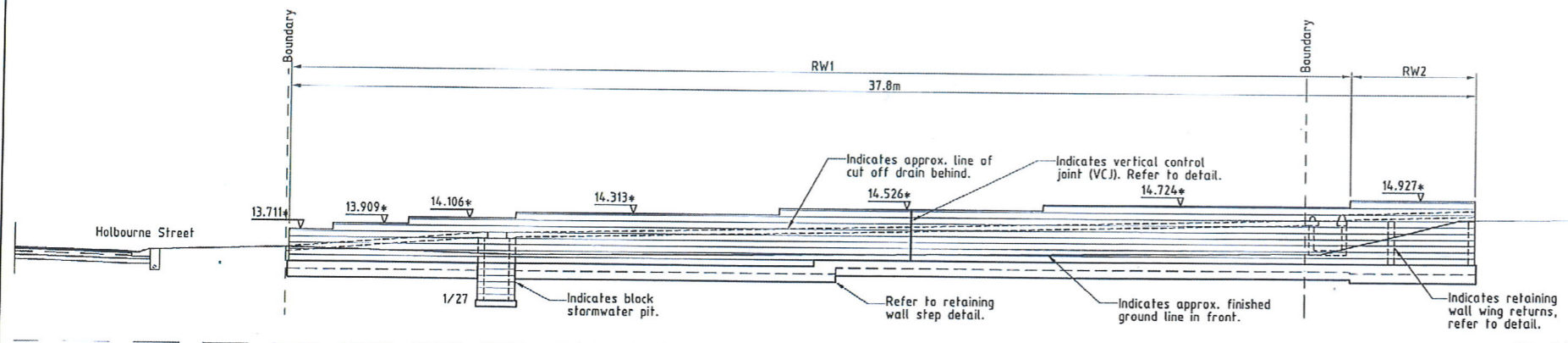
* - Indicates as constructed information.

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

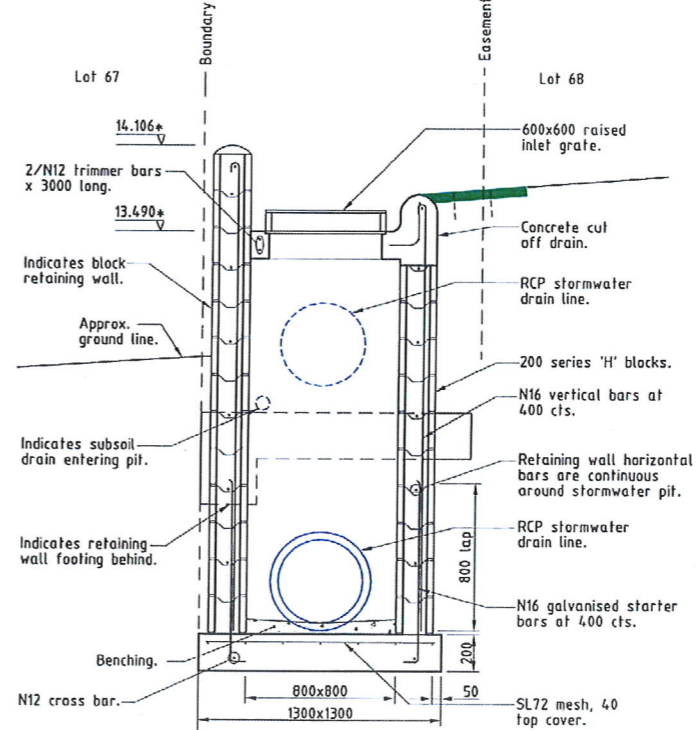
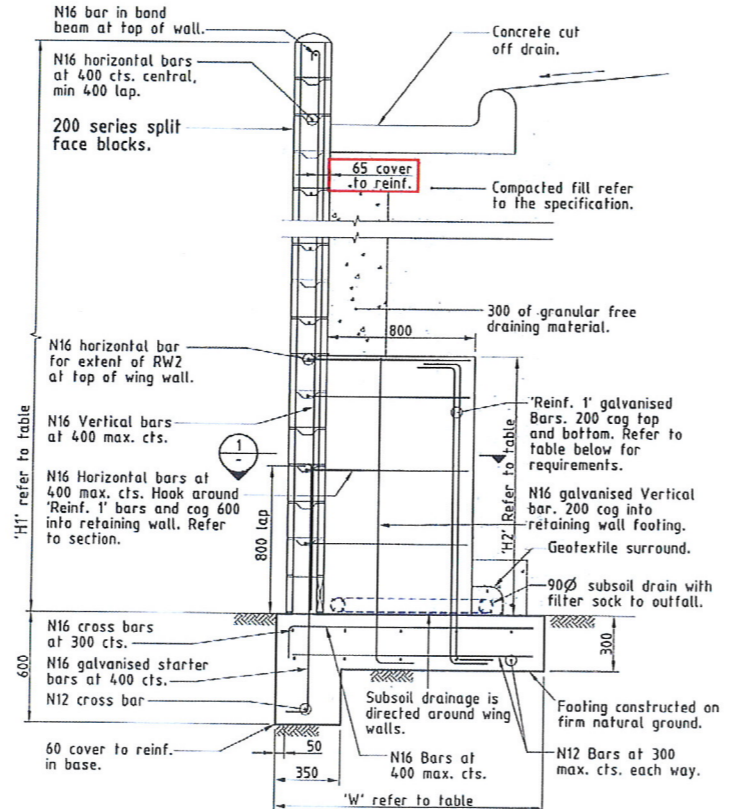
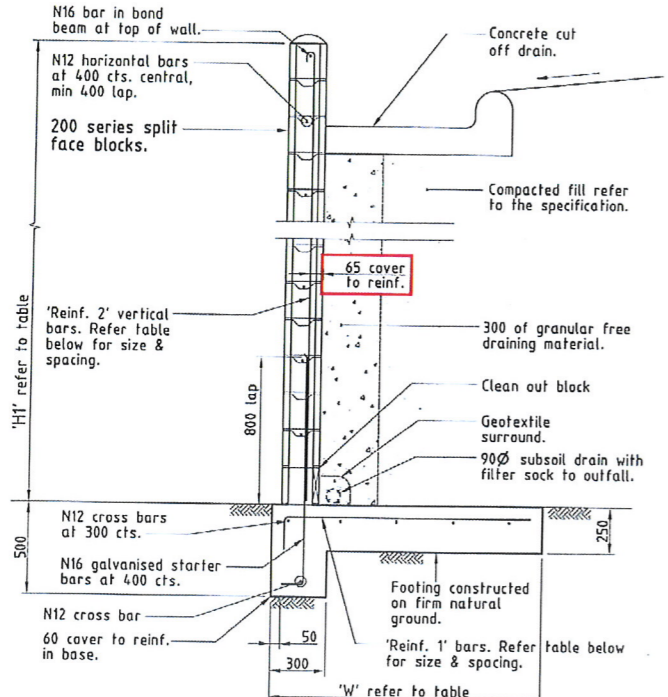
NORTHERN CONSULTING
engineers

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

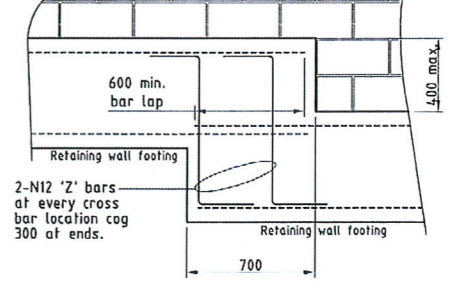
C	AMENDED TO AS CONSTRUCTED.	11/12/2012
B	TEMPORARY SAND BAG HEADWALL DETAIL AMENDED.	30/07/2012
A	ISSUED FOR CONSTRUCTION.	28/05/2012
P1	PRELIMINARY - NOT FOR CONSTRUCTION - ISSUED FOR OPERATIONAL WORKS APPROVAL.	03/11/2011
Issue	Description	Date
Drawn	In Association With	
KR	SUNLAND GROUP LIMITED	
Date		
03/11/2011		
Checked	STAGE 3, 20 TRADITIONAL	
12	RESIDENTIAL LOT SUBDIVISION	
Approved	HOLBOURNE STREET	
	BUSHLAND BEACH	
COPYRIGHT ©		
CONSTRUCTION DETAILS		
Drawing Number		
SUNJ0003/15		
Issue		
C		



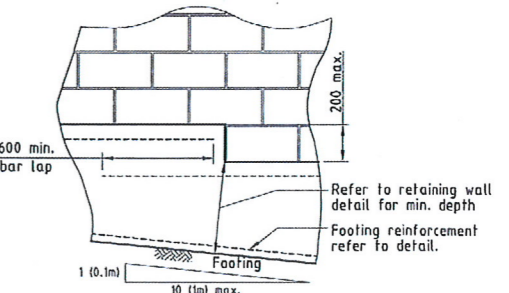
RETAINING WALL ELEVATION A
Scale 'A'



ACCEPTED AS CONSTRUCTED



RETAINING WALL STEP DETAIL
Scale 'B'



SLOPING FOOTING DETAIL
Scale 'B'

RETAINING WALL (RW1)
Scale 'B'

RETAINING WALL (RW2)
Scale 'B'

STORMWATER INLET PIT 1/27
Scale 'B'

CORE FILL MIN. 20 MPa

'H1'	'Reinf. 1'	'Reinf. 2'	'W'
600-1000	N12 at 600 cts.	N12 at 600 cts.	750
1001-1400	N12 at 400 cts.	N12 at 400 cts.	1100
1401-1800	N16 at 400 cts.	N12 at 400 cts.	1400

CORE FILL MIN. 20 MPa

'H1'	'H2'	'Reinf. 1'	'W'
1800-2400	1400	2-N20 Bars	2000
2400-2800	1800	2-N24 Bars	2200

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

AS CONSTRUCTED

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

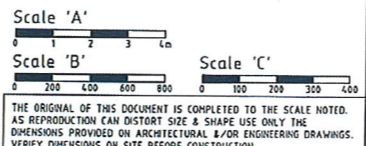
Derek Robert Copley Saw
Date: 12-12-12

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 ELPHINSTONE
Halbourne 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 4.60000, N 7800000

LEVEL DATUM A.H.D.
Horizontal Datum GDA '94 Zone 55
Refer P.M. 17443B RL. 4.820
Bolt & washer in kerb.
Cnr HILLOCK CR. & GLENDOWER ST.

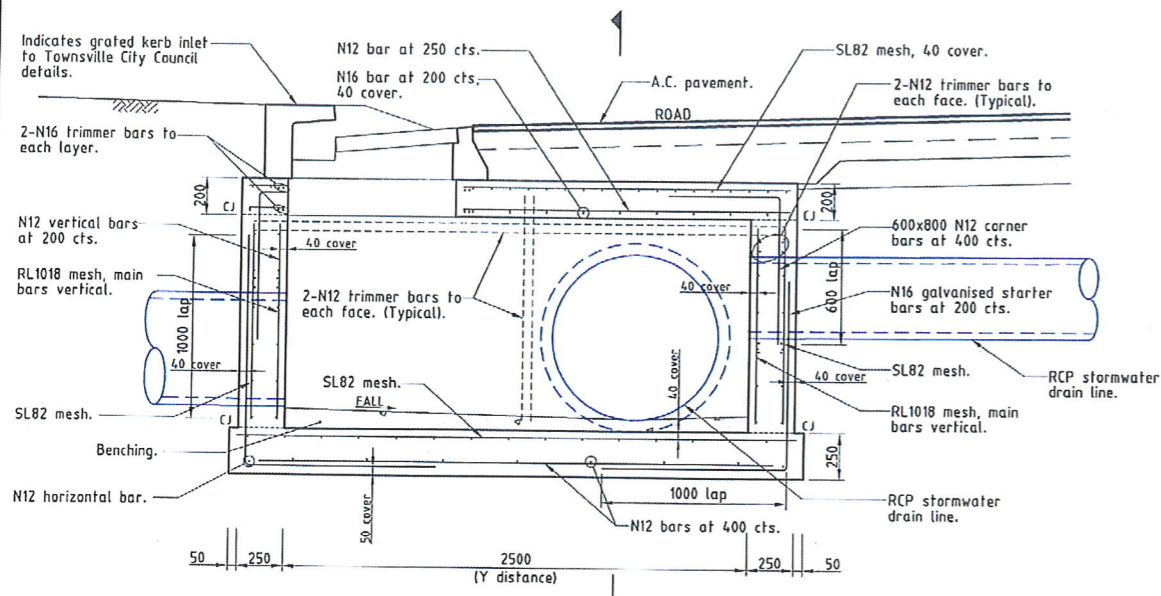


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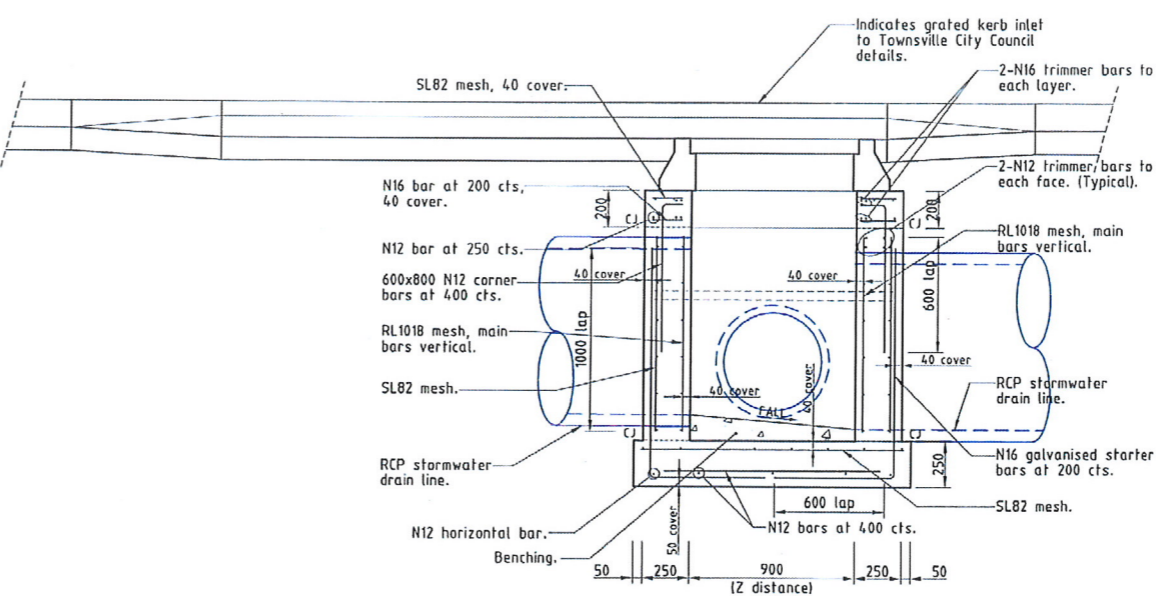
NORTHERN CONSULTING
engineers
Civil & Structural Engineers
50 Punari Street, Currajong 4812
Phone: (07) 4725 5550 Fax: (07) 4725 5850
Email: mail@nceng.com.au
Milton Messer & Associates Pty. Ltd.
ACN 100 817 350

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 CLIENT APPROVAL.	03/11/2011

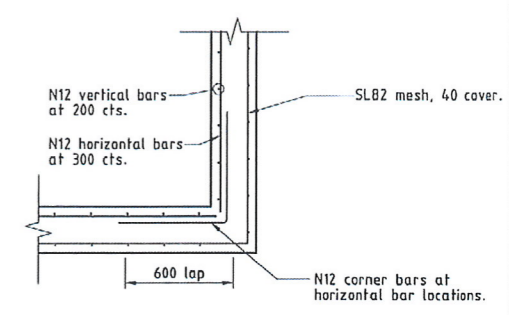
Drawn	In Association With	Block Retaining Wall Construction Details
KR	SUNLAND GROUP LIMITED	
Date	STAGE 3, 20 TRADITIONAL RESIDENTIAL LOT SUBDIVISION	
03/11/2011	HOLBOURNE STREET BUSHLAND BEACH	
Checked		Drawing Number
Approved		SUNJ0003/16
COPYRIGHT ©		Issue
		B



NON STANDARD CHAMBER - GRATED KERB INLET



SECTION 1 **ACCEPTED AS CONSTRUCTED**



CORNER REINFORCING DETAIL

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

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
 Halbourne Street - Bushland Beach

In Association with:-
ROWLANDS SURVEYS PTY LTD
 22 GORDON 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. 1744.38 RL. 4.820
 Bolt & washer in kerb,
 Cnr HILLOCK CR. & GLENDOWER ST.

Scale
 0 200 400 600 800

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 VERIFY DIMENSIONS ON SITE BEFORE CONSTRUCTION.

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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 Messer & Associates Pty. Ltd.
 ACN 100 817 358

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 KR	In Association With SUNLAND GROUP LIMITED	CONSTRUCTION DETAILS
Date 03/11/2011	STAGE 3, 20 TRADITIONAL RESIDENTIAL LOT SUBDIVISION HOLBOURNE STREET BUSHLAND BEACH	
Checked R		Drawing Number SUNJ0003/17
Approved M		Issue B
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