



Appointment of PCA- Notice of Intention to commence work

NOTICE TO (insert council details and address)	NOTICE TO (insert PCA details and address)
Name QUEANBEYAN CITY COUNCIL	Name BCA Certifiers Annette Owen
Address 257 CRAWFORD ST	Address 13 A Aلتree Court
QUEANBEYAN ACT	Phillip ACT 2606

SECTION A: Development details

Address
LOT 4 GOOGONG ROAD
GOOGONG NSW 2620

Description of the building work
WATER RECYCLING PLANT
Chemical Storage Area

SECTION B: Development consent (DA) Not applicable to CDC

Name of council
Director Infrastructure (NSW Government) Planning & Environment

Date DC issued
7/12/14

DC number/identifier
MP 05-0236 (modified) 9/7/14

SECTION C: Construction certificate (CC) or Complying Development certificate (CDC)

Name of certifying authority
BCA Certifiers Annette Owen

Date of approval
7/12/14

CC number/identifier
CE 140503-3

SECTION D: Details of principal contractor/owner/builder

Principal contractor Owner/ builder Licence number

Name
JOHN HOLLAND PTY

Address
LEVEL 3, 65 PIRRAMA ROAD
PYRMONT NSW 2001

Phone
02 9552 4288

Fax
02 9660 0410

Email
stere.merange@jhg.com.au

SECTION E: Compliance with conditions

I, **Annette Owen**
(Insert name of PCA)

confirm that all conditions of the above development consent that are required to be satisfied prior to the work commencing have been satisfied.

Signed by the PCA
Annette Owen

Date
7/12/14

SECTION F: Notice of commencement

The building described above is intended to commence on* (*Note: Not less than 2 business days from the date of the notice)

25/09/2014 9/12/14

SECTION G: Details of person giving notice of PCA appointment & notice to commencement of work

Name (the person having the benefit of the development consent)
STEPHEN MERANGE

Address
303/1 SYLVAN AVE,
BALGOWLAH NSW 2093

Phone
0420 395 388

Fax

Email
stere.merange@jhg.com.au

Signature
Stephen Merange

Date
22/09/2014

BCA Certifiers Australia Pty Ltd
Capital Centre Unit 3 2-6 Shea St
Phillip ACT 2606
Phone: 02 62851199 Fax: 02 62852795
Email: mail@bcacertifiers.com.au



building approvals, certification and compliance

CONSTRUCTION CERTIFICATE

CERTIFICATE NO: CC140503-3

Date of Certificate: 7 December 2014

Description of the Proposed development: **Chemical Storage Area**
Associated with Water Recycling Plant

Classification under the *Building Code of Australia:* 8

APPLICANT

Name: Mr S Merange
Address: John Holland Pty Ltd
Project Manager, Specialist Engineering
Googong WRP
PO Box 812 Queanbeyan NSW 2620

PROPERTY (The Land)

Address: Lot 4 Googong Dam Road GOOGONG

Lot/Sec/DP: lot 4 DP 1179941

DEVELOPMENT CONSENT

Development Consent Number: MP 08-0236

Date of Consent: 24/11/2011 modified 09/07/14

Consent authority: NSW Planning & Environment Director of
Infrastructure Projects as a delegate for the Minister
for Planning

CERTIFYING AUTHORITY

Name: Annette Owen

Signature: 

Accreditation No: **BPB 1771**

Accred: **Building Professionals Board**

CERTIFICATION

Annette Owen of BCA Certifiers Australia Pty Ltd certifies

That work completed in accordance with the documentation accompanying the application for this certificate (with such modifications, if any, verified by me as may be shown on that documentation) will comply with the requirements of the *Environmental Planning & Assessment Regulation 2000* as referred to in s.81A(5) of the *Environmental Planning & Assessment Act 1979*.

The documents listed below accompanied the application for this certificate.
Note: The certificate is to be endorsed upon all relevant plans and specifications.

ATTACHMENTS

(Tick as appropriate)

- Schedule of Approved Plans and Specifications
- The conditions of the certificate
- Fire Safety Schedule

SCHEDULE OF APPROVED PLANS AND SPECIFICATIONS

	Prepared By
Architectural Plans	Site Plan MWH ref no: 83500349-01-001G102 dated 11/08/14
Structural Plans	MWH ref no: 83502156-01-001-G206 12rev D, G207 B 208B 209B G300A G301 A G302 A G303 A G406D G404B M200B M201B M400B S209B S210B S300D S301D S302C S303D S304D S305B S306B S307B S308B S309AS420C dated 27/11/14 28/11/14 & 02/12/14

Inspections

The builder is to notify BCA Certifiers upon reaching each inspection stage outlined below by telephoning 62851199. **The builder is not to proceed beyond an inspection stage until written approval to proceed has been given by BCA Certifiers.**

The stages are:

- After excavation for, and prior to the placement of any footings.
- Prior to the pouring of any in-situ reinforced concrete building element.
- Prior to the covering of any stormwater drainage connections.
- After the building work has been completed and prior to any occupation certificate being issued in relation to the building.

FIRE SAFETY SCHEDULE

CLAUSE 168 EP & A REG. 2000

DA No.:	MP08-0236	CC No.:	CC140503-3		
Lot:	4	Section:		Deposited Plan:	1179941
Address:	Googong Water Recycling Plant lot 4 Googong Dam Rd Googong				
Applicant's Name:	Mr S Merange John Holland Pty Ltd				
Applicant's Address:	Googong WRP PO Box 812 Queanbeyan NSW 2620				

REQUIRED FIRE SAFETY MEASURES (PROPOSED)

CRITICAL FIRE SAFETY MEASURE (Y/N)

INTERVAL FOR SUPPLEMENTARY FIRE SAFETY STATEMENTS

MINIMUM STANDARD OF PERFORMANCE

Statutory

BCA 2014/Referenced Standards

Emergency lighting	N	12 months	BCA E4.2 & AS2293.1-2005
Exit signs	N	12 months	BCA E4.5, E4.6, E4.8 & AS2293.1-2005
Portable fire extinguishers	N	12 months	BCA E1.6 & AS2444-2001

Other

EXISTING FIRE SAFETY MEASURES

NOTES

1. REFER TO 8350034-01-001-G003 FOR CRITICAL YARD PIPING.
2. CONTOURS SHOWN ARE FOR EXISTING GROUND LEVELS.
3. DIMENSIONS ARE INDICATIVE ONLY
4. NOT USED
5. RETAINING WALL TO VARY IN HEIGHT TO MATCH EXISTING GROUND LEVEL
6. NOT USED
7. LOCATION AND HEIGHT OF VENT STACK TO BE CONFIRMED
8. GL GOVERNED BY PERMEATE PUMP AND MEMBRANE RECIRC PUMP SUCTION HYDRAULICS
9. ALL LEVELS ARE INDICATIVE ONLY
10. AREA & LOCATION LIGHTING TO BE ORIENTED AWAY FROM SURROUNDING DEVELOPMENT & LOCATED AS CLOSE TO GROUND AS POSSIBLE TO MINIMISE LIGHT POLLUTION.
11. NOT ALL AREA PROCESS UNITS HAVE BEEN SHOWN FOR CLARITY. REFER TO REFERENCE GENERAL ARRANGEMENT DRAWINGS.
12. REFER DRG 83500349-01-001-G003.
13. CRANE PADS DESIGNED FOR TADANO GT-550E 55 TON CAPACITY HYDRAULIC TRUCK CRANE.
14. ALL ROADS ARE SEALED AT STAGE AB C/W STANDARD KERB & GUTTER WITH DRAINAGE TO STORMWATER SYSTEM. AUSTRROADS TURNING CIRCLE BASED ON S ARTICULATED 19M SEMITRAILER CB3
15. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE FOLLOWING DRAWINGS: 83500349-01-001-G102 & G103 AND 83500349-01-001-G001 TO G017
16. NOT USED
17. MEMBRANE CASSETTE LAYDOWN AREA WATER RETAINING CONCRETE SLAB DRAINS TO FIRST FLUSH
18. NOT USED
19. NOT USED
20. WASTEWATER MODELLING OF ULTIMATE DEVELOPMENT INDICATE A POTENTIAL NEED FOR A TOTAL OF 2800KL OF STORAGE.
21. NOT USED.
22. EXPOSED FACE TO BE STABILISED BEHIND SHOTCRETE
23. PROVIDE LAYBACK KERB
24. LANDSCAPE WITH NATIVE SHRUBERY
25. LANDSCAPE AS LAWN
26. PROVIDE BUNDED CONCRETE SLAB DRAINING TO FIRST FLUSH TANK
27. NOT USED
28. FINISH OFF WITH CRUSHED AGGREGATE OVER COMPACTED ROADBASE
29. ALL TEMPORARY BATTERS CREATED AS PART OF STAGE AB WORKS SHALL BE STABILISED WITH STABILISATION MEASURES WITH A DESIGN LIFE OF 20 YEARS
30. FOR SITE SECURITY AND CCTV REQUIREMENTS REFER TO SPECIFICATION.
31. ACCESS TO ALL ELEVATED STRUCTURES SHALL BE RESTRICTED BY LOCKABLE SWING GATE COMPLETE WITH SIGNAGE
32. 1200x600x1200H SERVICE MAIN PROTECTION KIOSK (LV SIDE)
33. SECURITY LIGHTING TO BE PROVIDED AT AGREED LOCATIONS COMPLETE WITH INFRA RED DETECTION.
34. FOR PERSONNEL ACCESS GATES REFER DRAWING 83500349-01-001-C002

ORIGINAL SIZE A1

REV	DESCRIPTION	DATE
DA	ISSUED FOR DETAILED DESIGN REPORT	
O	ISSUED FOR TENDER	
C	DRAFT ISSUE FOR TENDER	
B	DRAFT ISSUE FOR TENDER	
A	ISSUED FOR REVIEW	

REV	DRN	CHK	APP	DATE
	AG	SC	SC	11.08.14
	TS	RV	TB	17.02.14
	PS	CS	CS	16.10.13
	PS	PC	PC	30.09.13
	PS	PC	CS	12.08.13

DESIGNED	DRAWN	CAD REVIEW	DESIGN CHECK	DESIGN REVIEW	APPROVED
Paul Smith	Alan Gilbert	John McAndrew	Ran Virdi	Stephen Chapman	

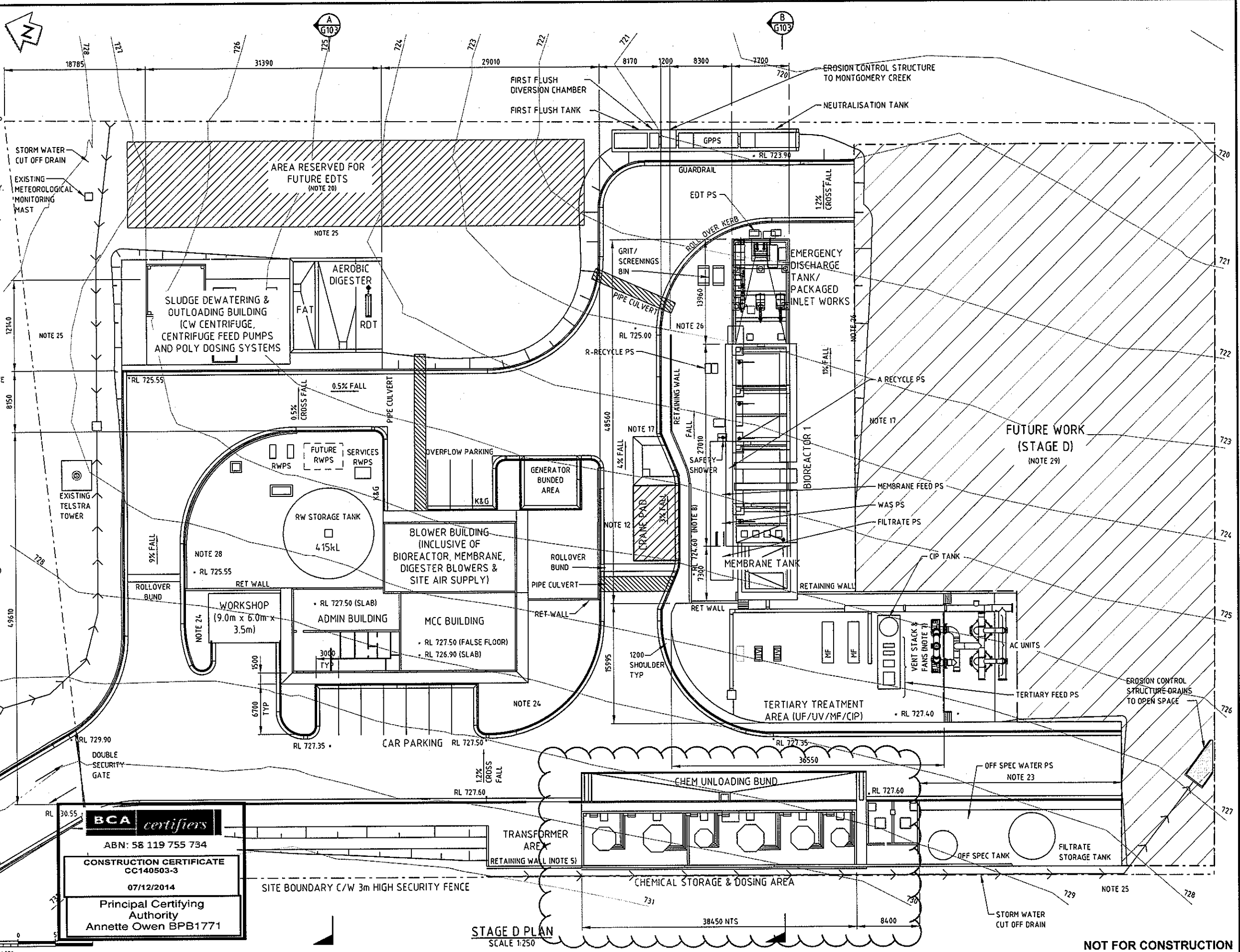
DATE	DESCRIPTION
19.02.14	CAD REVIEW
19.02.14	DESIGN CHECK
19.02.14	DESIGN REVIEW
11.08.14	APPROVED

BCA certifiers
 ABN: 58 119 755 734
CONSTRUCTION CERTIFICATE
 CC140503-3
 07/12/2014
 Principal Certifying Authority
 Annette Owen BPB1771

MWH
 GOOGONG

WATER RECYCLING PLANT
 GOOGONG TOWNSHIP
STAGE AB LAYOUT PLAN

Status Stamp
FOR TENDER
 Date Stamp
11.08.14
 Scales AS SHOWN
 Drawing No
83500349-01-001-G102 Rev
0A



STAGE D PLAN
 SCALE 1:250

NOT FOR CONSTRUCTION



REPORT ALL INCIDENTS TO THE ENVIRONMENT MANAGER

RELEVANT TOOLBOXES/TRAINING TO BE COMPLETED

1. Erosion and Sediment Control
2. Air Quality
3. Cultural Heritage
4. Noise and Vibration
5. Spill Response

Have you attended the above toolbox talks?

CONTACTS

Project Environmental Manager:

Sen Keomongkhoun—0459 809 201

Supervisor:

David Penno— 0427 055 016

Project Manager:

Steve Merange— 0420 395 388

Do not enter any area outside of the project boundary

Overarching Controls

- Place all spill kits in locations as per this SEP map
- Turn off all plant when not in use
- Segregate, recycle and minimise waste
- Keep to designated access roads and speed limits
- Work inside of approved hours
- Minimise use of plant/equipment near residents
- All plant and equipment must be clean on arrival—free of weeds and seeds
- Notify the project manager of any complaints received
- No mud to be tracked outside the site area

Flora and Fauna

- No clearing outside project boundary
- No clearing within No Go areas unless approved
- Minimise disturbance areas
- Report injured fauna to PER
- Progressively revegetate disturbed areas

Concrete Works

- Washout at designated areas only (area to be bunded and lined)

Excavation & Trenching

- Use dust suppression measures
- Repair any damaged erosion and sediment controls
- Segregate and stockpile significantly different material
- Imported material must be verified clean, weed and ASS free
- Clearly sign areas of contamination
- Notify Environment Manager of any unusual finds (odours, discoloured soil, asbestos, remains, suspected artefacts)
- No dewatering or pumping without Environment Manager approval
- No works within No Go areas

Incident Response

- Spills: Control source, contain spill, clean up, dispose of waste, Restock spill kits
- Report all incidents to supervisor

Hazardous Substances

- Place generators in bunds— refuel at designated areas only
- Store all chemicals in bunded storage
- Segregate all contaminated and regulated waste
- Collect all waste dockets/waste transport certificates and forward to Environment Manager
- Obtain approval from PER prior to bringing hazardous substances on site





Key Environmental Risks & Controls

No works or access is permitted outside the red project boundary

SURFACE AND GROUND WATER:

- Hazardous substances must be stored correctly to prevent spills
- No water to be pumped without a pumping permit

SOIL AND LAND:

- Stockpiles to be stabilised
- ERSED controls to be installed as per this SEP

FLORA AND FAUNA:

- No vegetation to be cleared without a permit
- Any fauna sightings to be reported to the Environment Manager

HERITAGE:

- Unexpected finds to be reported immediately and works to cease

AIR QUALITY:

- Dust suppression measures must be used to prevent impacting nearby residents

NOISE AND VIBRATION:

- Working hours are 7am to 6pm M-F; 8am—1pm Sat
- No works Sundays or Public Holidays
- No works outside these areas
- No idling or parking outside residential properties













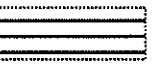







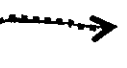
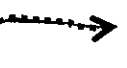
TRAFFIC:

- Parking only within designated areas
- Approved heavy vehicle routes to be used

WASTE:

- All waste to be put in bins provided

BCA certifiers
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	Project Boundary		Site Office and Amenities		Hazardous Chemical Store		Weather Station
	Sensitive Receiver		Workshop and Storage		Heritage Site		Laydown Area
	Water Course		Parking		Spill Kit		Googong Fore shores Area
			Stabilised Site Access		Sediment Basin		No Access
					Topsoil-Stockpile		
					Fill Stockpile		
					Sediment Fence		
					Flow Direction		

↑
N
Not to scale

Position & Name	Signature	Date
Project Manager Steve Merange		
Supervisor David Penno		
Construction Mgr Sarah McNish		
Environment Mgr Sen Keomongkhoun		

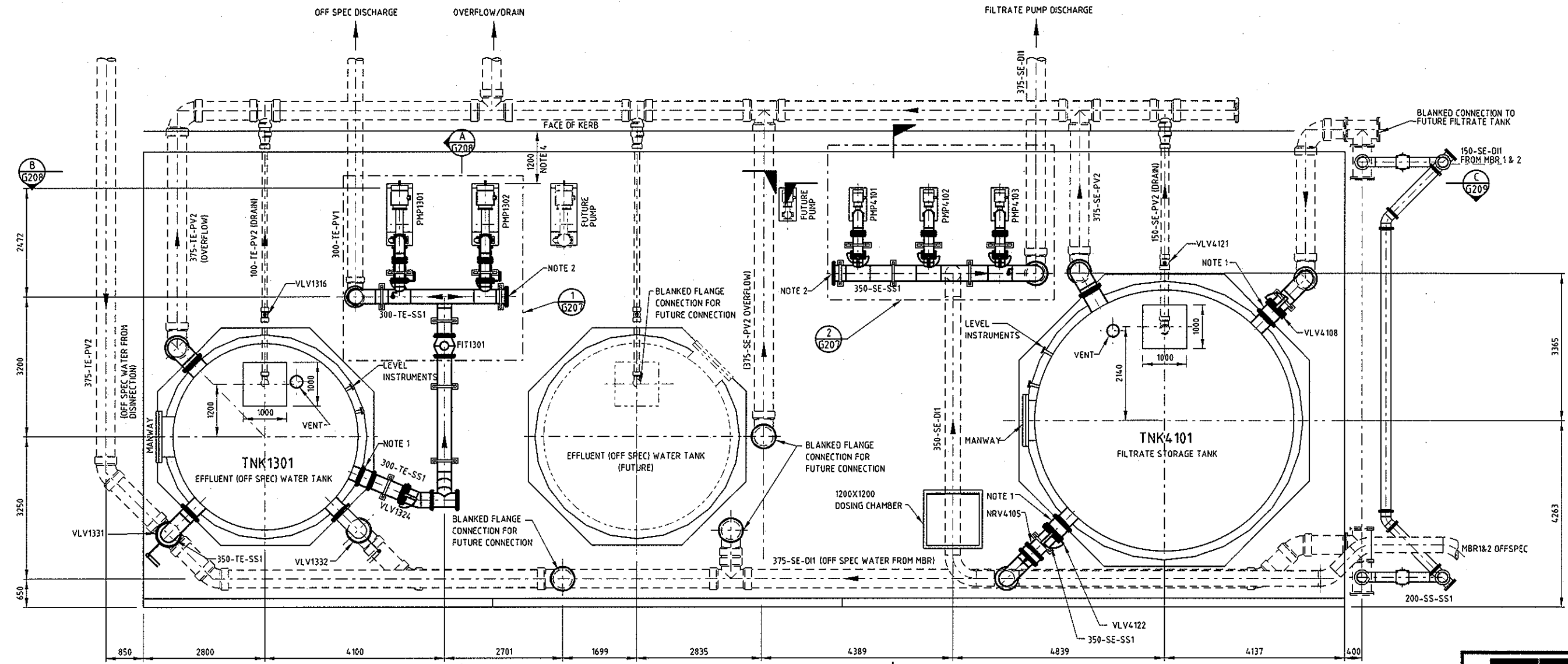


NOTES:

- 1. NEOPRENE BELLOWS RATED PN10 COMPLETE WITH TIE RODS.
- 2. CONNECTION FOR FUTURE PUMP FOR ULTIMATE FLOWS.
- 3. DOSING POINT CHAMBER WITH SECONDARY CONTAINMENT LEAK DETECTION ARRANGEMENT REFER 83502156-01-001-G305.
- 4. DISTANCE FROM PUMP PLINTH TO FACE OF KERB.

ORIGINAL SIZE A1

DO NOT SCALE - IF IN DOUBT, ASK



PLAN SCALE 1:50

BCA certifiers
 ABN: 58 119 155 154
CONSTRUCTION CERTIFICATE
 CC140503-3
 07/12/2014
 Principal Certifying Authority
 Annette Owen BPB1771

REFERENCE DRAWINGS:

- 83502156-01-001-G001 COVER SHEET & DRAWING INDEX
- 83502156-01-001-G207 PLAN SHEET 2
- 83502156-01-001-G208 SECTION SHEET 1
- 83502156-01-001-G209 SECTION SHEET 2
- 83502156-01-001-P113 P&ID

NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	DRN	CHK	APP
D	IFC FOR REVIEW	27.11.14	PA	RV	SC
C	ISSUED FOR 90% REVIEW	18.11.14	PA	RV	SC
B	ISSUED FOR 90% REVIEW	27.10.14	SBC	RV	SC
A	ISSUED FOR 90% REVIEW	24.10.14	PA	RV	SC

SURVEYED	DATE
DESIGNED	Ran Viridi 22.10.14
DRAWN	Paul Arockiadass 22.10.14
CAD REVIEW	Alan Gilbert 24.10.14
DESIGN CHECK	Stephen Chapman 24.10.14
DESIGN REVIEW	Stephen Chapman 24.10.14
APPROVED	Stephen Chapman 27.11.14

Client: **GOOGONG**

MWH

GOOGONG WATER RECYCLING PLANT STAGE AB

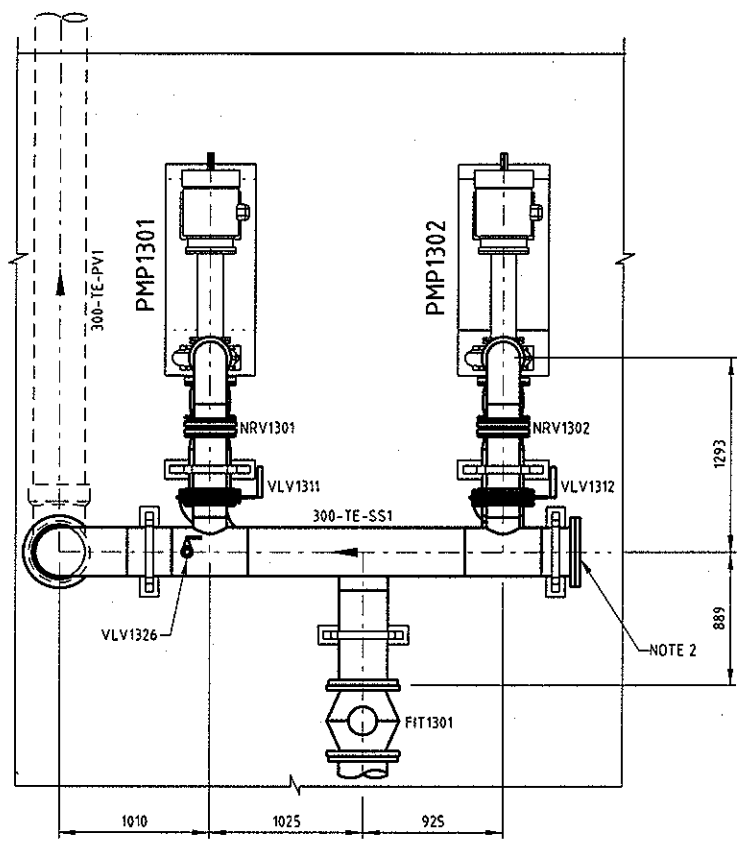
FILTRATE STORAGE & OFFSPEC WATER TANK AREA

GENERAL ARRANGEMENT - PLAN SHEET 1

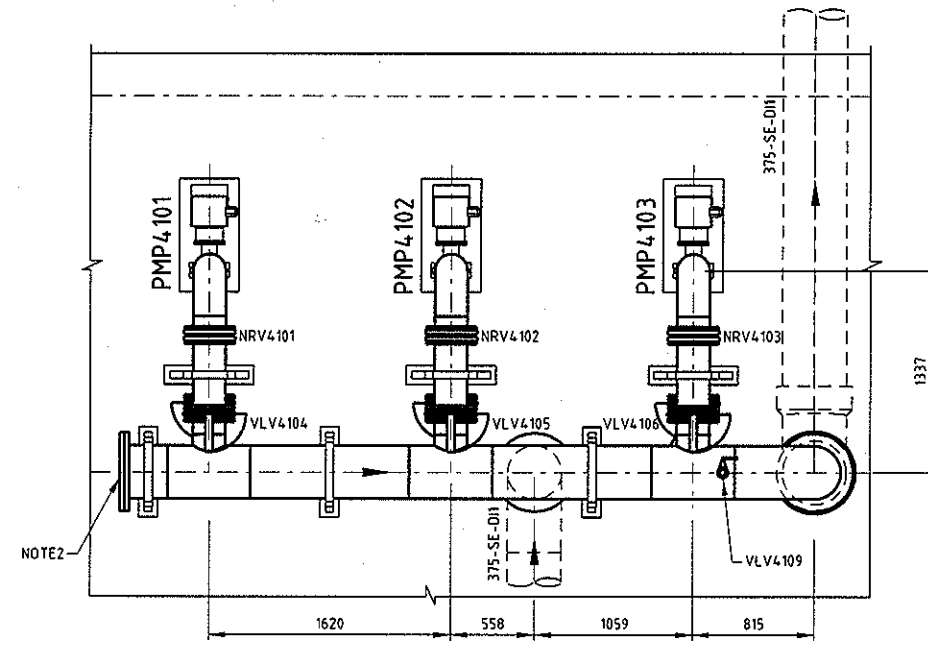
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Date Stamp	27.11.14
Scales	AS SHOWN
Drawing No	83502156-01-001-G206
Rev	D



NOTES:
 1. NEOPRENE BELLOWS RATED PN10 COMPLETE WITH TIE RODS.
 2. CONNECTION FOR FUTURE PUMP FOR ULTIMATE FLOWS.
 3. REFER TO DWG G206 FOR REFERENCE DRAWINGS.

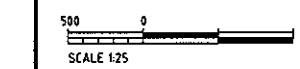


DETAIL 1
SCALE 1:25
G206



DETAIL 2
SCALE 1:25
G206

ORIGINAL SIZE A1



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 ABN: 58 119 155 134
 CONSTRUCTION CERTIFICATE
 CC140503-3
 07/12/2014
 Principal Certifying
 Authority
 Annette Owen BPB1771

PUMP LIST:
 PMP1301 - EFFLUENT TRANSFER PUMP
 PMP1302 - EFFLUENT TRANSFER PUMP
 PMP4101 - TERTIARY FILTRATION FEED PUMP
 PMP4102 - TERTIARY FILTRATION FEED PUMP
 PMP4103 - TERTIARY FILTRATION FEED PUMP

NOT FOR CONSTRUCTION

REV	DESCRIPTION	PA	RV	SC	DATE
B	IFC FOR REVIEW				27.11.14
A	ISSUED FOR 90% REVIEW				27.11.14
REVISIONS					
		DRN	CHK	APP	DATE

MWH

GOOGONG

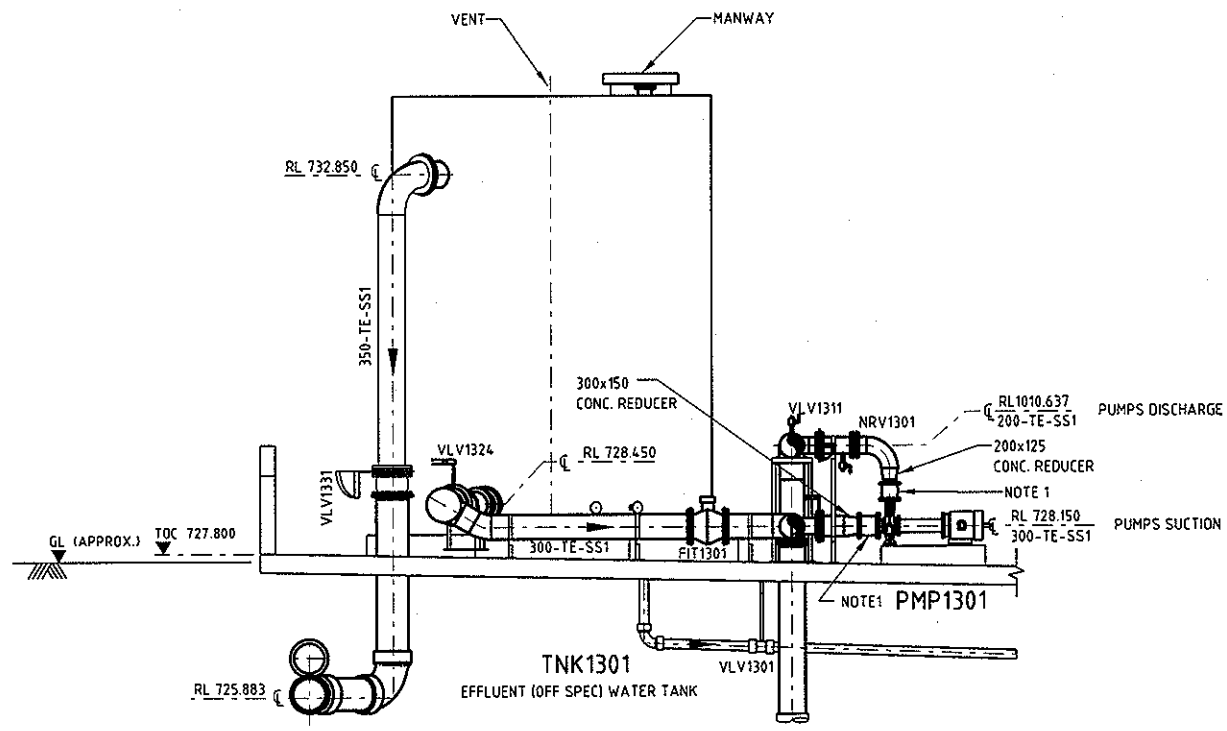
GOOGONG WATER RECYCLING PLANT STAGE AB
FILTRATE STORAGE & OFFSPEC WATER TANK AREA
GENERAL ARRANGEMENT - PLAN SHEET 2

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Date Stamp	27.11.14
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Drawing No	83502156-01-001-G207
Rev	B

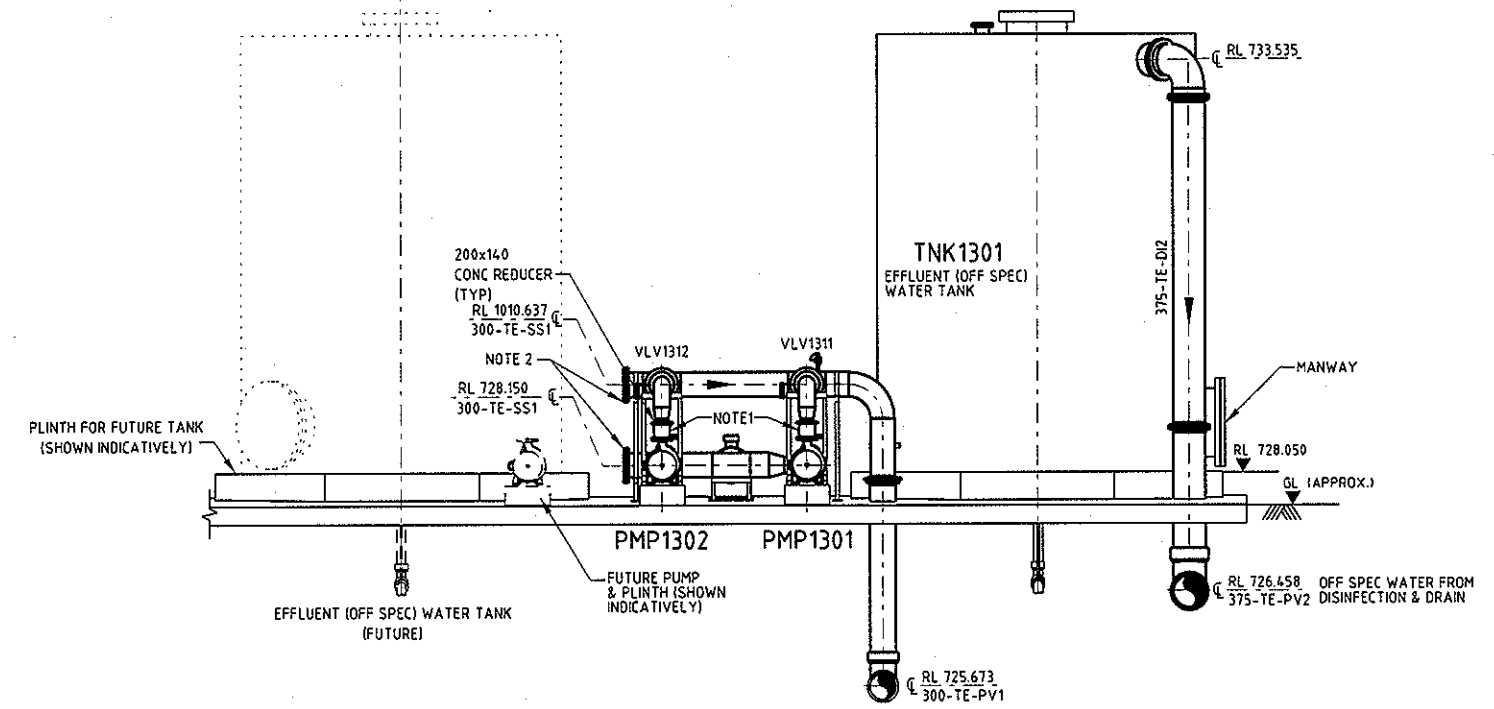
NOTES:

- 1. NEOPRENE BELLOWS RATED PN10 COMPLETE WITH TIE RODS.
- 2. CONNECTION FOR FUTURE PUMP FOR ULTIMATE FLOWS.
- 3. REFER TO DWG G206 FOR REFERENCE DRAWINGS.

ORIGINAL SIZE A1
DO NOT SCALE - IF IN DOUBT, ASK



SECTION **A**
SCALE 1:50
G206



SECTION **B**
SCALE 1:50
G206

BCA certifiers
ABN: 58 119 155 134
CONSTRUCTION CERTIFICATE CC140503-3
07/12/2014
Principal Certifying Authority Annette Owen BPB1771



NOT FOR CONSTRUCTION

REV	DESCRIPTION	PA	RV	SC	DATE
B	IFC FOR REVIEW				27.11.14
A	ISSUED FOR 90% REVIEW				18.11.14

ACTIVITY	BY	DATE
SURVEYED		
DESIGNED	Ran Viridi	22.10.14
DRAWN	Harpreet Singh	22.10.14
CAD REVIEW	Terry Sowden	18.11.14
DESIGN CHECK	Ran Viridi	18.11.14
DESIGN REVIEW	Ran Viridi	18.11.14
APPROVED	Stephen Chapman	27.11.14



GOOGONG WATER RECYCLING PLANT STAGE AB

FILTRATE STORAGE & OFFSPEC WATER TANK AREA

GENERAL ARRANGEMENT ? SECTIONS SHEET 1

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Date Stamp	27.11.14
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REV	B

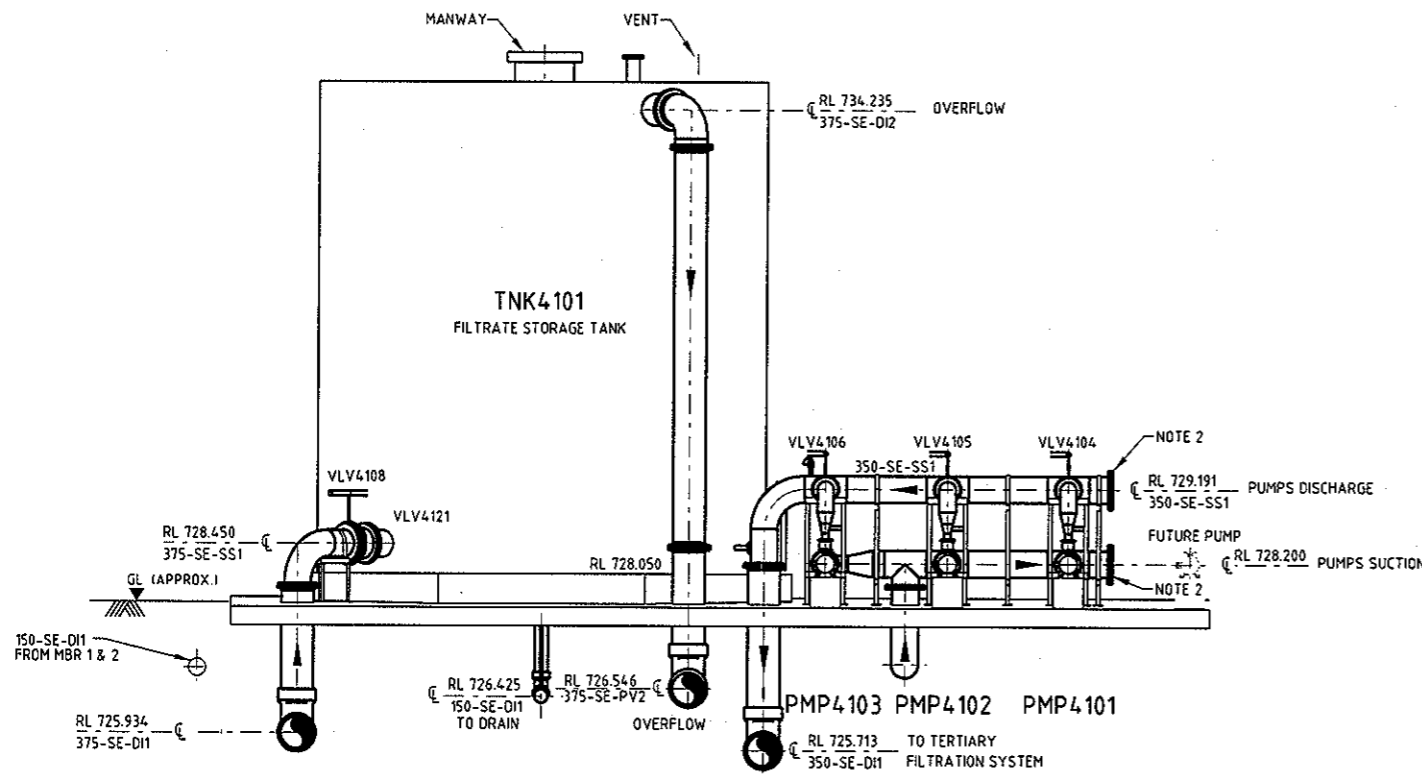
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1. NEOPRENE BELLOWS RATED PN10 COMPLETE WITH TIE RODS.
2. CONNECTION FOR FUTURE PUMP FOR ULTIMATE FLOWS.
3. REFER TO DWG G206 FOR REFERENCE DRAWINGS.

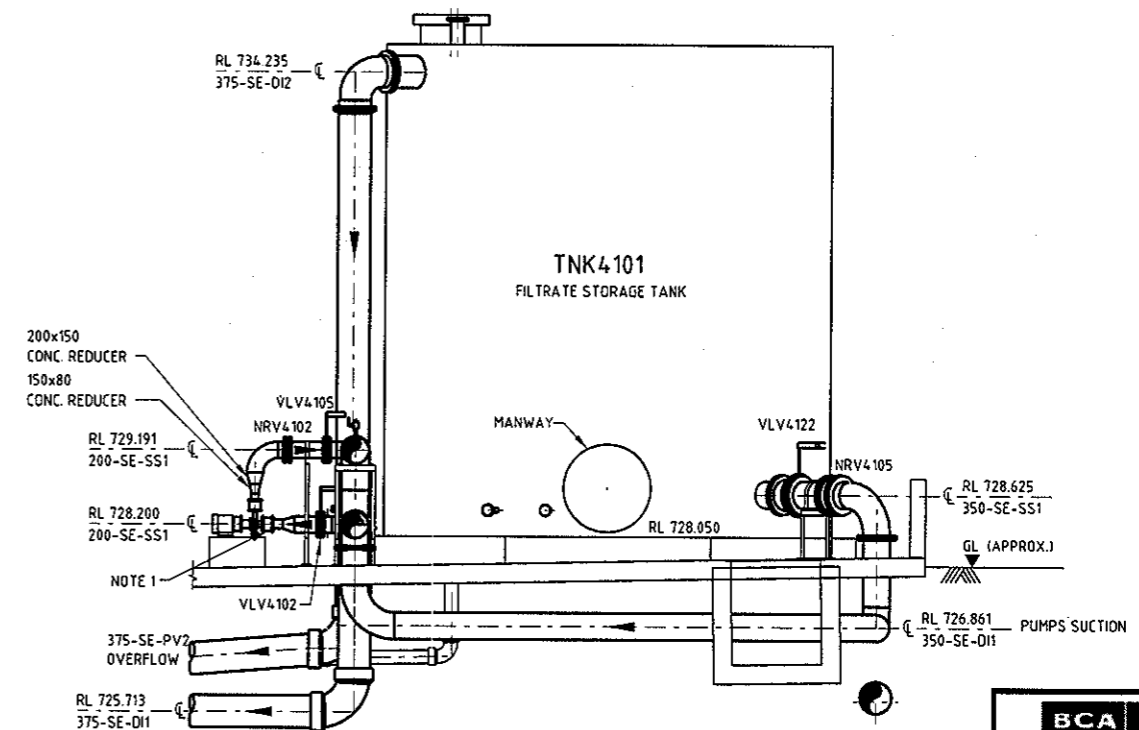
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ORIGINAL SIZE A1

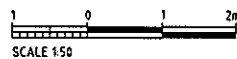


SECTION C
SCALE 1:50



SECTION D
SCALE 1:50

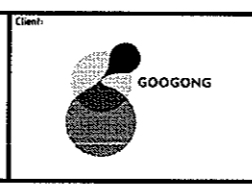
BCA certifiers
ABN: 58 119 755 134
CONSTRUCTION CERTIFICATE CC140503-3
07/12/2014
Principal Certifying Authority Annette Owen BPB1771



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REV	DESCRIPTION	PA	RV	SC	DATE
B	IFC FOR REVIEW				27.11.14
A	ISSUED FOR 90% REVIEW				18.11.14
REVISIONS					
		DRN	CHK	APP	DATE

STATUS	BY	DATE
SURVEYED	Ran Viridi	22.10.14
DESIGNED	Ran Viridi	22.10.14
DRAWN	Harpreet Singh	22.10.14
CAD REVIEW	Terry Sowden	18.11.14
DESIGN CHECK	Ran Viridi	18.11.14
DESIGN REVIEW	Ran Viridi	18.11.14
APPROVED	Stephen Chapman	27.11.14
PROF REGISTRATION:		



GOOGONG WATER RECYCLING PLANT STAGE AB

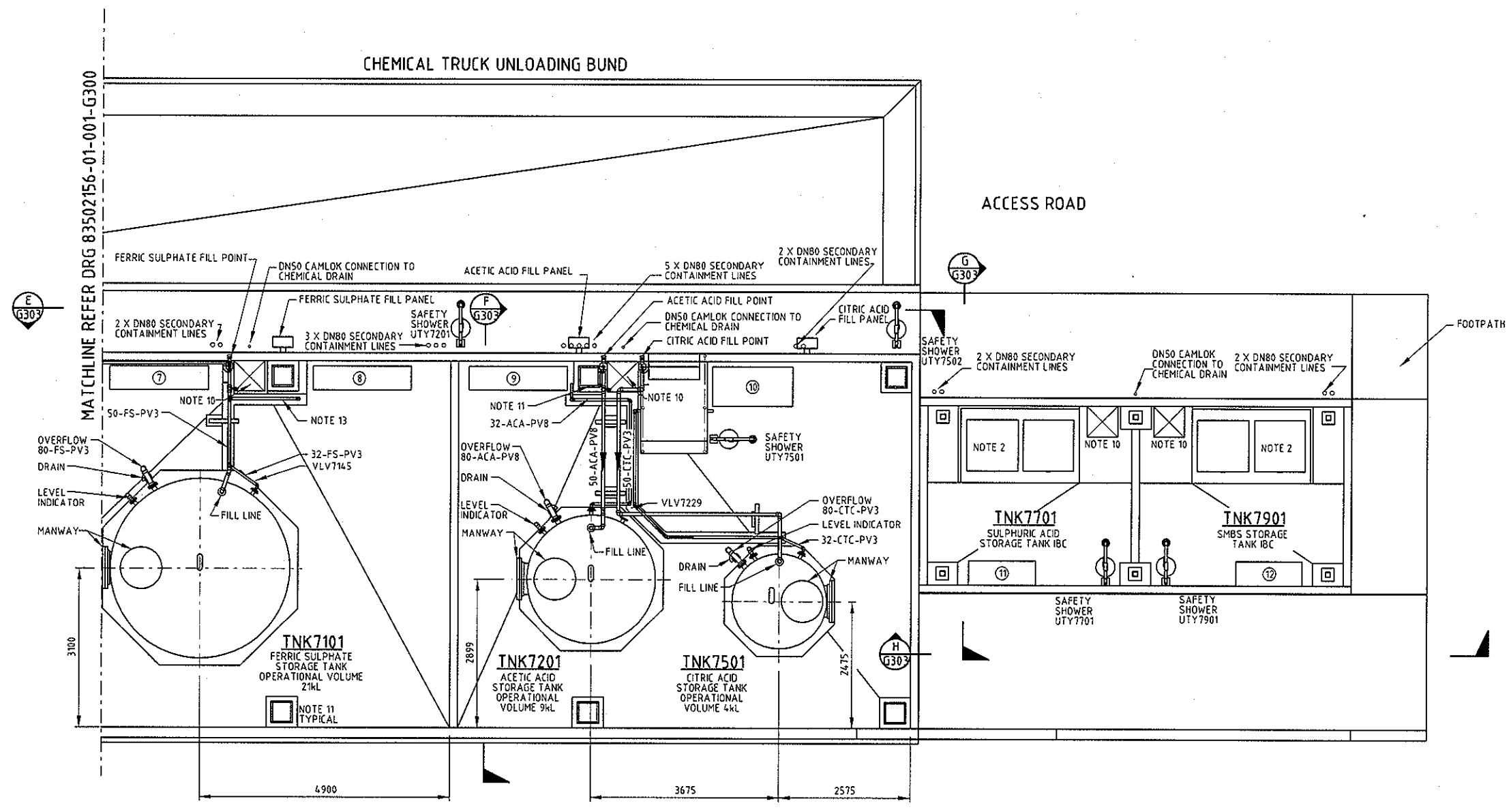
FILTRATE STORAGE & OFFSPEC WATER TANK AREA
GENERAL ARRANGEMENT - SECTIONS SHEET 2

Status Stamp	FOR REVIEW
Date Stamp	27.11.14
Scales	1:50
Drawing No	83502156-01-001-G209
Rev	B



NOTES:

1. FOR NOTES AND REFERENCE DRAWINGS REFER TO DRG 83502156-01-001-G300.



PLAN
SCALE 1:50



BCA certifiers
 ABN: 58 119 755 734
 CONSTRUCTION CERTIFICATE
 CC140503-3
 07/12/2014
 Principal Certifying
 Authority
 Annette Owen BPB1771

NOT FOR CONSTRUCTION

REV	DESCRIPTION	AK	RV	SC	DATE
A	IFC FOR REVIEW				28.11.2014
	REVISIONS	AK	RV	SC	DATE
		DRN	CHK	APP	DATE

SURVEYED	John McAndrew	28.11.14
DESIGNED	Arash Keshavarzian	28.11.14
DRAWN	David White	28.11.14
CAD REVIEW	Ran Virdi	28.11.14
DESIGN CHECK	Stephen Chapman	28.11.14
DESIGN REVIEW	Stephen Chapman	28.11.14
APPROVED	Stephen Chapman	28.11.14
PROF REGISTRATION:		



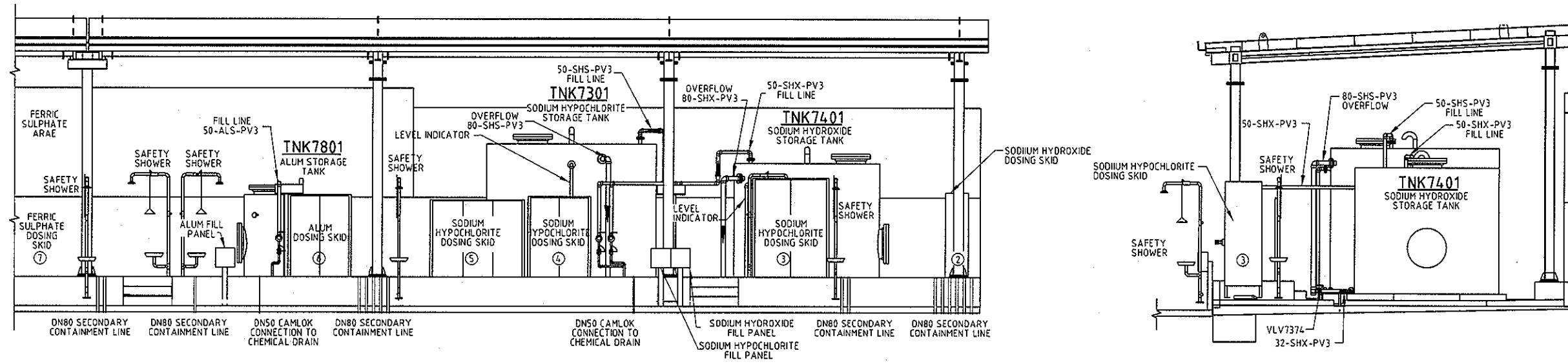
GOOGONG WATER RECYCLING PLANT STAGE AB

**CHEMICAL STORAGE AND UNLOADING AREA
GENERAL ARRANGEMENT - PLAN SHEET 2**

Status Stamp	FOR REVIEW
Date Stamp	28.11.14
Scale	AS SHOWN
Drawing No.	83502156-01-001-G301
Rev.	A

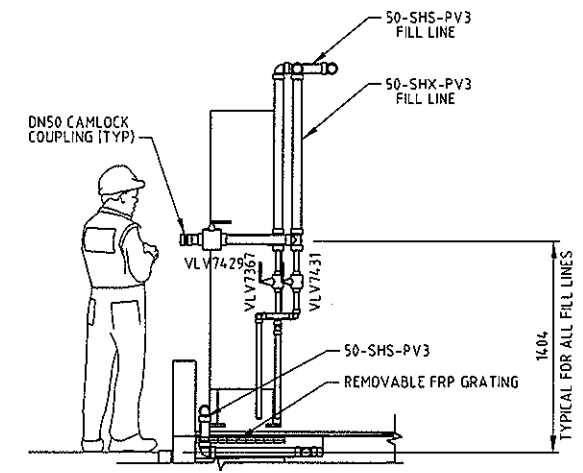
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1. FOR NOTES AND REFERENCE DRAWINGS REFER TO DRG 83502156-01-001-G300.

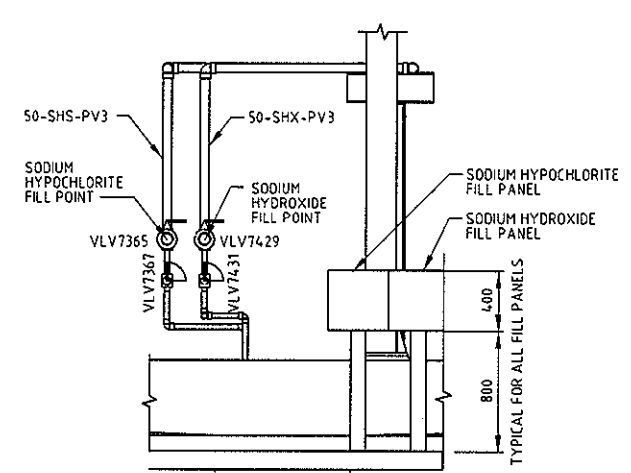


SECTION A
SCALE 1:50
G300

SECTION B
SCALE 1:50
G300

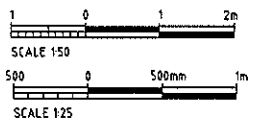


SECTION C
SCALE 1:25
G300



SECTION D
SCALE 1:25
G300

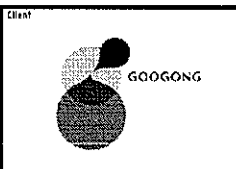
BCA certifiers
 ABN: 58 119 755 734
 CONSTRUCTION CERTIFICATE
 CC140503-3
 07/12/2014
 Principal Certifying
 Authority
 Annette Owen BPB1771



NOT FOR CONSTRUCTION

REV	DESCRIPTION	AK	RV	SC	DATE
A	IFC FOR REVIEW				28.11.2014
REVISIONS					
		AK	RV	SC	28.11.2014
		DBN	CHK	APP	DATE

STATUS	NAME	DATE
SURVEYED	John McAndrew	28.11.14
DESIGNED	Arash Keshavarzian	28.11.14
DRAWN	David White	28.11.14
CAD REVIEW	Ran Virdi	28.11.14
DESIGN CHECK	Stephen Chapman	28.11.14
DESIGN REVIEW	Stephen Chapman	28.11.14
APPROVED	Stephen Chapman	28.11.14



GOOGONG WATER RECYCLING PLANT STAGE AB
 CHEMICAL STORAGE AND UNLOADING AREA
 GENERAL ARRANGEMENT - SECTIONS SHEET 1

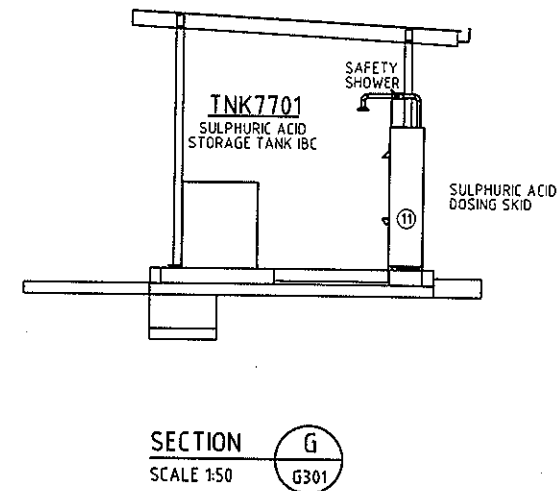
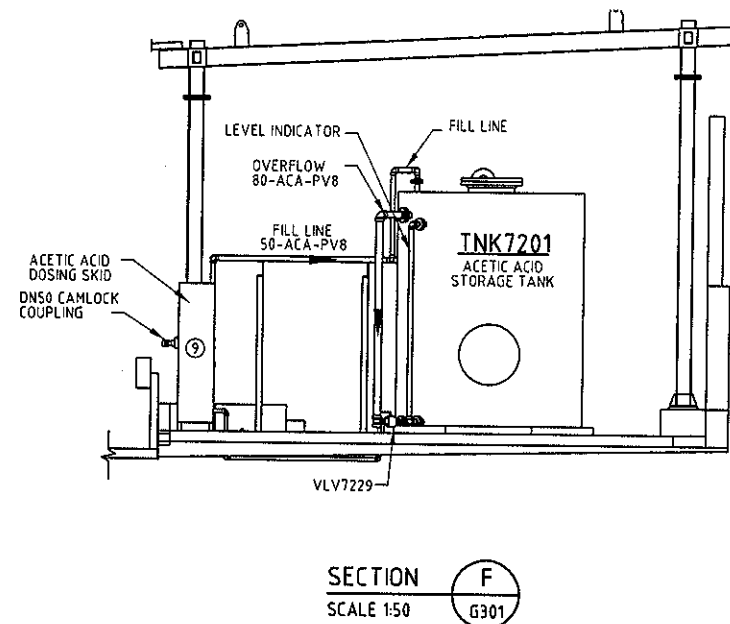
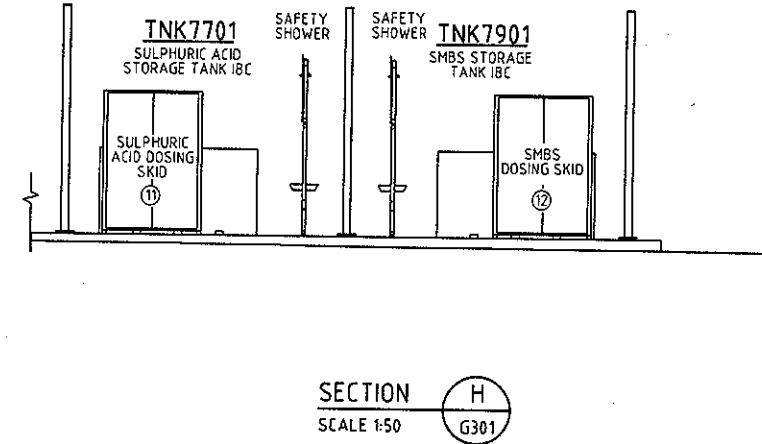
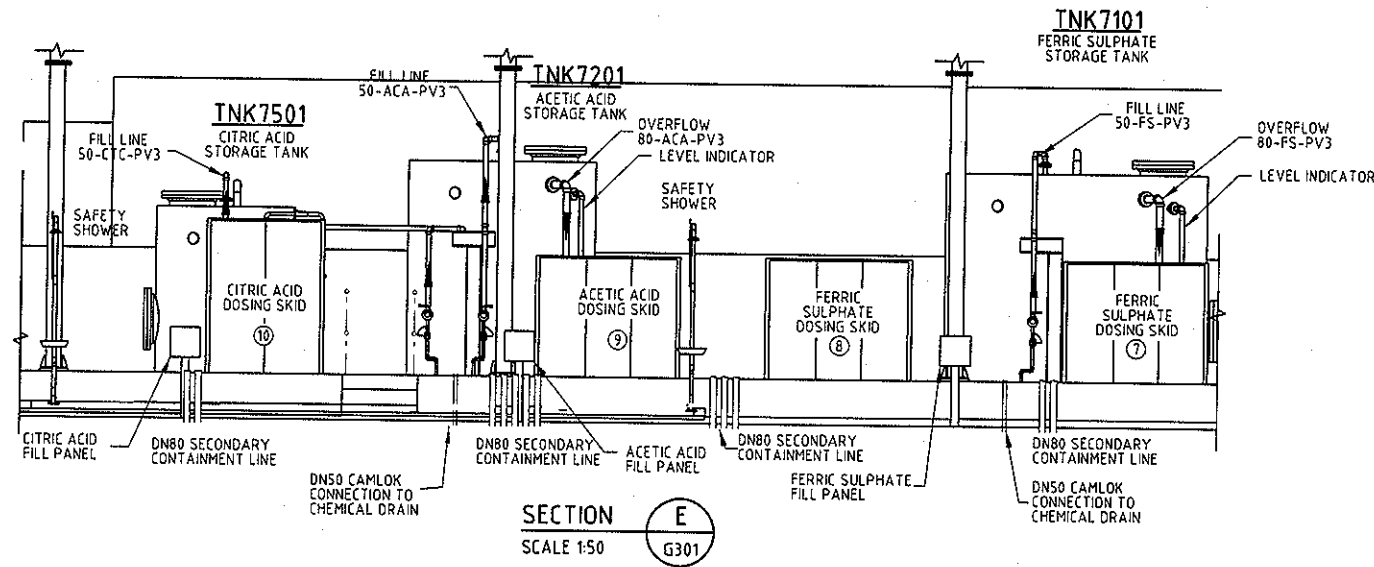
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Date Stamp	28.11.14
Scale AS SHOWN	
Drawing No.	83502156-01-001-G302
Rev.	A

ORIGINAL SIZE A1

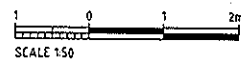
20mm DO NOT SCALE - IF IN DOUBT, ASK

NOTES:

1. FOR NOTES AND REFERENCE DRAWINGS REFER TO DRG 83502156-01-001-G300.



BCA certifiers
ABN: 58 119 755 734
CONSTRUCTION CERTIFICATE
CC140503-3
07/12/2014
Principal Certifying Authority
Annette Owen BPB1771



NOT FOR CONSTRUCTION

REV	DESCRIPTION	AK	RV	SC	DATE
A	IFC FOR REVIEW				
	REVISIONS	AK	RV	SC	DATE
		GM	CHK	APP	DATE

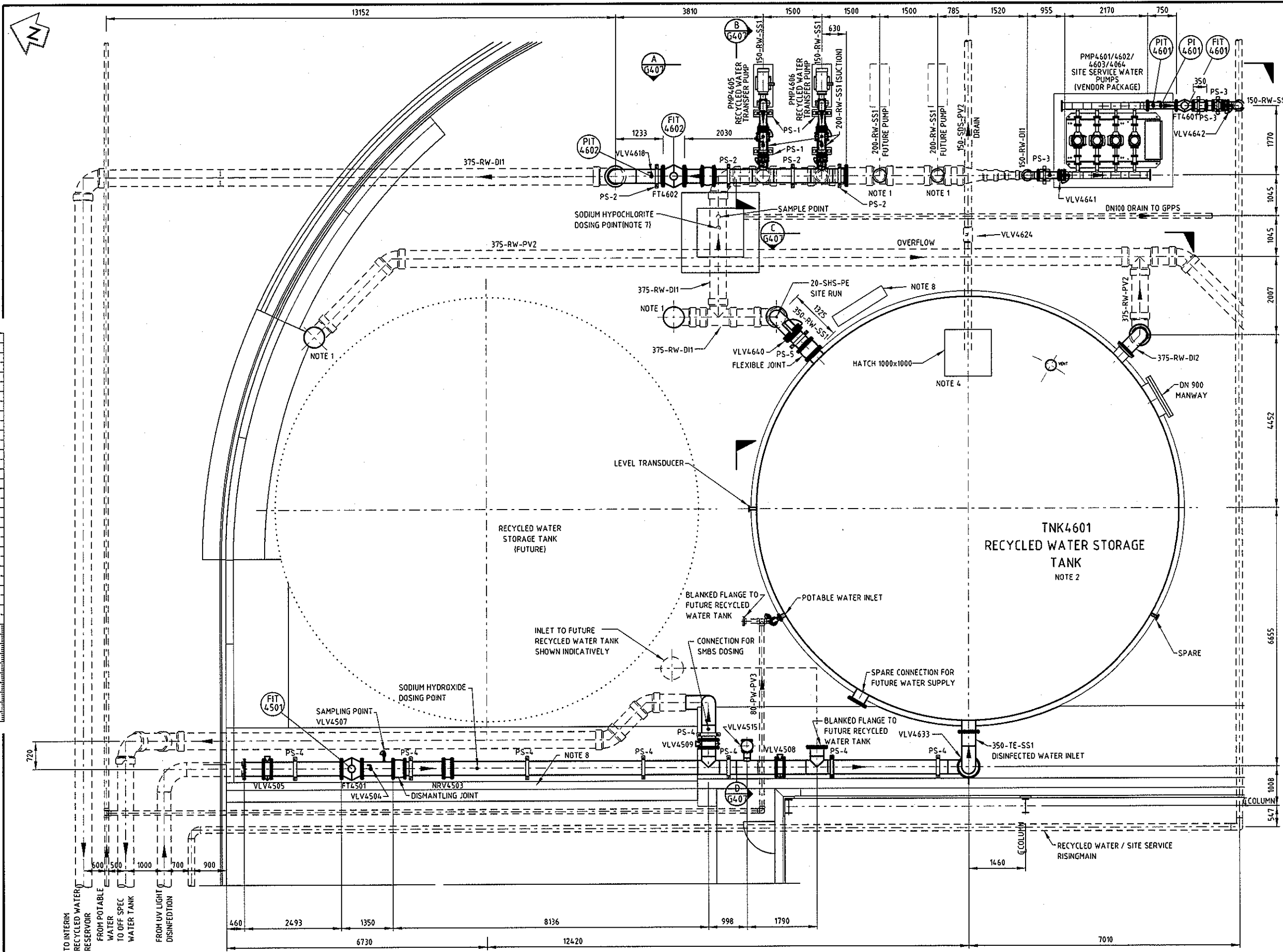
SURVEYED	DESIGNED	DRAWN	CAD REVIEW	DESIGN CHECK	DESIGN REVIEW	APPROVED
	John McAndrew	Arash Reshavarzian	David White	Ran Virdi	Stephen Chapman	Stephen Chapman



GOOGONG WATER RECYCLING PLANT STAGE AB

CHEMICAL STORAGE AND UNLOADING AREA
GENERAL ARRANGEMENT - SECTIONS SHEET 2

FOR REVIEW	
Date Stamp	28.11.14
Scale	AS SHOWN
Drawing No.	83502156-01-001-G303
Rev.	A



REFERENCE DRAWINGS:
 83502156-01-001-G001 COVER SHEET & DRAWING INDEX
 83502156-01-001-G407 SECTION
 83502156-01-001-P146 P&ID

- NOTES:**
1. BLANKED FLANGE TO FUTURE RECYCLED WATER TANK
 2. REFER TO DRAWING ORIENTATION
 3. REFER TO VENDOR DRAWING FOR TANK DETAIL
 4. 1000x1000 ACCESS PLATE
 5. ALL DCL DR WILL REQUIRE PIPEWORK
 6. FOR ALL B YARD PIPING DRAWINGS.
 7. DOSING POINT CHAMBER WITH SECONDARY CONTAINMENT LEAK DETECTION ARRANGEMENT REFER 83502156-01-001-G305 FOR TYPICAL DETAILS.
 8. LOCATION OF ANALYSER BOARD (WET RACK).
 9. ALL FLEXIBLE JOINTS SHALL BE NEOPRENE BELLOWS RATED TO PN10 WITH THE ROOS.

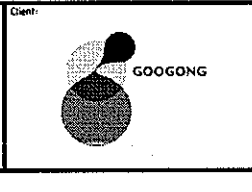
BCA certifiers ZLE
 ABN: 58 119 755 734
CONSTRUCTION CERTIFICATE
 CC140503-3
 07/12/2014
 Principal Certifying Authority
 Annette Owen BPB1771

PLAN SCALE 1:50

NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	BY	CHECKED	APP
D	IFC FOR REVIEW	27.11.14	PA	RV	SC
C	RE-ISSUED FOR 90% REVIEW	14.11.14	PD	RV	SC
B	ISSUED FOR 90% REVIEW	27.10.14	SBC	RV	SC
A	ISSUED FOR 90% REVIEW	24.10.14	PA	RV	SC
	REVISIONS		DRN	CHK	APP

SURVEYED	DESIGNED	DRAWN	CAD REVIEW	DESIGN CHECK	DESIGN REVIEW	APPROVED
	Ran Virdi	Harpreet Singh	Alan Gilbert	Stephen Chapman	Stephen Chapman	Stephen Chapman
	21.10.14	21.10.14	24.10.14	24.10.14	24.10.14	27.11.14

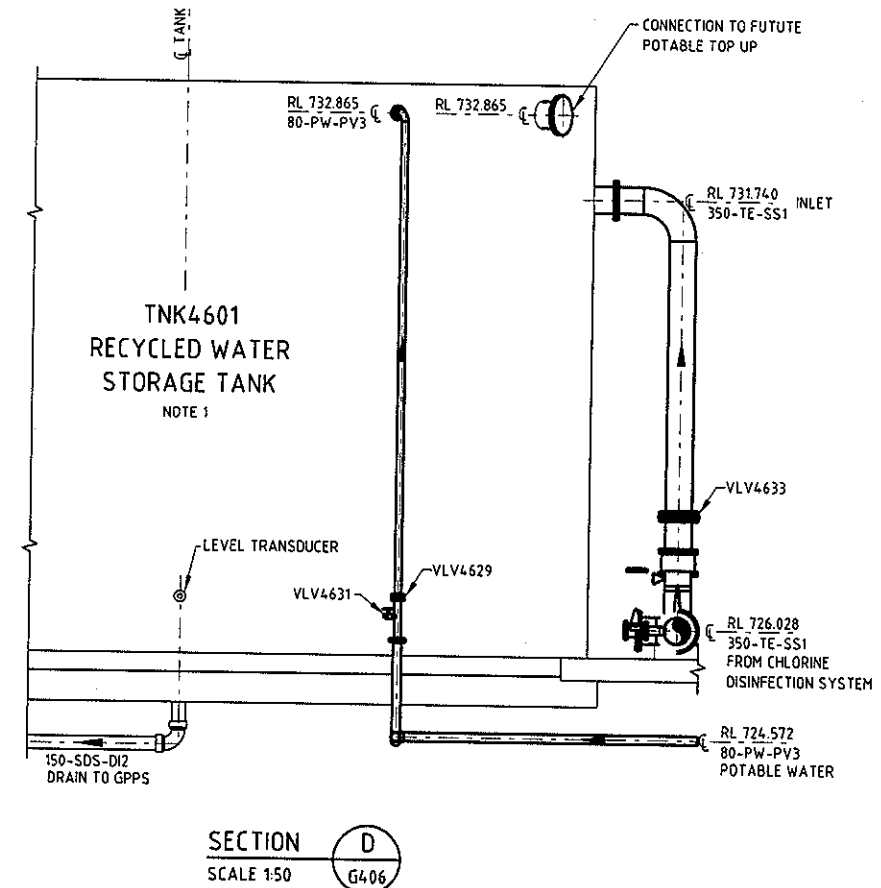
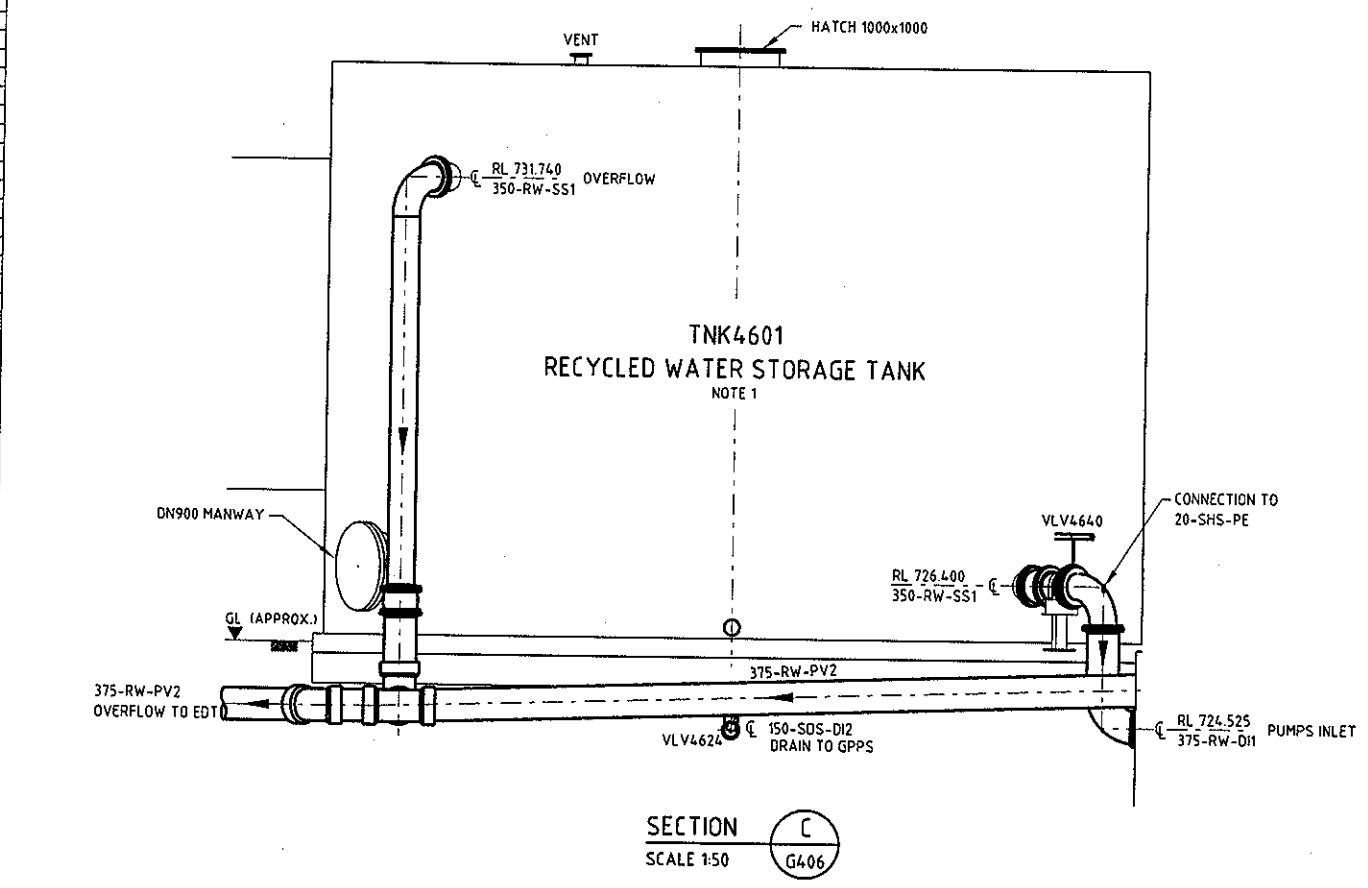
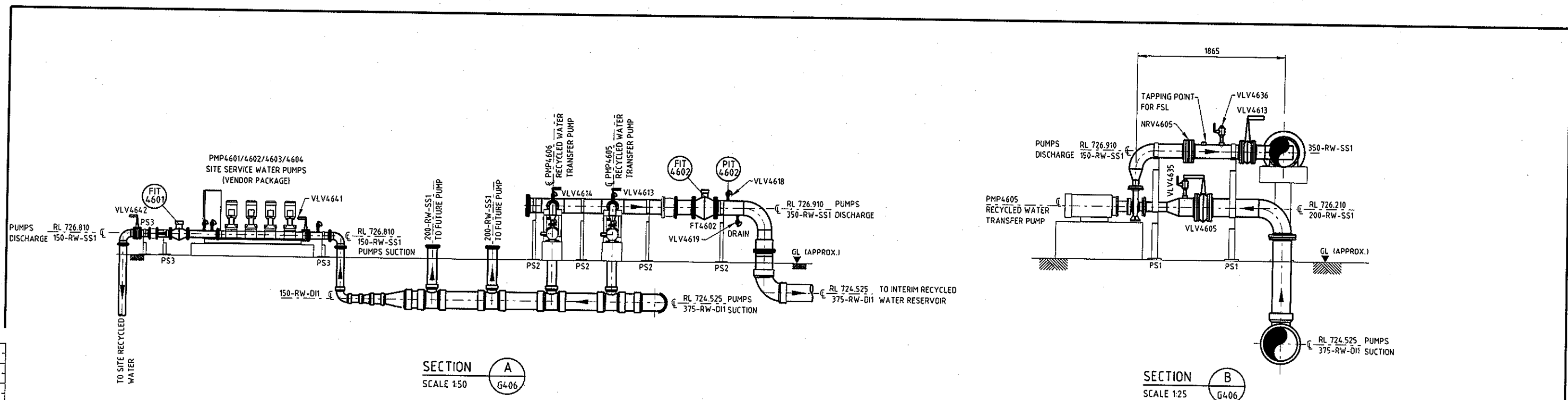


GOOGONG WATER RECYCLING PLANT STAGE AB
 RECYCLE WATER AREA - GENERAL ARRANGEMENT
 PLAN

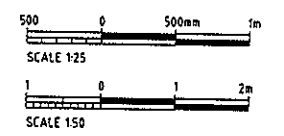
Status Stamp	Date Stamp	Scales	Drawing No	Rev
FOR REVIEW	27.11.14	1:50	83502156-01-001-G406	D

DO NOT SCALE - IF IN DOUBT, ASK

ORIGINAL SIZE A1



- NOTES:**
1. REFER TO DRAWING 83502156-01-001-M400 FOR NOZZLE ORIENTATION & ELEVATION LEVEL.
 2. REFER TO DRAWING 83502156-01-001-G406 FOR DRAWING REFERENCE.



BCA certifiers
 ABN: 58 119 755 754
CONSTRUCTION CERTIFICATE
 CC140503-3
 07/12/2014
 Principal Certifying Authority
 Annette Owen BPB1771

NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	BY	CHECKED	APP	DATE
B	IFC FOR REVIEW		PA	RV	SC	27.11.14
A	ISSUED FOR 90% REVIEW		PA	RV	SC	16.11.14
REVISIONS						
			DRN	CHK	APP	DATE

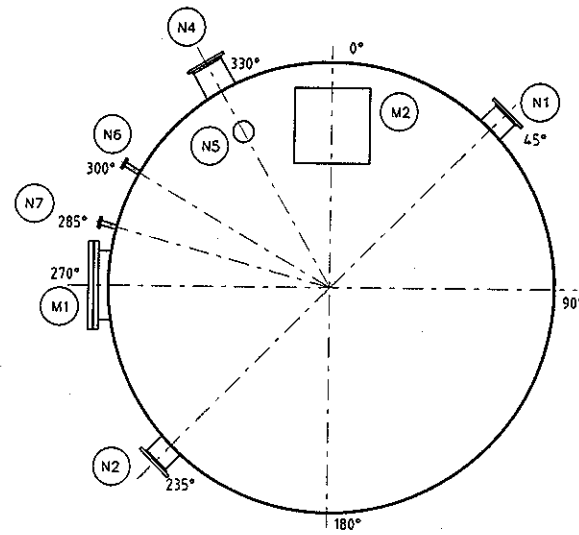
MWH

GOOGONG

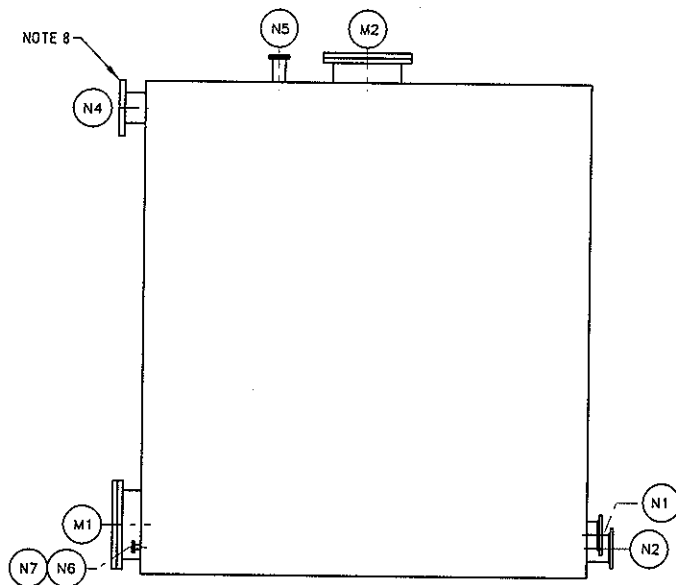
GOOGONG WATER RECYCLING PLANT STAGE AB
RECYCLE WATER AREA - GENERAL ARRANGEMENT
SECTION

Status Stamp	FOR REVIEW
Date Stamp	27.11.14
Scale	AS SHOWN
Drawing No	83502156-01-001-G407
Rev	B

NOZZLE	NOMINAL DIAMETER (mm)	DESCRIPTION	FLANGE CODE	CLASS	CL ELEVATION RELATIVE TO PLINTH LEVEL (mm)	PROJECTION (mm) (MINIMUM)	ALLOWABLE NOZZLE LOAD (N)	ALLOWABLE NOZZLE MOMENT (N-m)
N1	350	INLET	AS40B7	PN16	575	VTA	VTA	VTA
N2	350	OUTLET	AS40B7	PN16	400	VTA	VTA	VTA
N3	-	NOT USED	-	-	-	-	-	-
N4	375	OVERFLOW	AS40B7	PN16	6190	VTA	VTA	VTA
N5	VTA	VENT C/W INSECT SCREEN	N/A	VTA	VTA	VTA	VTA	VTA
N6	50	LEVEL TRANSDUCER	AS40B7	PN16	LOW LEVEL	VTA	VTA	VTA
N7	50	SPARE	AS40B7	PN16	LOW LEVEL	VTA	VTA	VTA
M1	900	SIDE MANWAY	N/A	N/A	650	VTA	VTA	VTA
M2	1000x1000	TOP HATCH	N/A	N/A	VTA	VTA	VTA	VTA



PLAN
SCALE - NTS



ELEVATION

BCA certifiers
 ABN: 58 119 755 734
 CONSTRUCTION CERTIFICATE
 CC140503-3
 07/12/2014
 Principal Certifying
 Authority
 Annette Owen BPB1771

GENERAL NOTES:

- "VTA" DENOTES "VENDOR TO ADVISE"
- DRAWING NOT TO SCALE.
- WHERE BACKING RINGS ARE PROVIDED IN RELATION TO THE TANK STRUCTURAL REQUIREMENTS.
- CENTRELINE ELEVATIONS FOR ALL NOZZLES TO BE CONFIRMED BY TANK VENDOR IN RELATION TO THE TANK STRUCTURAL REQUIREMENTS.
- TANK OUTLET NOZZLE TO BE SUPPLIED C/W DOWNTURNED BELLMOUTH INSIDE OF TANK. NOZZLE VERTICAL POSITION TO BE CONFIRMED BY VENDOR TAKING INTO ACCOUNT OF REQUIRED BELLMOUTH.
- VENDOR SHALL ENSURE ALL INTERNAL PIPEWORK IS SUITABLY SUPPORTED.
- VERTICAL PIPEWORK TO HIGH LEVEL NOZZLES TO BE SUPPORTED OFF TANK WALL.
- ARRANGEMENT OF OVERFLOW PIPEWORK TO BE CONFIRMED BY TANK VENDOR.

NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	DRN	CHK	APP	DATE
B	IFC FOR REVIEW	27.11.14	PA	RV	SC	27.11.14
A	ISSUED FOR 90% REVIEW	18.11.14	PA	RV	SC	18.11.14
			DRN	CHK	APP	DATE

MWH

GOOGONG

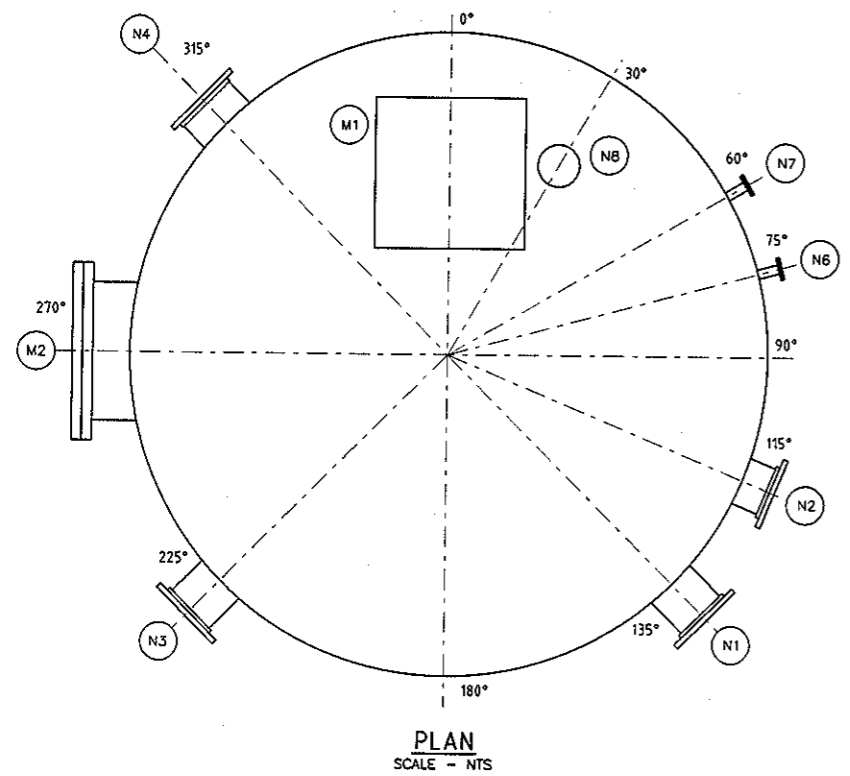
GOOGONG WATER RECYCLING PLANT STAGE AB
 FILTRATE WATER TANK
 NOZZLE ORIENTATION

Status Stamp
FOR REVIEW
 Date Stamp
 27.11.14
 Drawing No
 83502156-01-001-M200
 Rev
 B

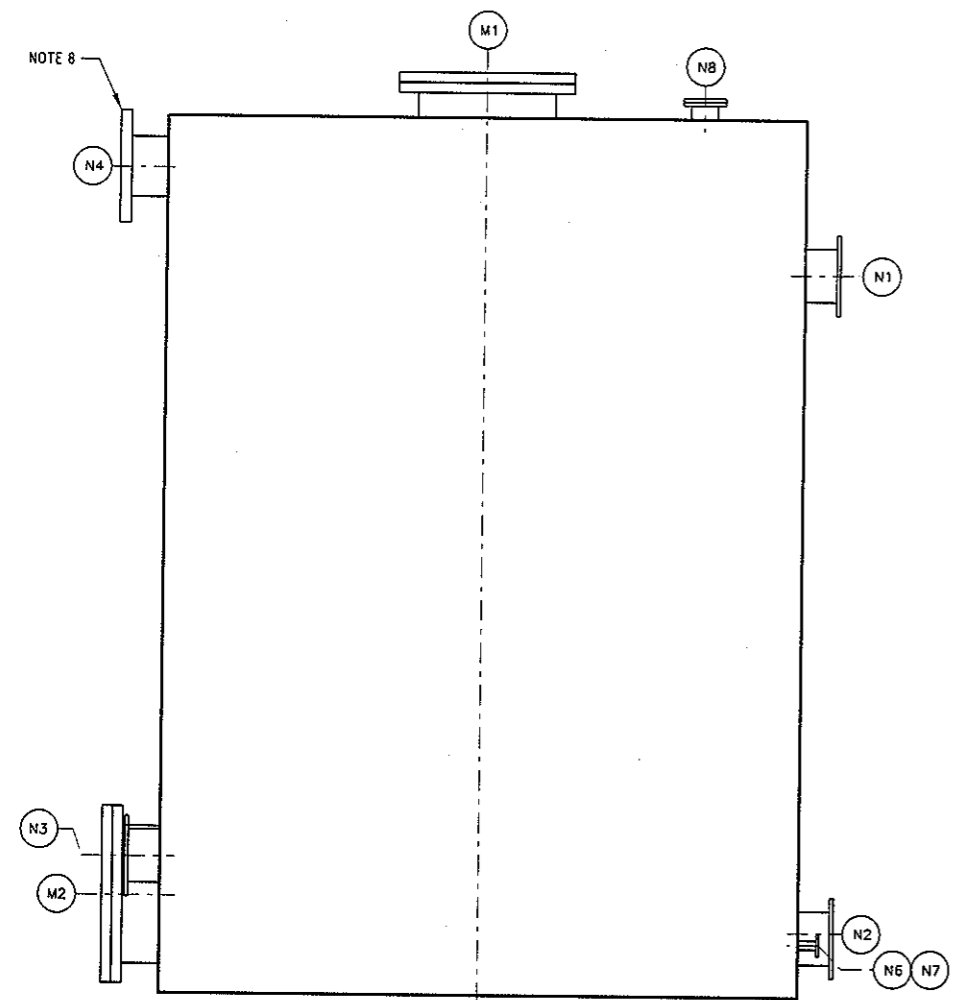
ORIGINAL SIZE A1
 DO NOT SCALE - IF IN DOUBT, ASK

ORIGINAL SIZE A1

DO NOT SCALE - IF IN DOUBT, ASK



PLAN
SCALE - NTS



ELEVATION

NOZZLE	NOMINAL DIAMETER (mm)	DESCRIPTION	FLANGE CODE	CLASS	CL ELEVATION RELATIVE TO PLINTH LEVEL (mm)	PROJECTION (mm) (MINIMUM)	ALLOWABLE NOZZLE LOAD (N)	ALLOWABLE NOZZLE MOMENT (N-m)
N1	350	INLET	AS4087	PN16	4800	VTA	VTA	VTA
N2	350	OUTLET	AS4087	PN16	400	VTA	VTA	VTA
N3	350	INLET	AS4087	PN16	910	VTA	VTA	VTA
N4	375	OVERFLOW	AS4087	PN16	5485	VTA	VTA	VTA
N5	-	NOT USED	-	-	-	-	-	-
N6	50	LEVEL TRANSDUCER	AS4087	PN16	TBC	VTA	VTA	VTA
N7	50	SPARE	AS4087	PN16	TBC	VTA	VTA	VTA
N8	VTA	VENT C/W INSECT SCREEN	N/A	VTA	VTA	VTA	VTA	VTA
M1	1000x1000	TOP MANWAY	N/A	N/A	VTA	VTA	VTA	VTA
M2	900	SIDE MANWAY	N/A	N/A	VTA	VTA	VTA	VTA

BCA certifiers

ABN: 58 119 755 734

CONSTRUCTION CERTIFICATE
CC140503-3

07/12/2014

Principal Certifying
Authority
Annette Owen BPB1771

GENERAL NOTES:

1. "VTA" DENOTES "VENDOR TO ADVISE".
2. DRAWING NOT TO SCALE.
3. WHERE BACKING RINGS ARE PROVIDED THESE SHALL BE STAINLESS STEEL 316.
4. CENTRELINE ELEVATIONS FOR ALL NOZZLES TO BE CONFIRMED BY TANK VENDOR IN RELATION TO THE TANK STRUCTURAL REQUIREMENTS.
5. TANK OUTLET NOZZLE TO BE SUPPLIED C/W DOWNTURNED BELLMOUTH INSIDE OF TANK. NOZZLE VERTICAL POSITION TO BE CONFIRMED BY VENDOR TAKING INTO ACCOUNT OF REQUIRED BELLMOUTH.
6. VENDOR SHALL ENSURE ALL INTERNAL PIPEWORK IS SUITABLY SUPPORTED.
7. VERTICAL PIPEWORK TO HIGH LEVEL NOZZLES TO BE SUPPORTED OFF TANK WALL.
8. ARRANGEMENT OF OVERFLOW PIPEWORK TO BE CONFIRMED BY TANK VENDOR.

NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	APP	CHK	DRN
B	IFC FOR REVIEW	27.11.14	PA	RV	SC
A	ISSUED FOR 90% REVIEW	18.11.14	PA	RV	SC
REVISIONS					

SURVEYED		
DESIGNED	Ran Virdi	13.11.14
DRAWN	Paul Arockiadass	13.11.14
CAD REVIEW	Terry Sowden	18.11.14
DESIGN CHECK	Ran Virdi	18.11.14
DESIGN REVIEW	Ran Virdi	18.11.14
APPROVED	Stephen Chapman	27.11.14
PROF REGISTRATION:		

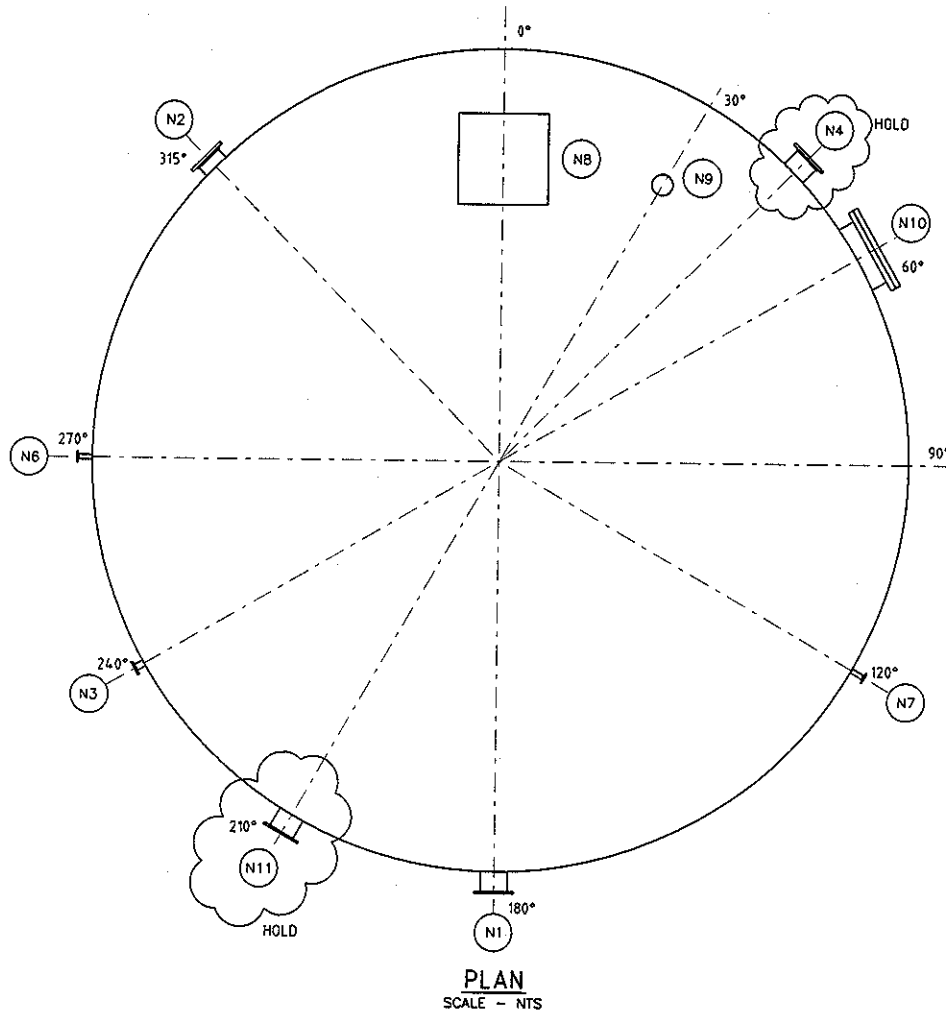


GOOGONG WATER RECYCLING PLANT STAGE AB

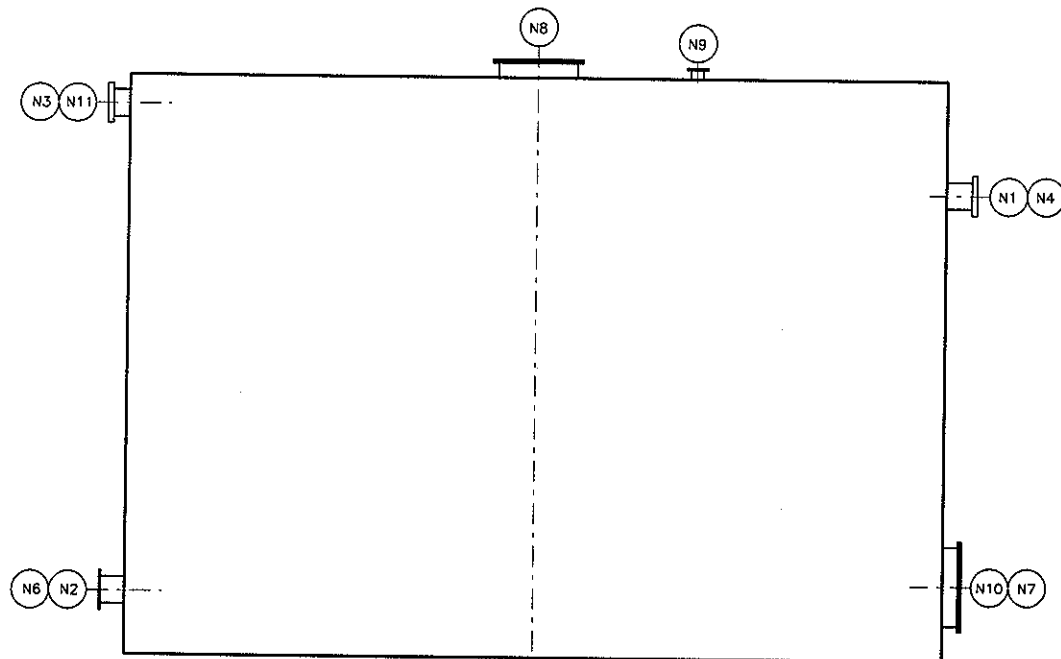
OFFSPEC WATER TANK
NOZZLE ORIENTATION

Status Stamp	FOR REVIEW
Date Stamp	27.11.14
Scale	
Drawing No	83502156-01-001-M201
Rev	B

NOZZLE	NOMINAL DIAMETER (mm)	DESCRIPTION	FLANGE CODE	CLASS	CL ELEVATION RELATIVE TO PLINTH LEVEL (mm)	PROJECTION (mm) (MINIMUM)	ALLOWABLE NOZZLE LOAD (N)	ALLOWABLE NOZZLE MOMENT (N-m)
N1	350	INLET	AS4087	PN16	6190	VTA	VTA	VTA
N2	350	OUTLET	AS4087	PN16	850	VTA	VTA	VTA
N3	80	INLET POTABLE WATER	AS4087	PN16	7315	VTA	VTA	VTA
N4	375	OVERFLOW	AS4087	PN16	(6190) HOLD	VTA	VTA	VTA
N5	-	NOT USED	-	-	-	-	-	-
N6	50	LEVEL TRANSDUCER	AS4087	PN16	TBC	VTA	VTA	VTA
N7	50	SPARE	AS4087	PN16	TBC	VTA	VTA	VTA
N8	1000x1000	TOP MANWAY	N/A	N/A	VTA	VTA	VTA	VTA
N9	VTA	VENT C/W INSECT SCREEN	N/A	N/A	VTA	VTA	VTA	VTA
N10	900	SIDE MANWAY	N/A	N/A	1000	VTA	VTA	VTA
N11	375	FUTURE POTABLE TOP UP	AS4087	PN16	(7315) HOLD	VTA	VTA	VTA



PLAN
SCALE - NTS



ELEVATION

BCA certifiers
 ABN: 58 119 755 734
 CONSTRUCTION CERTIFICATE
 CC140503-3
 07/12/2014
 Principal Certifying
 Authority
 Annette Owen BPB1771

GENERAL NOTES:

- "VTA" DENOTES "VENDOR TO ADVISE".
- DRAWING NOT TO SCALE.
- N3, N11 NOZZLES MAY BE INSTALLED AS TOP ENTRY VENDOR TO CONFIRM.
- WHERE BACKING RINGS ARE PROVIDED THESE SHALL BE STAINLESS STEEL 316.
- CENTRELINE ELEVATIONS FOR ALL NOZZLES TO BE CONFIRMED BY TANK VENDOR IN RELATION TO THE TANK STRUCTURAL REQUIREMENTS.
- AIR BREAK BETWEEN TANK OVERFLOW AND POTABLE WATER INLET PIPEWORK SHALL BE COMPLIANT WITH WSAA AND AS3500.1.
- TANK OUTLET NOZZLE TO BE SUPPLIED C/W DOWNTURNED BELLMOUTH INSIDE OF TANK.
- VERTICAL PIPEWORK TO HIGH LEVEL NOZZLES TO BE SUPPORTED OFF TANK WALL.

NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	BY	CHK	APP	DATE
B	IFC FOR REVIEW	27.11.14	PA	RV	SC	27.11.14
A	ISSUED FOR 90% REVIEW	14.11.14	PA	RV	SC	14.11.14

Client: **GOOGONG**

MWH

GOOGONG WATER RECYCLING PLANT STAGE AB

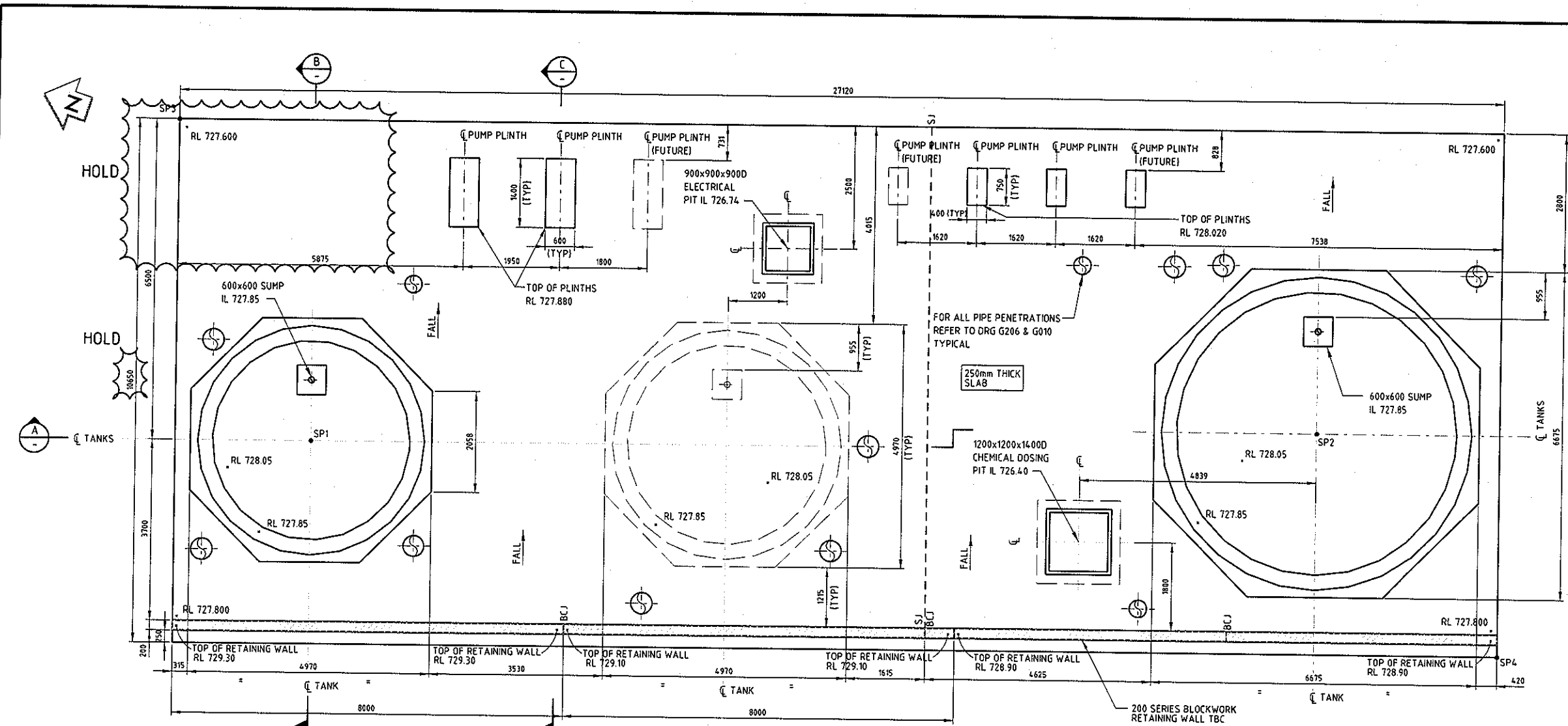
RECYCLE WATER TANK
NOZZLE ORIENTATION

DESIGNED	
DRAWN	
CAD REVIEW	Terry Sowden 14.11.14
DESIGN CHECK	Ran Viridi 14.11.14
DESIGN REVIEW	Ran Viridi 14.11.14
APPROVED	Stephen Chapman 27.11.14

Status Stamp	FOR REVIEW
Date Stamp	27.11.14
Scales	AS SHOWN
Drawing No	83502156 - 01- 001-M400
Rev	B

ORIGINAL SIZE A1
DO NOT SCALE - IF IN DOUBT, ASK

ORIGINAL SIZE A1



FILTRATE AND OFF SPEC WATER STORAGE TANK FOUNDATION PLAN
SCALE 1:50
BCJ DENOTES BLOCKWORK CONTROL JOINT FOR DETAIL, REFER DRG No 5309

- NOTES**
1. PROVIDE MASS CONCRETE FILL ABOVE THE "EW/HW & HW DACITE" ROCK LAYER TO THE UNDERSIDE OF THE SLAB FOUNDATION TO ENSURE A UNIFORM SUBGRADE. WHEN PREPARING THE FOUNDATION, THE CONTRACTOR SHALL ENGAGE A SUITABLY QUALIFIED GEOTECHNICAL ENGINEER TO VERIFY THE "EW/HW & HW DACITE" ROCK LAYER PRIOR TO FILLING WITH MASS CONCRETE.
 2. ALL DIMENSIONS ARE IN mm AND ALL LEVELS ARE IN m UND.
 3. FOR GENERAL NOTES REFER DRG G003 AND G004.
 4. GRADE OF CONCRETE SHALL BE S4.0.
 5. FOR SLAB PENETRATION DETAILS REFER TO DRG S001.
 6. FOR CONCRETE JOINT DETAILS REFER TO DRG S002.
 7. MINIMUM ALLOWABLE SAFE BEARING CAPACITY = 1000 kPa.
 8. FOR CUT OFF DRAIN DETAILS SEE DRG C001.
 9. PROVIDE CONSTRUCTION JOINTS IN RETAINING WALL BLOCKWORKS AS PER 3700.
 10. TANK DESIGN BASED ON ALS MODEL 2019 AND 1414 ASMTT-GT.T. REBATE DETAIL AS PER ENGINEERED STORAGE PRODUCTS COMPANY DRAWING 267082. ANY CHANGES TO TANK SELECTION AND CONNECTION DETAIL SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL DESIGN ENGINEER FOR REVIEW.
 11. DRAIN PENETRATION IN SUMP SHALL BE PROVIDED WITH PUDDLE FLANGE AND PENETRATION REINFORCEMENT AS PER DRG No S001.

CONCRETE COVER TO REINFORCEMENT

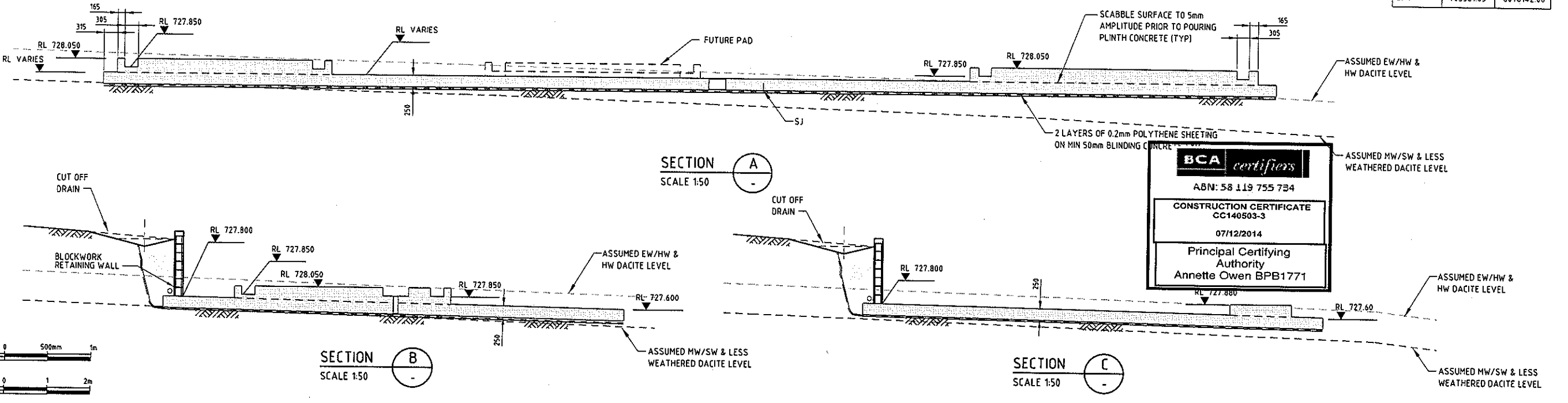
	TOP	BOTTOM	SIDE INT	EXT
BASE SLAB	50	50	40	40

REFERENCE DRAWINGS

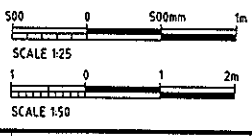
- G003 - GENERAL NOTES
- G004 - GENERAL NOTES
- G206 - GENERAL ARRANGEMENT PLAN SHEET 1
- S001 - STRUCTURAL DETAILS
- S002 - STRUCTURAL DETAILS
- C001 - CIVIL DETAILS
- G010 - YARD PIPING PLAN

SET OUT POINTS

POINT	EASTING	NORTHING
SP1	703622.15	6078197.79
SP2	703627.29	6078185.11
SP3	-	-
SP4	703581.03	607814.206

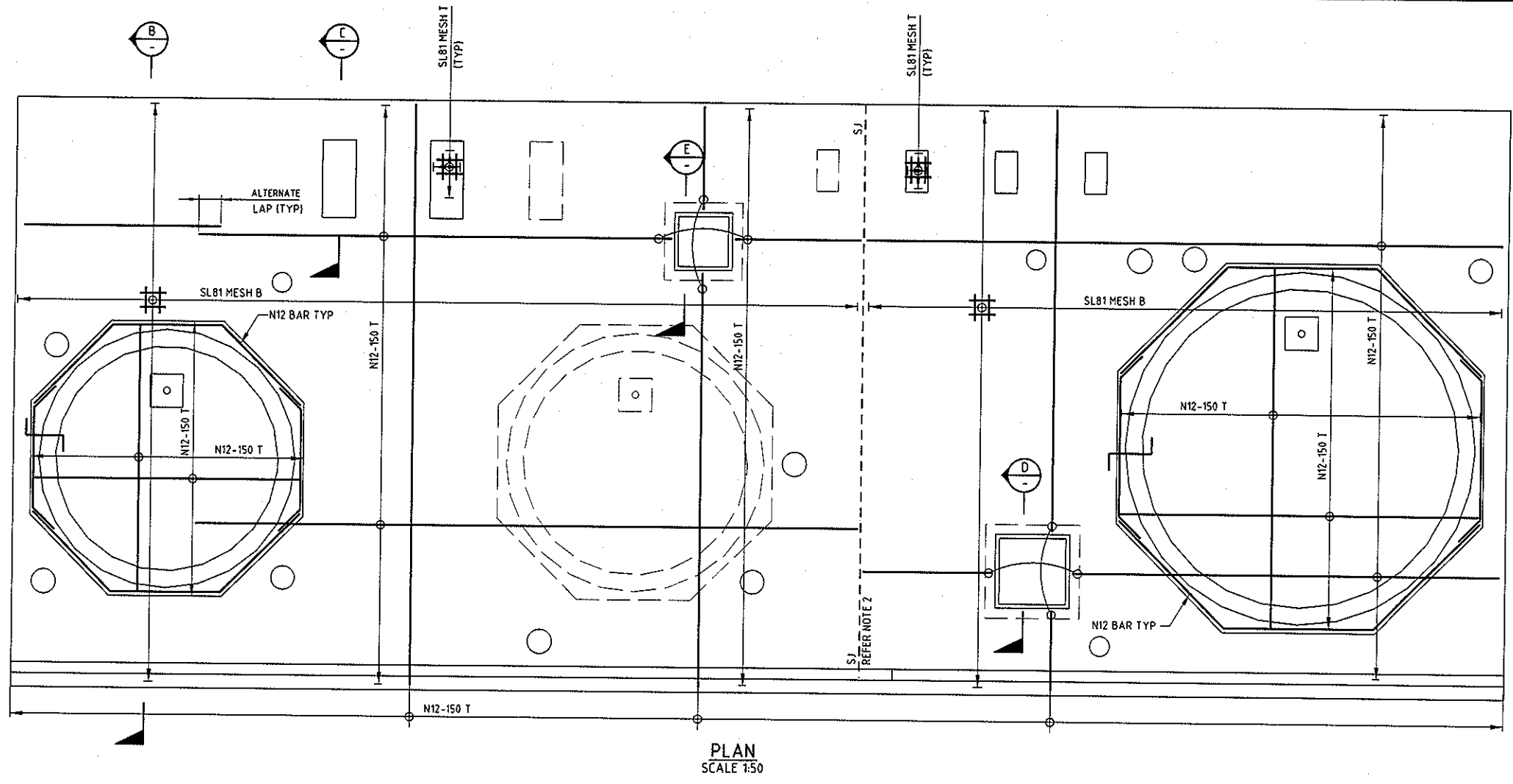


BCA certifiers
A&N: 58 119 755 734
CONSTRUCTION CERTIFICATE
CC140503-3
07/12/2014
Principal Certifying Authority
Annette Owen BPB1771

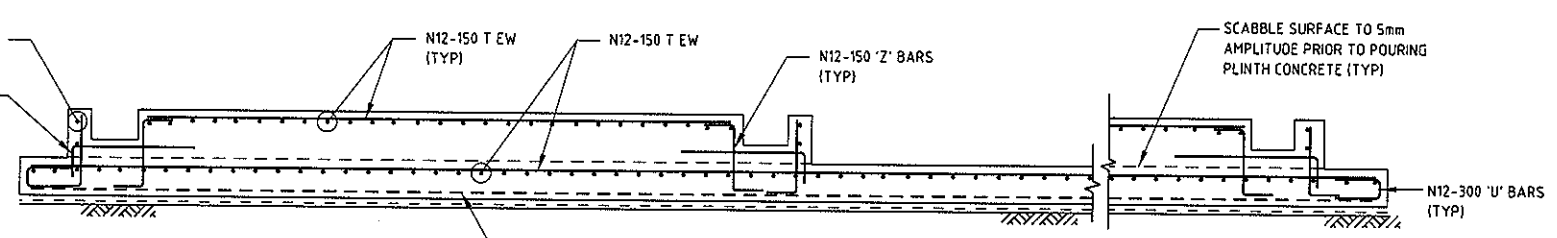


<p>DESIGNED: Shreya Phadnis 07.10.2014</p> <p>DRAWN: Akshay Naik 07.10.2014</p> <p>CAD REVIEW: Steve Coyle 17.10.14</p> <p>DESIGN CHECK: Enrico Rumi 17.10.14</p> <p>DESIGN REVIEW: Enrico Rumi 17.10.14</p> <p>APPROVED: Stephen Chapman 02.12.14</p>		<p>MWH</p> <p>GOOGONG</p>	<p>GOOGONG WATER RECYCLING PLANT STAGE AB</p> <p>FILTRATE AND OFFSPEC WATER STORAGE TANK AREA</p> <p>CONCRETE - PLAN AND SECTIONS</p>	<p>NOT FOR CONSTRUCTION</p> <p>Status Stamp: FOR REVIEW</p> <p>Date Stamp: 02.12.14</p> <p>Scale: AS SHOWN</p> <p>Drawing No: 83502156-01-001-S209</p>												
<p>REVISIONS</p> <table border="1"> <thead> <tr> <th>REV</th> <th>BY</th> <th>CHK</th> <th>APP</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>B</td> <td>JW</td> <td>SC</td> <td>01.12.14</td> <td></td> </tr> <tr> <td>A</td> <td>AN</td> <td>ER</td> <td>17.10.14</td> <td></td> </tr> </tbody> </table>	REV				BY	CHK	APP	DATE	B	JW	SC	01.12.14		A	AN	ER
REV	BY	CHK	APP	DATE												
B	JW	SC	01.12.14													
A	AN	ER	17.10.14													

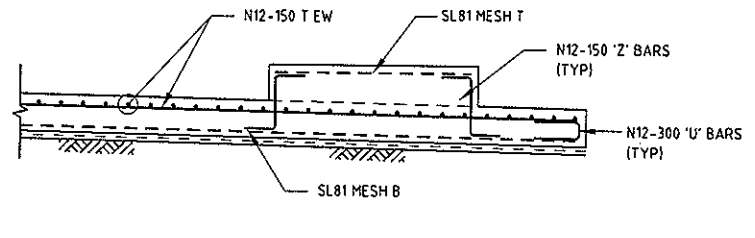
- NOTES**
1. REFER TO DRG S209 FOR NOTES AND REFERENCE DRGS.
 2. FOR SHRINKAGE JOINT DETAIL (S.J.), REFER DRG No S002.
 3. MINIMUM ALLOWABLE SAFE BEARING CAPACITY = 1000 kPa.



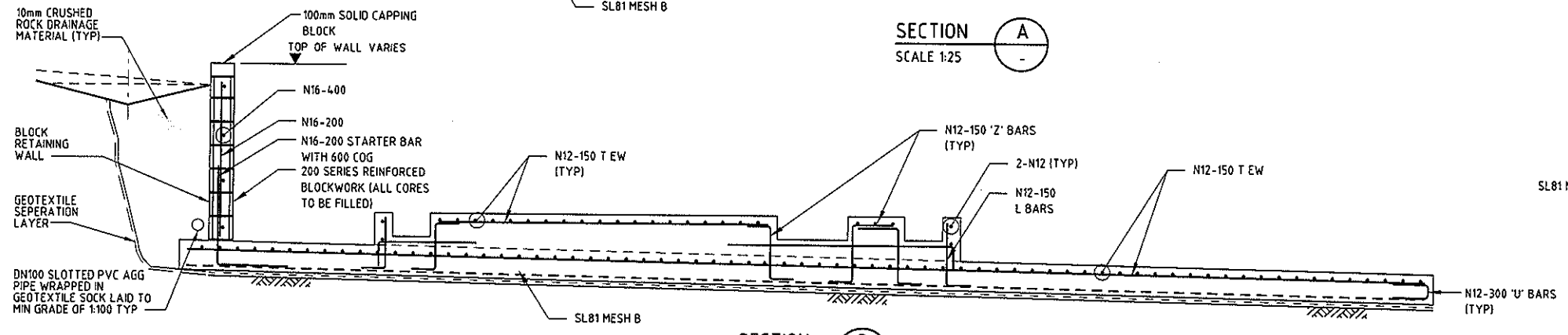
PLAN
SCALE 1:50



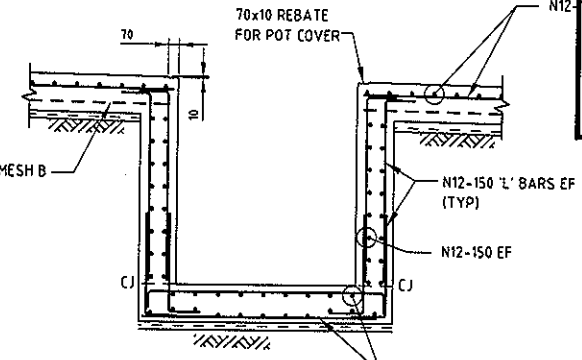
SECTION A
SCALE 1:25



SECTION C
SCALE 1:25



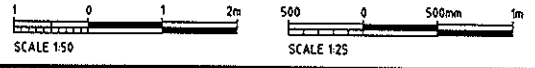
SECTION B
SCALE 1:25



SECTION D
SCALE 1:25
SECTION E SIMILAR

BCA certifiers
 ABN: 58 119 755 734
 CONSTRUCTION CERTIFICATE
 CC140503-3
 07/12/2014
 Principal Certifying
 Authority
 Annette Owen BPB1771

ORIGINAL SIZE A1



REV	DESCRIPTION	DATE	BY	CHK	APP
B	IFC FOR REVIEW	01.12.14	SBC	JW	SC
A	ISSUED FOR 90% REVIEW	17.10.14	AN	ER	SC
	REVISIONS		DRN	CHK	APP

SURVEYED		
DESIGNED	Shreya Phadnis	07.10.2014
DRAWN	Akshay Nark	07.10.2014
CAD REVIEW	Steve Coyle	17.10.14
DESIGN CHECK	Enrico Rumi	17.10.14
DESIGN REVIEW	Enrico Rumi	17.10.14
APPROVED	Stephen Chapman	02.12.14
PROF REGISTRATION:		



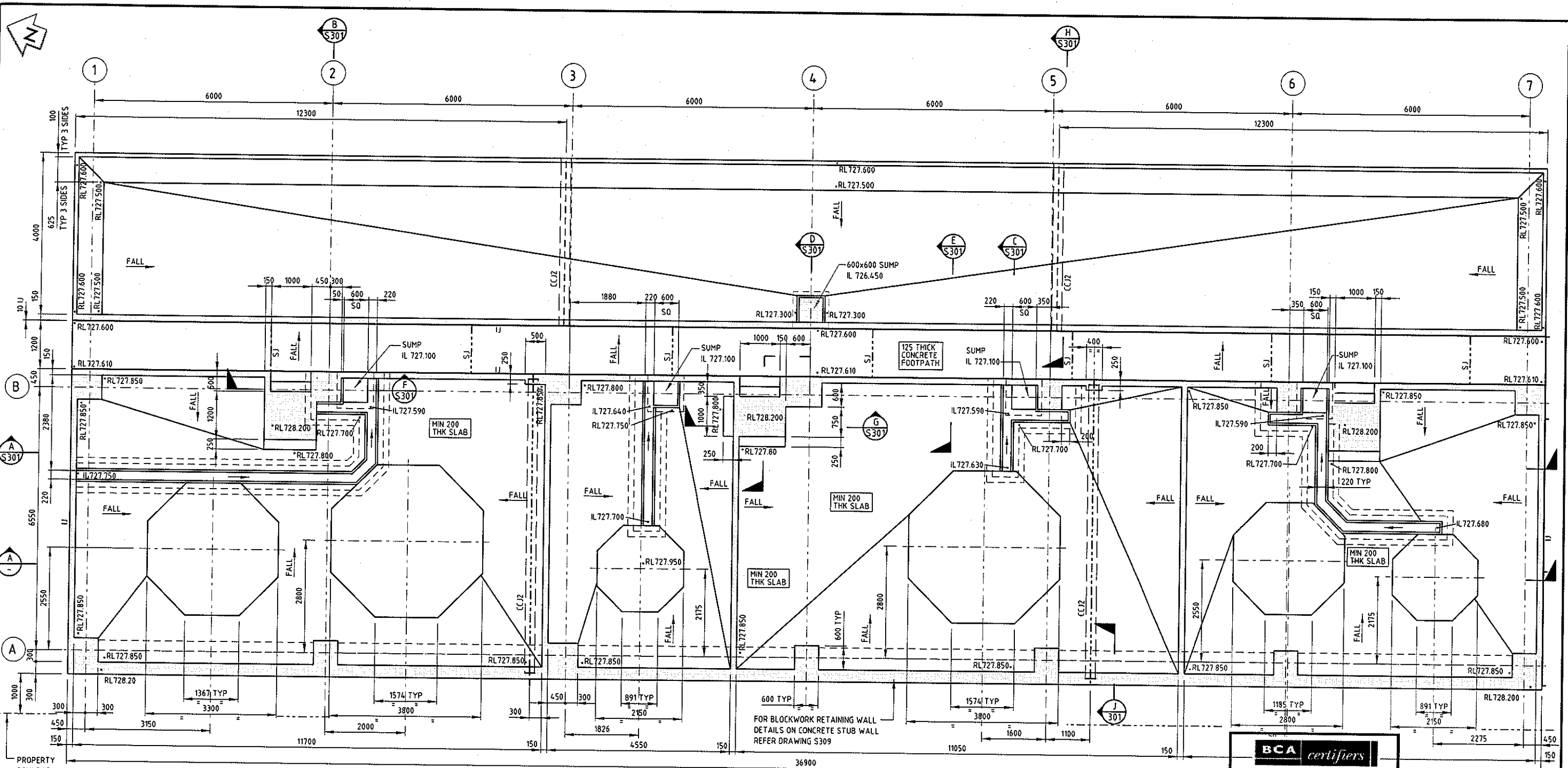
Client: **GOOGONG**

GOOGONG WATER RECYCLING PLANT STAGE AB

FILTRATE AND OFFSPEC WATER STORAGE TANK AREA REINFORCEMENT - PLAN AND SECTIONS

NOT FOR CONSTRUCTION

Status Stamp	FOR REVIEW
Date Stamp	02.12.14
Scale	AS SHOWN
Drawing No	83502156-01-001-S210
Rev	B



DO NOT SCALE - IF IN DOUBT, ASK

ORIGINAL SIZE A1

BCA certifiers
 ABN: 58 119 755 734
CONSTRUCTION CERTIFICATE
 CC140503-3
 07/12/2014
 Principal Certifying
 Authority
 Annette Owen BPB1771

PLAN
SCALE 1:50

SECTION A
SCALE 1:50

CONCRETE COVER TO REINFORCEMENT

STRUCTURE	MEMBER	TOP		BOTTOM		EXPOSURE CLASSIFICATION
		EXT	INT	EXT	INT	
CHEMICAL BUND	BASE	60	40	-	-	D/B1
DELIVERY BUND	BASE	60	40	-	-	B2/B1



NOTES

- FOR GENERAL NOTES REFER DRG G003 AND G004
- GRADE OF CONCRETE - S40.
- FOR CONCRETE JOINT DETAILS REFER DRG S003

REFERENCE DRAWINGS

- S003 CONCRETE WATER RETAINING STRUCTURES JOINT DETAILS
- S005 HANDRAIL DETAILS

REV	REVISIONS	DRN	CHK	APP	DATE	PROF REGISTRATION
0	IFC FOR REVIEW					
1	LEVELS REVISED - ISSUED FOR 90% REVIEW	AG	AD	SC	28.11.14	
2	ISSUED FOR 90% REVIEW	YKD	AD	SC	03.10.14	
3	ISSUED FOR 90% REVIEW	YKD	AD	SC	26.09.14	

MWH **GOOGONG**

GOOGONG WATER RECYCLING PLANT STAGE AB

CHEMICAL STORAGE AND UNLOADING AREA

CONCRETE PLAN

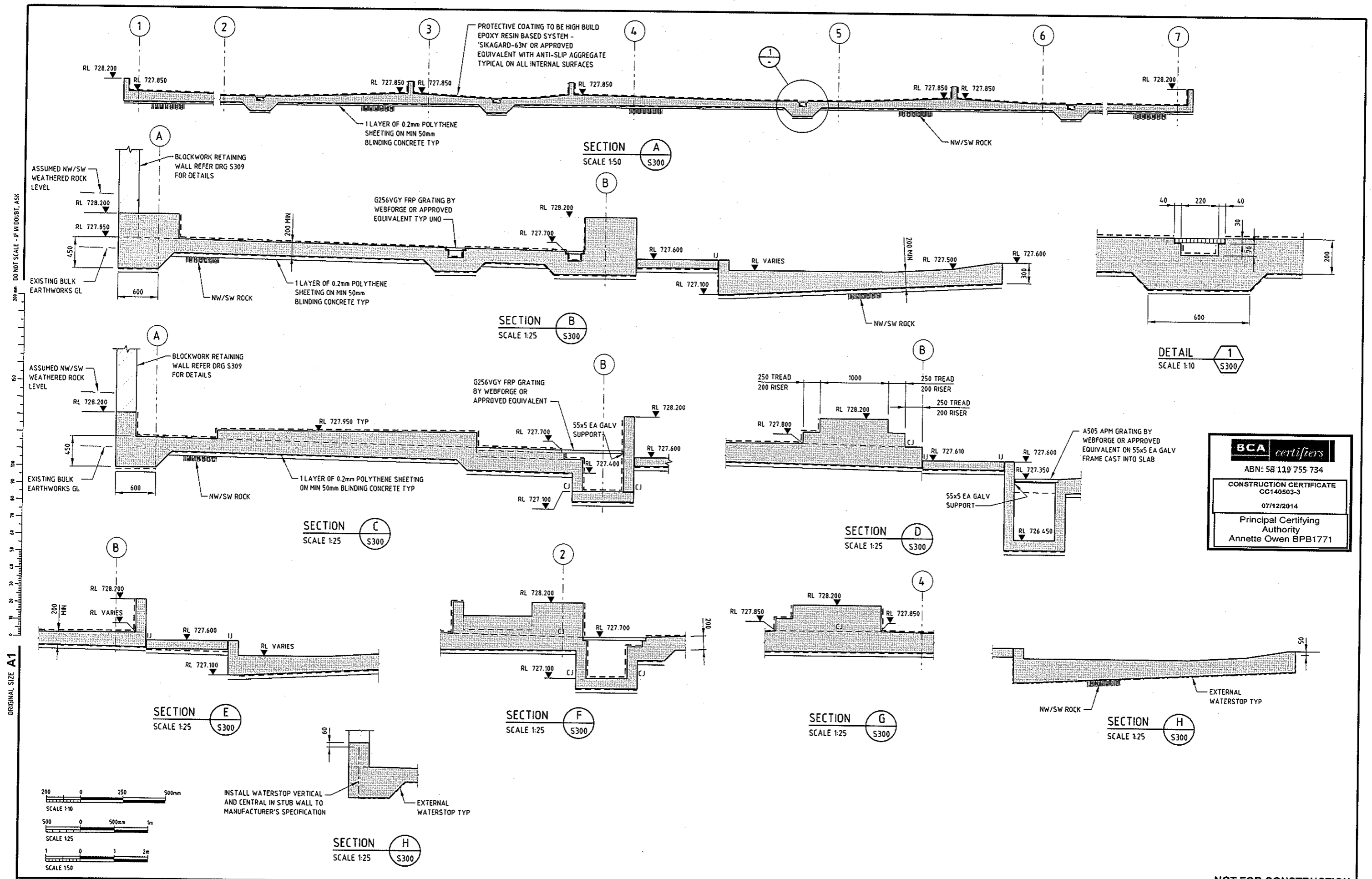
NOT FOR CONSTRUCTION

FOR REVIEW

Date Stamp: 28.11.14

Drawing No: 83502156-01-001-S300

Rev: D



BCA certifiers

ABN: 58 119 755 734

CONSTRUCTION CERTIFICATE
CC140503-3

07/12/2014

Principal Certifying Authority
Annette Owen BPB1771

NOT FOR CONSTRUCTION

REV	DESCRIPTION	ORIGINATOR	CHECKED	APPROVED	DATE
D	IFC FOR REVIEW	AG	AD	SC	28.11.14
C	LEVELS REVISED - ISSUED FOR 90% REVIEW	AG	AD	SC	17.10.14
B	ISSUED FOR 90% REVIEW	YKO	AD	SC	03.10.14
A	ISSUED FOR 90% REVIEW	YKO	AD	SC	26.09.14

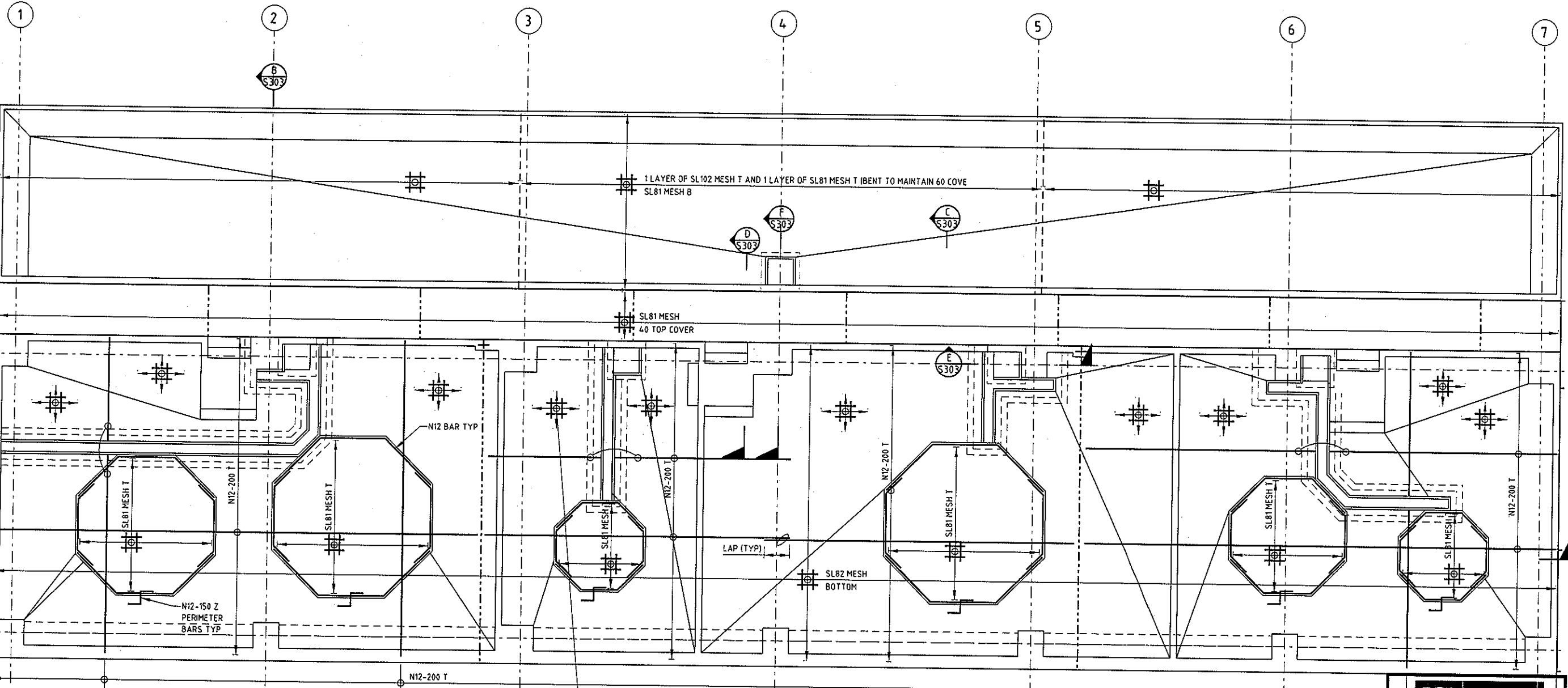
DESIGNED	Amogh Deshpande	22.09.14
DRAWN	Yogesh Desai	22.09.14
CAD REVIEW	Alan Gilbert	26.09.14
DESIGN CHECK	Amogh Deshpande	26.09.14
DESIGN REVIEW	Jaya Weerasinghe	26.09.14
APPROVED	Stephen Chapman	28.11.14



Client: **GOOGONG WATER RECYCLING PLANT STAGE AB**

CHEMICAL STORAGE AND UNLOADING AREA CONCRETE SECTIONS AND DETAILS

Status Stamp	FOR REVIEW
Date Stamp	28.11.14
Scales	
Drawing No	83502156-01-001-S301
Rev	D



NOTE: PROVIDE ADDITIONAL SL81 MESH T TO MAINTAIN 60 COVER ON ALL TOP SLOPING SURFACES (TYP)

PLAN
SCALE 1:50
FOR TRENCH AND BEAM REINFORCEMENT DETAILS, REFER DRG No S303

BCA certifiers
 ABN: 58 119 755 734
 CONSTRUCTION CERTIFICATE
 CC140503-3
 07/12/2014
 Principal Certifying
 Authority
 Annette Owen BPB1771

ORIGINAL SIZE A1
DO NOT SCALE - IF DOUBT, ASK



REV	DESCRIPTION	AG	AD	SC	DATE
C	IFC FOR REVIEW				
B	ISSUED FOR 90% REVIEW	YKD	AD	SC	03.10.14
A	ISSUED FOR 90% REVIEW	YKD	AD	SC	26.09.14
REVISIONS					
		DRN	CHK	APP	DATE

SURVEYED		
DESIGNED	Amogh Deshpande	23.09.14
DRAWN	Yogesh Desai	23.09.14
CAD REVIEW	Alan Gilbert	26.09.14
DESIGN CHECK	Amogh Deshpande	26.09.14
DESIGN REVIEW	Jaya Weerasinghe	26.09.14
APPROVED	Stephen Chapman	28.11.14
PROF REGISTRATION:		



GOOGONG WATER RECYCLING PLANT STAGE AB
 CHEMICAL STORAGE AND UNLOADING AREA
 REINFORCEMENT PLAN

NOT FOR CONSTRUCTION

Status Stamp	FOR REVIEW
Date Stamp	28.11.14
Scale	
Drawing No	83502156-01-001-S302
Rev	C

DO NOT SCALE - IF IN DOUBT, ASK

200mm

80

100

90

80

70

60

50

40

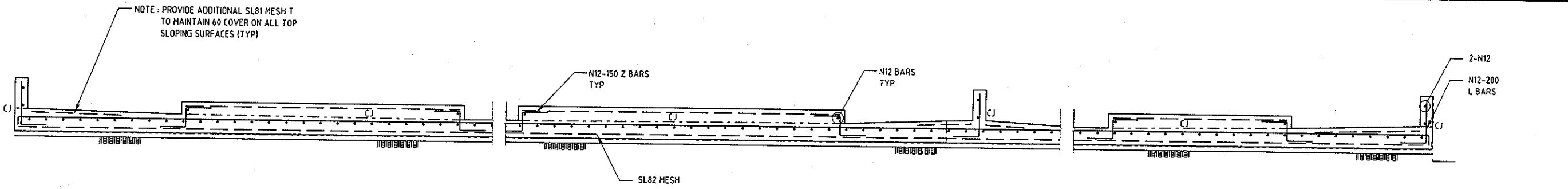
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20

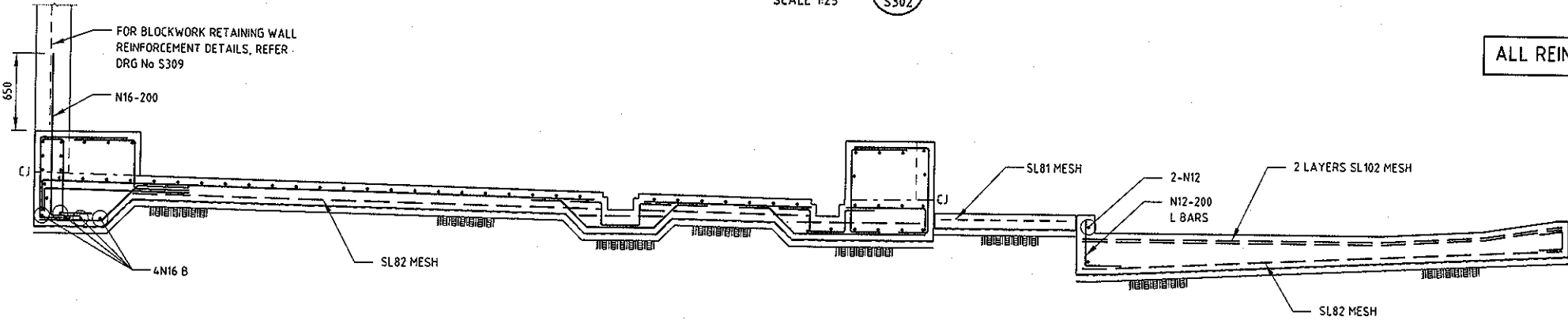
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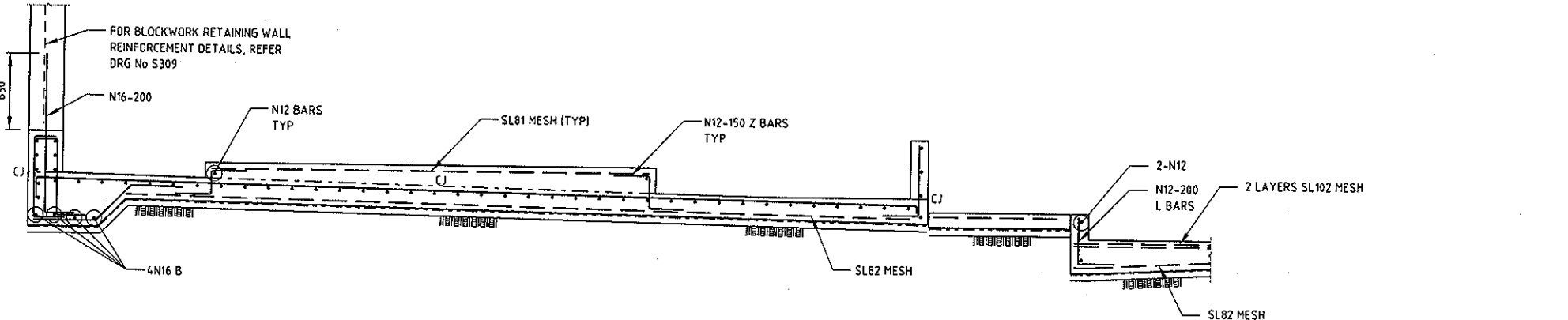
ORIGINAL SIZE A1



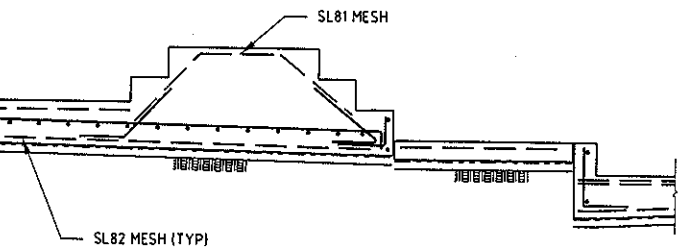
SECTION A
SCALE 1:25
S302



SECTION B
SCALE 1:25
S302

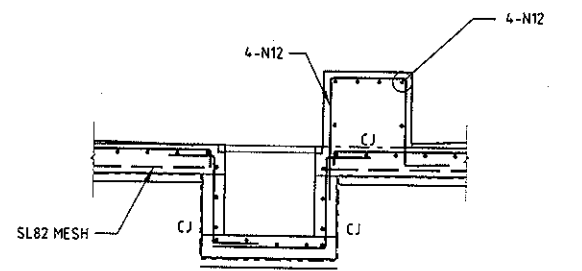


SECTION C
SCALE 1:25
S302

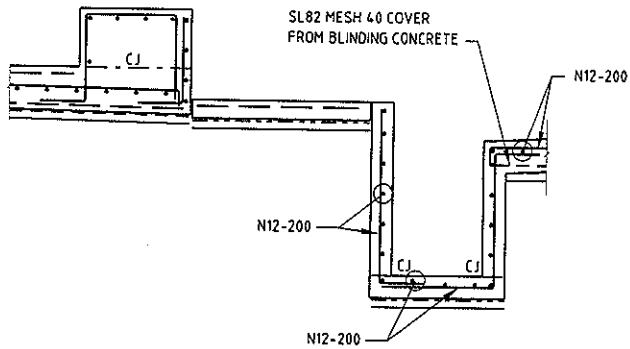


SECTION D
SCALE 1:25
S302

ALL REINFORCEMENT TO BE N12-200 UNO

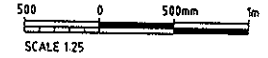


SECTION E
SCALE 1:25
S302



SECTION F
SCALE 1:25
S302

BCA certifiers
ADN: 58 119 755 734
CONSTRUCTION CERTIFICATE
CC140503-3
07/12/2014
Principal Certifying
Authority
Annette Owen BPB1771



NOT FOR CONSTRUCTION

REV	DESCRIPTION	DRN	CHK	APP	DATE
D	IFC FOR REVIEW				
C	ISSUED FOR 90% REVIEW	AG	AD	SC	28.11.14
B	ISSUED FOR 90% REVIEW	AG	ER	SC	17.10.14
A	ISSUED FOR 90% REVIEW	YKD	AD	SC	03.10.14
		YKD	AD	SC	26.09.14

PROF REGISTRATION:	DATE
SURVEYED	
DESIGNED	Amogh Deshpande 23.09.14
DRAWN	Yogesh Desai 23.09.14
CAD REVIEW	Alan Gilbert 26.09.14
DESIGN CHECK	Amogh Deshpande 26.09.14
DESIGN REVIEW	Jaya Weerasinghe 26.09.14
APPROVED	Stephen Chapman 28.11.14

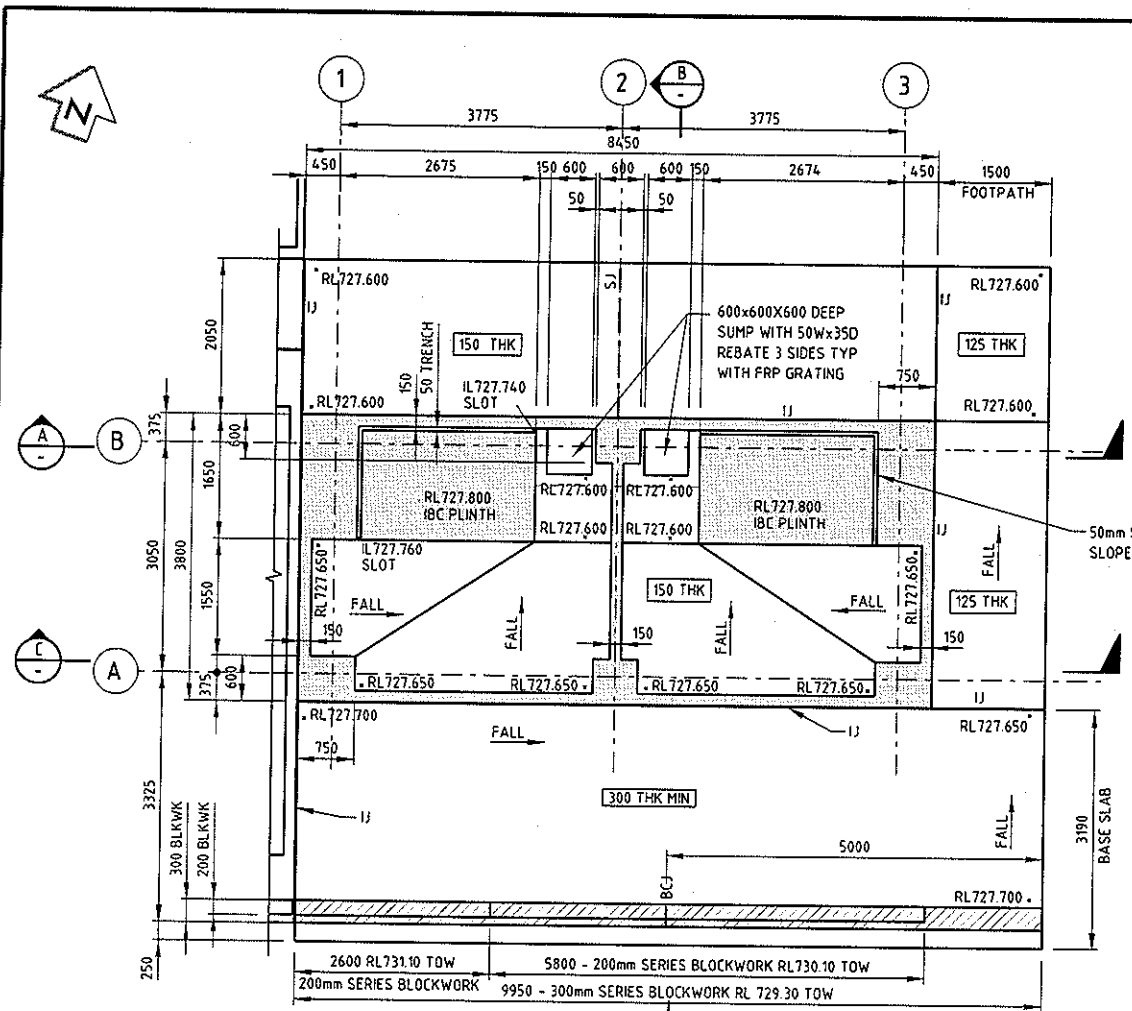


Client: **GOOGONG WATER RECYCLING PLANT STAGE AB**
CHEMICAL STORAGE AND UNLOADING AREA REINFORCEMENT SECTIONS

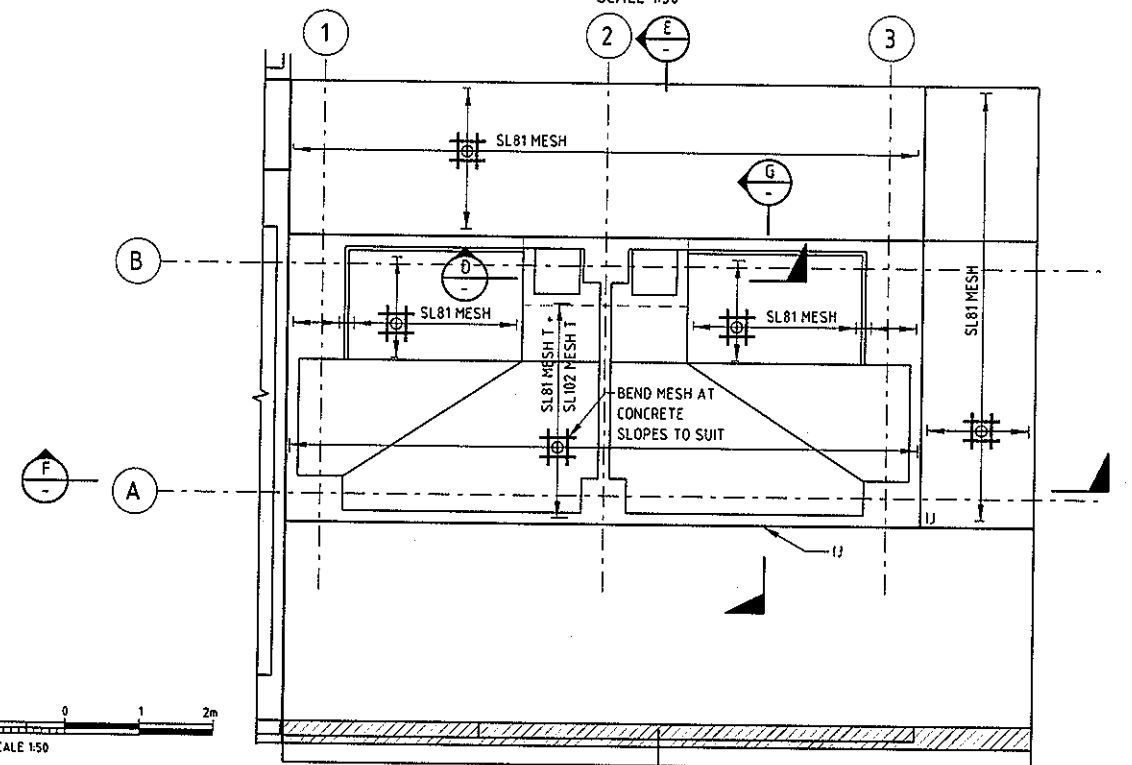
Status Stamp	FOR REVIEW
Date Stamp	28.11.14
Scales	
Drawing No	83502156-01-001-S303
Rev	D

ORIGINAL SIZE A1

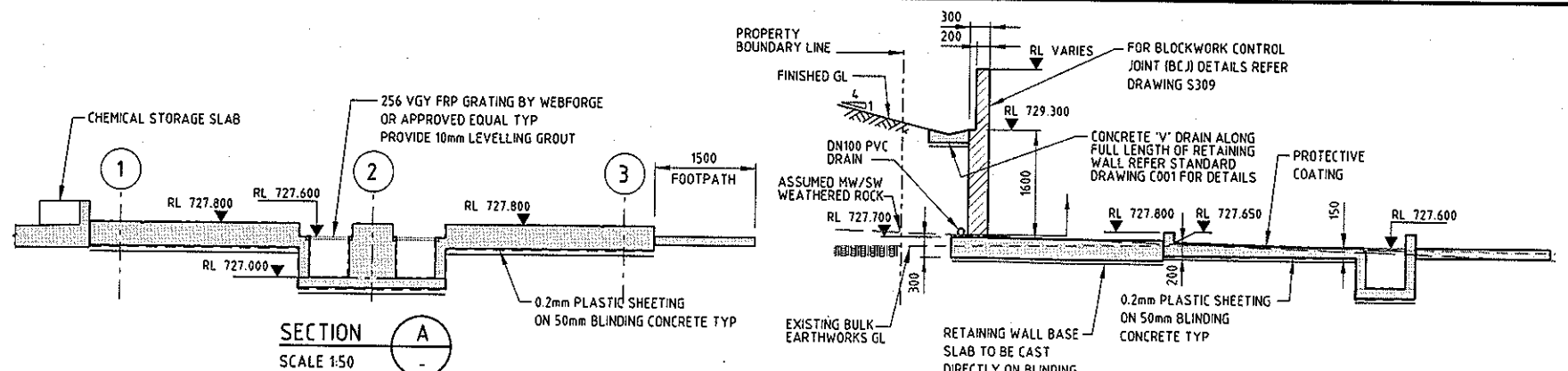
DO NOT SCALE - IF IN DOUBT, ASK



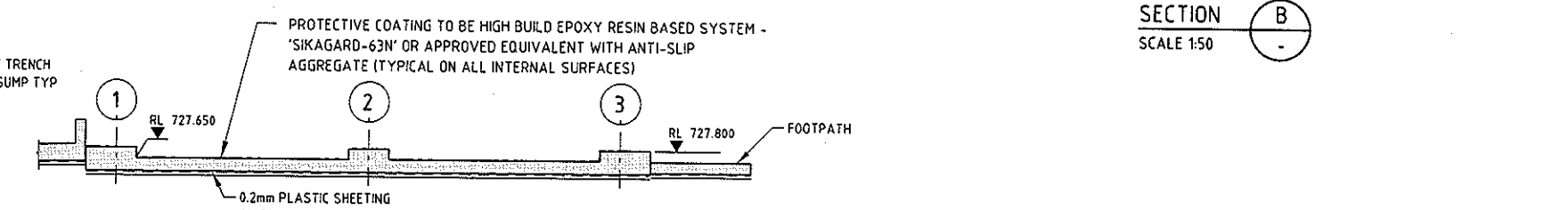
ARRANGEMENT PLAN
SCALE 1:50



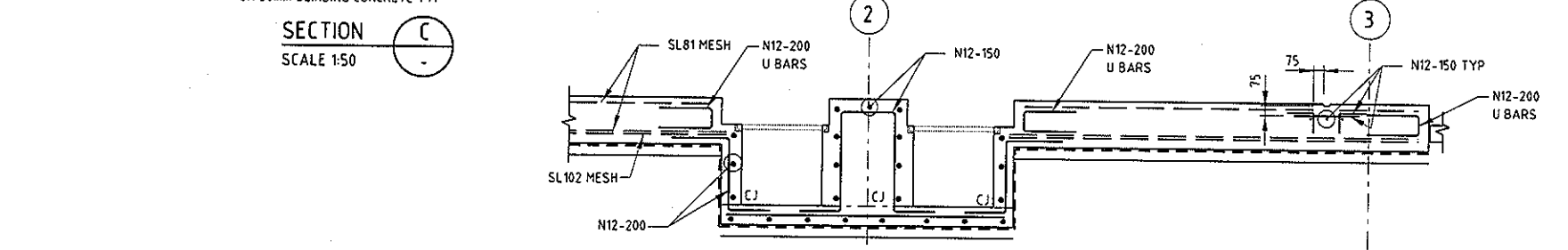
REINFORCEMENT PLAN
SCALE 1:50



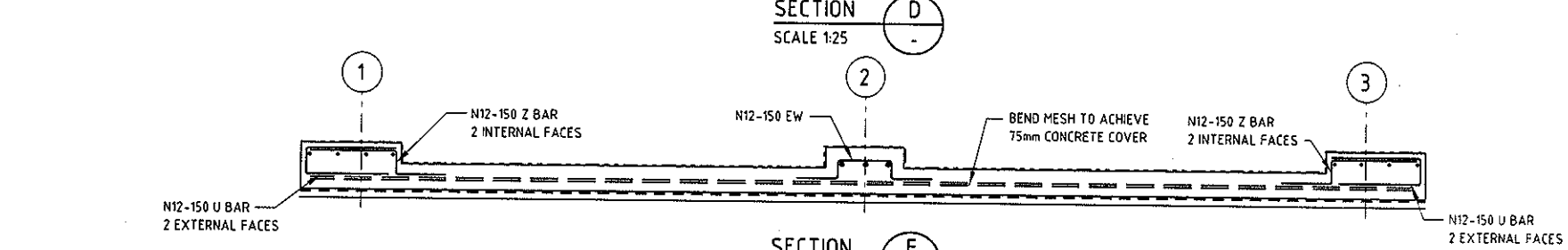
SECTION A
SCALE 1:50



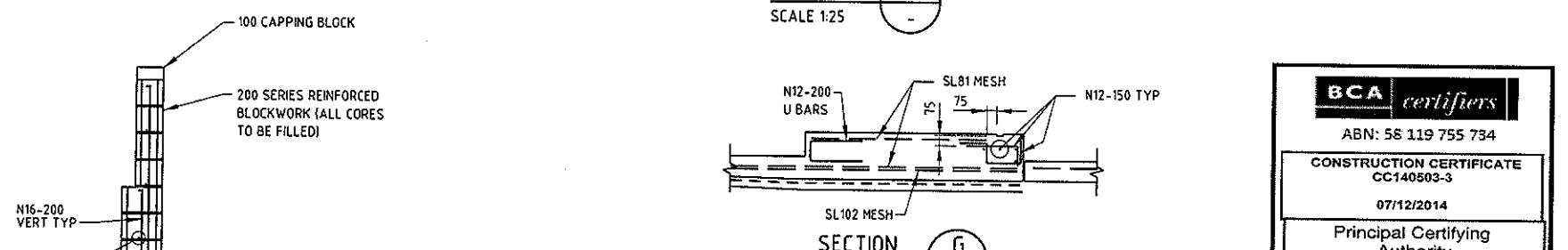
SECTION B
SCALE 1:50



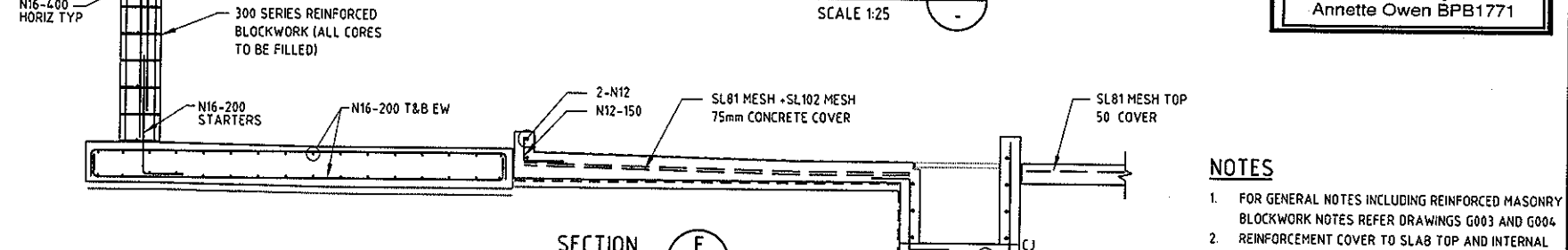
SECTION C
SCALE 1:50



SECTION D
SCALE 1:25



SECTION E
SCALE 1:25



SECTION F
SCALE 1:25



SECTION G
SCALE 1:25

- NOTES**
- FOR GENERAL NOTES INCLUDING REINFORCED MASONRY BLOCKWORK NOTES REFER DRAWINGS G003 AND G004
 - REINFORCEMENT COVER TO SLAB TOP AND INTERNAL SURFACES = 75mm

BCA certifiers
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Annette Owen BPB1771

NOT FOR CONSTRUCTION

REV	DESCRIPTION	AG	AD	SC	DATE
D	IFC FOR REVIEW				
C	BUND MOVED LEVELS REV'D - ISSUED FOR 90% REVIEW				
B	ISSUED FOR 90% REVIEW				
A	ISSUED FOR 90% REVIEW				

SURVEYED	DESIGNED	DRAWN	CAD REVIEW	DESIGN CHECK	DESIGN REVIEW	APPROVED
	Amogh Deshpande	Yogesh Desai	Alan Gilbert	Amogh Deshpande	Jaya Weerasinghe	Stephen Chapman



GOOGONG WATER RECYCLING PLANT STAGE AB
IBC CHEMICAL BUND
CONCRETE - PLAN AND DETAILS

Status Stamp	FOR REVIEW
Date Stamp	02.12.14
Scale	
Drawing No	83502156-01-001-S304
Rev	D



COLOUR SCHEME	
ELEMENT	SPECIFICATION
ROOFING	COLORBOND COLOUR "JASPER"
GUTTERS AND DOWNPIPES	COLORBOND COLOUR "LOFT"
BARGE CAPPING	COLORBOND COLOUR "LOFT"

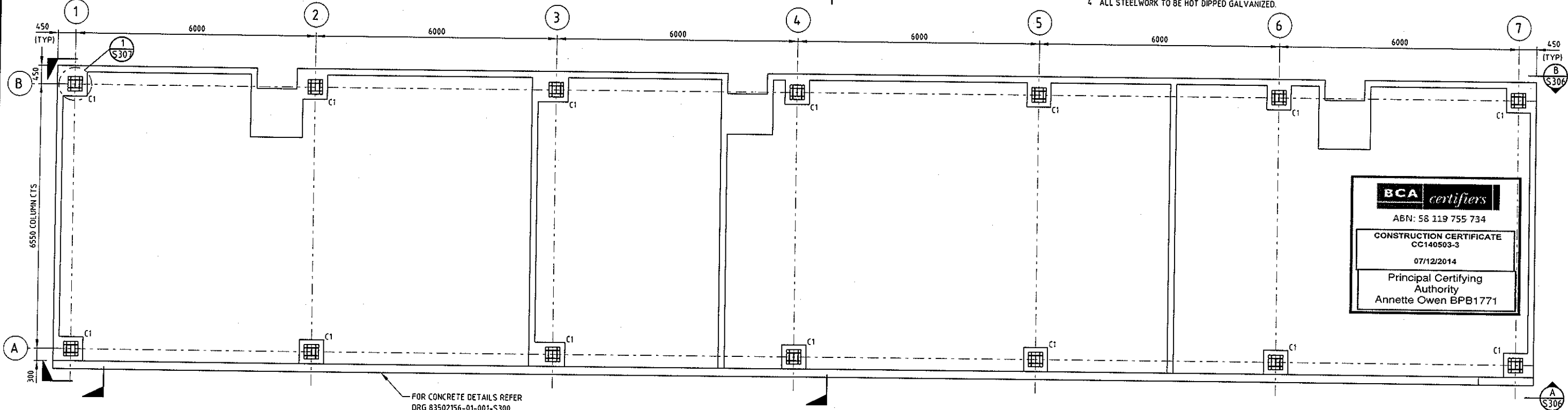
NOTES

1. NO. AND LOCATION OF LIFTING LUGS TO BE CONFIRMED IN CONJUNCTION WITH LIFTING CONTRACTOR.
2. REFER TO CONCRETE DRAWINGS FOR COLUMN GRID SETOUT.
3. FABRICATION SHOP DRAWINGS TO BE SUBMITTED FOR APPROVAL PRIOR TO FABRICATION.
4. ALL STEELWORK TO BE HOT DIPPED GALVANIZED.

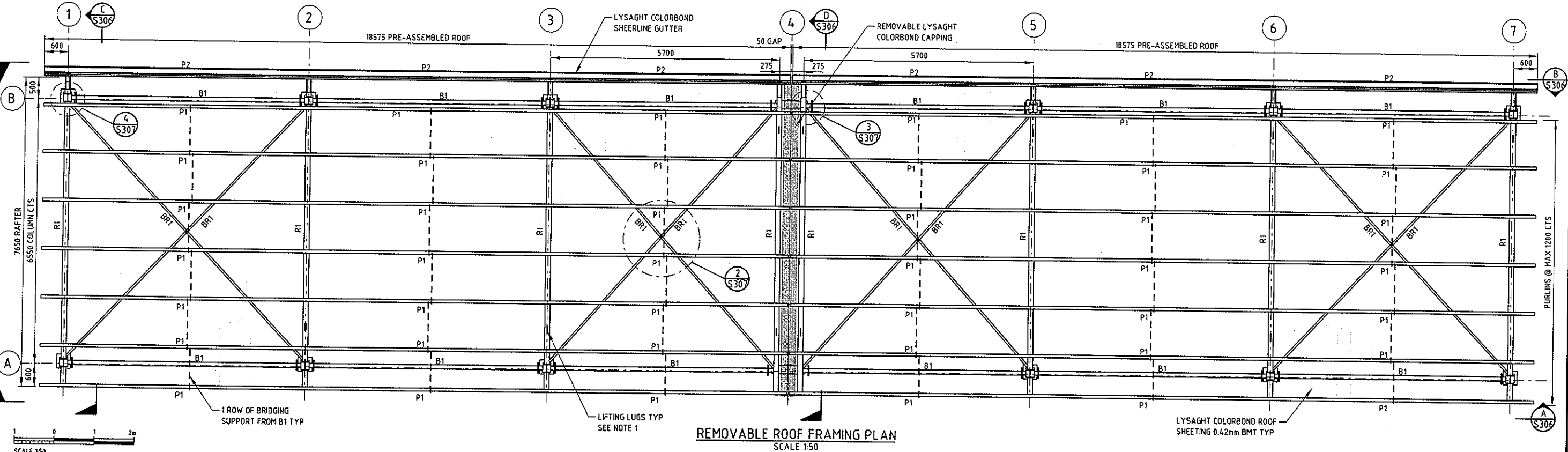
MEMBER SCHEDULE	
MARK	MEMBER
C1	200UC46
R1	250UB26
B1	150x100x6 RHS
BR1	50x6 EA
P1	SC20019
P2	FP23019

ORIGINAL SIZE A1

DO NOT SCALE - IF IN DOUBT, ASK



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 CC140503-3
 07/12/2014
 Principal Certifying
 Authority
 Annette Owen BPB1771



REV	DESCRIPTION	YKD	ACS	SC	DATE
B	IFC FOR REVIEW				28.11.14
A	ISSUED FOR 90% REVIEW				03.10.14

ROLE	NAME	DATE
SURVEYED		
DESIGNED	Adam Chan-Sew	29.09.14
DRAWN	Yogesh Desai	29.09.14
CAD REVIEW	Alan Gilbert	03.10.14
DESIGN CHECK	Amogh Deshpande	03.10.14
DESIGN REVIEW	Jaya Weerasinghe	03.10.14
APPROVED	Stephen Chapman	28.11.14



GOOGONG WATER RECYCLING PLANT STAGE AB

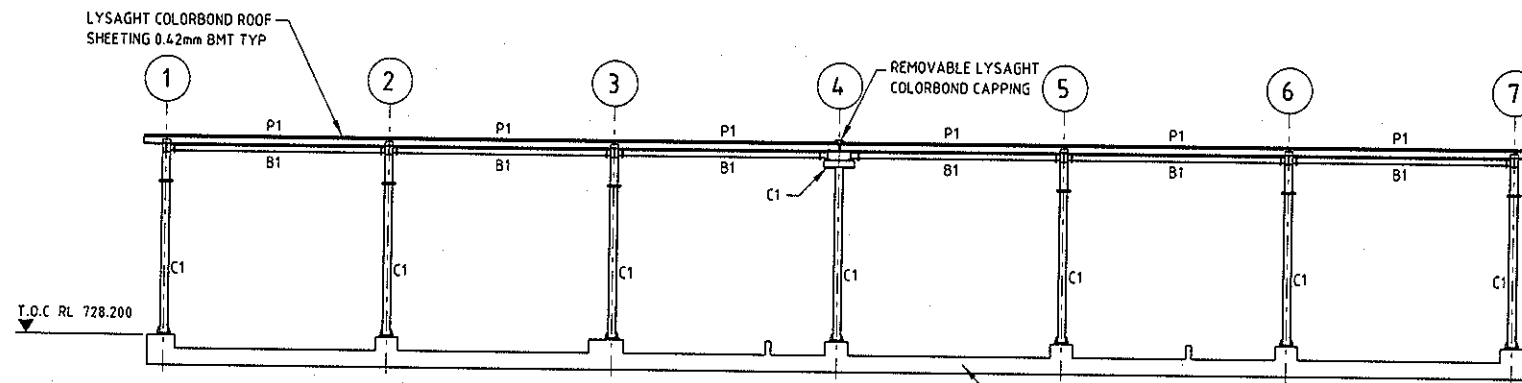
CHEMICAL STORAGE AND UNLOADING AREA

STEELWORK - PLANS

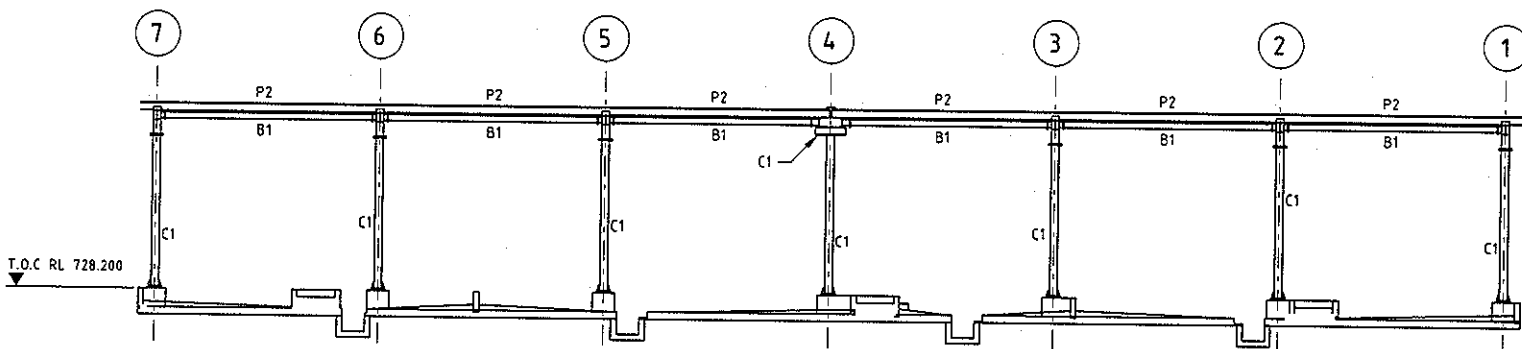
Status Stamp	FOR REVIEW
Date Stamp	28.11.14
Scale	
Drawing No	83502156-01-001-S305

NOTES

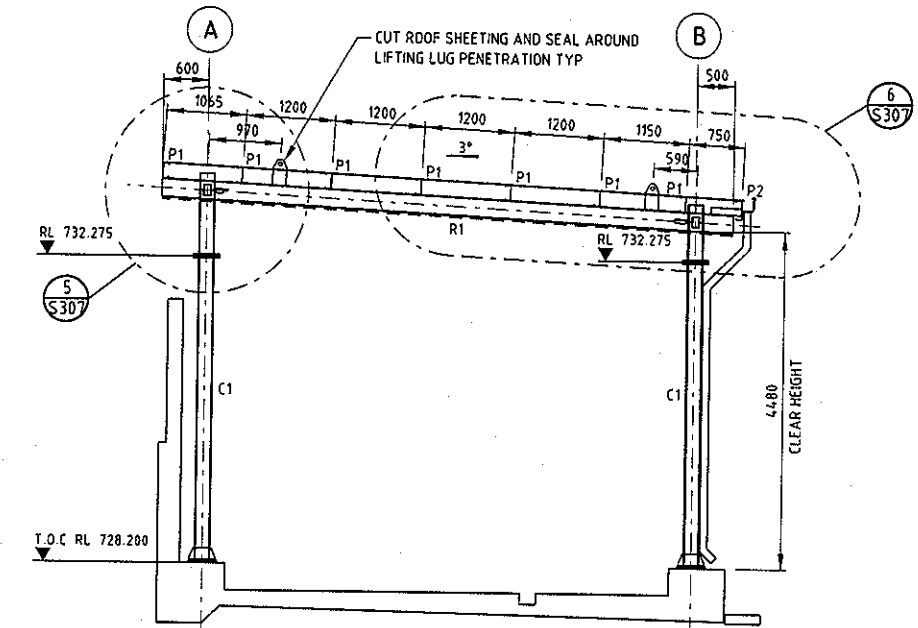
1 FOR NOTES AND MEMBER SCHEDULE REFER DRAWING 83502156-01-001-S305



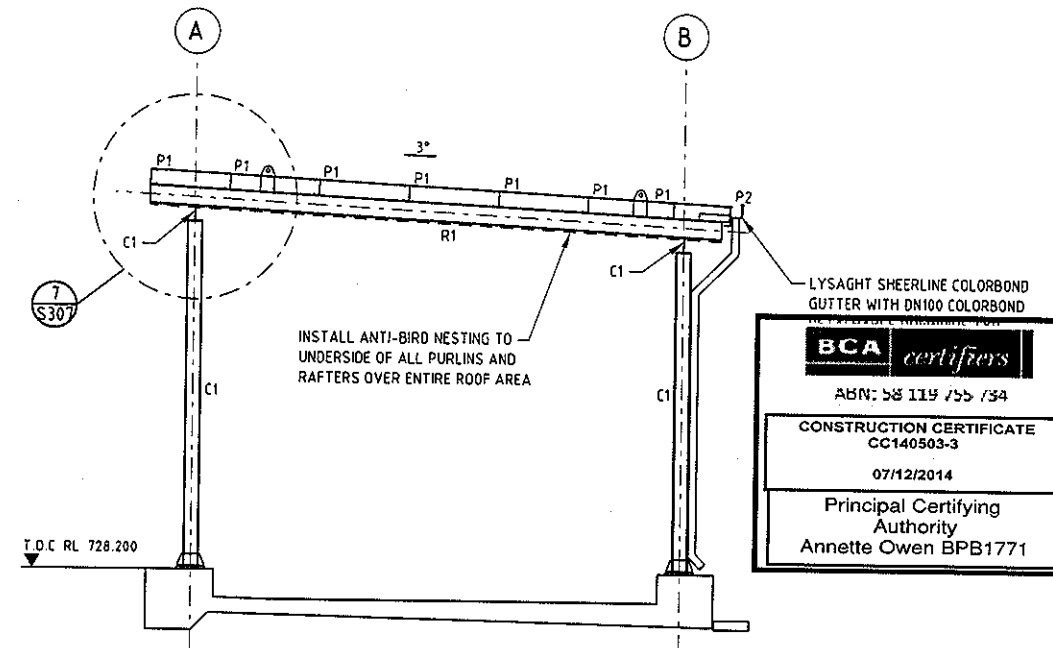
ELEVATION A
SCALE 1:100
S305



ELEVATION B
SCALE 1:100
S305



ELEVATION C
SCALE 1:50
S305



ELEVATION D
SCALE 1:50
S305

BCA certifiers

ABN: 58 119 755 754

CONSTRUCTION CERTIFICATE
CC140503-3

07/12/2014

Principal Certifying Authority
Annette Owen BPB1771



ORIGINAL SIZE A1

REV	DESCRIPTION	YKD	ACS	SC	DATE
B	IFC FOR REVIEW				28.11.14
A	ISSUED FOR 90% REVIEW				03.10.14
	REVISIONS	DRN	CHK	APP	DATE

PROF REGISTRATION:	DATE
SURVEYED	
DESIGNED	Adam Chan-Sew 29.09.14
DRAWN	Yogesh Desai 29.09.14
CAD REVIEW	Alan Gilbert 03.10.14
DESIGN CHECK	Amogh Deshpande 03.10.14
DESIGN REVIEW	Jaya Weerasinghe 03.10.14
APPROVED	Stephen Chapman 28.11.14



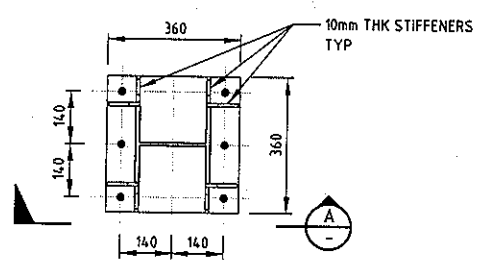
GOOGONG WATER RECYCLING PLANT STAGE AB

CHEMICAL STORAGE AND UNLOADING AREA
STEELWORK - ELEVATIONS

Status Stamp	FOR REVIEW
Date Stamp	28.11.14
Scale	
Drawing No	83502156-01-001-S306
Rev	B

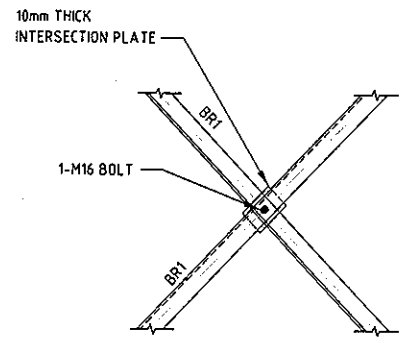
ORIGINAL SIZE A1

DO NOT SCALE - IF IN DOUBT, ASK

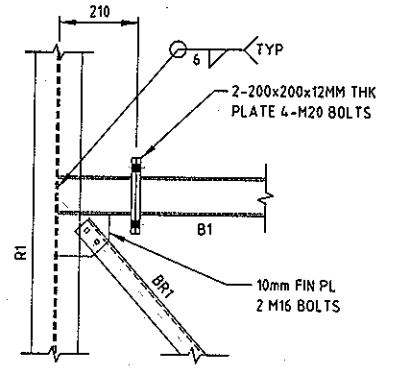


DETAIL 1
SCALE 1:10
S305

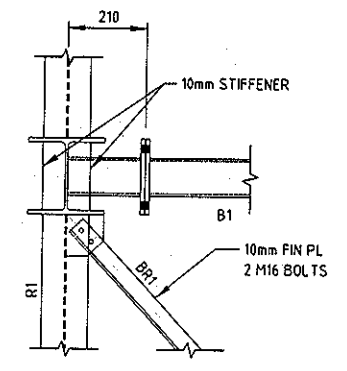
TYPICAL COLUMN C1 BASE PLATE



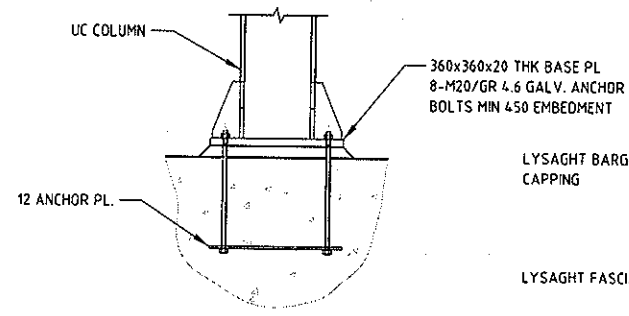
DETAIL 2
SCALE 1:10
S305



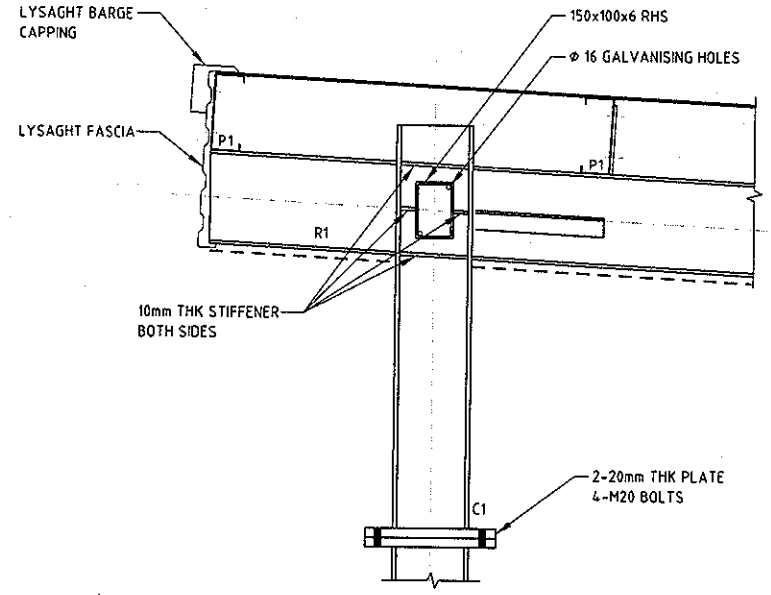
DETAIL 3
SCALE 1:10
S305



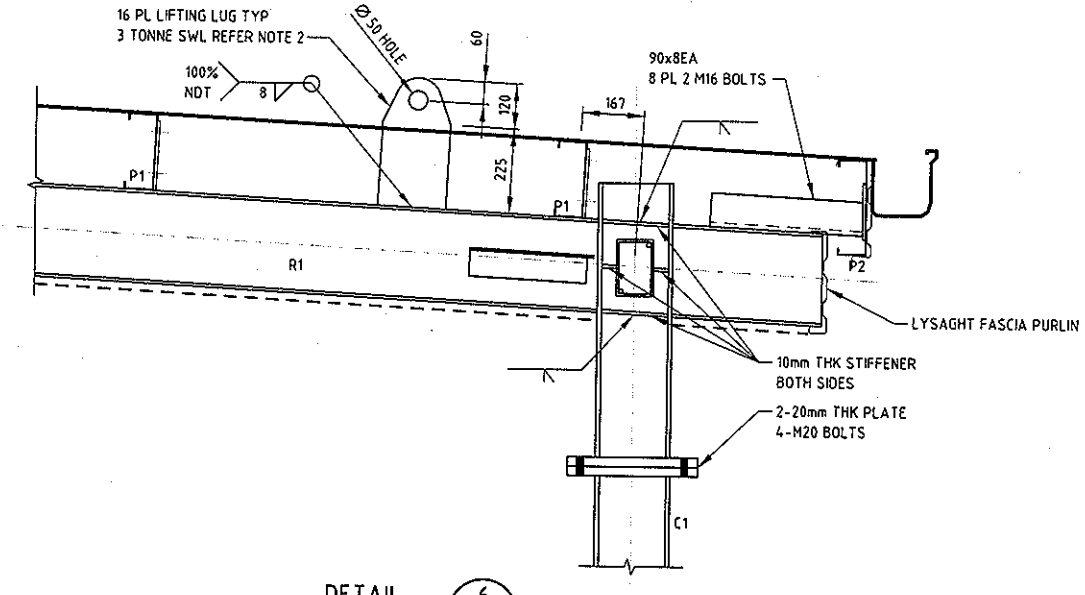
DETAIL 4
SCALE 1:10
S305



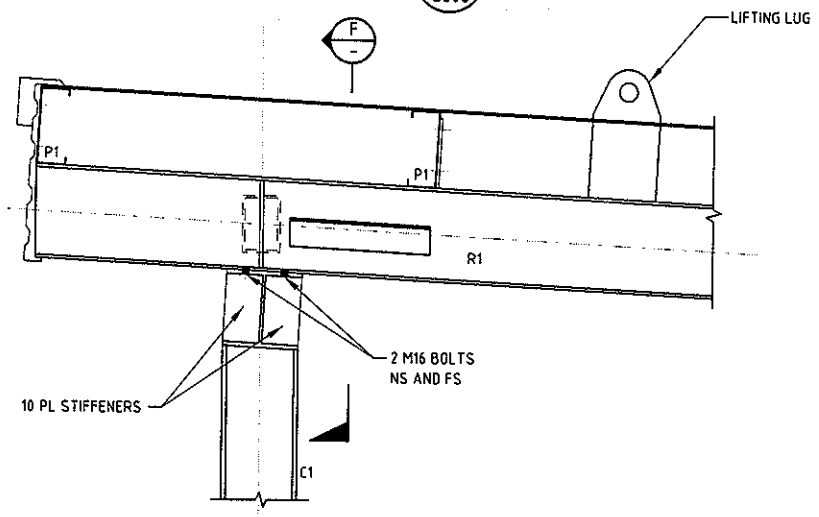
SECTION A
SCALE 1:10



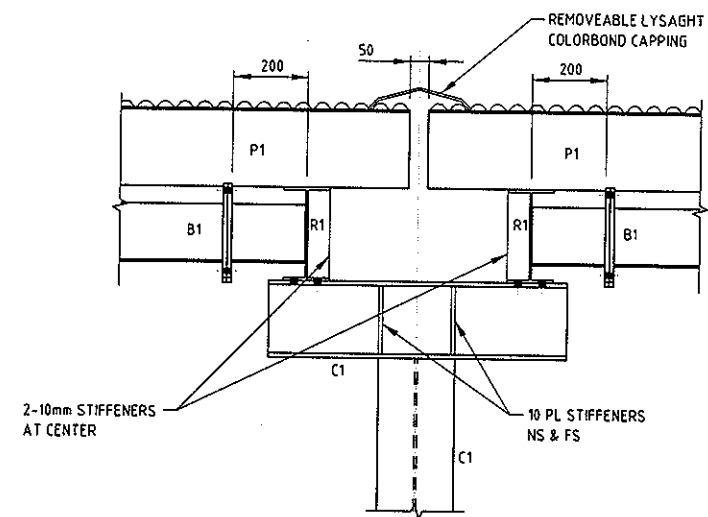
DETAIL 5
SCALE 1:10
S306



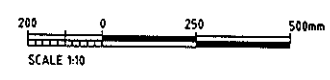
DETAIL 6
SCALE 1:10
S306



DETAIL 7
SCALE 1:10
S306



SECTION F
SCALE 1:10
S306



BCA certifiers
 ABN: 58 119 755 734
 CONSTRUCTION CERTIFICATE
 CC140503-3
 07/12/2014
 Principal Certifying
 Authority
 Annette Owen BPB1771

- NOTES**
- FOR NOTES AND MEMBER SCHEDULE REFER DRAWING 83502156-01-001-S305
 - USE SPREADER BEAM FOR LIFTING ROOF

REV	DESCRIPTION	YKD	ACS	SC	DATE																																										
B	IFC FOR REVIEW																																														
A	ISSUED FOR 90% REVIEW																																														
<table border="1"> <tr> <td>SURVEYED</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>DESIGNED</td> <td>Adam Chan-Sew</td> <td></td> <td></td> <td>29.09.14</td> <td></td> </tr> <tr> <td>DRAWN</td> <td>Yogesh Desai</td> <td></td> <td></td> <td>29.09.14</td> <td></td> </tr> <tr> <td>CAD REVIEW</td> <td>Alan Gilbert</td> <td></td> <td></td> <td>03.10.14</td> <td></td> </tr> <tr> <td>DESIGN CHECK</td> <td>Amogh Deshpande</td> <td></td> <td></td> <td>03.10.14</td> <td></td> </tr> <tr> <td>DESIGN REVIEW</td> <td>Jaya Weerasinghe</td> <td></td> <td></td> <td>03.10.14</td> <td></td> </tr> <tr> <td>APPROVED</td> <td>Stephen Chapman</td> <td></td> <td></td> <td>28.11.14</td> <td></td> </tr> </table>						SURVEYED						DESIGNED	Adam Chan-Sew			29.09.14		DRAWN	Yogesh Desai			29.09.14		CAD REVIEW	Alan Gilbert			03.10.14		DESIGN CHECK	Amogh Deshpande			03.10.14		DESIGN REVIEW	Jaya Weerasinghe			03.10.14		APPROVED	Stephen Chapman			28.11.14	
SURVEYED																																															
DESIGNED	Adam Chan-Sew			29.09.14																																											
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DESIGN REVIEW	Jaya Weerasinghe			03.10.14																																											
APPROVED	Stephen Chapman			28.11.14																																											

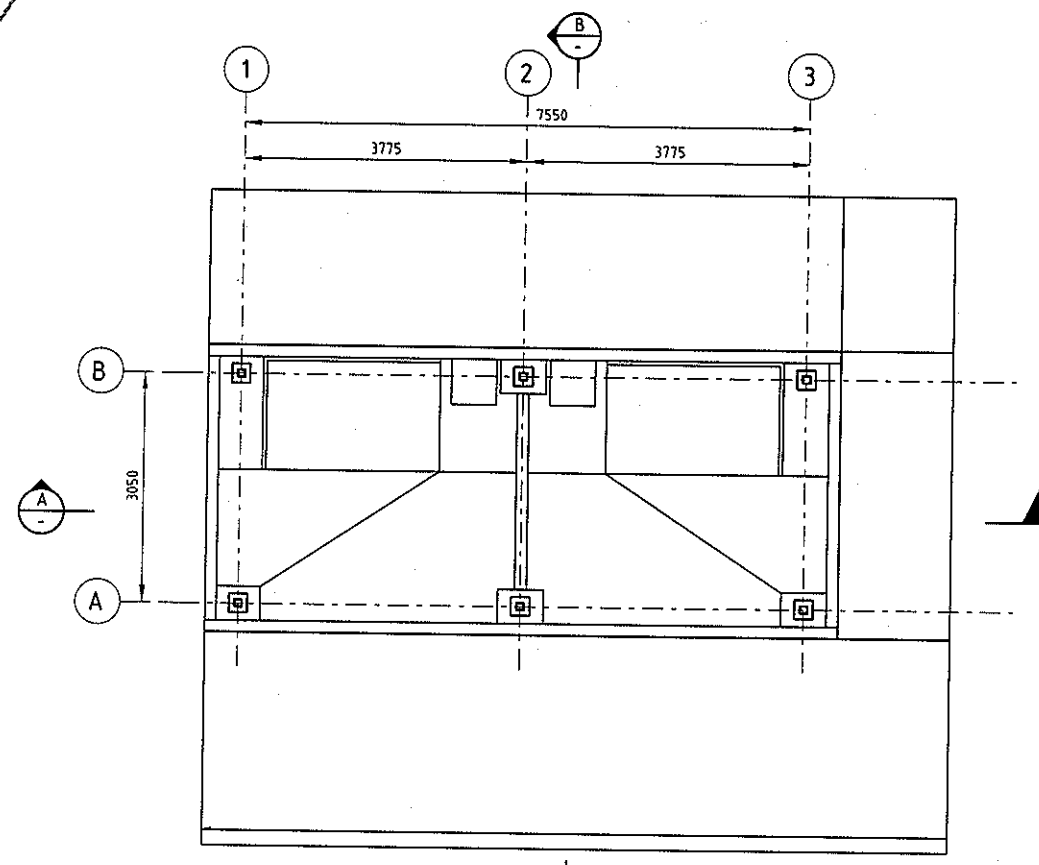


GOOGONG WATER RECYCLING PLANT STAGE AB
 CHEMICAL STORAGE AND UNLOADING AREA
 STEELWORK - SECTIONS AND DETAILS

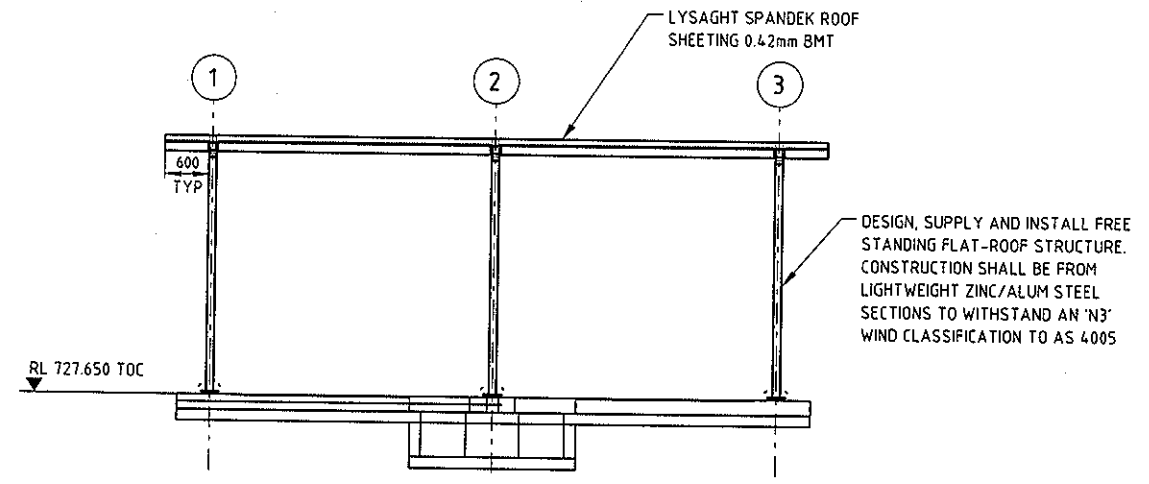
Status Stamp	FOR REVIEW
Date Stamp	28.11.14
Scale	
Drawing No	83502156-01-001-S307
Rev	B

DO NOT SCALE - IF IN DOUBT, ASK

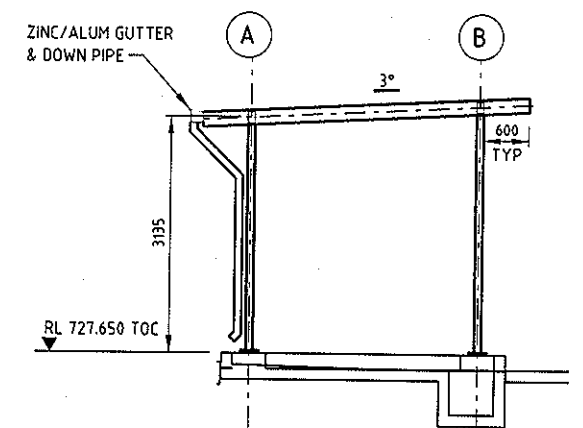
ORIGINAL SIZE A1



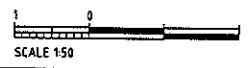
BASE PLATE PLAN
SCALE 1:50



SECTION A
SCALE 1:50



SECTION B
SCALE 1:50



SCALE 1:50

BCA certifiers

ABN: 58 119 455 134

CONSTRUCTION CERTIFICATE
CC140503-3

07/12/2014

Principal Certifying
Authority
Annette Owen BPB1771

NOTES

1. THIS DRAWING IS FOR INFORMATION AND SHALL BE USED FOR DIMENSIONAL SETOUT ONLY.
2. CONTRACTOR SHALL SUBMIT ANY ENGINEERING AND SHOP FABRICATION DRAWINGS TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION.

NOT FOR CONSTRUCTION

REV	DESCRIPTION	AG	ACS	SC	DATE
B	IFC FOR REVIEW				02.12.14
A	ISSUED FOR 90% REVIEW				10.10.14

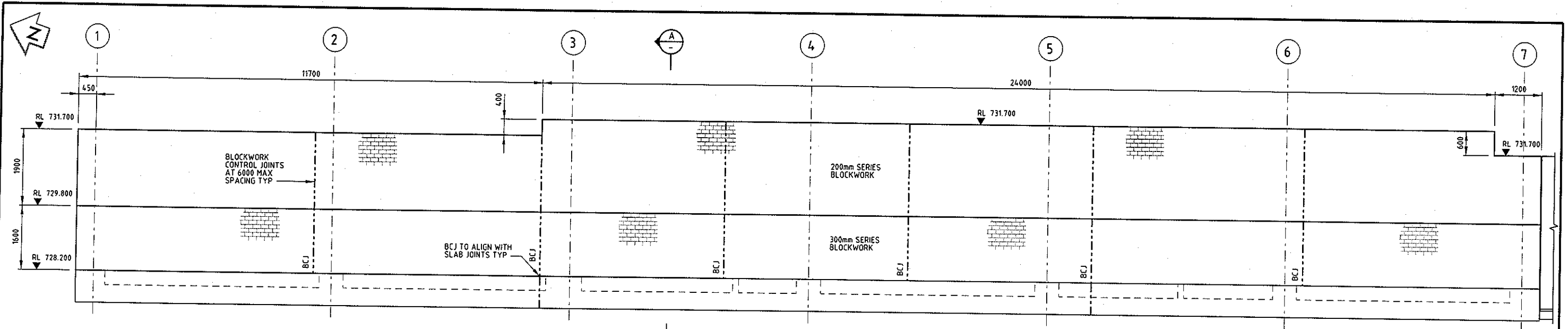
SURVEYED		
DESIGNED	Adam Chan-Sew	08.10.14
DRAWN	Yogesh Desai	08.10.14
CAD REVIEW	Alan Gilbert	10.10.14
DESIGN CHECK	Amogh Deshpande	10.10.14
DESIGN REVIEW	Jaya Weerasinghe	10.10.14
APPROVED	Stephen Chapman	02.12.14
PROF REGISTRATION:		



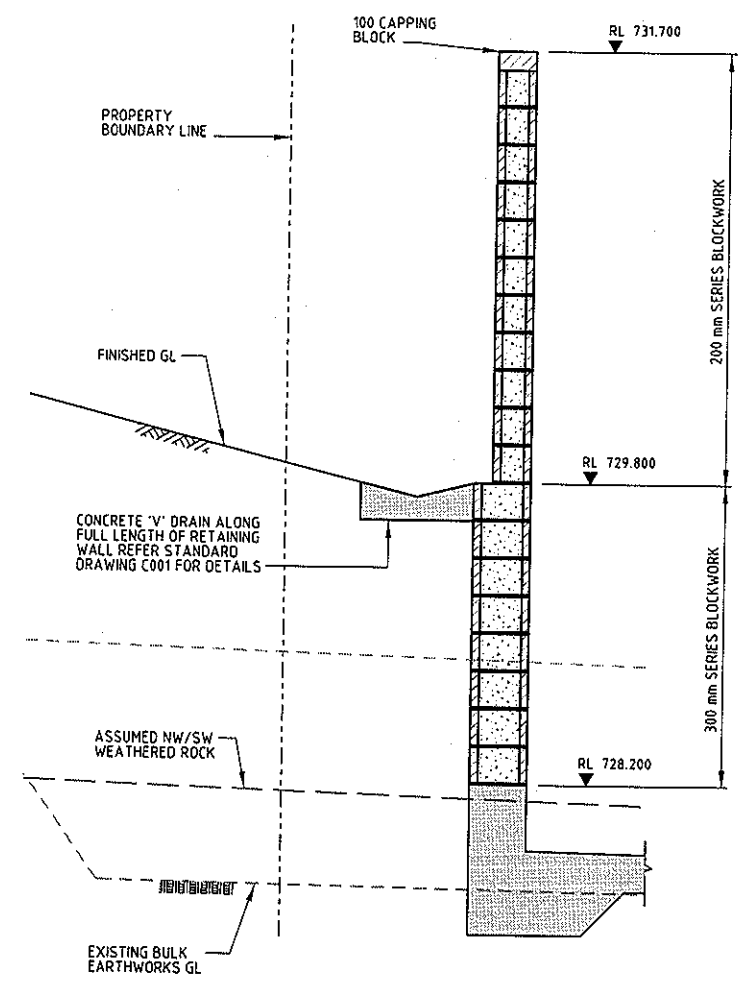
GOOGONG WATER RECYCLING PLANT STAGE AB

IBC CHEMICAL BUND
STEELWORK - PLANS AND SECTIONS

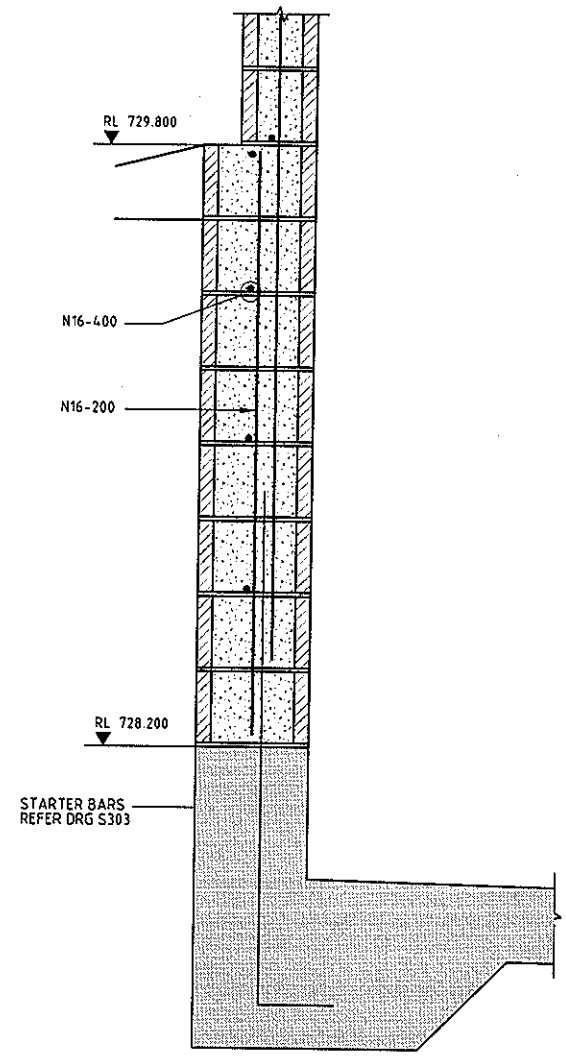
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Date Stamp	02.12.14
Scale	
Drawing No	83502156-01-001-S308
Rev	B



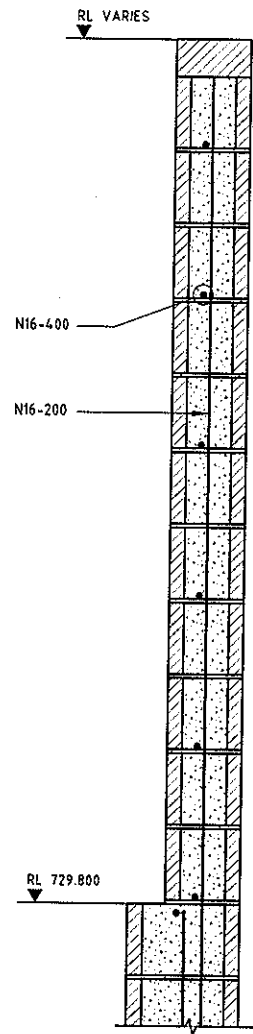
ELEVATION
SCALE 1:50



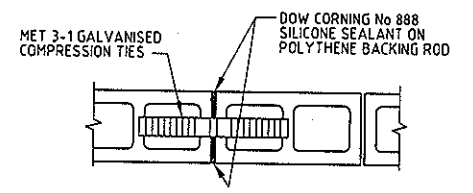
SECTION A
SCALE 1:50



300mm WALL REINFORCEMENT
SCALE 1:10



200mm WALL REINFORCEMENT
SCALE 1:10



BLOCKWORK CONTROL JOINT - BCJ
SCALE 1:10
TYPICAL FOR 200mm AND 300mm SERIES BLOCKWORK

BCA certifiers
ABN. 58 119 755 734
CONSTRUCTION CERTIFICATE
CC140503-3
07/12/2014
Principal Certifying Authority
Annette Owen BPB1771

- NOTES**
- FOR GENERAL NOTES INCLUDING REINFORCED MASONRY BLOCKWORK NOTES REFER DRAWINGS G003 AND G004
 - FOR NOTES AND GRID SETOUT DIMENSIONS REFER DRAWING S300

ORIGINAL SIZE A1
DO NOT SCALE - IF IN DOUBT, ASK

<table border="1"> <tr><td>REV</td><td>IFC FOR REVIEW</td></tr> <tr><td>AG</td><td>AD</td></tr> <tr><td>DRN</td><td>CHK</td></tr> <tr><td>APP</td><td>DATE</td></tr> </table>		REV	IFC FOR REVIEW	AG	AD	DRN	CHK	APP	DATE	<table border="1"> <tr><td>SURVEYED</td><td></td><td></td></tr> <tr><td>DESIGNED</td><td>Amogh Deshpande</td><td>24.11.14</td></tr> <tr><td>DRAWN</td><td>Alan Gilbert</td><td>26.11.14</td></tr> <tr><td>CAD REVIEW</td><td>Alan Gilbert</td><td>28.11.14</td></tr> <tr><td>DESIGN CHECK</td><td>Amogh Deshpande</td><td>28.11.14</td></tr> <tr><td>DESIGN REVIEW</td><td>Jaya Weerasinghe</td><td>28.11.14</td></tr> <tr><td>APPROVED</td><td>Stephen Chapman</td><td>28.11.14</td></tr> </table>	SURVEYED			DESIGNED	Amogh Deshpande	24.11.14	DRAWN	Alan Gilbert	26.11.14	CAD REVIEW	Alan Gilbert	28.11.14	DESIGN CHECK	Amogh Deshpande	28.11.14	DESIGN REVIEW	Jaya Weerasinghe	28.11.14	APPROVED	Stephen Chapman	28.11.14	<p>Client: GOOGONG</p>	<p>GOOGONG WATER RECYCLING PLANT STAGE AB</p> <p>CHEMICAL STORAGE AREA</p> <p>BLOCKWORK RETAINING WALL DETAILS</p>	<p>NOT FOR CONSTRUCTION</p> <p>Status Stamp: FOR REVIEW</p> <p>Date Stamp: 28.11.14</p> <p>Scale: AS SHOWN</p> <p>Drawing No: 83502156-01-001-S309</p> <p>Rev: A</p>
REV	IFC FOR REVIEW																																	
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NOTES

- FOR GENERAL NOTES REFER DRG G003 AND G004.
- THE ROCK PROFILES SHOWN ARE BASED ON LINEAR INTERPOLATION BETWEEN AVAILABLE BORE LOGS. ACTUAL ROCK LEVELS MAY VARY. ALL MATERIAL ABOVE THE "EW/HW & HW DACITE" ROCK LEVEL SHALL BE REMOVED AND REPLACED WITH MASS CONCRETE TO ENSURE UNIFORM SUBGRADE. WHEN PREPARING FOUNDATION, THE CONTRACTOR SHALL ENGAGE A SUITABLY QUALIFIED GEOTECHNICAL ENGINEER TO VERIFY THE EW/HW & HW DACITE" ROCK LEVEL PRIOR TO FILLING WITH MASS CONCRETE.
- ALL DIMENSIONS IN mm.
- GRADE OF CONCRETE SHALL BE S40.
- TANK DESIGN BASED ON ALS MODEL 3419ASMTT-GTT. REBATE DETAIL AS PER ENGINEERED STORAGE PRODUCTS COMPANY DRAWING 267082. ANY CHANGES TO TANK SELECTION AND CONNECTION DETAIL SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL DESIGN ENGINEER FOR REVIEW.
- DRAIN PENETRATION IN SUMP SHALL BE PROVIDED WITH PUDDLE FLANGE AND PENETRATION REINFORCEMENT AS PER DRG No 5001.
- THE MINIMUM ALLOWABLE SAFE BEARING CAPACITY SHALL BE 1000kPa.

CONCRETE COVER TO REINFORCEMENT

STRUCTURE	MEMBER	TOP		BOTTOM		EXPOSURE CLASSIFICATION
		INT	EXT	INT	EXT	
TANK FOUNDATION	BASE SLAB	40	40	40	40	B1 (AS 3735)

SET OUT POINTS

POINT	EASTING	NORTHING
SP1	703635.27	6078289.86

DESIGN LOADING TABLE

STRUCTURE	COMPONENT	LOAD COMBINATION ADOPTED FOR DESIGN	LOAD COMBINATION TYPE
TANK FOUNDATION	BASE SLAB	SELF WEIGHT (5016kg) + 51 kPa LIQUID LOAD + UNBALANCED LOADS DUE TO SEISMIC OR SELF WEIGHT + 51 kPa LIQUID LOAD	AS3735 - SHORT TERM EFFECT AS3735 - LONG TERM EFFECT

RW TANK FOUNDATION PLAN
SCALE 1:50

RW TANK FOUNDATION REINFORCEMENT
SCALE 1:50

SECTION A
SCALE 1:25

SECTION B
SCALE 1:25

DETAIL 1
SCALE 1:25

DETAIL 2
SCALE 1:25

BCA certifiers
ABN: 58 119 755 734
CONSTRUCTION CERTIFICATE
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07/12/2014
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REFERENCE DRAWINGS

- G003 - GENERAL NOTES
- G004 - GENERAL NOTES
- S001 - STRUCTURAL DETAILS
- S002 - STRUCTURAL DETAILS
- G406 - RECYCLE WATER AREA - GA PLAN
- G010 - YARD PIPING PLAN

200x200 REINFORCEMENT EXCLUSION ZONE AS PER TANK MANUFACTURER

NOT FOR CONSTRUCTION

ORIGINAL SIZE A1
DO NOT SCALE - IF IN DOUBT, ASK

REV	DESCRIPTION	DATE
C	ISSUED FOR REVIEW	
B	ISSUED FOR 90% REVIEW	
A	ISSUED FOR 90% REVIEW	

REV	CHK	APP	DATE
SBC	JW	SC	01.12.14
SBC	AD	SC	27.10.14
AN	AD	SC	24.10.14
DRN	CHK	APP	DATE

STATUS	NAME	DATE
SURVEYED		
DESIGNED	Amogh	14.10.2014
DRAWN	Akshay Naik	14.10.2014
CAD REVIEW	Alan Gilbert	24.10.14
DESIGN CHECK	Amogh Deshpande	24.10.14
DESIGN REVIEW	Jaya Weerasinghe	24.10.14
APPROVED	Stephen Chapman	02.12.14



GOOGONG WATER RECYCLING PLANT STAGE AB
RECYCLED WATER STORAGE TANK FOUNDATION PLAN SECTIONS AND DETAILS

Status Stamp	FOR REVIEW
Date Stamp	02.12.14
Scale	
Drawing No	83502156-01-001-S420
Rev	C