

28 October 2010

ULDA Ref No: DEV2010/081

JFE Engineering Corporation
c/- Wolter Group Holdings Pty Ltd
Attn James Isaac
PO Box 436
NEW FARM QLD 4005

Dear James

RE: UDA DEVELOPMENT APPROVAL FOR BUILDING WORKS AND OPERATIONAL WORKS (CLEARING VEGETATION) FOR SHED ASSOCIATED WITH UTILITY INSTALLATION (POTABLE WATER REUSE FACILITY) AND CLEARING OF SIGNIFICANT VEGETATION AT 253 TELEGRAPH ROAD DESCRIBED AS PART OF LOT 11 ON SP223412

I am pleased to inform you that your application was approved on 26 October 2010 in accordance with the attached UDA Development Approval Package.

This application and its decision can also be viewed in the ULDA Development Approvals Register via our website www.ulda.qld.gov.au.

If you have any further questions with regard to the matter, please contact me on 3024 4166.

Yours sincerely



Matt Toon
PRINCIPAL PLANNER

UDA Development Approval Package

Address of Site	253 Telegraph Rd, Fitzgibbon
Real Property Description	Part of Lot 11 on SP223412
Type of Application	Building Works & Operational Works (clearing vegetation)
Description of proposal	Shed associated with a Utility Installation (potable water reuse facility) and Clearing of Significant Vegetation
ULDA Reference Number	DEV2010/081
Package Approved	26 October 2010
Decision	APPROVED

Approved plan/s, drawing/s and document/s	Number	Date
Site and Ground Floor Plan	CD-101 Rev N	17.08.2010
PotaRoo Building Plan	CD-102 Rev D	17.08.2010
Roof Plan	CD-103 Rev G	17.08.2010
Reflected Ceiling Plan	CD-104 Rev D	17.08.2010
Elevations	CD-201 Rev H	17.08.2010
Elevations 2	CD-202 Rev B	17.08.2010
Sections	CD-301 Rev D	17.08.2010
Section 2	CD-302 Rev D	17.08.2010
General Arrangement Plan	C103 Rev D	08.09.2010
Metes and Bounds Plan	SK201 Rev A	04.10.2010
Surveyed Tree Identification report by Biodiversity Assessment and Management Pty Ltd	0276-001	5 October 2010
Flora and Fauna Management Plan – Fitzgibbon Urban Development Area Precinct 4	Revision 4	30/11/2009

PROJECT TEAM

Matt Toon Principal Planner Urban Land Development Authority	Phillip Kohn Environmental Planner Urban Land Development Authority	Con de Groot Principal Engineer Urban Land Development Authority
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CONDITIONS		TIMING
1.	Complete All Building Work Complete all building work associated with this development approval, including work required by any of the following conditions. Such building work is to be carried out generally in accordance with the approved plans, drawing(s), and/or documents.	As indicated
2.	Complete all Operational Works Complete all operational work associated with this development approval, including work required by any of the following conditions. Such operational work is to be carried out generally in accordance with the approved plans.	Prior to commencement of use

CONDITIONS	TIMING
3. Repair damage to Kerb, Footpath or Road Repair any damage to existing kerb and channel, footpath or roadway (including removal of concrete slurry from footways, roads, kerb and channel and stormwater gullies and drainlines) that may occur during any works carried out in association with the approved development.	Prior to commencement of use
4. Construction Management Plan a) Prepare a site based construction management plan that includes but is not limited to ▪ provision for the management of traffic around and through the site during and outside of construction work hours ▪ provision for parking and materials delivery during and outside of construction hours of work ▪ management of dust generated from the site during and outside construction work hours ▪ management of sedimentation and erosion which complies with Brisbane City Council's Erosion and Sediment Control Standard (Version 9 or later) ▪ management of groundwater and surface water collection, treatment and disposal ▪ All operators of machinery are to be made aware of the presence of high voltage conductors The construction management plan shall be prepared in consultation with the professionals responsible for individual site related management plans to ensure that all aspects of the construction and environmental management are included. The construction management plan shall be reviewed and approved by the principal consultant overseeing and certifying the construction works. b) All work shall be undertaken in accordance with the construction management plan which must be current and available on site.	a) Prior to commencement of site works b) At all times during the construction period
5. Sewer & Water Connection a) Seek and obtain approval from Queensland Urban Utilities (QUU) to connect into the existing water and sewerage infrastructure. Submit for approval to the QUU Engineering plans showing the design of any sewer property connections to serve the development. A Registered Professional Engineer of QLD (RPEQ) is to verify the plan and ensure the design is in accordance with Brisbane City Council's current Sewerage Standards. b) Construct the sewer and water connection in accordance with the approved plans required in part (a) of this condition. Submit to the QUU and the ULDA as-constructed plans verified by a Registered Professional Engineer of QLD (RPEQ) confirming all works have been completed in accordance with the approved plans c) Provide to the ULDA all approval correspondence from UQQ relating to part (a) of this condition.	Prior to commencement of use

CONDITIONS		TIMING
6.	Service, meter assembly & meter box Provide a water service, approved meter assembly and meter box to the boundary of proposed development in accordance with the <i>WSA 03-2002 Water Supply Code of Australia V2.3</i> and Brisbane City Council's <i>Supplementary Manual</i>.	Prior to commencement of use
7.	Stormwater system Internal stormwater and roofwater shall be collected and discharged on-site.	Prior to commencement of use and to be maintained
8.	Easements over infrastructure – water supply, sewerage, drainage Where public utilities are located on private land, public utility easements must be provided in favour of the ULDA. The terms of the easements must be to the satisfaction of the Chief Executive Officer.	Prior to commencement of use
9.	Vegetation Clearing a) Survey and stake the boundary of the site works as shown as 'infrastructure footprint' and relocate nest boxes as identified with approved <i>Surveyed Tree Identification</i> report by <i>Biodiversity Assessment and Management Pty Ltd</i> dated 5 October 2010. b) Significant vegetation identified within the approved <i>Surveyed Tree Identification</i> report by <i>Biodiversity Assessment and Management Pty Ltd</i> dated 5 October 2010 can be cleared within the surveyed boundary of part a. of this condition and all vegetation outside the identified boundary is to be protected. c) Tree clearing shall be in accordance with the requirements of the approved <i>Flora and Fauna Management Plan – Fitzgibbon Urban Development Area Precinct 4 Revision 4</i> dated 30/11/2009.	a) Prior to commencement of significant vegetation clearing b) On completion of part a. of this condition c) As indicated
10.	Outdoor Lighting Minimise outdoor lighting to reduce light spill in the adjacent bushland areas to be in accordance with <i>AS 4282:1997 Control of the Obtrusive Effects of Outdoor Lighting</i>.	Prior to commencement of use and to be maintained
11.	Landscaping a) Submit to the ULDA, Development Assessment a detailed Landscape Plan for landscape areas prepared by a qualified and experienced Landscape Architect that certifies that the plan is in accordance with nominated landscaped areas on approved FISH Building – Site & Ground Floor Plan numbered SD-101 and Appendix 2 of the ULDA's <i>Fitzgibbon Bushland Management Plan Version 2</i>. b) Any landscaping on the Energex easement must have prior written approval from Energex's Principal Mains Design Engineer. The design must be kept to the edges of the easement	a) Prior to commencement of landscape site works b) Prior to commencement of

CONDITIONS	TIMING
and not under any overhead conductors. Mature trees are not to grow in excess of 3.5m in height and be in accordance with Energex's Guide to <i>Powerline Friendly Plants</i>. c) Construct landscaping in accordance with part a. of this condition. d) On completion of part c. of this condition provide written certification from a licensed and experienced Landscape Architect or Landscape Contractor that the completed landscaping complies with the part a. and b. of this condition and submit a copy of the as-constructed detailed Landscape Plan to the ULDA, Development Assessment.	landscape site works c) As indicated d) Prior to commencement of use
12. Energex – Nominated Assessing Authority a) Fence must be a maximum of 1.8m high and constructed from chain mesh. b) Access to and along the easement must be available to ENERGEX personnel and heavy equipment at all times. c) Where fencing prohibits access to and along the easement, gates approved by ENERGEX, are to be installed with an ENERGEX padlock. d) Clearance is maintained from all proposed structures to the overhead 110kV powerlines in accordance with <i>Electrical and Safety Standards 2002</i>. e) At all times the following clearance must be maintained from the top of any machinery moving in the vicinity of energised conductors; - 132kV and 110kV conductors – 4.5m minimum clearance - 33kV and 11kV conductors – 3m minimum clearance - Contact ENERGEX if these safety standards cannot be confidently maintained. f) 10m clear access must be provided around all towers and pole structures after the completion of any works on the easement. g) No civil works are to occur within 5 metres of any part of an ENERGEX structure without ENERGEX approval. h) Natural ground level on the easement must not be disturbed without ENERGEX approval. i) Submit to ENERGEX 'As constructed' plans prior to the commencement of use. j) During construction, Energex must be consulted if 5m horizontal distance to Energex structures cannot be achieved. k) During construction, any excavation deeper than 5m must have a minimum horizontal separation from the excavation to any tower, base or pole at least equal to the excavation depth. The excavation is not to be left open overnight and backfill is to be compacted in 150mm layers in the immediate vicinity of the structure. l) Final ground levels should slope gently to the edge of the easement, surrounding area or kerb such that pooling of water on the easement is avoided and conductor ground clearances are not decreased. m) Lighting structures are not permitted in the easement without prior written consent of Energex. n) Any costs incurred by Energex as a result of the works on the easement are to be met by the property developer.	As indicated and to be maintained

Standard Advice

Development Approval

This Development Approval does not include assessment against the Building Code of Australia and does not permit building work to occur. Prior to the commencement of any building work, a Development Permit under the *Sustainable Planning Act 2009* for Carrying out Building Work will be required.

Brisbane City Council (BCC) or Queensland Urban Utilities (QUU) Endorsement

For any conditions in this package that require the consideration of BCC or QUU, you will need to submit the relevant forms, plans and/or reports and fee to the entity nominated in the condition/s. When satisfied that the condition has been met, the applicable entity will issue a response in the manner required by the condition/s (e.g. a letter of endorsement or authorisation, an approval or a permit).

Chemical storage and management

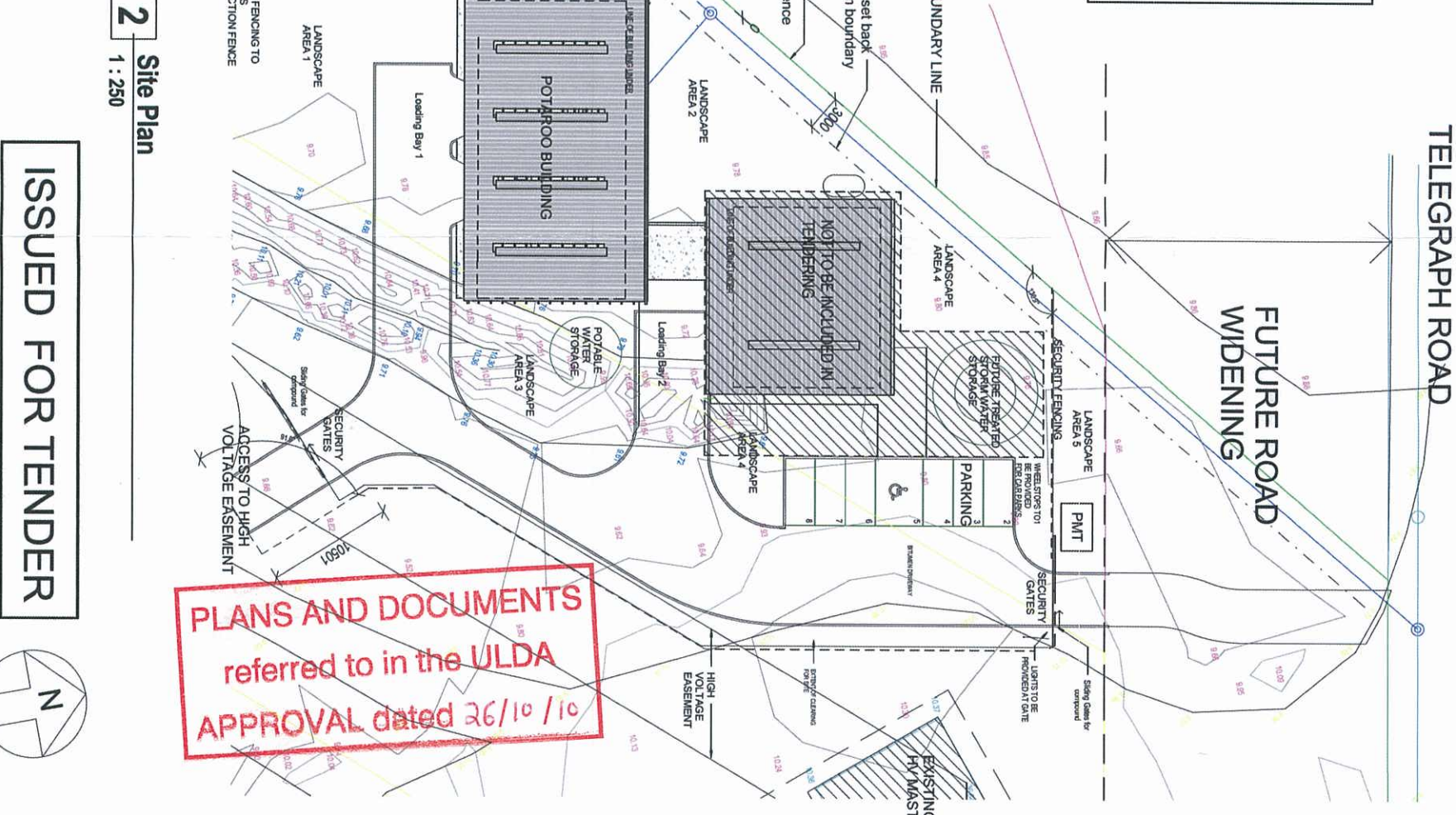
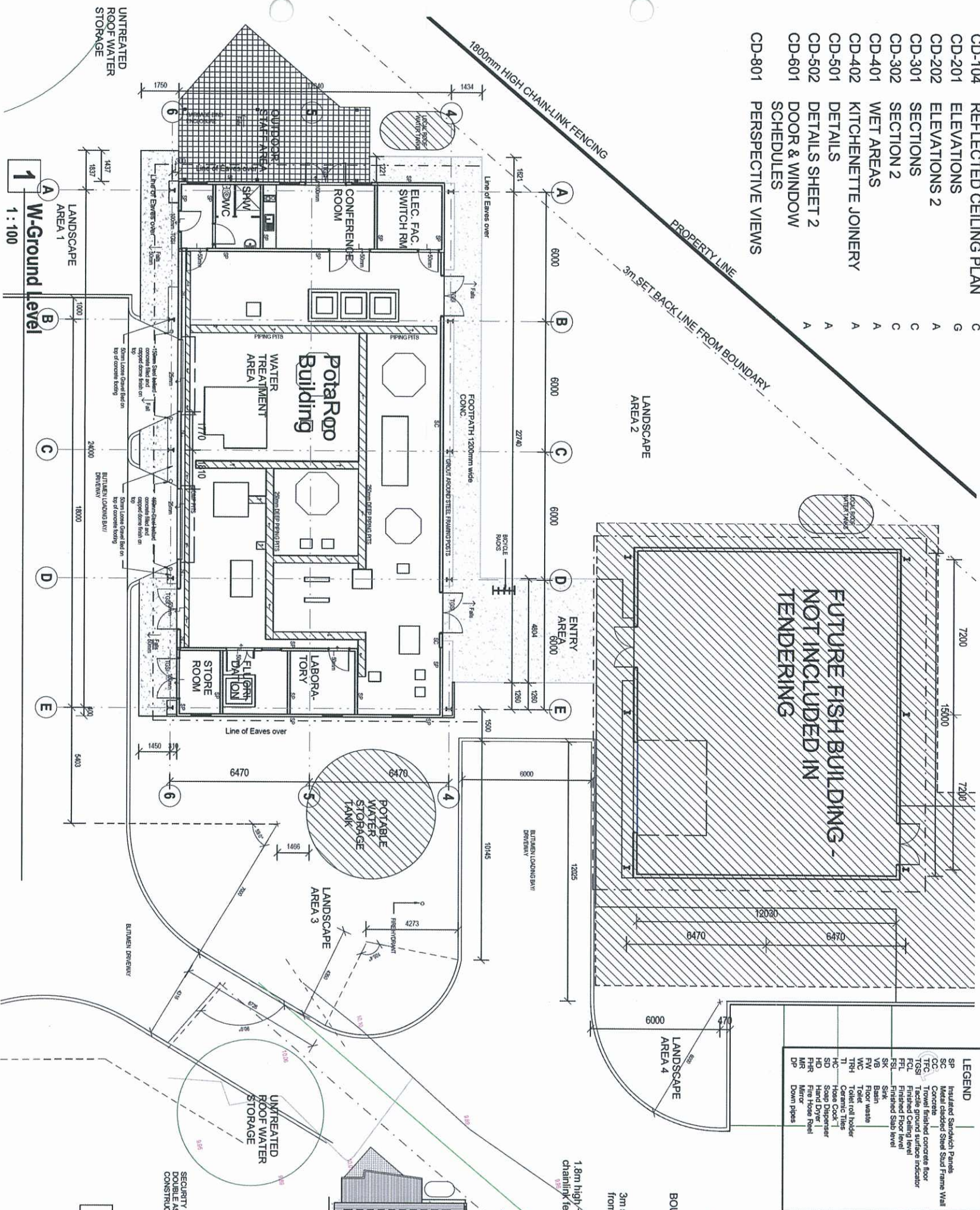
The handling and storage of all hazardous substances is subject to the Queensland Hazardous Substances Code of Practice 2003. Storage and handling of corrosive substance shall be in accordance with *AS 3780-2008 Storage and Handling of Corrosive Substances* where applicable. All chemicals categorised as Australian Dangerous Goods (ADG) under the ADG code shall be stored and managed in accordance to the *Dangerous Goods and Safety Management Act 2001* and the *Dangerous Goods Safety Management Regulation 2001*. Where applicable, management of regulated waste shall be in accordance with the *Environmental Protection (Waste Management) Regulation 2000*.

Environmental management

The design and operation and treatment plant and associated facilities shall be in compliance with the all relevant design standards, the *Environmental Protection Act 1994*, the *Environmental Protection Regulation 2008* and all other applicable legislative requirements for the management of potential environmental impacts and the protection of the environment.

**** End of Package ****

- CD-101 SITE AND GROUND FLOOR PLAN
CD-102 POTAROO BUILDING PLAN
CD-103 ROOF PLAN
CD-104 REFLECTED CEILING PLAN
CD-201 ELEVATIONS
CD-202 ELEVATIONS 2
CD-301 SECTIONS
CD-302 SECTION 2
CD-401 WET AREAS
CD-402 KITCHENETTE JOINERY
CD-501 DETAILS
CD-502 DETAILS SHEET 2
CD-601 DOOR & WINDOW SCHEDULES
CD-801 PERSPECTIVE VIEWS



ISSUED FOR TENDER

PLANS AND DOCUMENTS referred to in the ULDA APPROVAL dated 26/10/10



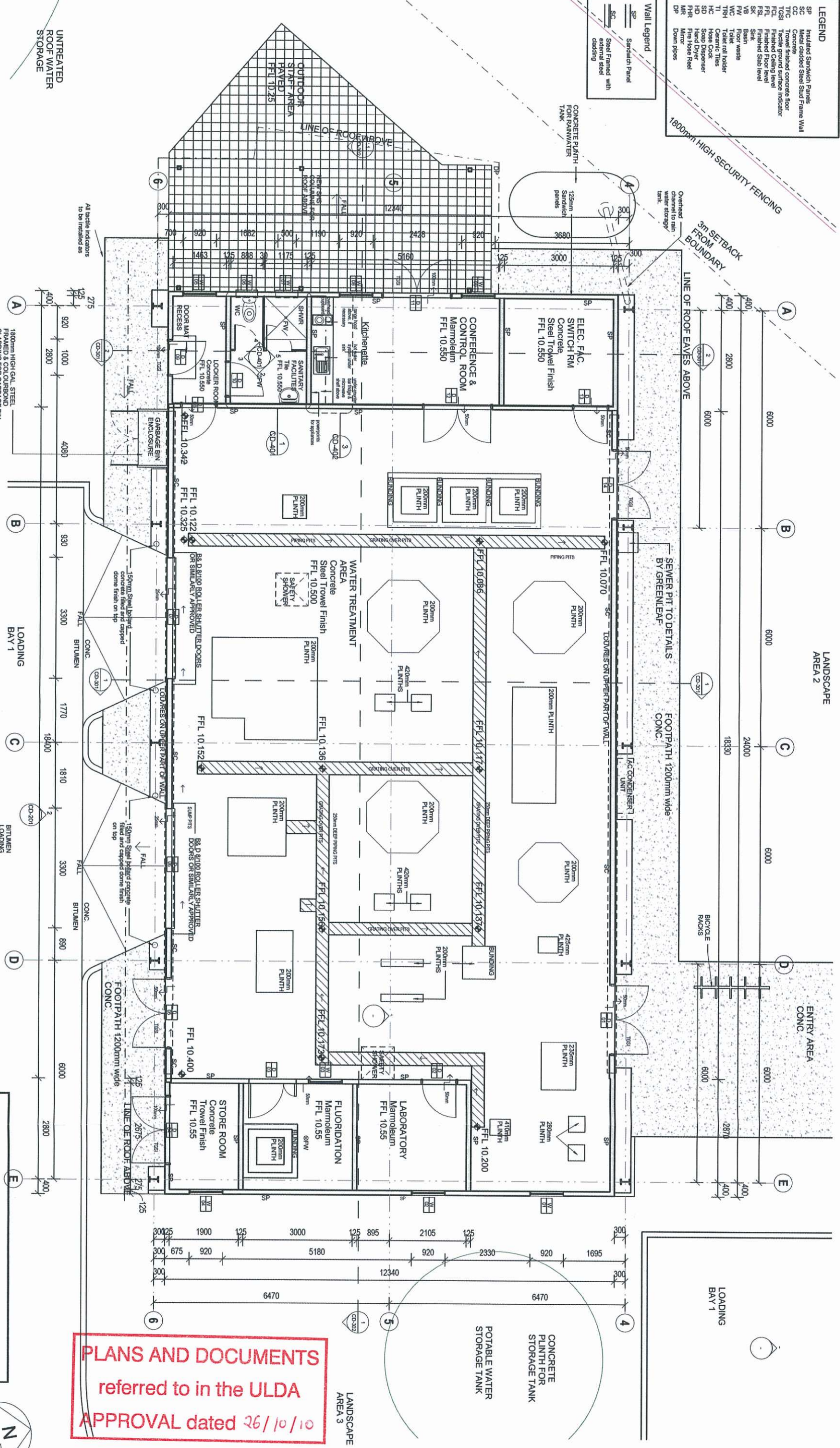
2 Site Plan
1 : 250

1 W-Ground Level
1 : 100

PRIMARY CONSULTANT		SUB CONSULTANT		REV		DATE		DESCRIPTION		DRAWN		DESIGN		APPROVED		DRAWING TITLE		SIZES	
BLIGH TANNER CONSULTING ENGINEERS		w.i.m architects		D		03-06-2010		Site Location Revised		AL		WVZ		WVZ		SITE AND GROUND FLOOR PLAN		As indicated @ A1	
LETEL 9, 239 WICHAM STREET, PO BOX 612 PERTH WA 6006 AUSTRALIA T 07 3261 8555 F 07 3261 8599		w.i.m architects 39 Jackson Street Clayfield Brisbane Queensland 4011 Australia Phone 07 3567 8215 Fax 07 3567 8250 Email info@wimarchitects.com.au		E		15-06-2010		Building Location Revised		CHECKED		WVZ		R.E.O.		FITZGIBBON RAINWATER HARVESTING PROJECT		BLIGH TANNER PROJECT NUMBER 2009.238	
				F		17-06-2010		Revised Tank location		CHECKED								SUB CONSULTANT	
				G		17-06-2010		Minor Revisions										PROJECT NUMBER	
				H		29-06-2010		Minor Revisions										JFE ENGINEERING CORPORATION	
				I		15-07-2010		Issue for Review										DRAWING NO	
				J		05-08-2010		Issue for Review										CD-101	
				K														REVISION	
				L														N	
				M															
				N															

LEGEND	
SP	Insulated Sandwich Panels
SC	Metal cladded Steel Stud Frame Wall
CC	Concrete
TC	Trowel finished concrete floor
TS	Trowel finished concrete slab
FC	Finished Ceiling level
FSL	Finished Floor level
FS	Finished Slab level
SK	Skid
SW	Substrate
WC	Waste
TR	Toilet
TH	Toilet roll holder
TC	Tile
HC	Hand Cleaner
HD	Hand Dryer
FHR	Fire Hose Reel
MR	Mirror
DP	Down Pipes

Wall Legend	
SP	Sandwich Panel
SC	Steel framed with cladding



PLANS AND DOCUMENTS
referred to in the ULDA
APPROVAL dated 26/10/10

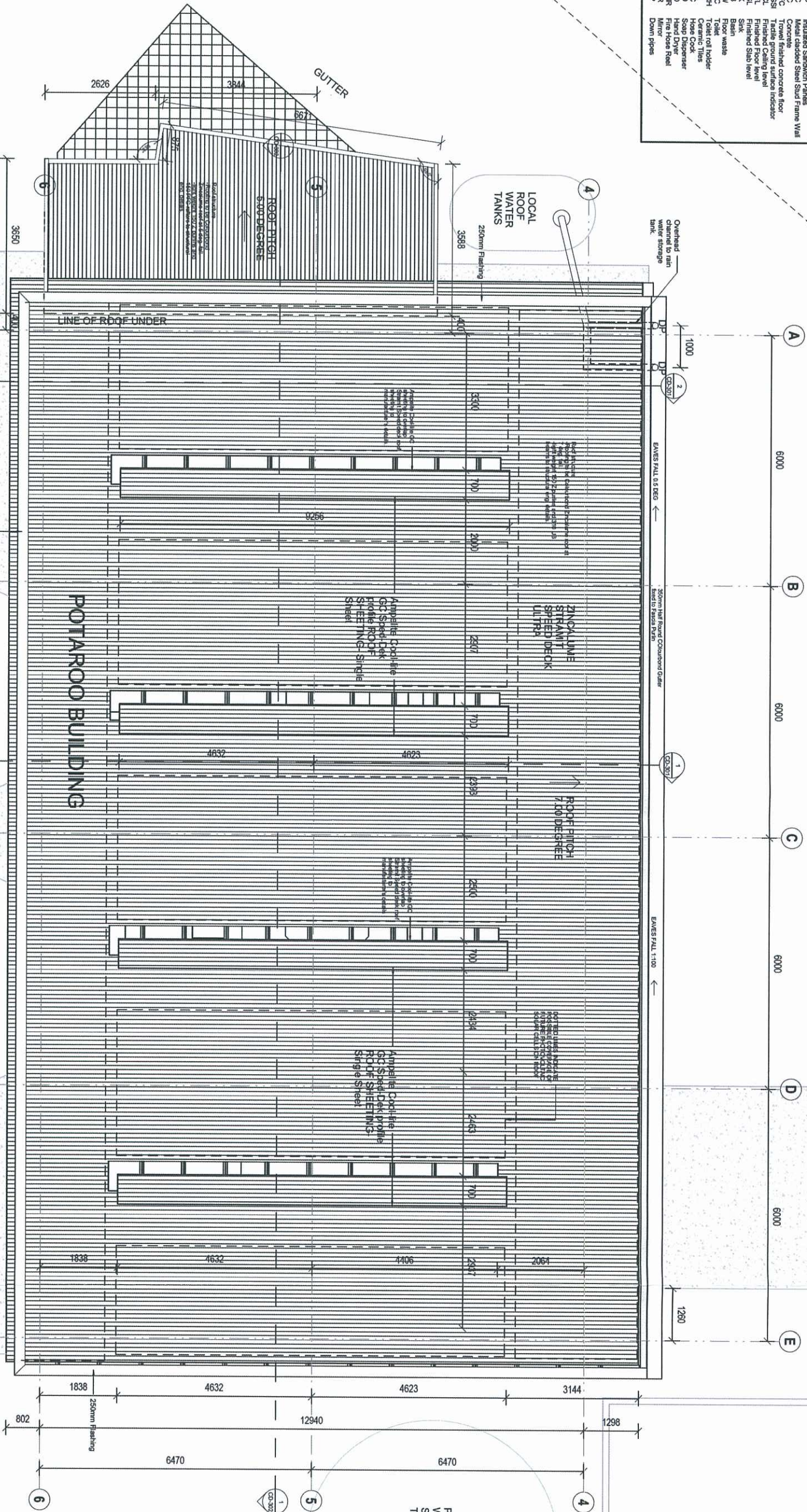
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PRIMARY CONSULTANT		SAB CONSULTANT			
 BLIGH TANNER CONSULTING ENGINEERS LEVEL 9, 289 WICKHAM STREET, PO BOX 612 FORTITUDE VALLEY QLD 4005 AUSTRALIA T 07 3251 6555 F 07 3251 6599		 w.i.m architects phillip@wimarchitects.com.au 39 Jackson Street Croyfield Brisbane Queensland 4011 Australia Phone 07 3567 8215 Facsimile 07 3567 8250 Email: info@wimarchitects.com ADN : 15 667 667 726			
REV	DATE	DESCRIPTION	DRAWN	DESIGN	APPROVED
A	29-06-2010	Minor Revisions	AL	WVZ	WVZ
B	06-07-2010	Client Approval	CHECKED	CHECKED	R.E.O
C	15-07-2010	ISSUE FOR REVIEW			
D	17-08-2010	ISSUE FOR TENDER			
			DATE	DATE	DATE

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LEGEND	
SP	Insulated Sandwich Panels
SC	Steel cladded Steel Stud Frame Wall
CC	Concrete
TC	Top finished concrete floor
TGSL	Tackle ground surface indicator
FCL	Finished Ceiling level
SFL	Finished Floor level
SS	Structural Steel
VB	Basin
PV	Floor waste
WC	Toilet
TRH	Toilet roll holder
TH	Thermocouple
HC	Hand Cleaner
SD	Soap Dispenser
HD	Hand Dryer
FHR	Fire Hose Reel
MR	Mirror
DP	Down Pipes

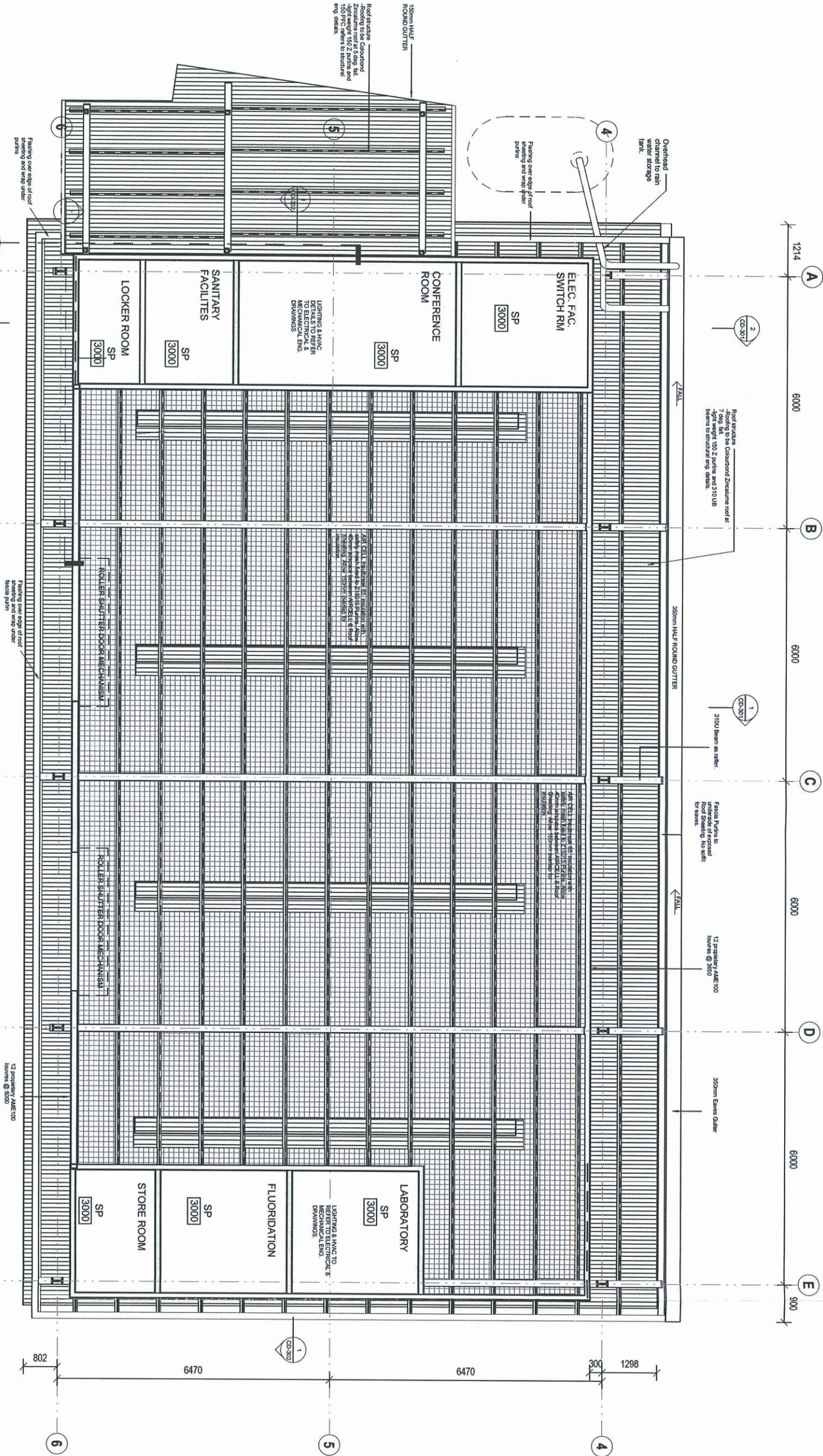


PLANS AND DOCUMENTS
referred to in the ULDA
APPROVAL dated 26 / 10 / 10

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PRIMARY CONSULTANT		SUB CONSULTANT					
 BLIGH TANNER CONSULTING ENGINEERS		 w.i.m architects <i>planning and architecture in dialogue</i>					
LEVEL 9, 289 WICKHAM STREET, PO BOX 612 FORTITUDE VALLEY QLD 4006 AUSTRALIA T 07 251 8555 F 07 251 8599		39 JACKSON STREET CLAYFIELD BRISBANE QUEENSLAND 4011 AUSTRALIA Phone 07 3557 8215 Facsimile 07 3557 8250 Email: info@wimarchitects.com ACN : 102 266 259 ABN : 15 667 067 726					
REV	DATE	DESCRIPTION	DRAWN	DESIGN	APPROVED	DRAWING TITLE ROOF PLAN FITZGIBBON RAINWATER HARVESTING PROJECT	SCALES 1 : 50 BLIGH TANNER PROJECT NUMBER 2009.238
C	14/02/2010	Minor Revisions	AL	WVZ	WVZ		
D	29-06-2010	Client Approval		CHECKED	RPE		
E	06-07-2010	ISSUE FOR REVIEW					
F	15-07-2010	ISSUE FOR TENDER					
G	17-08-2010						
			DATE	DATE	DATE	CLIENT	REVISION
						JFE ENGINEERING CORPORATION	CD-103 G

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LEGEND	
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TGSI	Tactile ground surface indicator
FCL	Finished Ceiling level
FLL	Finished Floor level
SS	Finished Slab level
VB	Bath
FW	Floor waste
WC	Toilet
TRH	Toilet roll holder
HD	Hand Dryer
SD	Soap Dispenser
FHR	Fire Hose Reel
MR	Mirror
DP	Down pipes

CEILING LEGEND	
	LIGHT FIXTURE
	CEILING MOUNTED AIR UNIT
	AIR DIFFUSER

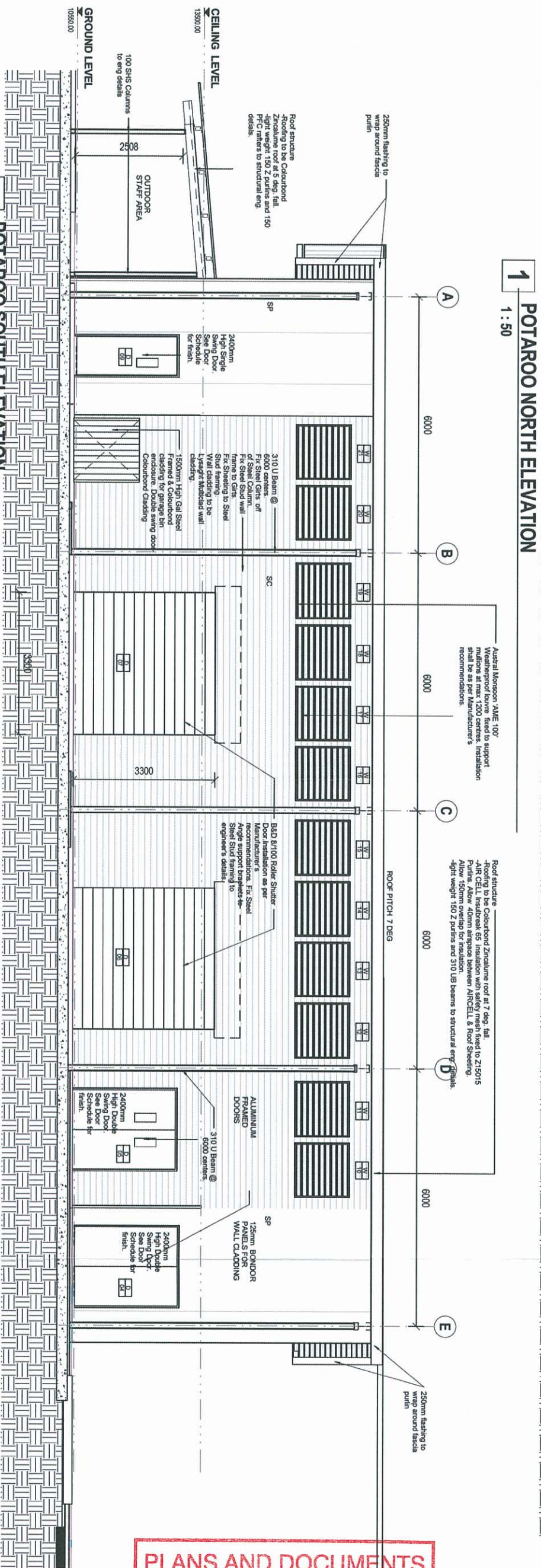
1 W-Ground Level
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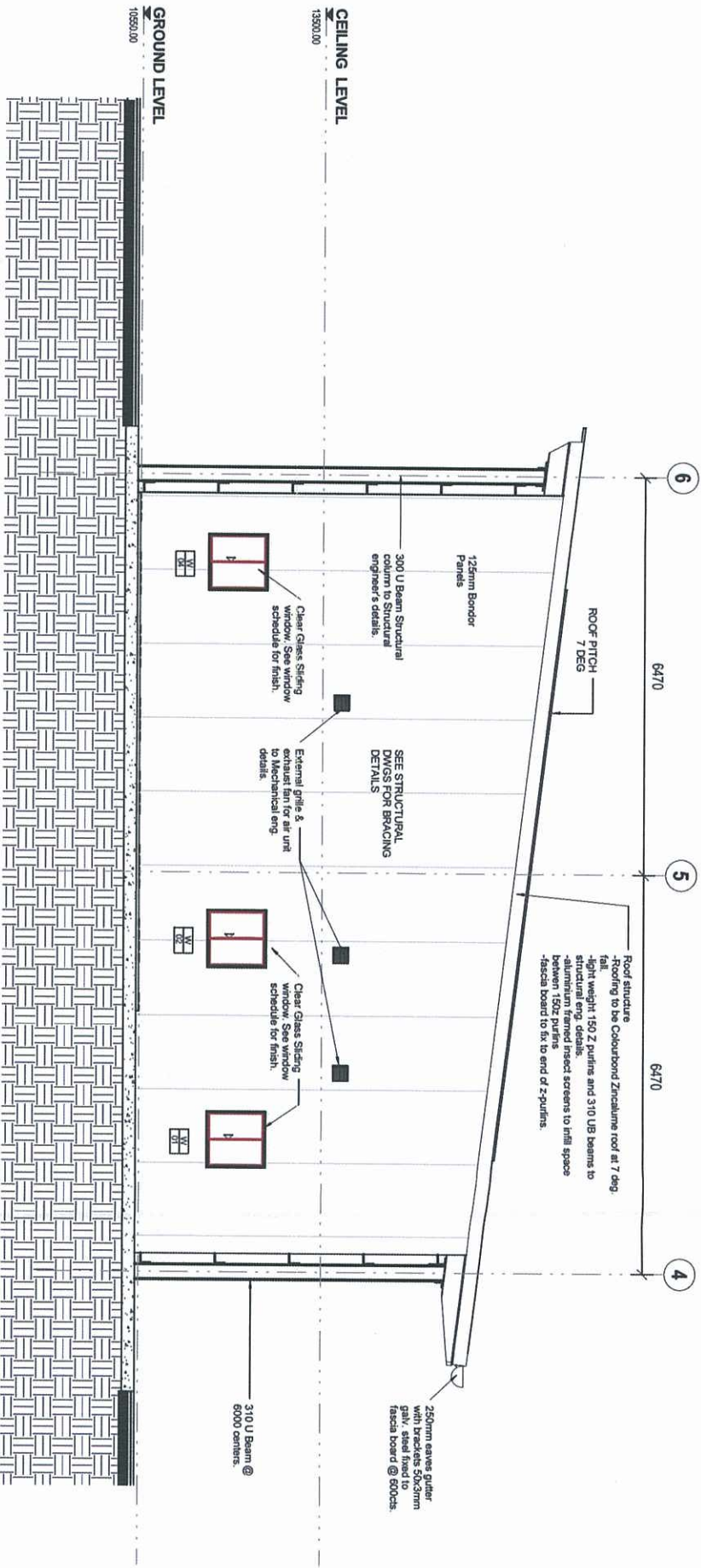


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				A		28-06-2010		Minor Revisions		AL		WVZ		WVZ		PROJECT		1 : 50	
BLIGH TANNER CONSULTING ENGINEERS		w.i.m architects		B		06-07-2010		Client Approval		CHECKED		WVZ		WVZ		PROJECT		2009.238	
LEVEL 8, 289 WICKHAM STREET, PO BOX 612 FORTITUDE VALLEY QLD 4006 AUSTRALIA T 07 3251 8555 F 07 3251 8599		39 Jackson Street Cleveland Brisbane Queensland 4011 Australia Phone 07 3857 8215 Facsimile 07 3857 8250 Email enquiries@wimarchitects.com ACN : 102 268 239 ABN : 13 687 087 728		C		15-07-2010		ISSUE FOR REVIEW		CHECKED		WVZ		WVZ		PROJECT			
				D		17-08-2010		ISSUE FOR TENDER		CHECKED		WVZ		WVZ		PROJECT			
										DATE		DATE		DATE		CLIENT		JFE ENGINEERING CORPORATION	
																		CD-104	
																		REVISION	
																		D	

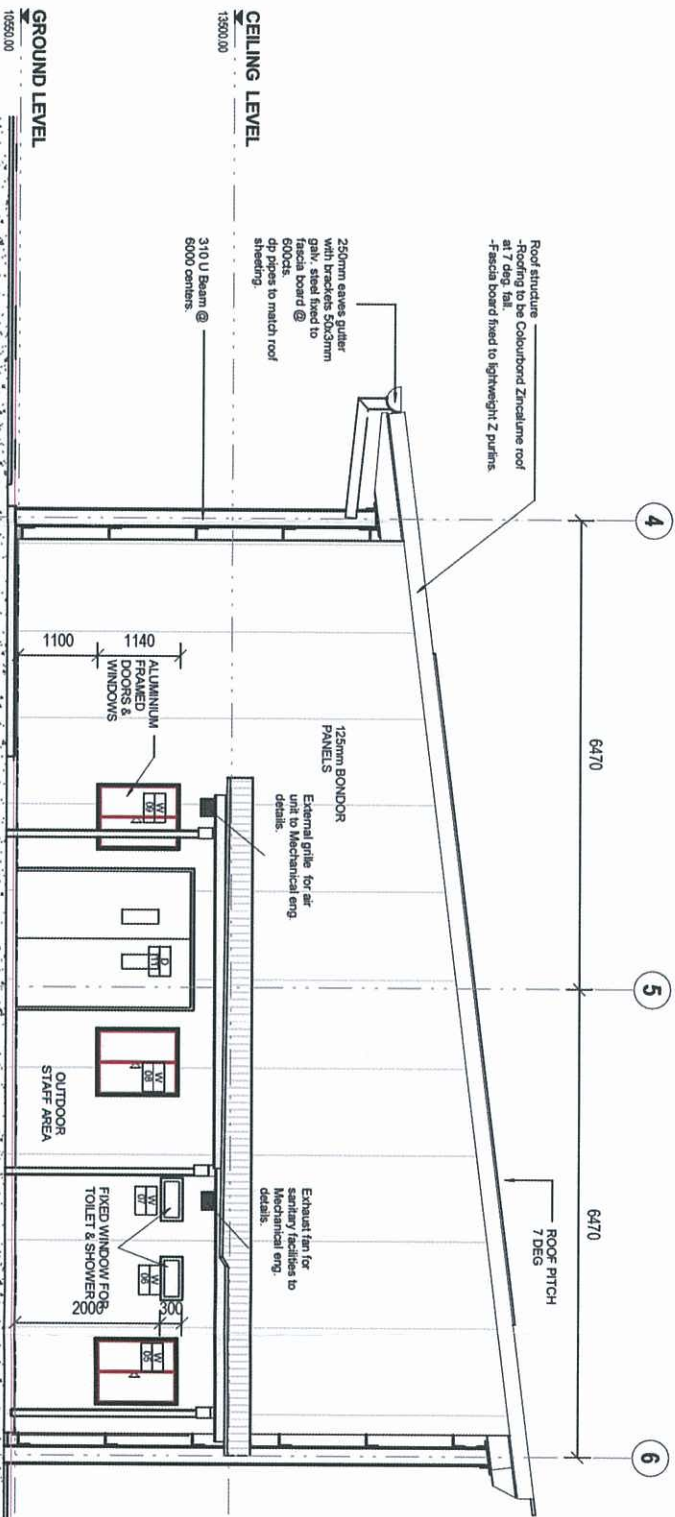
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1 POTAROO EAST ELEVATION
1:50



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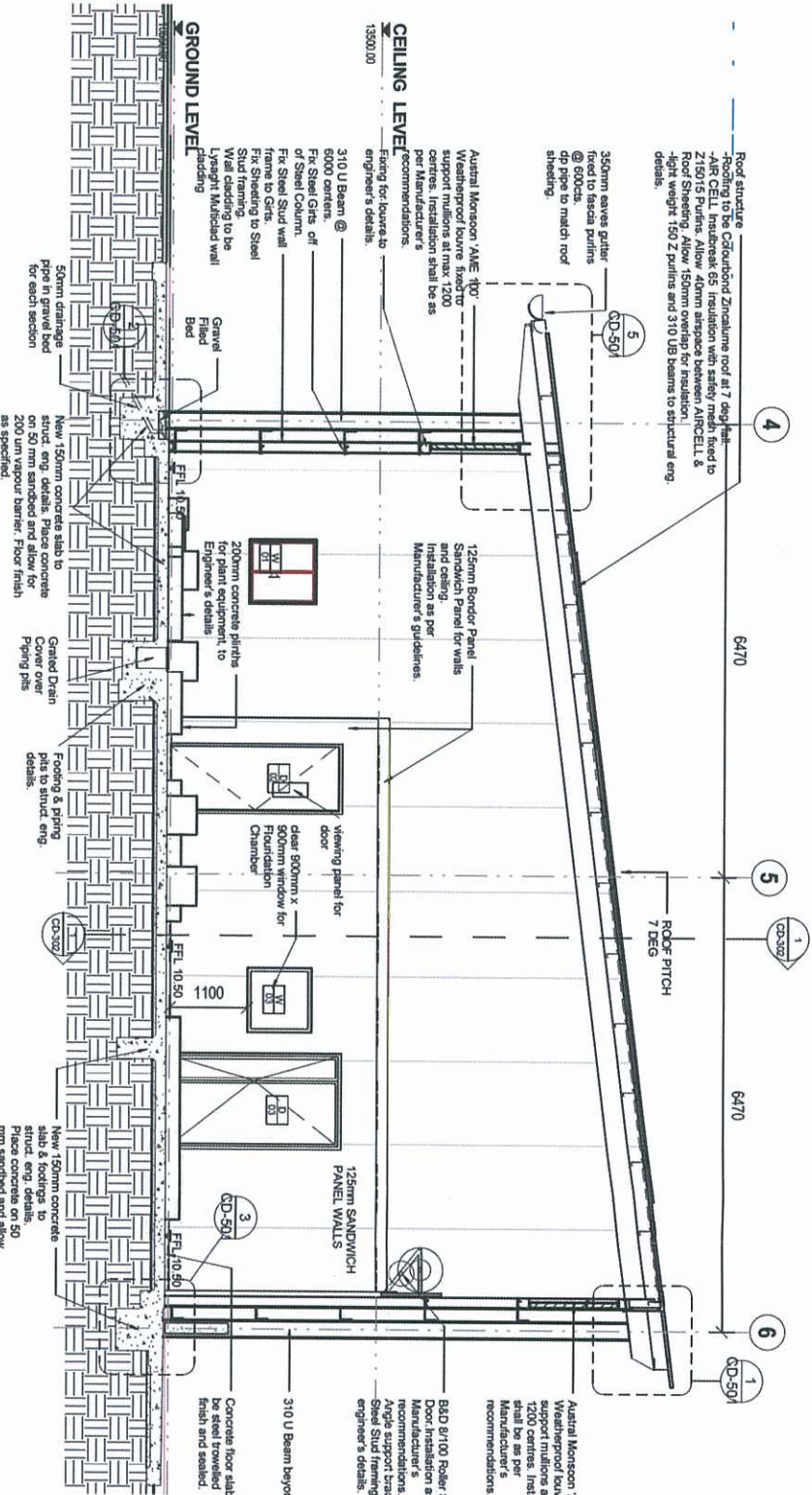
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Phone 07 3657 6215
Facsimile 07 3657 6250
Email info@wimarchitects.com
ACN : 102 286 250
ABN : 15 697 087 726

REV	DATE	DESCRIPTION
A	15-07-2010	ISSUE FOR REVIEW
B	17-08-2010	ISSUE FOR TENDER

DRAWN	DESIGN	APPROVED
AL	WVZ	WVZ
CHECKED	OVERSEEN	P.E.O

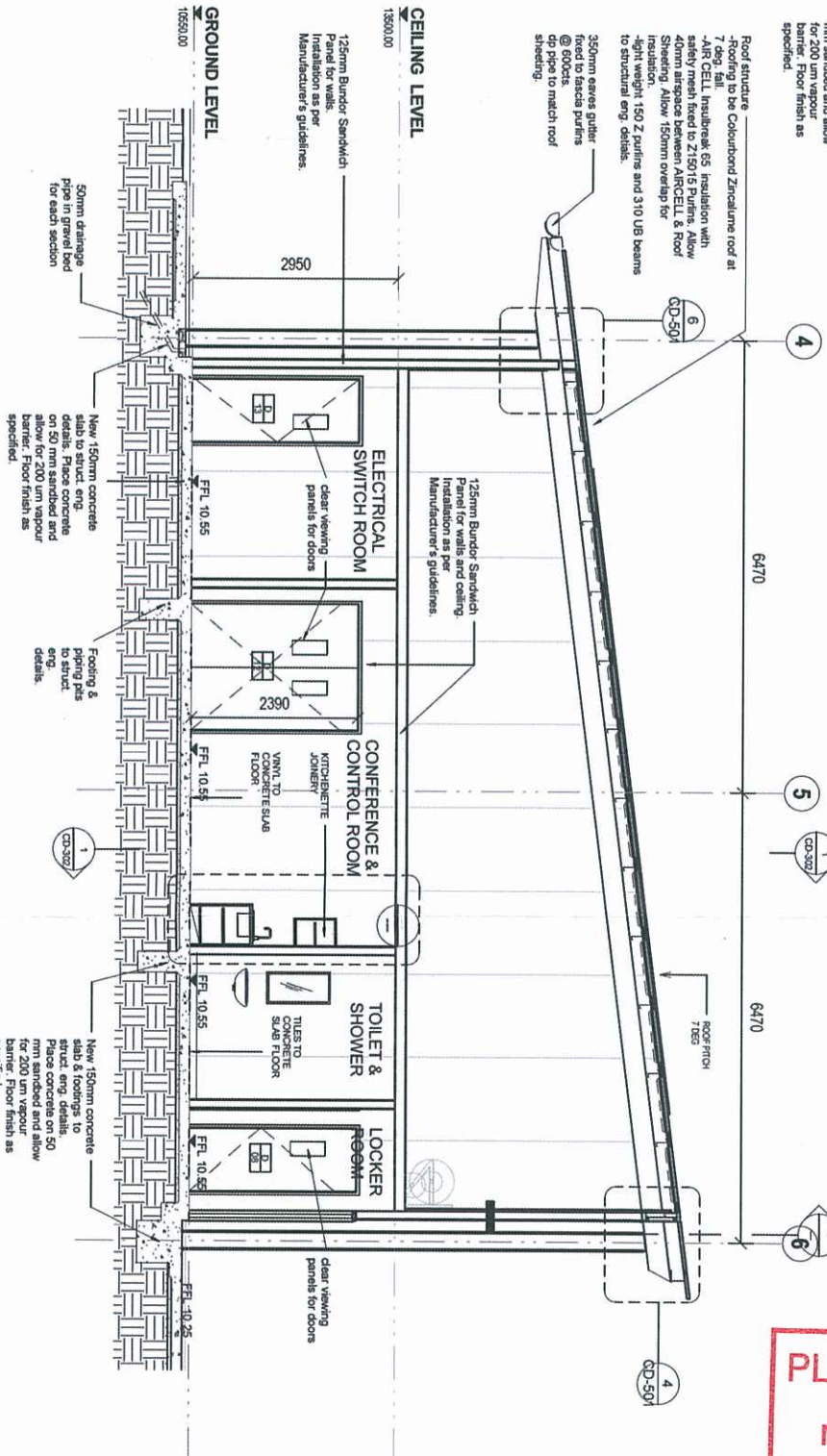
DRAWING TITLE		ELEVATIONS 2		SCALES	
		1 : 50			
PROJECT		FITZGIBBON RAINWATER HARVESTING PROJECT		2009.238	
		BLIGH TANNER PROJECT NUMBER			
		SUB CONSULTANT PROJECT NUMBER			
CLIENT		JFE ENGINEERING CORPORATION		CD-202	
		DRAWING NO		REVISION	
		B		B	



PLANS AND DOCUMENTS
referred to in the ULDA
APPROVAL dated 26/10/10

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2 Potaroo-Cross Section 2
1:50



PRIMARY CONSULTANT



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Facsimile 07 3557 8250
Email enquiries@wimarchitects.com
ACN: 102 266 239
ABN: 15 667 067 726

REV DATE DESCRIPTION

A 29-06-2010 Minor Revisions
B 06-07-2010 Client Approval
C 15-07-2010 ISSUE FOR REVIEW
D 17-08-2010 ISSUE FOR TENDER

DRAWN

AL

DESIGN

WWZ

APPROVED

WWZ

DRAWING TITLE

SECTIONS

PROJECT

FITZGIBBON RAINWATER HARVESTING PROJECT

CLIENT

JFE ENGINEERING CORPORATION

SCALE

1:50

PROJECT NUMBER

2009.238

REVISION

D



LOCATION AND LEVEL OF EXISTING SERVICES AND STRUCTURES HAVE BEEN PLOTTED FROM AVAILABLE RECORDS AND ARE INDICATIVE ONLY. THIS EXCLUDES PRIVATE UTILITY LOCATION SERVICES WITHIN THE PROPERTY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL OF THE POSSIBLY AFFECTED SERVICES AND PRIOR TO COMMENCING WORKS, ANY DAMAGE TO EXISTING SERVICES SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.

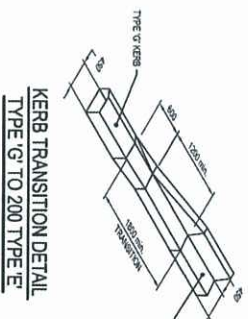


LEGEND

- EXISTING GRAVEL EDGE
- EXISTING EDGE OF BITUMEN
- KO TYPE 'G' KERB ONLY. REFER UMS 211 FOR DETAILS
- BK TYPE 'E' BARRIER KERB. REFER UMS 211 FOR DETAILS
- KC TYPE 'E' KERB END CHANNEL. REFER UMS 211 FOR DETAILS

- PROPOSED NEW PAVEMENT 25mm ASPHALTIC CONCRETE SURFAC 150mm BASE MATERIAL 150mm SUB-BASE 300mm CBR 13
- PROPOSED NEW PAVEMENT 300mm BASE MATERIAL

PLANS AND DOCUMENTS referred to in the ULDA APPROVAL dated 26/10/16



NOTES

REFER SERVICES DRAWINGS FOR LOCATION OF CONDUITS AND SERVICES TO BE INSTALLED IN CONJUNCTION WITH CIVIL WORKS

NOTES

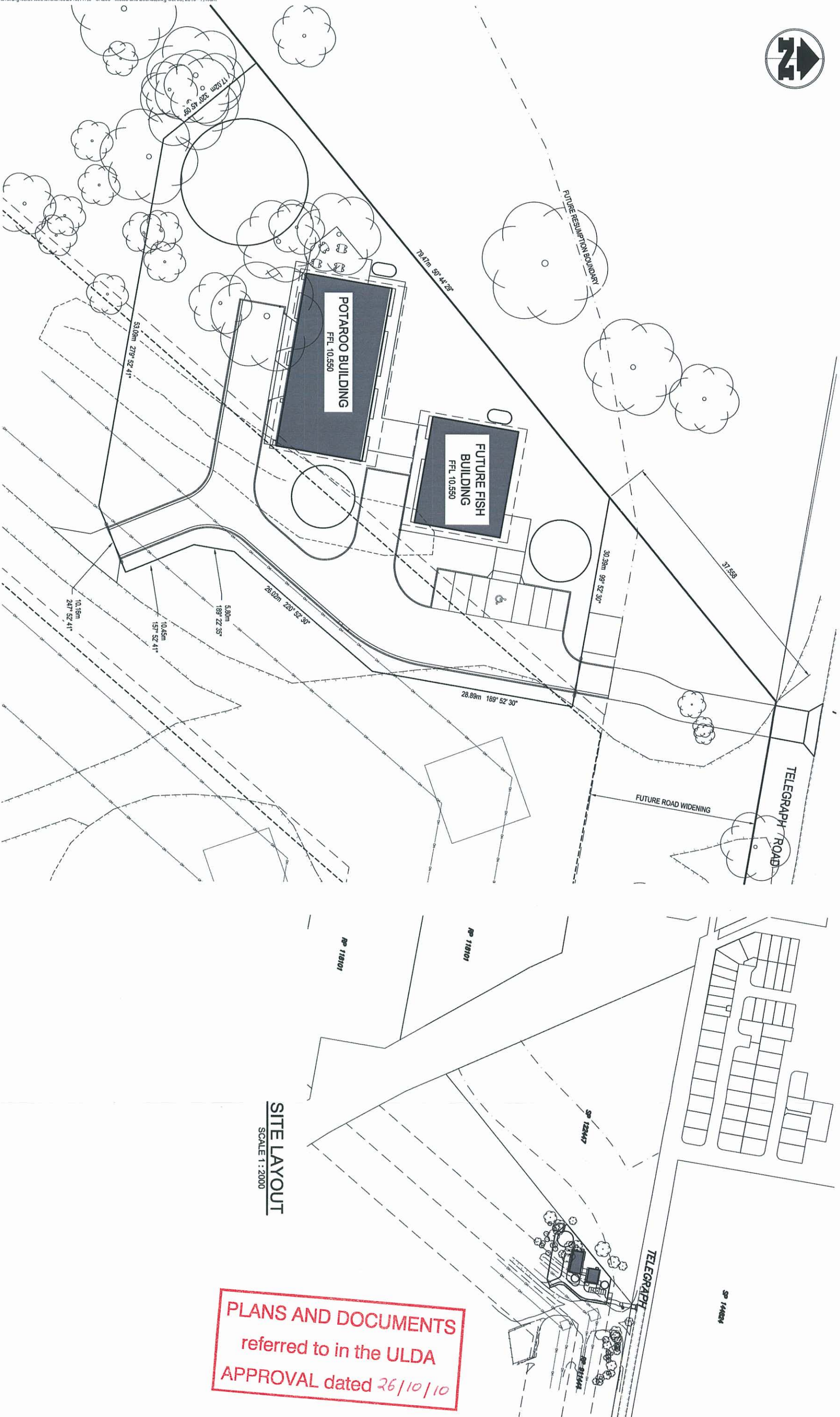
THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS DRAWINGS THIS DRAWING IS TO BE READ IN CONJUNCTION WITH NOTES ON DRAWING NO. 2009/238/C101 FOR LEVELS AND SETOUT DETAILS, REFER DWG NO 2009/238/C105



NOT FOR CONSTRUCTION

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Biodiversity Assessment

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5 October 2010

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Bligh Tanner
PO Box Telegraph Road
Fitzgibbon

Attention: Chris Tanner

Re: Surveyed Tree Identification on Lot 11 on SP223412

Dear Chris,

I have attached a list of the species, height and diameter at breast height (DBH) for the surveyed trees that occur within the proposed footprint on property described as Lot 11 on SP223412 located at 253 Telegraph Road, Fitzgibbon (study area).

It is understood that the proposed footprint will result in the disturbance to and removal of 32 native trees with a DBH greater than 10cm in the study area. The location and the details of the vegetation to be removed are shown on **Figure 1** and listed in **Table 1** attached.

It is recommended that the nest boxes, currently located in trees 6, 7, and 8, be moved to adjacent bushland by a qualified fauna spotter/catcher. Note that nest boxes are also located in trees 13, 14 and 17. A fauna spotter/catcher must be present for all vegetation clearing works on the study area.

In addition, all construction works should be kept outside of the drip line of mature adjacent trees (i.e. trees 3, 2 and 1).

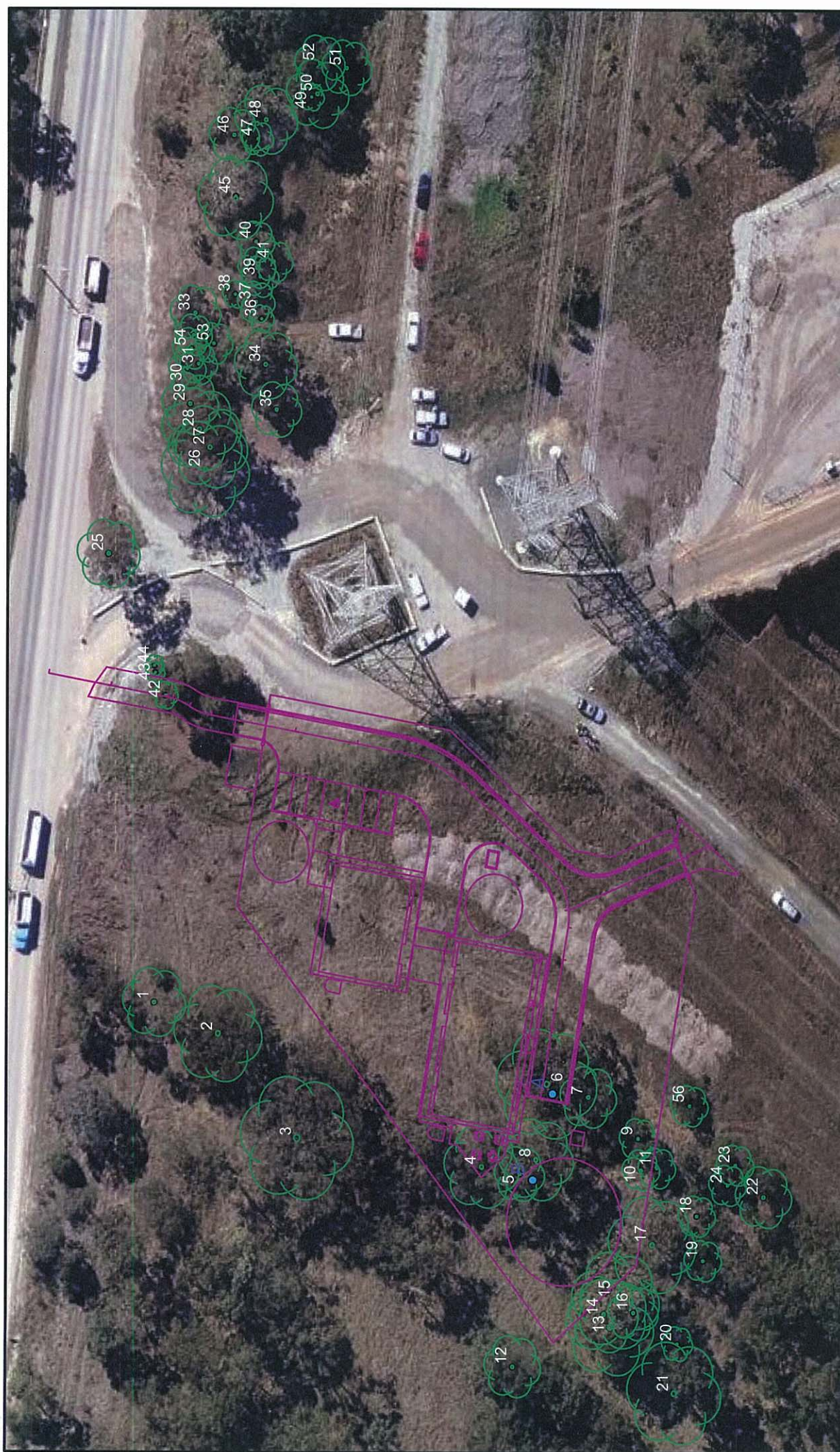
Weed and pest management must be in accordance with the Construction Environmental Management Plan for the Fitzgibbon site.

We trust this information is suitable for your purposes. Please do not hesitate to contact us on 3286 7788 if you have any queries.

Yours sincerely

Paula Boosamra
Senior Environmental Scientist
Biodiversity Assessment and Management Pty Ltd

Page 1



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Image Courtesy of NearMap accessed: October 2010

Legend

- Additional Trees >10 cm DBH
- Infrastructure Footprint
- Surveyed Trees

0 8 16 24 32
Meters
Datum: GDA94

Figure 1
Surveyed Trees and Additional Trees
of 10 cm Diameter at Breast Height
Tree Identification for Bligh Tanner

Table 1: Surveyed tree identification for individuals within the proposed footprint

Tree #	Species	DBH (cm)	Height (m)	Nest Box	Photo
4	<i>Eucalyptus tereticornis</i>	50	30		 Tree #5 centre left, tree #6 centre right
5	<i>Eucalyptus tereticornis</i>	57	31		

Tree #	Species	DBH (cm)	Height (m)	Nest Box	Photo
6	<i>Eucalyptus tereticornis</i>	71	24	yes	 Nest box on tree #6

Tree #	Species	DBH (cm)	Height (m)	Nest Box	Photo
7	<i>Eucalyptus tereticornis</i>	33.5	18	yes	 Nest box on tree #7

Tree #	Species	DBH (cm)	Height (m)	Nest Box	Photo
8	<i>Eucalyptus tereticornis</i>	35	21	yes	 Nest box in tree #8

Tree #	Species	DBH (cm)	Height (m)	Nest Box	Photo
42	<i>Eucalyptus tereticornis</i> *	28	10		 Tree #42 tallest tree left of centre

Tree #	Species	DBH (cm)	Height (m)	Nest Box	Photo
A	<i>Melaleuca quinquenervia</i>	15.5/20	8.9		 Tree A is double-stemmed <i>M. quinquenervia</i> in front of tree #6.

Tree #	Species	DBH (cm)	Height (m)	Nest Box	Photo
B	<i>Eucalyptus tereticornis</i>	18/18	15		 Tree B is double-stemmed <i>E. tereticornis</i> located between tree #s 8 (with nestbox) and 5.

* N.B. There is a total of approximately 25 *Melaleuca quinquenervia* surrounding tree # 42 ranging in size from approximately 28cm DBH (i.e. tree #s 43 and 44) to less than 10cm DBH.



FLORA AND FAUNA MANAGEMENT PLAN

PLANS AND DOCUMENTS

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APPROVAL dated 26/10/10

Fitzgibbon Urban Development Area: Precinct 4

Report prepared
for
ULDA



**Biodiversity
Assessment**

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FAUNA AND HABITAT SPECIALISTS



Document Control Sheet

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Project Manager: Dr Jo Chambers

Client: Urban Land Development Authority

Project Title: Flora and Fauna Management Plan – Precinct 4 Fitzgibbon Urban Development Area.

Project Author/s: Dr Jo Chambers and Dr. Chris Schell.

Project Summary: To provide management strategies designed to minimise any undue impacts to the fauna and/or fauna habitats within Precinct 4 of the Fitzgibbon Urban Development Area.

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Purpose of Report

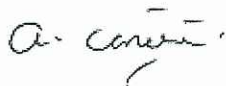
Biodiversity Assessment and Management Pty Ltd has produced this report in its capacity as {consultants} for and on the request of Urban Land Development Authority (the "**Client**") for the sole purpose of providing a Flora and Fauna Management Plan for Precinct 4 of the Fitzgibbon Urban Development Area (the "**Specified Purpose**"). This information and any recommendations in this report are particular to the Specified Purpose and are based on facts, matters and circumstances particular to the subject matter of the report and the Specified Purpose at the time of production. This report is not to be used, nor is it suitable, for any purpose other than the Specified Purpose. Biodiversity Assessment and Management Pty Ltd disclaims all liability for any loss and/or damage whatsoever arising either directly or indirectly as a result of any application, use or reliance upon the report for any purpose other than the Specified Purpose.

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Signed on behalf of
Biodiversity Assessment and Management Pty Ltd

Date: 30/11/2009



Managing Director

FLORA AND FAUNA MANAGEMENT PLAN PRECINCT 4, FITZGIBBON URBAN DEVELOPMENT AREA

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List of Abbreviations

BAAM	Biodiversity Assessment and Management Pty Ltd
BCC	Brisbane City Council
EPBC Act -	Environment Protection and Biodiversity Conservation Act 1999
FBMP	Fitzgibbon Bushland Management Plan
FFMP	Flora and Fauna Management Plan
LP Act -	Queensland Lands Protection (Pest and Stock Route Management) Act 2002
NC Act	Nature Conservation Act 1992
UDA	Fitzgibbon Urban Development Area
ULDA	Urban Land Development Authority

1.0 INTRODUCTION

1.1 PURPOSE OF THE PLAN

Biodiversity Assessment and Management Pty Ltd (BAAM) has been commissioned by the Urban Land Development Authority (ULDA) to prepare a Flora and Fauna Management Plan (FFMP) for Precinct 4 of the Fitzgibbon Urban Development Area (UDA) (the subject site).

The aim of the FFMP is to ensure activities associated with development do not cause any undue negative impacts on fauna/vegetation communities or on individual fauna/flora species. The FFMP has been designed to address the management of significant flora/fauna species on the site, includes measures to minimise and mitigate impacts upon those species during all stages of development and provides strategies for rehabilitation of disturbed areas.

The FFMP forms an integral part of the conservation of the ecological values of the UDA.

1.2 BACKGROUND INFORMATION

Previous surveys conducted for the subject site (BAAM 2008), have confirmed that no Endangered, Vulnerable or Rare flora species as listed under the provisions of the NC Act and/or the EPBC Act were observed or are expected within the subject site. However, four species considered to be of local significance under the BCC *Natural Assets Planning Scheme Policy* Schedule 3 are relevant to the subject site. These being:

- *Abrus precatorius* – other significant species;
- *Cryptocarya microneura*– other significant species;
- *Eucalyptus baileyana*– other significant species; and
- *Keraudrenia* sp. (Chermside S.T. Blake) – other significant species.

Of these four species only two (*Abrus precatorius* and *Keraudrenia* sp.) occur within Precinct 4.

Precinct 4 also supports areas of remnant vegetation as mapped under the *Vegetation Management Act 1999*.

Previous surveys conducted for the subject site (BAAM 2008), have confirmed that seven conservation significant fauna species listed under the provisions of the NC Act, the EPBC Act and/or Brisbane City Plan 2000 (BCC) occur or have the potential to occur within the subject site:

- Grey-headed Flying-fox *Pteropus poliocephalus* (Vulnerable EPBC Act);
- Tusked Frog *Adelotus brevis* (Vulnerable NC Act);
- Grey Goshawk *Accipiter novaehollandiae* (Rare NC Act, Significant BCC);
- Squirrel Glider *Petaurus norfolcensis* (Significant BCC);
- Black-necked Stork *Ephippiorhynchus asiaticus* (Rare NC Act, Significant BCC);
- Australian Painted Snipe *Rostratula australis* (NC Act Vulnerable; EPBC Act Vulnerable; EPBC Act Migratory (as *R. benghalensis*); BCC Significant); and
- Koala *Phascolarctos cinereus* (Vulnerable (SEQ bioregion) and Culturally Significant NC Act, Significant BCC).

Background information relating to the distribution, ecological requirements and potential threats to these species have been addressed in BAAM (2008a). A Squirrel Glider Management and Action Plan (SGMAP) has been prepared for the entire UDA (BAAM 2008b). Actions and recommendations within the SGMAP are relevant to development within Precinct 4 and should be considered when formulating the final design stages for Precinct 4. The SGMAP should be referred to prior to commencement of works and during all stages of works.

The development plan for Precinct 4, together with the vegetation assessment has been examined to assist in compiling the FFMP.

2.0 FLORA AND FAUNA MANAGEMENT PLAN

2.1 OBJECTIVES

The objectives of the FFMP are to provide:

- A consistent and uniform approach which assures that the required standards of

environmental protection, maintenance and habitat enhancement are achieved as defined within the Fitzgibbon Bushland Management Plan (FBMP);

- Procedures for the minimisation of disturbance to existing flora and fauna in areas to be retained;
- An integrated approach to responsible management of the site's ecology and the maintenance or enhancement of ecosystem function in retained or rehabilitated areas;
- Detailed requirements to achieve the rehabilitation outcomes in the bushland and open space zone in accordance with the FBMP;
- Methods of physical identification of vegetation/habitat to be retained;
- A description of all measures to be used to protect vegetation and habitat features to be retained during construction, including protective fencing;
- A description of all pruning and tree surgery works (to AS 4373/96) to maintain health and stability of trees and reduce potential hazards for future residents, where appropriate;
- Details of all measures to protect fauna and fauna habitats during clearing operations;
- An estimation of costs associated with actions and recommendations;
- A schedule of monitoring to be undertaken; and
- State and Commonwealth authorities, stakeholders and the proponent with a common focus for approvals conditions and compliance with policies and conditions.

This plan forms an integrated and coordinated approach to the management of the site's ecology.

A priority of this FFMP is to address the long-term management of vegetation and conservation significant fauna species within disturbance areas and to include measures to minimise and mitigate impact on the site's ecology during all stages of the development.

2.2 MANAGEMENT STRATEGIES

This FFMP addresses the clearing and construction stages of the development as well as during the occupational stage and specifically focuses on the following issues:

- Practical strategies and actions to minimise disturbance to vegetation and fauna habitats;
- Rehabilitation of the site during and post development;
- Investigation of opportunities for the enhancement of Koala and Squirrel Glider habitat and movement through the site;
- Practical strategies and actions to manage potential pest species;
- Monitoring requirements for evaluating the success of management measures and mitigation actions.
- Establishing reporting requirements to the Administering Authority in relation to the monitoring and record keeping of unauthorised vegetation clearing or any fauna injuries or deaths on the site, including the need to address the cause for these and potential mitigation measures to be employed to reduce such; and

The overall intent and specific management actions for the protection of flora and fauna habitats during all stages of development are provided in **Table 3**.

Site-specific (i.e. for each stage of development within Precinct 4) management strategies for significant fauna, additional to those prescribed in the FFMP, are provided in **Appendix 1**.

The roles and responsibilities for personnel associated with the development and fauna management are provided in **Sections 3.1 to 3.4**.

2.2.1 Vegetation Clearing

Areas not required for development will be protected from vegetation clearing or disturbance through the clear marking/fencing of non-disturbance areas (refer to **Table 3**). These areas will be inspected once the final design plans are available. At this time an experienced ecologist will traverse the site and clearly mark all significant vegetation (i.e. fauna habitat trees) for retention. The location of these areas will also be highlighted to all contractors and employees through the site