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## D60.11 – Attachment 1 Locality Plan

Monday, 17 October 2011

1:723





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22 MAY 1997

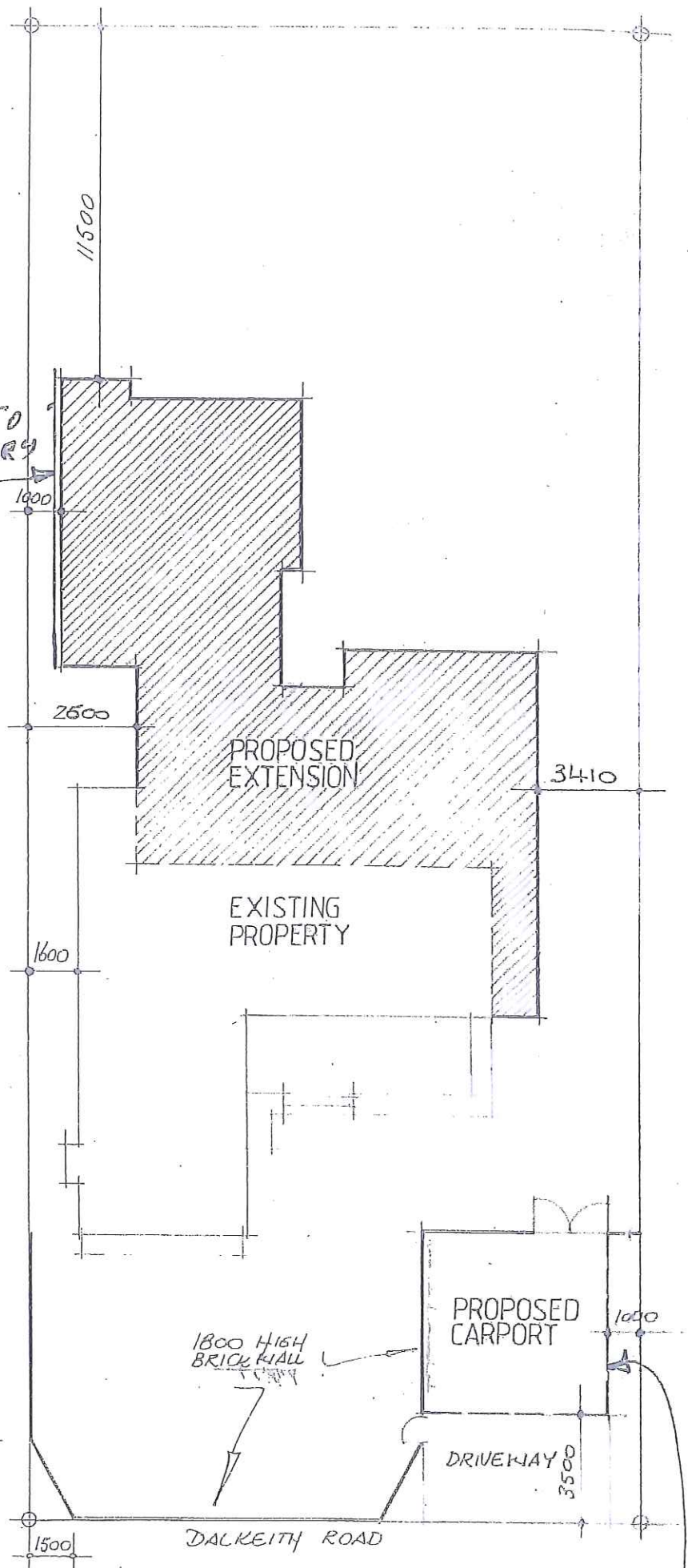
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2.4164  
ICKHALL

**D60.11 – Attachment 2**  
Existing Site Plan  
(approved in 1997)

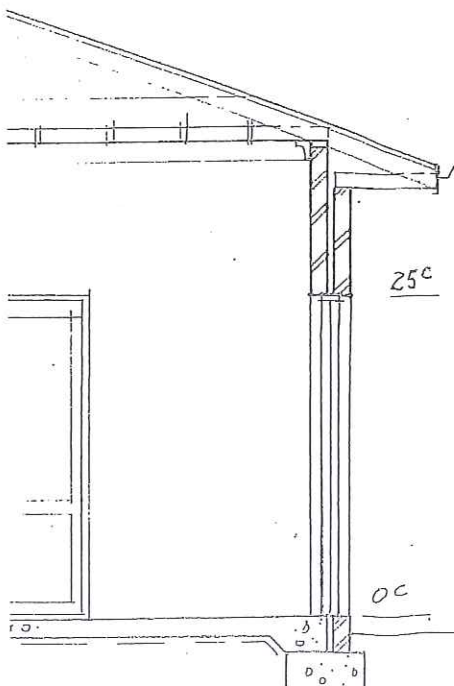
FILL AT ANY BOUNDARY  
NOT TO EXCEED 500mm  
AND RETAIN ALL FILL

GUTTER 750  
FROM BOUNDARY



site plan scale 1:100

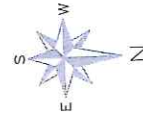
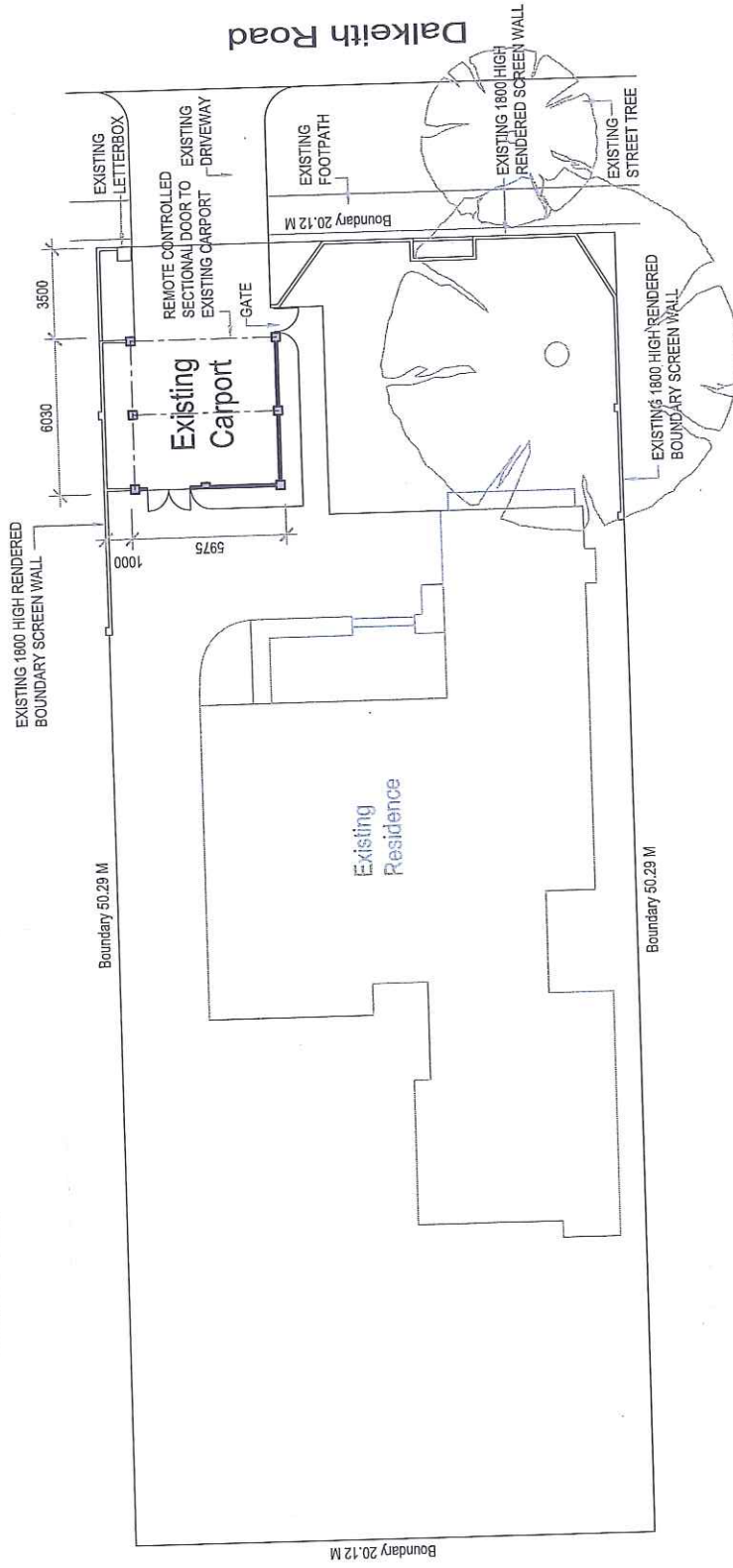
GUTTER 750 mm  
FROM BOUNDARY



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# D60.11 – Attachment 3 Site Plan



## Site Plan

1:200

Scale 1:200

0 2 4 6 8 10

Lamb Residence  
Retrospective Carport Approval  
Lot 367 (#114) Dalkeith Road  
Nedlands

**Hutton Drafting**  
Architectural Design & Documentation  
ABN: 64 680 193 109

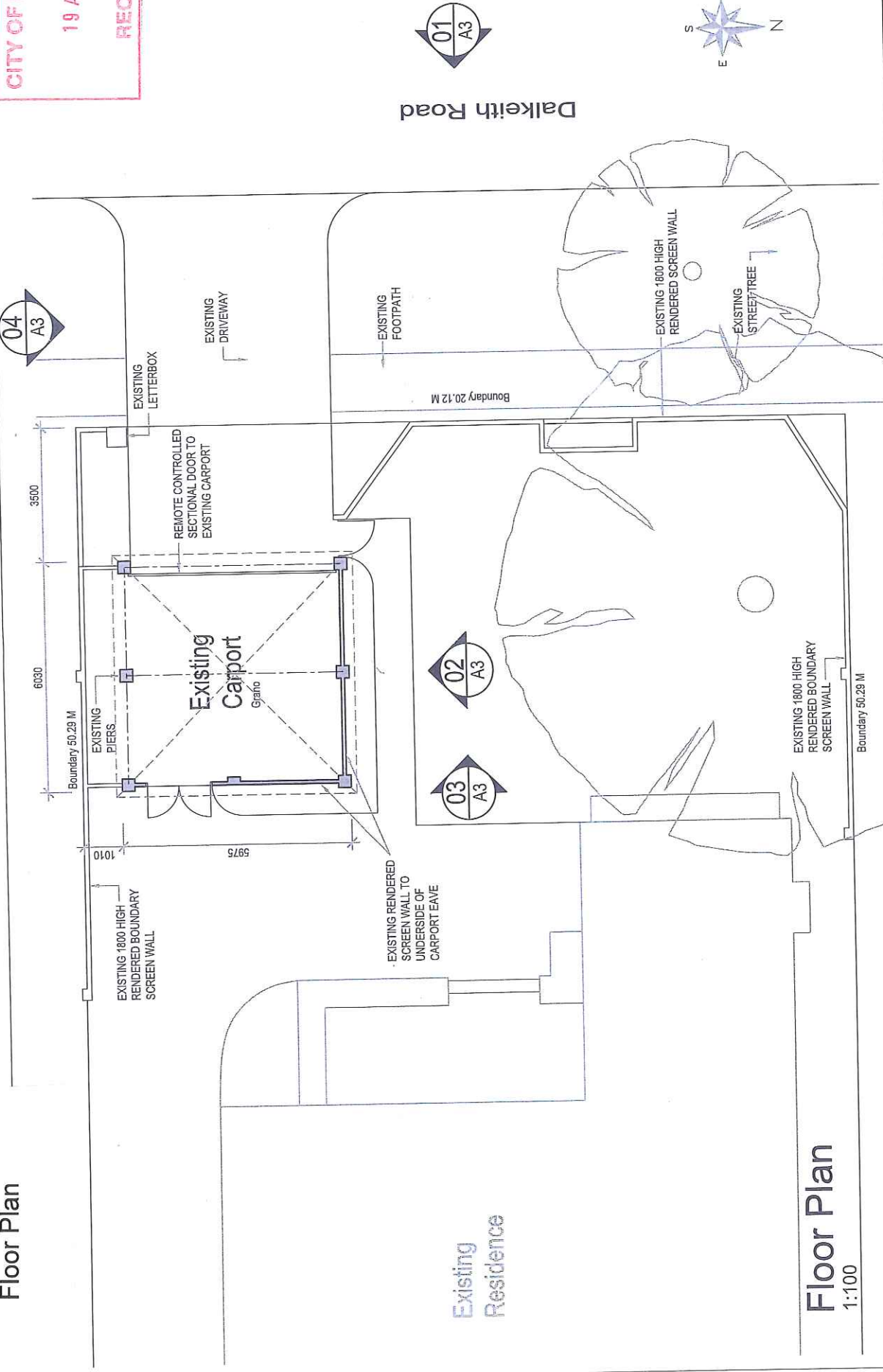
10 Loftus Street Nedlands WA 6009  
Ph: (08) 9389 6442  
Email: graemehutton@inet.net.au

**A1**  
Aug '11

# D60.11 – Attachment 4

## Floor Plan

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## Floor Plan

1:100

Lamb Residence  
Retrospective Carport Approval  
Lot 367 (#114) Dalkeith Road  
Nedlands

**Hutton Drafting**  
Architectural Design & Documentation  
ABN: 64 680 193 109

10 Loftus Street Nedlands WA 6009  
Ph: (08) 9389 6442  
Email: graemehatton@iinet.net.au

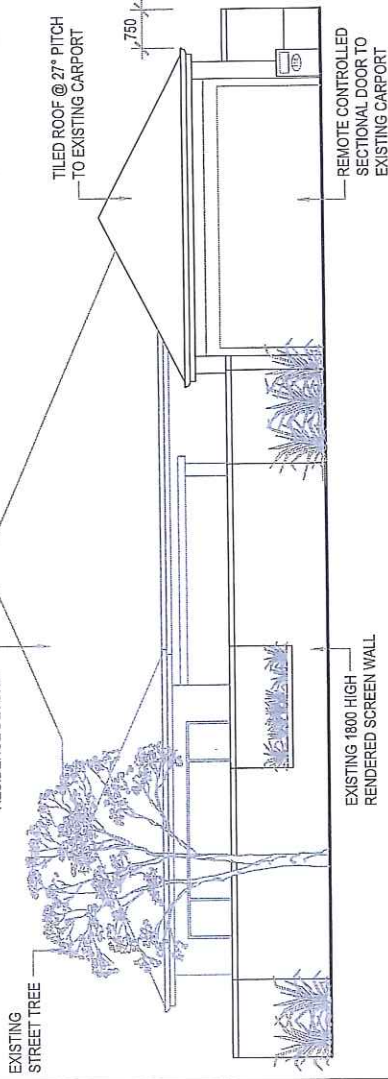
**A2**  
Aug '11



# D60.11 – Attachment 5 Elevation Plan

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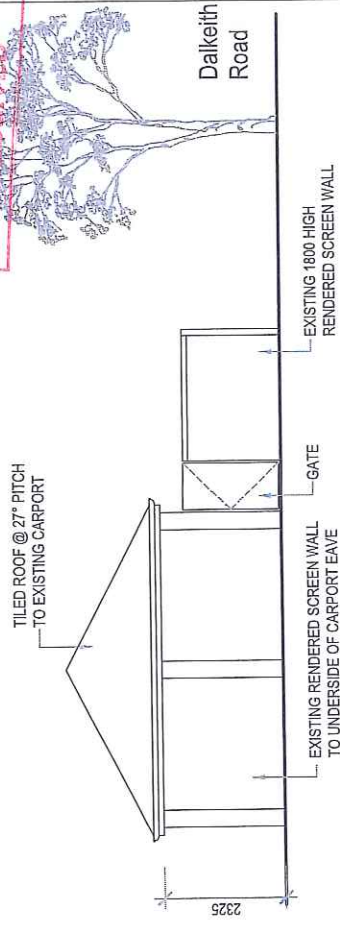
19 AUG 2011



Street Elevation

01  
A2

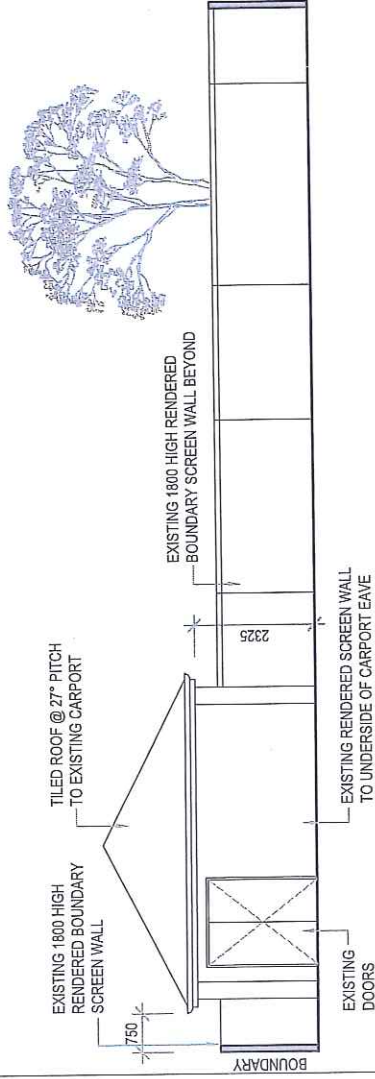
1:100



North Elevation

02  
A2

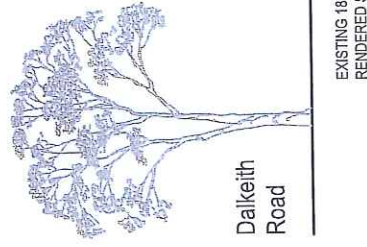
1:100



East Elevation

03  
A2

1:100



South Elevation

04  
A2

1:100

Lamb Residence  
Retrospective Carport Approval  
Lot 367 (#114) Dalkeith Road  
Nedlands

**Hatton Drafting**  
Architectural Design & Documentation  
ABN: 64 680 193 109

10 Loftus Street Nedlands WA 6009  
Ph: (08) 9389 6442  
Email: graemehatton@inet.net.au

**A3**  
Aug '11

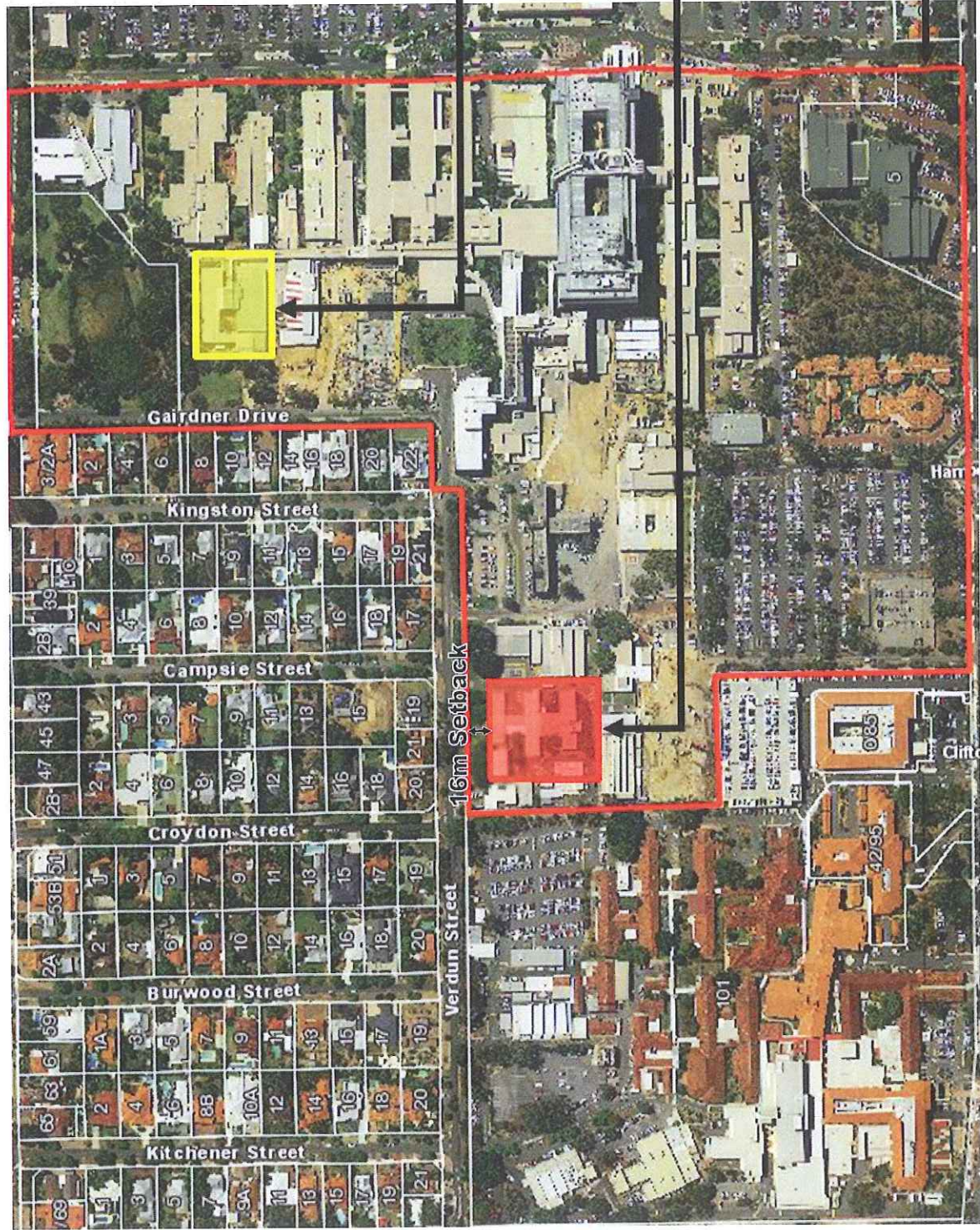
**D60.11 – Attachment 6**  
**Photos**











Existing Psychiatric  
Unit 'D' block  
to be relocated.

Proposed new  
Mental Health Unit  
(MHU)

Site Boundary





Government of Western Australia  
Department of Treasury and Finance  
Strategic Projects



**QE II MEDICAL CENTRE  
DEVELOPMENT APPLICATION  
MENTAL HEALTH UNIT**

**June 2011**

**D61.11 – Attachment 2  
Applicant's Background Report**

## Contents

1. INTRODUCTION.....	3
2. BACKGROUND .....	5
3. PROPOSAL.....	8
4. CONCLUSION .....	



### List of Attachments:

- A QE II Site Plan
- B Certificate of Title
- C QE II Medical Centre Access and Structure Plan
- D QEII Medical Centre Masterplan
- E Development Plans



29 JUN 2011

## 1. INTRODUCTION

The application proposes the construction of a new Mental Health Unit (MHU) within the QE II Medical Centre site to replace the existing psychiatric unit located in "D Block" on Gairdner Avenue. The proposed MHU is to be located in the western portion of the QEII MC site, between Verdun Street and the new Central Energy Plant. (**Attachment A – QE II MC Site Plan**)

The proposed MHU forms part of the overall redevelopment of the QEII MC site in accordance with the State Government's plan for major health reform in Western Australia. The proposed new multi-decked car park, Central Energy Plant and New Children's Hospital are associated projects to be developed in the early stages of the redevelopment of the QEII MC site.

The Development Application for the MHU has been lodged to facilitate the relocation of the psychiatric unit from "D Block" to a purpose-built unit which will support contemporary models of care within the QEII MC site. Modifying the existing "D Block" was determined to be not viable if the optimum level of service is to be achieved for mental health services.

The proposed development is located within Lot 9075 on Crown Title 3121/246. The QEII MC site is an 'A' Class Reserve (No. 33244) for the purpose of a medical centre (**Attachment B – Certificates of Title**). Development, control and management of this reserve is vested in the QEII Medical Centre Trust under Section 13(1) of the Queen Elizabeth II Medical Centre Act 1966.

The subject land is reserved "Public Purpose– Hospital" under the Metropolitan Region Scheme (MRS). The proposal is wholly located within the City of Nedlands within Town Planning Scheme No. 2 reflecting the MRS reservation. The proposed development is not considered to be "permitted development" under Clause 16 of the MRS and consequently, development approval from the Western Australian Planning Commission is required.

## 2. BACKGROUND

### 2.1 "Reid Report"

The MHU is to be developed in the context of the overall redevelopment of the QEII MC site in accordance with the 2004 report, "A Healthy Future for Western Australians", also known as the "Reid Report". This sets out a plan for major health reform and recommends a fundamental reconfiguration of the Western Australian health system over the next 10-15 years. This included the relocation to the QEII MC site of the Princess Margaret Hospital and the King Edward Hospital for Women, and construction of ancillary facilities and services. Some of this work, such as the new PathWest

building, new Cancer Centre Stage 2 building, new Central Energy Plant building and new research building (for WAIMR) are currently in construction.

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## 2.2 Queen Elizabeth II Medical Centre Access and Structure Plan

In progressing the redevelopment of the QEIMC site consistent with the recommendations of the Reid Report, agreement was reached between the Department of Health (DoH) and the WAPC in 2004 on the need for a comprehensive framework to guide the future redevelopment of the site. This was to be in the form of a structure plan incorporating a parking management and access plan which would be used to assess the implications of future development. (**Attachment C- QE II MC Access and Structure Plan**)

The QE II Medical Centre Access and Structure Plan (the Structure Plan) does not allocate specific land uses to particular parts of the site but does identify three precincts: *Core Health Precinct* and *Perimeter Development Precincts A and B*.

The proposed MHU is located predominantly within "Perimeter Development Precinct B" which establishes:

- buildings to 4 storey maximum height;
- average 10m setbacks from Verdun Street
- landscape set-backs;

In 2007, the WAPC adopted the Structure Plan, subject to a number of conditions which related primarily to staging, access and parking.

## 2.3 QEII Medical Centre Master Plan

The Master Plan for the QEII Medical Centre Site was prepared for the QEIMC Trust to progress the adopted QE II Access and Structure Plan through providing a planning and design framework for the long term redevelopment of the QEIMC site.

The MHU is identified within the Masterplan at the proposed site on the western side the QEIMC. The Masterplan has been used by the QEIMC Trust and the North Metropolitan Area Health Service (NMAHS) to progress the Stage 1 redevelopment of the site which includes the proposed New Children's Hospital, Central Energy Plant relocation and development of the proposed multi-deck car park. (**Attachment D – QE II Medical Centre Masterplan**).

## 2.4 WAPC DEVELOPMENT APPROVAL FOR MULTI-DECK CAR PARK (2011)

In April 2011, the WAPC granted Development Approval for the multi-deck



car park to be located on Winthrop Avenue. In that approval, the WAPC imposed an upper limit of 5,350 car bays (inclusive of exempt bays) for the QEII MC campus.

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The proposed MHU intends to provide 7 drop-off bays to service that facility and these are included within the 150 exempt bays the subject of the WAPC approval. The MHU staff and visitors will be dependent upon the provision of parking within the new multi-deck car park and other QEII MC car parks.

### 3. PROPOSAL

The proposed MHU is to provide a contemporary and integrated 30-bed authorised Category 6 tertiary inpatient mental health service for the northern metropolitan area of Perth in addition to the service provided by Royal Perth Hospital.

The MHU will operate jointly with the Graylands Hospital as the Level 6 tertiary level mental health rehabilitation hospital and with Level 5 secondary acute mental health inpatient units of Joondalup, Midland, Graylands and the yet to be built unit at Osborne Park Hospital, and will be part of a coordinated network of titrated care to ensure general and psychiatric specialist services are accessible to all patients.

Included within the development proposal is:

- The demolition of the existing "U Block" ; and,
- construction of a predominantly single-storey/two-storey MHU building with a total estimated floor area of approximately 4,000m<sup>2</sup>.

The main components of the Development Application are identified in the attached development plans and described below: **(Attachment E – Development Plans)**

#### 3.1 Location

The proposed building is to be located on the western side of the QEII MC site bounded by the Hollywood Hospital to the west and Verdun Street to the north in accordance with the QEII MC Masterplan. The building is to be set-back 17.5m from the QEII MC northern boundary along Verdun Street which is in excess of the 10m setback requirement of the QEII MC Access and Structure Plan.

The setback to Verdun Street will be retained as a well-vegetated landscape setback in accordance with the QEII MC Access and Structure Plan. This setback area will be subject to additional planting in accordance with a landscape management plan and the QEII Medical Centre Urban Design Guidelines.

The site is currently occupied by "U Block" (Department of Health WA,



Radiation Health and Biomedical Engineering) which is to be demolished to allow construction of the proposed MHU. The existing T Block building is to remain, as will the childcare centre on Verdun Street (yet to be completed). The new Central Energy Plant is being built to the south of the MHU.

### 3.2 Building Design

The proposed MHU generally comprises a single storey building with a partial second storey in the north east area of the building fronting Verdun Street. The building is to be to a maximum height of 9.7m and will include a profiled zincalume roof and reconstituted limestone walls, with glass and polycarbonate sheeting. The building is in accordance with the 4 storey maximum height limit established by the QEIMC Access and Structure Plan for the Verdun Street frontage.

In addition, the QEII Urban Design Guidelines 2009 calls for expressed structural components and curtain wall glazing, both of which are reflected in the truss at the front entrance to the building and the use of curtain wall glazing where possible to maximise the daylight quality inside the building.

The MHU is designed to meet the highest international standards for mental health facility design. Functional areas are designed in compliance with the Australasian Health Facility Guidelines. The building is targeting a 4-star Green Star rating which represents Australia's best practice.

The building is to have a floor area of approximately 4,000m<sup>2</sup> providing 18 open unit bedrooms, 12 secure unit bedrooms, a Day Procedure Unit, which will be used to provide electro-convulsive therapy (ECT) for use by inpatients and outpatients, administration offices and patient amenity areas. The majority of rooms have access to an external view with approximately 4,300m<sup>2</sup> of landscaped open space available in five courtyard areas allowing for a strong connection between outside and inside. Appropriate planting and external surfaces will be provided in accordance with the QEIMC Urban Design Guidelines.

A screening fence/wall to a maximum height of 3.6m is to be located around the building and the associated outdoor areas in a contemporary style to compliment the local streetscape and is to comprise limestone/open mesh/glazed fencing.

#### Access/Parking

Access to the proposed MHU is from the existing private roads within QEIMC, including the existing road connecting with Verdun Street and another to the south of T Block. Parking is to be provided in 7 bays on the southern side of the MHU, with these to be retained exclusively for drop-off purposes, with all staff and visitors to make use of the parking available within the proposed multi-deck car park and associated at-grade car bays. Traffic volumes are expected to be similar to those for the existing U Block function. Parking for 30 bicycles is provided within the MHU.



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**Services**

The proposed MHU is to be provided with building services from the new Central Energy Plant, thus obviating the need for local mechanical plant such as chillers and boilers within the proposed MHU. Services are to be provided to ward rooms via dedicated service corridors within the building ceiling space.

Catering, waste management, pharmacy and housekeeping services are provided from the Sir Charles Gairdner Hospital and are transported internally to the QEII MC.

**Function**

As an integral part of the NMAHS Mental Health, the new 30 bed authorised in-patient MHU is designated to provide tertiary and secondary mental health services within the QEII MC.

Mental Health services will be provided on an in-patient and limited day-patient basis. The services offered will be consistent with a level 6 mental health facility. There is no capacity within the MHU for patients with on-going forensic mental health services involvement or those ordered for assessment via the justice system.

The MHU will provide core inpatient clinical programmes within the secure and open units, day patient services including the ECT service, and limited outpatient services.

A range of patients will be seen at the MHU and will include adults aged from 18 to 64 years:

- where the length of admission is expected to average 11 days. Patients requiring extended treatment may be transferred to alternative level 5 facilities;
- who are transported involuntarily to the MHU via ambulance, police or emergency psychiatric services from their home, the community or a hospital emergency department.
- who present as a planned admission as part of their continuing care; or
- who attend the MHU as a day procedure patient for maintenance ECT or as an outpatient for a consultant liaison appointment.

Admissions to the MHU will be planned, and self presentation will not be encouraged. The decision to admit a patient to the MHU will be made prior to presentation and will be led by community mental health or emergency services.

Patients will enter the building either via the main foyer or the emergency entry, both of which are accessible internally within the QEII MC site via a service road off Verdun Street. Visitors and staff will enter the building via



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the main foyer.

QEIIMC Security Services, provided 24 hours, 7 days a week will support the MHU. CCTV facilities will be provided to monitor activities associated with the MHU.

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#### 4. CONCLUSION

The proposed redevelopment of the QE II Medical Centre site to achieve the State's healthcare objectives will necessitate significant redevelopment of the QEIIMC site.

The development of the MHU is to be undertaken in accordance with the adopted QEIIMC Access and Structure Plan which has been further informed through the development of the QEIIMC Masterplan.

The MHU serves to replace the existing facility within D Block and is not an expansion of mental health facilities at QEIIMC. The MHU does not provide long term hospitalization but provides a treatment centre and transition to other appropriate facilities in the northern metropolitan area of Perth.

The design of the MHU acknowledges the residential nature of Verdun Street and serves to minimise any visual intrusion. Retention of a large landscaped setback to Verdun Street will assist in this regard.

The facility will not generate significant traffic (no more than for the current U Block activity) and will provide only drop off parking bays on-site. Admission to the MHU by referral serves to manage the flow of patients presenting at the MHU. Parking for visitors and staff will be provided in the new multi-deck car park and other at-grade car parks throughout the QEIIMC site. The provision of centralised support services by Sir Charles Gairdner Hospital to the MHU will minimise vehicle movement around Verdun Street.

The proposed MHU is a use which is consistent with the purpose of the "Public-Purpose-Hospital" reservation. The proposed facility is consistent with the orderly and proper planning of the locality and is located in a functional manner for its purpose. It is further considered that the proposal will not have an adverse impact on the amenity of the locality.

Development Approval for the MHU is critical for achieving scheduled dates for the consolidation of medical services at the QEII Medical Centre.

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Client DTF BUILDING MANAGEMENT & WORKS  
Project SCGH MENTAL HEALTH UNIT

**SITE LOCATION PLAN**

A3 Drawing No: 61-26381 - MHUDDAA001 Rev: A

ROSALIE PARK

	RESIDENTIAL	EXISTING	Garage
			PSYCHIATRIC UNIT

TEMPORARY CHILD CARE —  
PROPOSED  
NEW FACILITY



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E [permat@ghd.com](mailto:permat@ghd.com) F 01 8 9429 6555  
W [www.ghd.com](http://www.ghd.com)

SCALE 1:3000 AT ORIGINAL SIZE

	LH	RM	CM	21/08/11
ISSUED FOR DA				
Revised by:				
Project No.				
Drawing No.				
Date				

	Date	Call File No.	Civil Local Revolt Identification Number	HHU Serial Number
	26/05/2011 4:45:45 PM	-	-	HHU Serial Number Not



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**ATTACHMENT B**  
**CERTIFICATE OF TITLE**

29 JUN 2011

REGISTER NUMBER

9075/DP213389

DUPLICATE  
EDITION  
N/A

DATE DUPLICATE ISSUED

N/A RECEIVED N/A

WESTERN



AUSTRALIA

# RECORD OF QUALIFIED CERTIFICATE OF CROWN LAND TITLE

UNDER THE TRANSFER OF LAND ACT 1893  
AND THE LAND ADMINISTRATION ACT 1997

VOLUME  
LR3138

FOLIO  
601

## NO DUPLICATE CREATED

The undermentioned land is Crown land in the name of the STATE of WESTERN AUSTRALIA, subject to the interests and Status Orders shown in the first schedule which are in turn subject to the limitations, interests, encumbrances and notifications shown in the second schedule.

REGISTRAR OF TITLES



## LAND DESCRIPTION:

LOT 9075 ON DEPOSITED PLAN 213389

## STATUS ORDER AND PRIMARY INTEREST HOLDER: (FIRST SCHEDULE)

STATUS ORDER/INTEREST: RESERVE VESTED UNDER STATUTE

PRIMARY INTEREST HOLDER: THE QUEEN ELIZABETH II MEDICAL CENTRE TRUST  
(XE H625607) REGISTERED 18 DECEMBER 2000

## LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS: (SECOND SCHEDULE)

1. PART CLASS A RESERVE 33244 FOR THE PURPOSE OF MEDICAL CENTRE
2. G121037 CAVEAT BY OPTUS MOBILE PTY LTD AS TO PORTION ONLY. LODGED 8.3.1996.
3. H625607 VESTED. DEVELOPMENT, CONTROL AND MANAGEMENT PURSUANT TO SECTION 13(1) QUEEN ELIZABETH II MEDICAL CENTRE ACT 1966. REGISTERED 18.12.2000.
4. H650489 LEASE TO OPTUS MOBILE PTY LTD OF LEVEL 29, OPTUS CENTRE, 101 MILLER STREET, NORTH SYDNEY, NEW SOUTH WALES EXPIRES: SEE LEASE. AS TO PORTION ONLY. REGISTERED 22.1.2001.
5. H744244 LEASE TO LUCENT TECHNOLOGIES AUSTRALIA PTY LTD OF LEVEL 4, 6-10 TALAVERA ROAD, NORTH RYDE, NEW SOUTH WALES EXPIRES: SEE LEASE. AS TO PORTION ONLY. REGISTERED 10.5.2001.
- I259514 TRANSFER OF LEASE H744244, LESSEE NOW HUTCHISON 3G AUSTRALIA PTY LTD OF LEVEL 3, 504 PACIFIC HIGHWAY, ST LEONARDS, NEW SOUTH WALES REGISTERED 9.10.2002.
6. I719902 LEASE TO LIONS EYE INSTITUTE OF WESTERN AUSTRALIA INC OF 2ND FLOOR, A BLOCK, QUEEN ELIZABETH MEDICAL CENTRE, VERDUN STREET, NEDLANDS EXPIRES: SEE LEASE. AS TO PORTION ONLY. REGISTERED 5.12.2003.
7. I776899 LEASE TO LOTTERIES COMMISSION OF 74 WALTERS DRIVE, OSBORNE PARK EXPIRES: SEE LEASE. AS TO PORTION ONLY. REGISTERED 2.2.2004.
- I776921 TRANSFER OF LEASE I776899, LESSEE NOW CYSTIC FIBROSIS ASSOCIATION OF WESTERN AUSTRALIA OF SUITE C, THE NICHE, 11 ABERDARE ROAD, NEDLANDS, INDEPENDENT LIVING CENTRE OF WESTERN AUSTRALIA INC OF SUITE A, THE NICHE, 11 ABERDARE ROAD, NEDLANDS, NEUROLOGICAL COUNCIL OF

END OF PAGE 1 - CONTINUED OVER



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ORIGINAL CERTIFICATE OF CROWN LAND TITLE  
QUALIFIED

REGISTER NUMBER: 9075/DP213389 VOLUME/FOLIO: LR3138-601

29 JUN 2011

PAGE 2

WESTERN AUSTRALIA INC OF SUITE B, THE NICHE, 11 ABERDARE ROAD,  
NEDLANDS REGISTERED 2.2.2004.

8. I776922 CAVEAT BY LOTTERIES COMMISSION AS TO PORTION ONLY LODGED 2.2.2004.  
9. J673576 CAVEAT BY 3GIS PTY LTD AS TO PORTION ONLY LODGED 24.3.2006  
10. K027439 CAVEAT BY VODAFONE NETWORK PTY LTD AS TO PORTION ONLY LODGED 18.12.2006.  
11. K842816 LEASE TO THE WESTERN AUSTRALIAN INSTITUTE FOR MEDICAL RESEARCH INC OF 50  
MURRAY STREET, PERTH EXPIRES: SEE LEASE. AS TO PORTION ONLY REGISTERED  
3.2.2009.  
L461266 MORTGAGE OF LEASE K842816 TO STATE OF WESTERN AUSTRALIA  
REGISTERED 25.10.2010.

- Warning: (1) A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required.  
(2) Lot as described in the land description may be a lot or location.  
(3) The land and interests etc. shown hereon may be affected by interests etc. that can be, but are not, shown on the register.  
The interests etc. shown hereon may have a different priority than shown.

-----END OF CERTIFICATE OF CROWN LAND TITLE-----

STATEMENTS:

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land  
and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND: DP213389 [SHEET 1].  
PREVIOUS TITLE: LR3121-686.  
PROPERTY STREET ADDRESS: 2 VERDUN ST, NEDLANDS.  
LOCAL GOVERNMENT AREA: CITY OF NEDLANDS, CITY OF SUBIACO.  
RESPONSIBLE AGENCY: HEALTH DEPARTMENT OF WESTERN AUSTRALIA.

NOTE 1: J797215 CORRESPONDENCE FILE 00292-1969-02RO

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## **ATTACHMENT C**

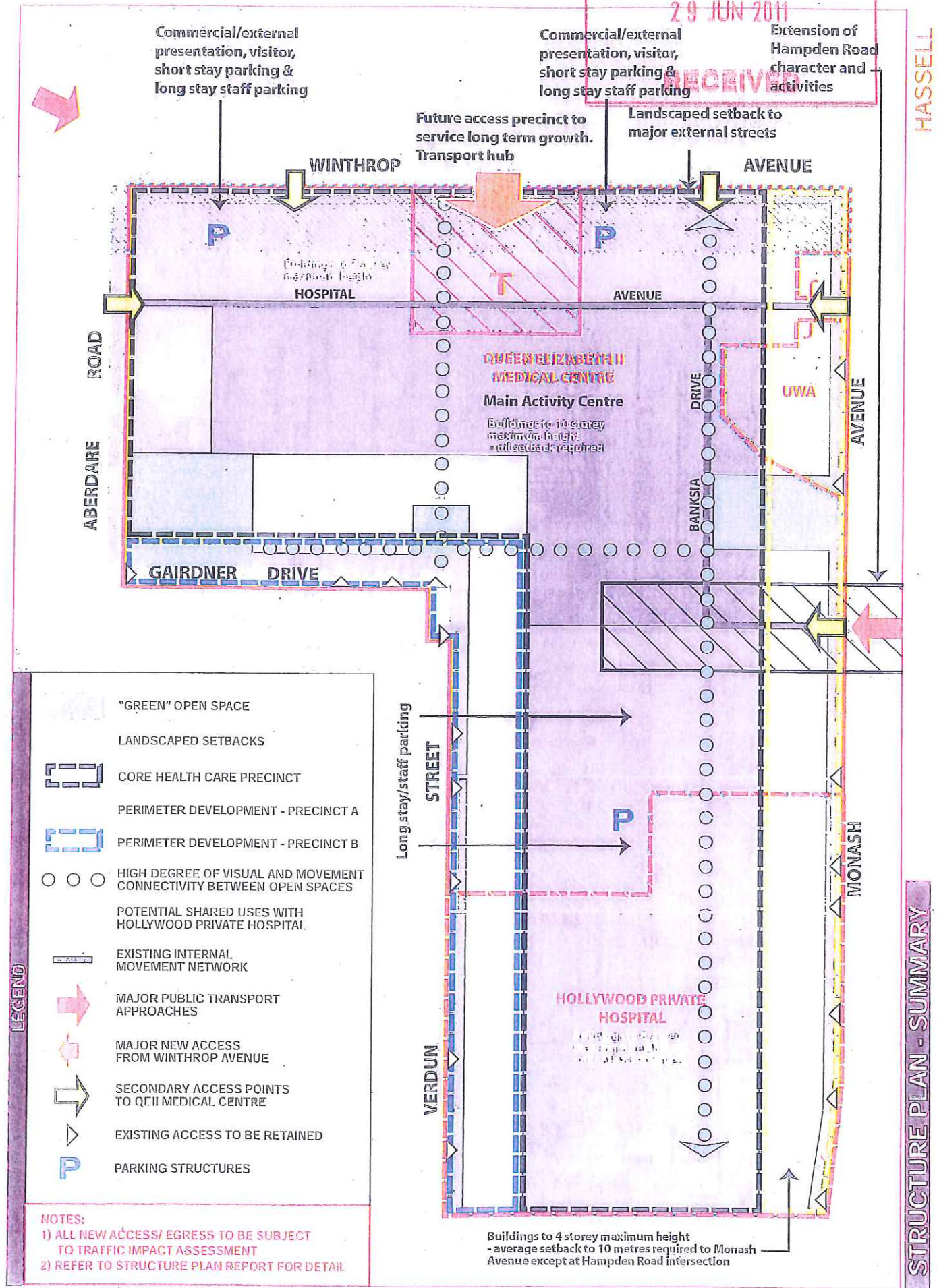
### **QE II MEDICAL CENTRE ACCESS AND STRUCTURE PLAN**



29 JUN 2011

Extension of  
Hampden Road  
character and  
activities

HASSELL



## QE II MEDICAL CENTRE STRUCTURE PLAN

STRUCTURE PLAN - SUMMARY



0 50m 100m 200m

SCALE @ A3

PPA0232

1st FEBRUARY 2007

\\17X1070201 Report\\Sum\_STP\_V2.dwg

1:3000



**ATTACHMENT D**

**QE II MEDICAL CENTRE MASTER PLAN**



## SUBJECT SITE



Legend.

STAGE ONE

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SPECIAL DEVELOPMENT ZONE 1 - WINTHROP AVENUE PRECINCT  
ANTICIPATED PRINCIPAL USE - ANCILLARY SUPPORT AND CARPARKING

WINTHROP AVENUE

KINGS PARK

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**ATTACHMENT E**  
**DEVELOPMENT PLANS**



SCALE 1 : 500

## DEVELOPMENT APPLICATION

Client DTF BUILDING MANAGEMENT & WORKS  
Project SCGH MENTAL HEALTH UNIT

## SITE SURVEY

Original Size  
A3  
Drawing No: 61-26381 - MHUDDA002 Rev: A

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21/5/11

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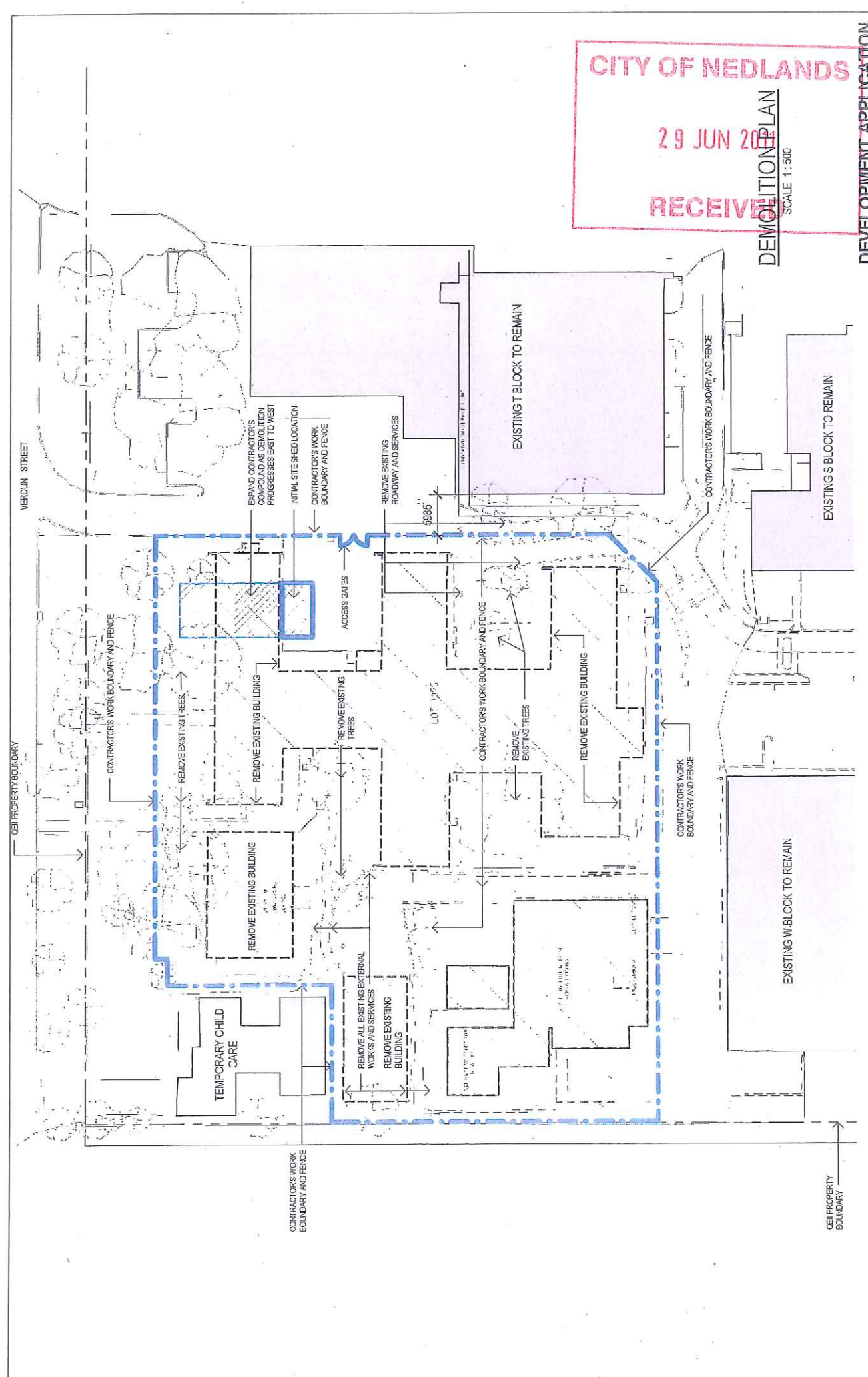
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120110

1
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29 JUN 2025

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DEMOLITION PLAN  
SCALE 1"=500'

SCALE 1:500

## DEVELOPMENT APPLICATION

[illegible]







Drawing No: 61-26381 - MHUDDA005 Rev: A

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SCALE 1:400 AT ORIGINAL SIZE

Project Director	CM	21/5/11	Date
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Flowing	Drain	J. Fr.
	LF	R

issue of drawing or last revision

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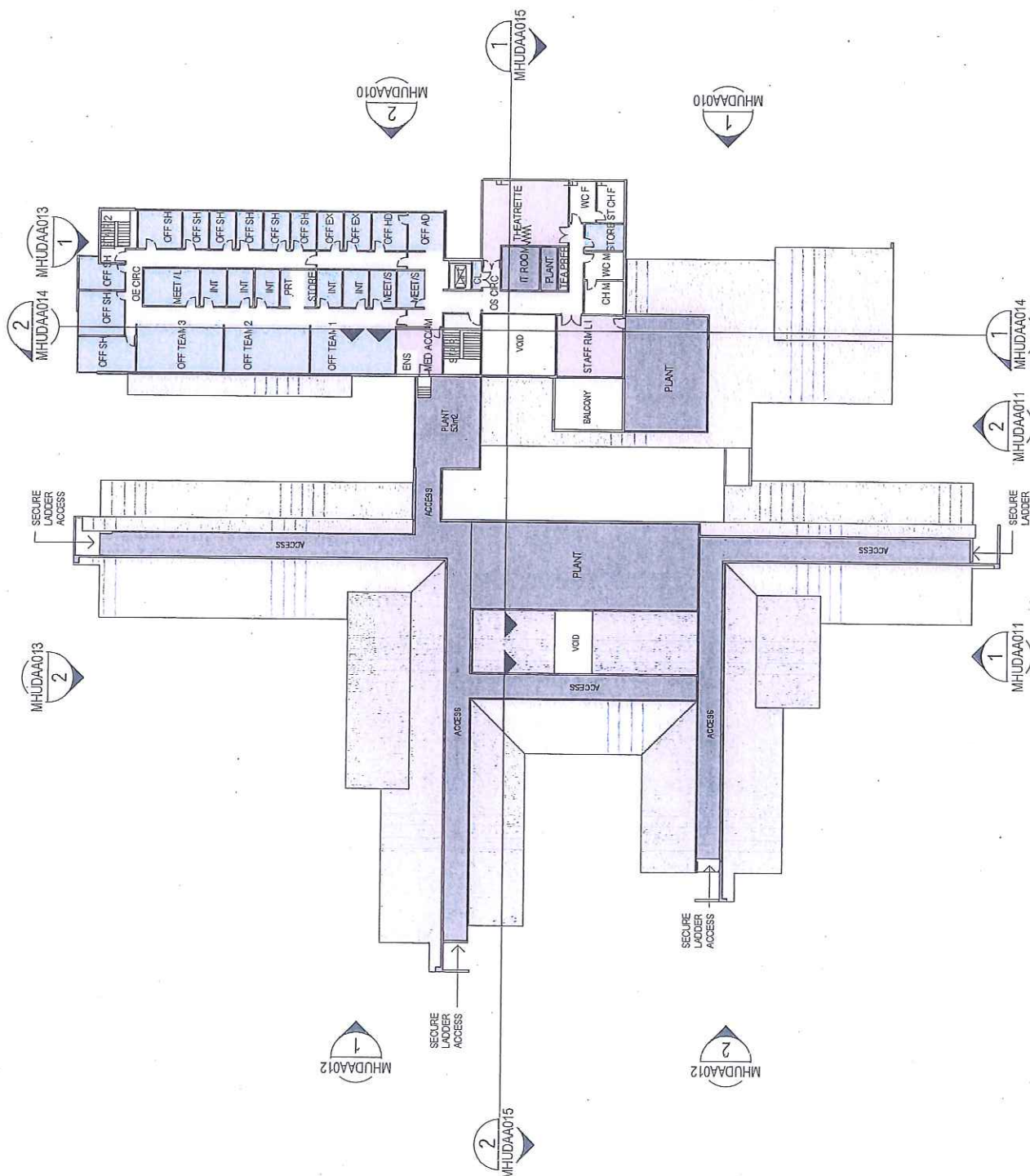
LEVEL 1  
SCALE 1 : 400

## DEVELOPMENT APPLICATION

Client: DTF BUILDING MANAGEMENT & WORKS  
Project: SCGH MENTAL HEALTH UNIT

LEVEL 1 PLAN

Drawing No: **61-26381 - MHU**  
 Drawing No: **61-26381 - MHU**  
 Drawing No: **61-26381 - MHU**



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PO Box Y3106 Perth WA 6022  
T 01 0 9429 0060 F 01 0 9429 8555  
E [se@mail@ghd.com](mailto:se@mail@ghd.com) W [www.ghd.com](http://www.ghd.com)



GHD Heuse, Inc.  
PO Box Y3108  
Tulsa, OK 74112  
Tel: 918.436.2900  
Fax: 918.436.2901  
E-mail: [info@ghdheuse.com](mailto:info@ghdheuse.com)



SCALE 1:400 AT ORIGINAL SIZE

NO	ISSUED FOR DA	LH	RM	CM	216/11
NO	Provision Note - indicates cognates on original issue of drawing of last edition of drawing	Drawn	Job Planner	Project Director	Date

Prod Date	21/02/2011 4:31:25 PM	Code File No	C:\Local Read Files\Woodward\WV1-26331	WVU SIK-Local Sampling
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ROOF LEVEL  
SCALE 1:400

Sheet 5 of 6  
Drawing No: 61-26381 - MHU DAA007 Rev: A  
A3





VERDUN STREET

ILLUMINATED LANSING

PROPOSED CHILD CARE

OPEN UNIT OUTDOOR SPACE

PHYSICAL ACTIVITY AREA

OT ACTIVE AREA

OT ACTIVE AREA

FAMILY DISCHARGE

PICU COURTYARD

SECURE UNIT OPEN SPACE

SCREEN

CARPARK

PLANTING

VEGETATED SCREEN

INTERNAL ROAD

1 BLOCK

LEGEND:

OPEN UNIT OUTDOOR SPACE

- FULLY VULNERABLE
- SURVEILLANCE BY STAFF
- SURVEILLANCE BY STAFF
- NO TREES

SECURE UNIT OUTDOOR SPACE

- FULL SEATING
- SOME SHADE
- SURVEILLANCE BY STAFF
- NO TREES

NON-ACCESSIBLE AREA

- STAFF ACCESS ONLY

FAMILY DISCHARGE

- THERAPEUTIC EQUIPMENT (HOLD)

LOW STIMULUS

- CALMING TERRACES
- OUTPATIENTS

PICU COURTYARD

- NEW PATIENTS

PHYSICAL ACTIVITY AREA

- WITH LEAF EQUIPMENT

STAFF AREA

- OUTDOOR SEATING FOR CAMPUS DEANS

OT ACTIVE AREA

- WITH FIELD EQUIPMENT

VISITOR

- WITH SEATING AND SHADE

OE II PROPERTY BOUNDARY

1. NON-TRANSPARENT HIGH SECURITY BARRIER (PERIMETER FENCE)
2. TRANSPARENT MEDIUM SECURITY BARRIER
3. NON-TRANSPARENT LOW SECURITY BARRIER
4. BARRIER BETWEEN BEDROOMS & COMMON

EMERGENCY EGRESS TO LANDSCAPE

INTERFACE ISSUE

NO VIEWS REQUIRED

VIEWS ONLY/NO ACCESS

EXISTING TREES

TREES TO BE FELLED

CITY OF NEDLAND

2.9 JUN 2011

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LANDSCAPE PLAN

SCALE 1:500

DEVELOPMENT APPLICATION

DTF BUILDING MANAGEMENT & WORKS

SCGH MENTAL HEALTH UNIT

LANDSCAPE PLAN

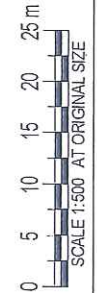
Drawing No: 61-26381 - MHUDDAA008 REV. A

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CLIENT: SCGH MENTAL HEALTH UNIT

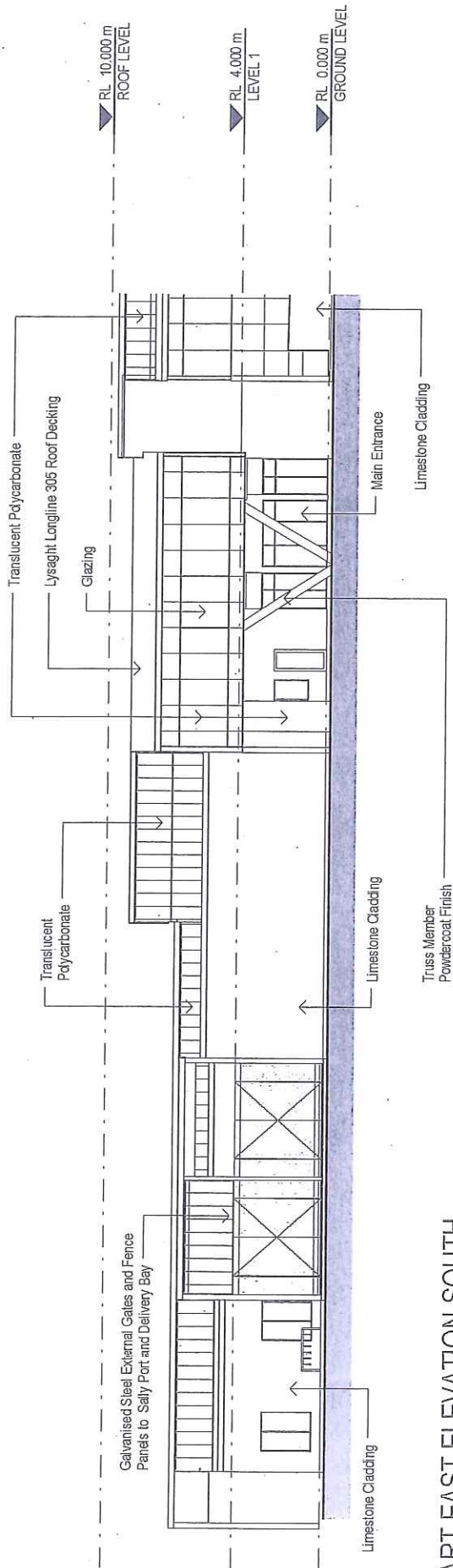
Project: SCGH MENTAL HEALTH UNIT  
Design: KCOVINE  
Drawn: KCOVINE  
Date: 27.06.2011  
Scale: 1:500



SCALE 1:500 AT ORIGINAL SIZE

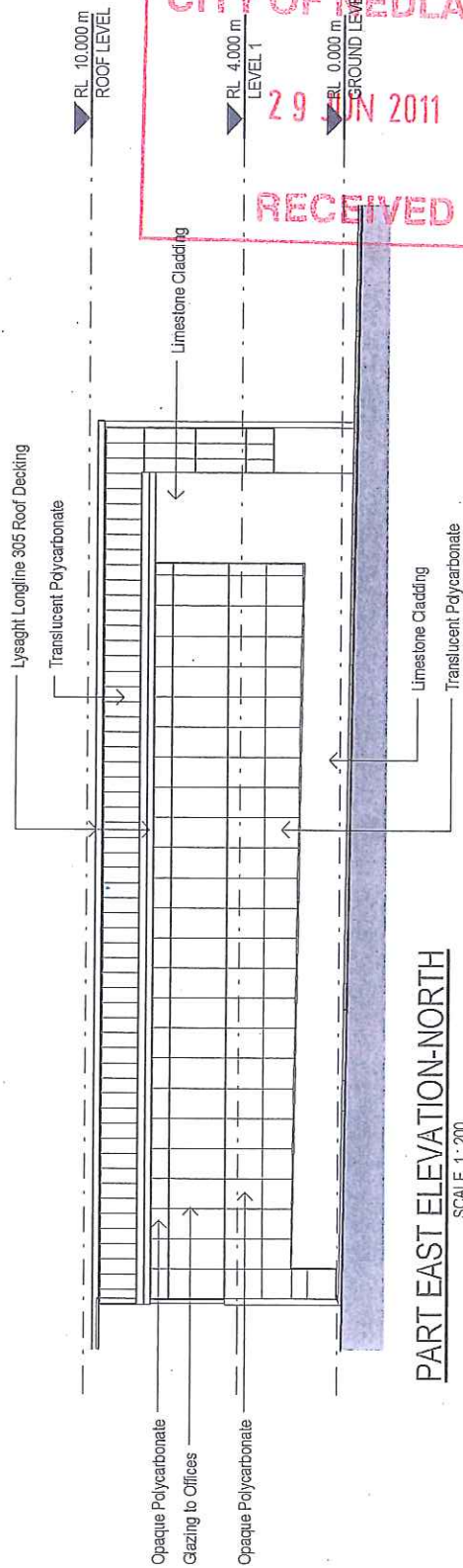
NO	REVISION	DATE	BY	CHKD
1	ISSUED FOR DA	21/06/11	RM	CM

NO REVISION  
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**PART EAST ELEVATION-SOUTH**

SCALE 1:200



**PART EAST ELEVATION-NORTH**

SCALE 1:200

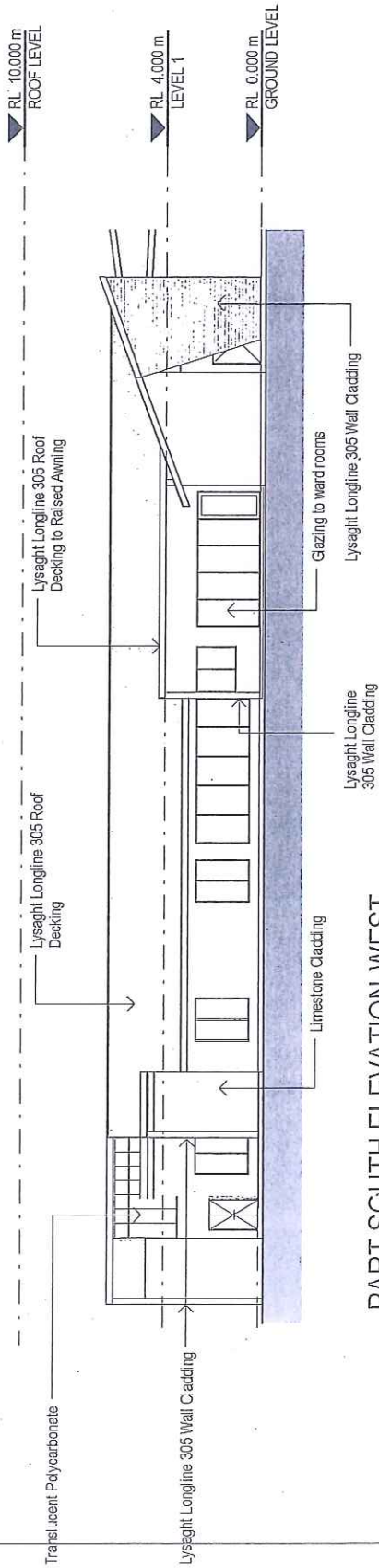


**DEVELOPMENT APPLICATION**

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Project		SCGH MENTAL HEALTH UNIT	
Drawn		KCCOWHIE	
Checked		KCCOWHIE	
Designed		KCCOWHIE	
Approved		21/06/2011	
Project Director		C. MUIR	
Scale		1:200	
DO NOT SCALE		This drawing is to be used for information only and is not to be used for any other purpose without the written consent of the architect.	
Conditions of Use		This drawing is to be used for information only and is not to be used for any other purpose without the written consent of the architect.	
City of Nedlands		3100 Innes, 270 Adelaide Terrace, Perth WA 6000 Australia PO Box 1715 Perth WA 6001 E: info@nedlands.wa.gov.au W: www.nedlands.wa.gov.au	
Issued For		CM	
No		21/06/11	
Revision		Date	

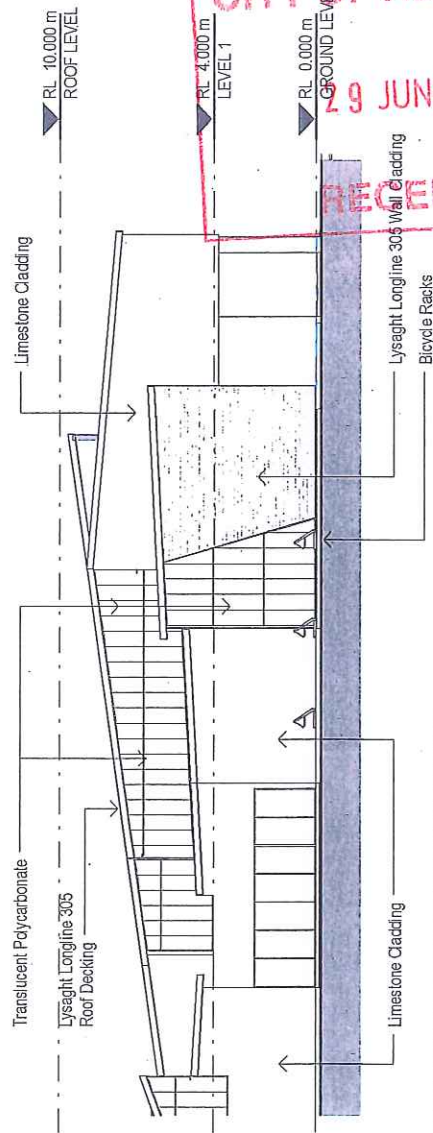
ELEVATIONS SHEET 1  
Drawing No: 61-26381 - MHU00A010 Rev: A





**PART SOUTH ELEVATION-WEST**

SCALE 1:200



**PART SOUTH ELEVATION-EAST**

SCALE 1:200

**DEVELOPMENT APPLICATION**

Client: DTE BUILDING-MANAGEMENT & WORKS  
Project: SCGH MENTAL HEALTH UNIT

ELEVATIONS SHEET 2

Drawing No: 61-26381 - MHU00A0011 Rev: A

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**CLIENT'S REPRESENTATIVE**  
SCGH MENTAL HEALTH UNIT  
1000 MOUNTAIN VIEW DRIVE  
PERTH WA 6000  
T 08 9422 0555  
F 08 9422 0555  
M 08 9422 0555  
www.scgh.com.au

**DESIGNER**  
L. KOWNE  
21/06/2011  
Scale 1:200

**DATE**  
21/06/2011

**DATE**  
21/06/2011

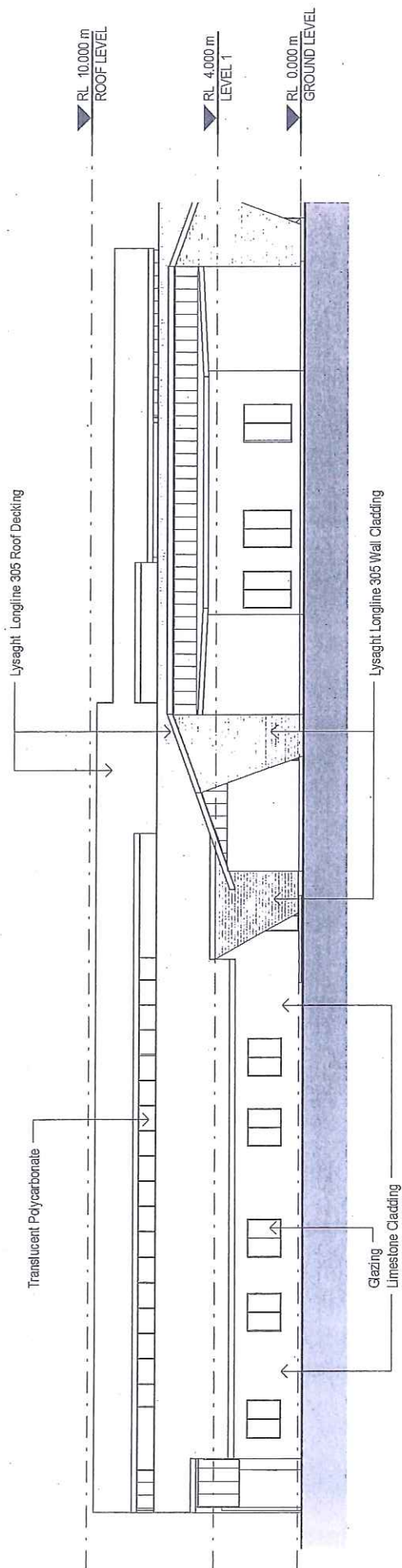
**DATE**  
21/06/2011

**DATE**  
21/06/2011

**DATE**  
21/06/2011

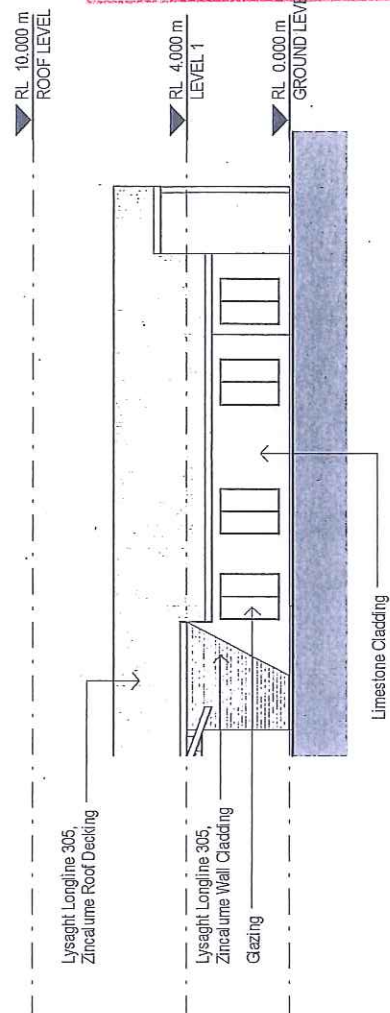
**DATE**  
21/06/2011

**DATE**  
21/06/2011



PART WEST ELEVATION-NORTH

SCALE 1:200



PART WEST ELEVATION-SOUTH

SCALE 1:200

CITY OF NEDLANDS

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## DEVELOPMENT APPLICATION

Client **DTF BUILDING MANAGEMENT & WORKS**

Project SCGH MENTAL HEALTH UNIT

ELEVATIONS SHEET 3

Original Size  
A3 Drawing No: 61-26381 - MHU DAA012 Rev: A

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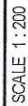
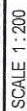
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## HELPING PEOPLE PERFORM BETTER

4	ISSUED FOR QA	KC	RM	CM	21/05/11
Revision		Note: * indicates signatures on original issue of drawing at first revision of drawing		Project Director	Date
		Drawn		Job Manager	

and File No C:\LOCAL NEW FILE\2\MASSOV\NFJG1-2520E-10NU 254600\_FBI\BAND





RL 4.000 m  
LEVEL 1  
29 JUN 2011  
RL 0.000 m  
GROUND LEVEL  
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## DEVELOPMENT APPLICATION

Client **DTF BUILDING MANAGEMENT & WORKS**  
Project **SCGH MENTAL HEALTH UNIT**

ELEVATIONS SHEET 4

Original Size  
A3 Drawing No: 61-26381-MHDDAA013 Rev: A

CLUBS, COUNCILS & PERSONNEL

GHD House, 235 Adelaide Tce Perth WA 6004 Australia  
PO Box 37100 Perth WA 6032  
T 61 0 9429 0686  
F 61 0 9420 6555  
E [enquiries@ghd.com](mailto:enquiries@ghd.com)  
W [www.ghd.com](http://www.ghd.com)

No	Revision	Note - Record is updated as required or last revision of drawing	KC	JOB Project Manager	CM Director	Date
A	ISSUED FOR DA					2/6/71



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CITY OF NEDLAND  
DEVELOPMENT APPLICATION

## DEVELOPMENT APPLICATION

DTF BUILDING MANAGEMENT & WORKS  
SCGH MENTAL HEALTH UNIT

SECTIONS SHEET 1

Drawing No: **61-26381-MH**  
 A3

22 November 2005

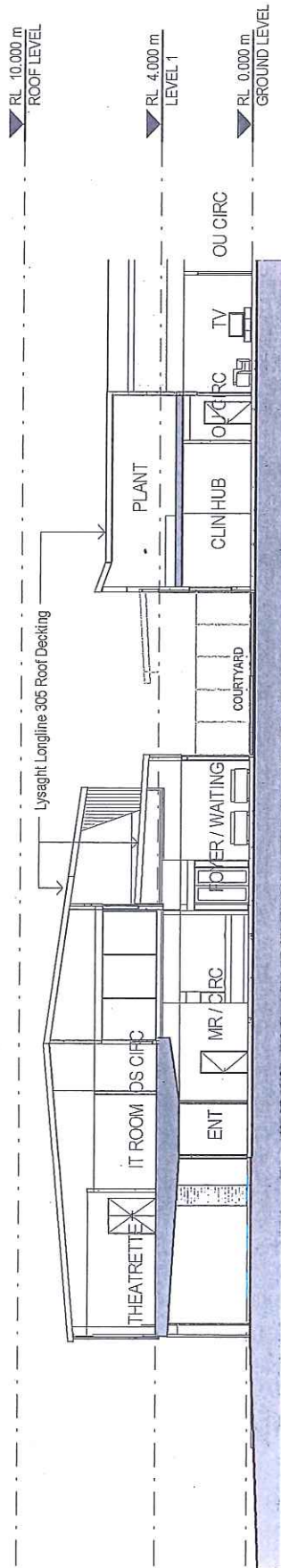
GHD House, 239 Adelaide Tce Perth WA 6004 Australia  
PO Box V3100 Perth WA 6002  
T 61 8 9439 6666 E [animal@ghd.com](mailto:animal@ghd.com)  
F 61 8 9420 6555 W [www.ghd.com](http://www.ghd.com)

**DO NOT SCALE**

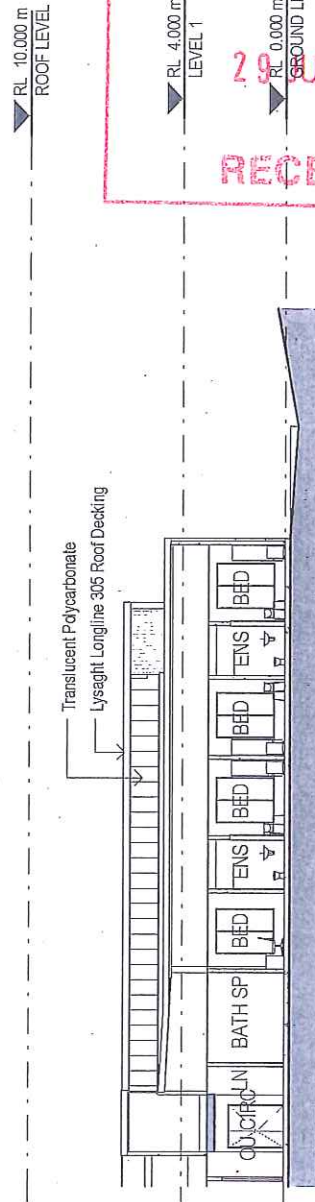
Client	R. MORRIS	Designer	K. COWNIE	Date	21.06.2011
Project	K. COWNIE	Design Check	L. HANNO	Approved	C. MUIR
Title				Project Director	
Original Size	A3				
Scale	1:200				

ISSUED FOR CIA	Revision	note: * indicates changes
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**PART SECTION 2-EAST**  
SCALE 1:200



**PART SECTION 2-WEST**  
SCALE 1:200



**DEVELOPMENT APPLICATION**

Client: DTF BUILDING MANAGEMENT & WORKS  
Project: SCCH MENTAL HEALTH UNIT

SECTIONS SHEET 2

Drawing No: 61-26381 - MHUDDAA015 Rev: A

DO NOT SCALE	Design	Check	Drawn	Scale
DO NOT SCALE	Design	Check	Drawn	Scale
DO NOT SCALE	Design	Check	Drawn	Scale

CLIENT: SCCH MENTAL HEALTH UNIT  
DTP: 10/10/10  
P: 10/10/10  
E: 10/10/10

ISSUED FOR DA	REVISION	DATE
ISSUED FOR DA	REVISION	DATE
ISSUED FOR DA	REVISION	DATE

City of Nedlands  
10/10/10  
10/10/10  
10/10/10

COUNCIL IS REQUESTED TO FORWARD THE ORIGINAL TO THE DEPARTMENT FOR PLANNING AND INFRASTRUCTURE  
ONLY WHEN THE APPROVAL OF THE WESTERN AUSTRALIAN PLANNING COMMISSION IS REQUIRED.

METROPOLITAN REGION SCHEME

Form 1

Office Use Only
<b>CITY OF NEDLANDS</b>
Serial No.....

City/Town Shire of NEDLANDS

29 JUN 2011

**APPLICATION FOR APPROVAL TO COMMENCE DEVELOPMENT**

Owner of land on which development proposed. } Surname..... The Queen Elizabeth II Medical Centre Trust and the Minister  
Other Names..... for Health  
Address in full..... Hospital Avenue  
Nedlands Postcode..... 6009

Submitted by..... Sandra McLeish, Strategic Projects, Department of Treasury and Finance

Address for Correspondence..... Locked Bag 11, Cloisters Square

Perth

Post Code..... 6850

Phone..... 9222 9482

Locality of development (street, suburb, etc)..... Verdun Street

Titles Office description of land: Lot No..... 9075

Location No.....

Plan or Diagram..... 213389

Certificate of Title Vol..... LR 3138

Folio..... 601

Nearest road junction or intersection..... Verdun Street/Gardener Drive

Description of proposed development..... Demolition of "U Block" and construction of single storey/two storey...  
mental health building and ancillary works.

State nature of any existing buildings and/or land use..... Hospital building (biomedical engineering )

Approximate cost of proposed development \$.....

Estimated time of completion..... 2013

Three copies of the Building Plan and Site Plan of the proposal are submitted with this application.

Signed by the owner of the land.....

M. Lawson

MICHELINA LAWSON  
QEHMCT TRUST BUSINESS  
MANAGER -

Date..... 28/6/11

RECOMMENDATION OF COUNCIL

NOTE: Submit original and duplicate together with copies of the plans requested to the office of the  
Local Authority in whose area the development is proposed.

**ALL DETAILS MUST BE COMPLETED**

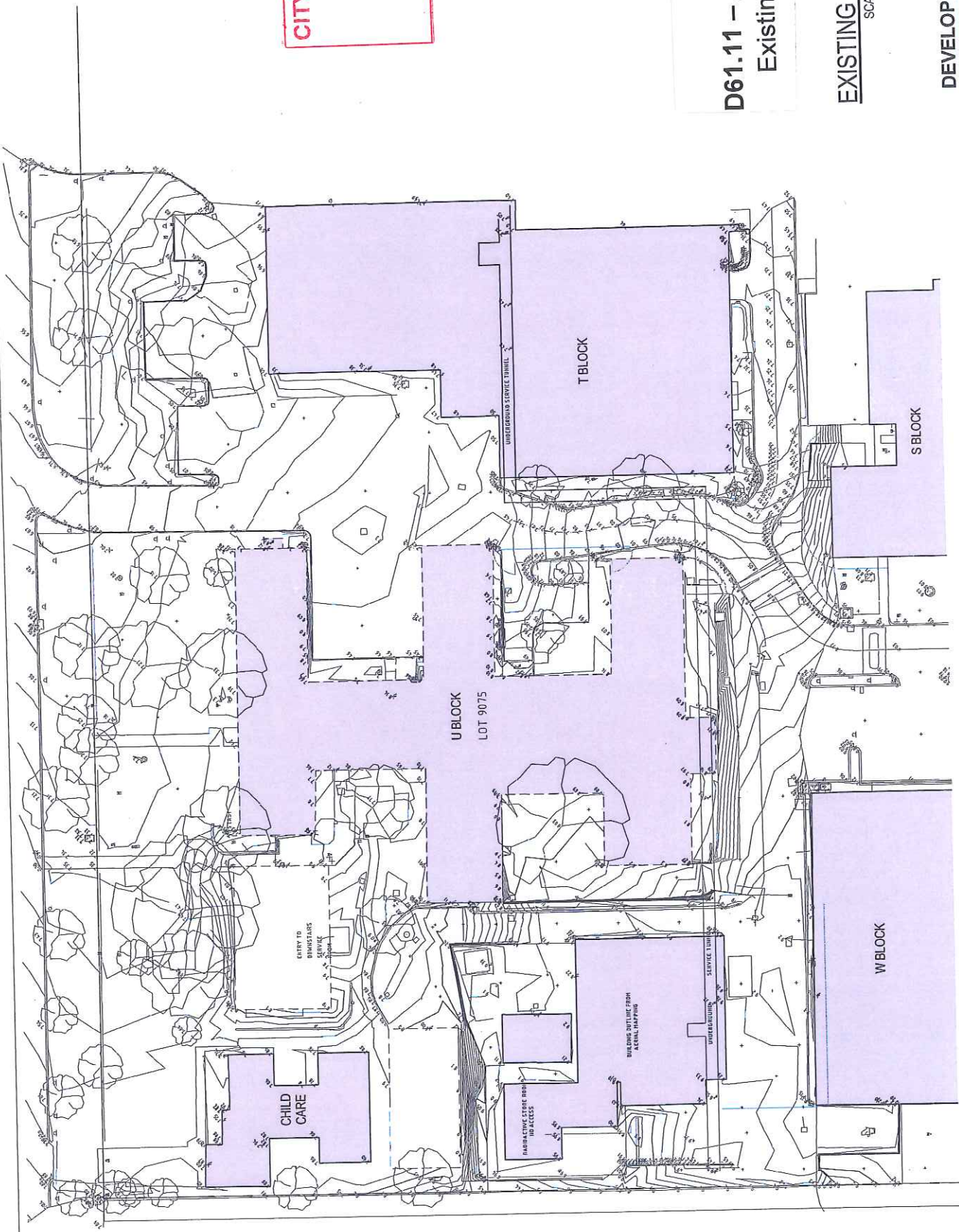


**CITY OF NEDLANDS**  
 - 9 AUG 2011  
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**D61.11 – Attachment 3**  
**Existing Site Plan**

**EXISTING SITE SURVEY**  
 SCALE 1:500

**DEVELOPMENT APPLICATION**



<b>CLIENTS/PEOPLE/PERFORMANCE</b> CHD Health, 239 Albany Street, Perth WA 6004 Australia T 08 9439 8855 F 08 9439 8855 E info@chd.org.au W www.chd.org.au		<b>DO NOT SCALE</b> Conditions of Use: This drawing is not to be used for any other purpose than that for which it was prepared and must not be used by any other person without the written permission of the author. It is not to be used for any other purpose.	<b>CLIENT</b> DTF BUILDING MANAGEMENT & WORKS Project SCGH MENTAL HEALTH UNIT Title SITE SURVEY Original Date A3 Drawing No: 61-26381 - MHUDDAA002 Rev: A
<b>DESIGNER</b> R. MORRIS Design Check Date 21.08.2011	<b>DRAWN</b> L. HIND Drawing Check Date 21.08.2011	<b>APPROVED</b> K. COVINE Approved Check Date 21.08.2011	<b>SCALE</b> 1:500

A ISSUED FOR DA No Revision Date 21/08/2011 4:23:13 PM	LH RM CM 21/08/11 Date
--	------------------------------------







DIVERSITY

A Up to 4.1m HIGH FENCE (1.2m LIMESTONE & 2.9m MESH ABOVE)

B Up to 4.1m HIGH FENCE (3.0m LIMESTONE & 1.1m MESH ABOVE)

C Up to 4.5m HIGH FENCE (1.8m LIMESTONE & 2.7m MESH ABOVE)

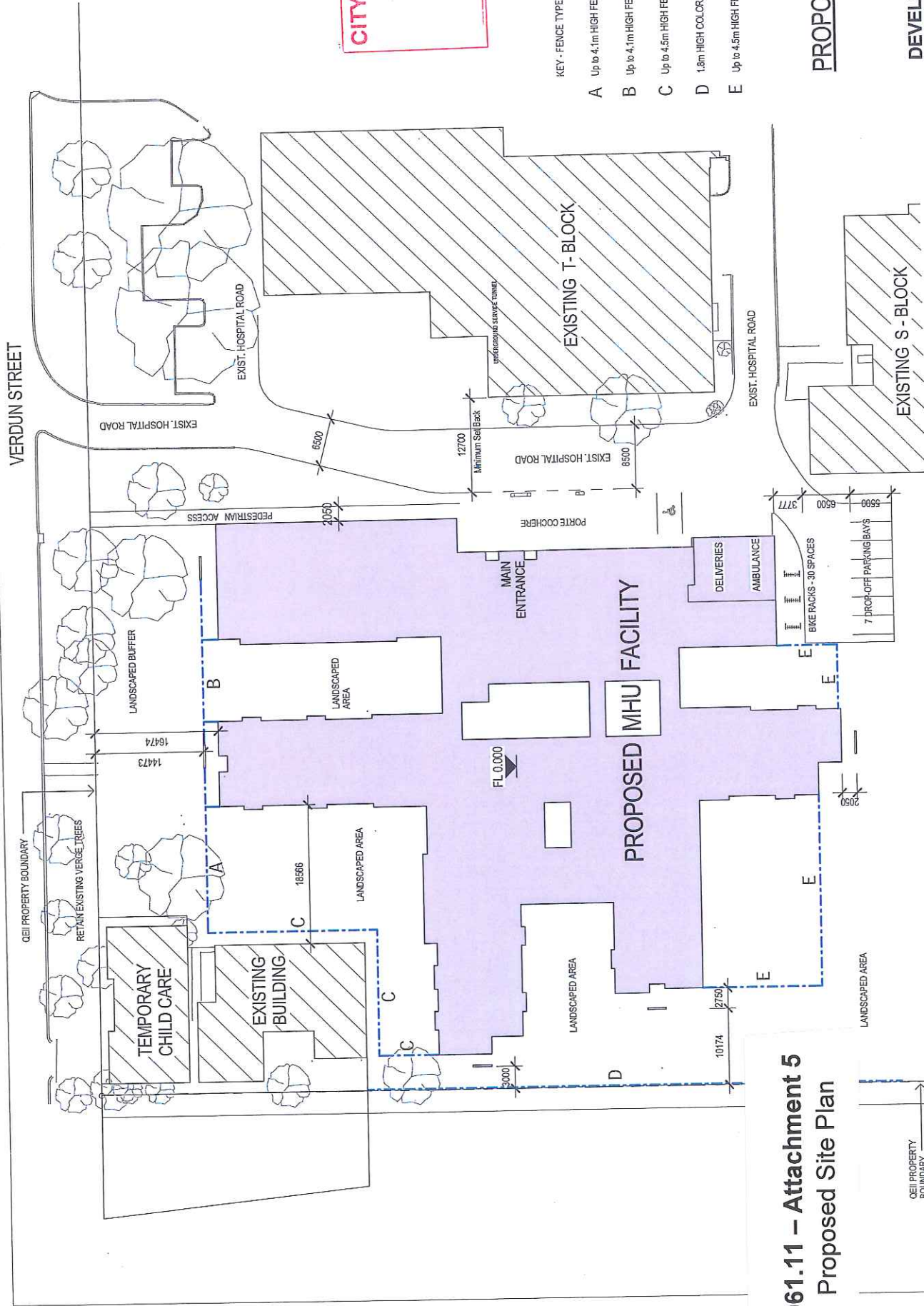
D 1.8m HIGH COLORBOND FENCE

F Up to 4.5m HIGH FENCE (0.5m LIMESTONE & 4.0m MESH ABOVE)

DTF BUILDING MANAGEMENT & WORKS  
SCGH MENTAL HEALTH UNIT

Drawing No: 61-26381 - MHUDDAA004 Rev: B

No	Revision	Note: * indicates alterations on original issue of drawing or revision of drawing	Drawn	Job Manager	Project Director	Date
<p>           Drawn Date: 26/02/2011 3:05:55 PM            Code No: C:\Revit Local Files\World Health\whtm\055-26381_1\WHSUK-Local_Accompanying         </p>						



## D61.11 – Attachment 5 Proposed Site Plan

[illegible]





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LEVEL 1  
SCALE 1 : 400

## DEVELOPMENT APPLICATION

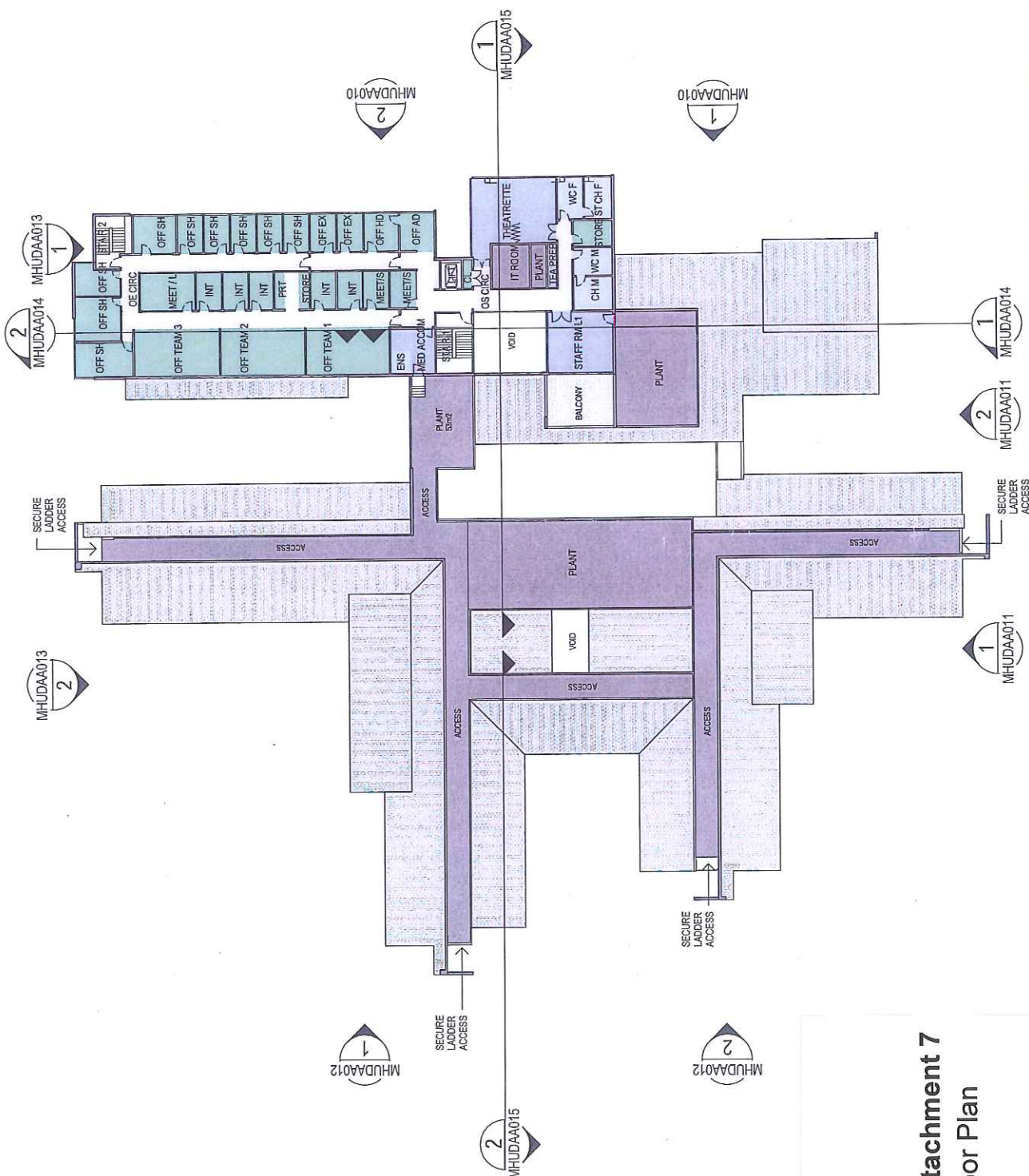
Client **DTF BUILDING MANAGEMENT & WORKS**  
Project **SCGH MENTAL HEALTH UNIT**

## LEVEL 1 PLAN

Original Size  
A3 Drawing No: 61-26381 - MHUDDA006 Rev: A

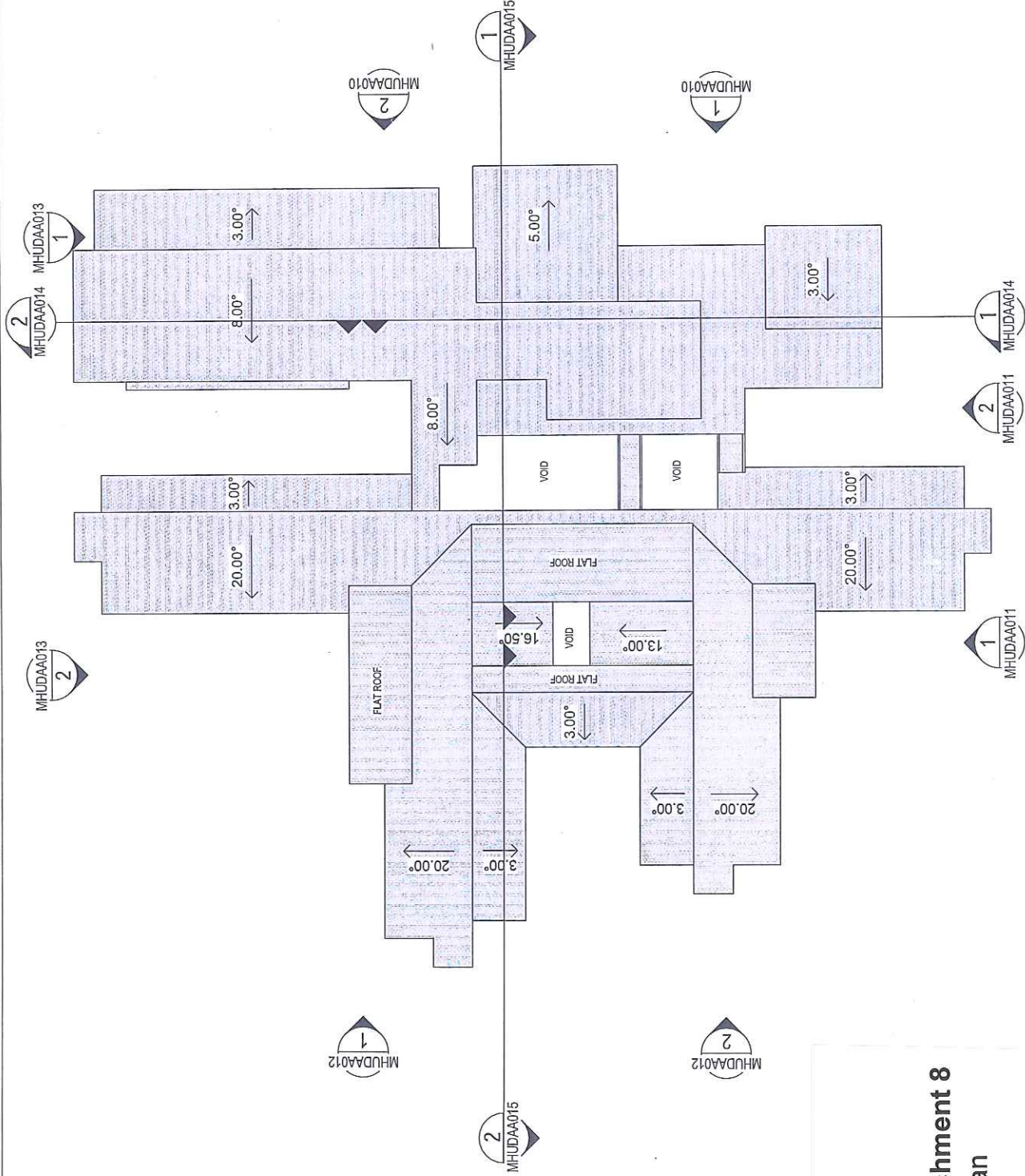
# D61.11 – Attachment 7

## First Floor Plan

[illegible]

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- 9 AUG 2011  
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**ROOF LEVEL**  
SCALE 1:400

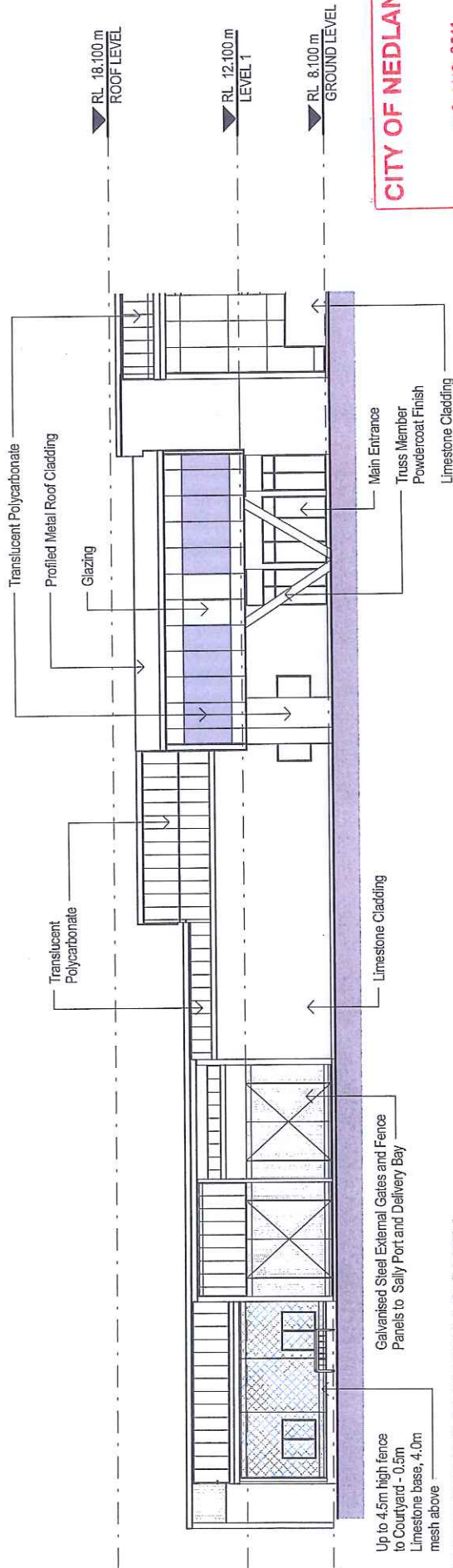


**D61.11 – Attachment 8**  
**Roof Plan**

**DEVELOPMENT APPLICATION**

Client		DTF BUILDING MANAGEMENT & WORKS						
Project		SCGH MENTAL HEALTH UNIT						
Title		ROOF PLAN						
Drawing No:		61-26381 - MHUAAA007 Rev: A						
Design		Design: R. MORRIS Check: K. COVINE						
Drawn		Drawn: L. KENNEDY Check: K. COVINE						
Approved		Approved: C. MUIR Date: 21.08.2011						
Scale		Scale: 1:400						
Notes		<p>1. This drawing must not be used for any other purpose without the written approval of the Designer.</p> <p>2. The drawing must not be used for any other purpose without the written approval of the Designer.</p>						
DO NOT SCALE		<p>Dimensions of this drawing are for reference only and should not be used for construction purposes. The client should refer to the original drawing for the purpose for which it was prepared.</p>						
CHD CLIENTS/PEOPLE/PERFORMANCE		<p>CHD House, 233 Adelaide Terrace Perth WA 6004 Australia P.O. Box 1310 Perth WA 6822 Tel: 08 9439 8665 E: perth@chd.com.au W: www.chd.com.au</p>						
Revision		<table border="1"> <thead> <tr> <th>No</th> <th>Revision</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>ISSUED FOR DA</td> <td>21/08/11</td> </tr> </tbody> </table>	No	Revision	Date	1	ISSUED FOR DA	21/08/11
No	Revision	Date						
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Print Date		21/08/2011 4:32:28 PM						

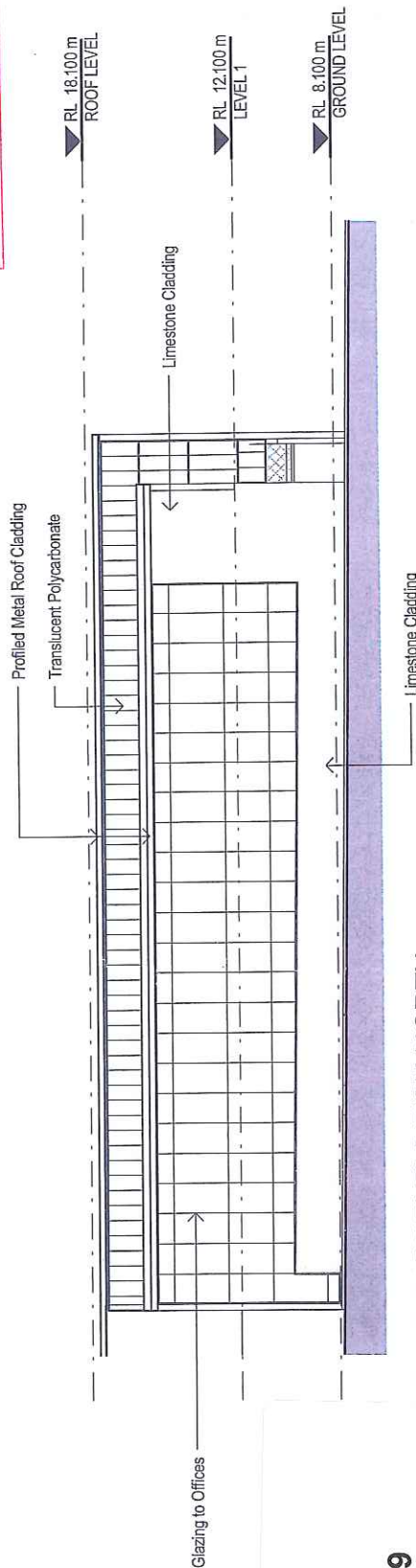




**PART EAST ELEVATION-SOUTH**

SCALE 1:200

**CITY OF NEDLANDS**  
- 9 AUG 2011  
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**PART EAST ELEVATION-NORTH**

SCALE 1:200

**D61.11 – Attachment 9**  
**East Elevation Plans**

**DEVELOPMENT APPLICATION**

CLIENT				PROJECT				DESIGNER				DRAWN				DO NOT SCALE				CLIENTS PEOPLE PERFORMANCE				REVISIONS			
DTF BUILDING MANAGEMENT & WORKS				SCGH MENTAL HEALTH UNIT				K. COVINE				K. COVINE				This drawing must not be used for any other purpose without the written approval of the Designer.				SCGH House, 237 Adelaide Terrace Perth WA 6004 Australia				No			
ELEVATIONS SHEET 1				A3				CMUR				Approved				21.08.2011				P3 Rev 03/08 Perth WA 6004 Australia				Job			
Drawing No: 61-26381 - MHU00A010				Rev: B				Scale 1:200				Date				For the purpose for which it was prepared				E Permal@ppl.com				Project			
																								Drawn			
																								RM			
																								CM			
																								28/11			
																								21/01/11			
																								Date			

SCALE 1:200



SCALE 1:200

## DEVELOPMENT APPLICATION

Client **DTF BUILDING MANAGEMENT & WORKS**  
Project **SCGH MENTAL HEALTH UNIT**

ELEVATIONS SHEET 2

Original Size  
A3 Drawing No: 61-26381 - MHUDDA011 Rev: B

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A	ISSUED FOR DA			KC	RM	CM	CM	21/6/11

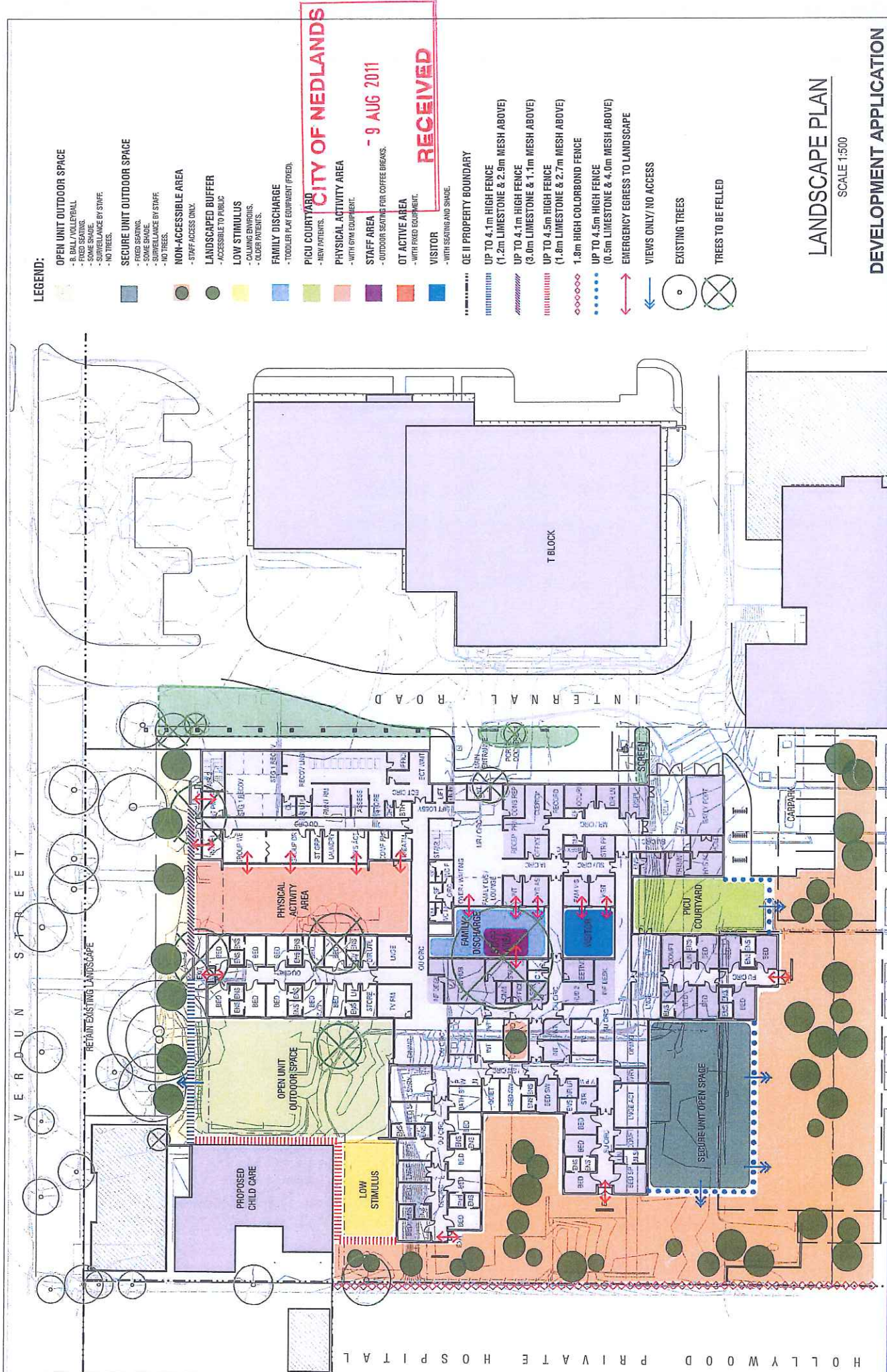
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## LANDSCAPE PLAN

SCALE 1:500

## DEVELOPMENT APPLICATION

DTF BUILDING MANAGEMENT & WORKS  
SCGH MENTAL HEALTH UNIT

LANDSCAPE PLAN

Drawing No: 61-26381 - MHUDDAA008 Rev: B

No	Revision	Issue	Issued	Reviewed	Approved	Project Manager	Date
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A		ISSUED FOR DA	LH	RM	CM	21/6/11	

Case File No: C:\FBI Local Files\Mental Health\Kerns\16128391\_AHU SK-Legal\Kerns\04

Print Date: 2/25/2011 3:00:02 PM

**CHD** CLIENTS | PEOPLE | PERFORMANCE

GHQ House, 233 Adelaide Tce Perth WA 6004 Australia  
PO Box Y3108 Perth WA 6852  
T 61 8 9429 6558  
E [permal@ghq.com](mailto:permal@ghq.com) F 61 8 9429 6555  
W [www.ghq.com](http://www.ghq.com)

SCALE 1:500 AT ORIGINAL SIZE

2008年12月10日 星期五

Case File No: C:\FBI Local Files\Mental Health\Kerns\16128391\_AHJH 5K-Legal\Kerns\04

Print Date: 2/25/2011 3:00:02 PM





The City of Nedlands acknowledges that:

- Evidence shows that climate change is occurring.
- Climate change will continue to have significant effects on the Western Australian environment, society and economy, and the Local Government sector.
- Human behaviours, pollution and consumption patterns have both immediate and future impacts on the climate and environment.

The City of Nedlands supports the:

- Environmental, social and economic benefits of addressing climate change immediately.
- Opportunity for Local Government to demonstrate leadership in climate change management at a community level.
- Development of equitable and implementable State and Commonwealth strategies for climate change management.

The City of Nedlands commits from date of signing to:

- Prepare a carbon inventory for the 2009/2010 base year and use these figures as the baseline for emission reduction targets.
- Work towards setting an appropriate, individual Local Government emissions reduction target and work toward its achievement.
- Work with State and Federal Government to ensure achievement of greenhouse gas emissions reduction targets as set out in key National and International agreements.
- Work with State and Federal Government to implement key actions and activities for climate change management at a local level.
- Assess the regionally specific risks associated with climate change and implications for Local Government services, and identify areas where appropriate mitigation and/or adaptation strategies should be applied.
- Develop an internal Climate Change Strategy for climate change actions across all Local Government functions, with a focus on the two, five and ten year future.





- Ensure that, at appropriate review intervals, the strategic plan and policies for the Local Government are reviewed and amended to reflect climate change management priorities and emissions reduction targets.
- Encourage and empower the local community and local businesses to adapt to the impacts of climate change and to reduce their greenhouse gas emissions.
- Monitor the progress of climate change initiatives and ensure full communication of achievements for Council and Community.

Signed:

**Mayor - City of Nedlands**

**Date:**

Signed:

**President - Western Australian Local Government Association**

**Date:**



City of Nedlands

nedlands.wa.gov.au

# *Carbon Inventory and Management Report Baseline Year 2009–2010*

**D63.11 – Attachment 1**  
Carbon Inventory and Management  
Report Baseline year 2009/2010





## Summary

This report summarises the findings from a baseline inventory that was completed for the City of Nedlands, and recommends actions towards a Carbon Management Plan.

This inventory has measured the baseline year for the City of Nedlands' carbon emissions, and hopes to develop carbon mitigating actions by the City.

The footprint measured was 2569.07 tonnes of carbon dioxide equivalent emissions for the 2009/2010 financial year.

Recommendations for the City following on from completing this baseline inventory are as follows:

1. This report will be submitted to Elected Members following the receipt of the Sustainable Nedlands Committee's recommendations
2. This report will be published on the City's website to be available to residents.
3. A Carbon Reduction Strategy or Action Plan be developed.
4. Future annual inventories will be prepared each year and will be published on the City's Website.



## Contents

Summary.....	2
Introduction.....	4
Background.....	4
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## Introduction

This Carbon Inventory and Management Report (hereafter “Carbon report”) has been prepared for the City of Nedlands (hereafter “the City”) and covers the period from 1 July 2009 to 30 June 2010. This report has been developed using the WALGA Greensense Reporting Platform, to which the City is currently subscribed.

## Background

The City of Nedlands is located 8km from the Perth CBD, and covers an area of more than 20km<sup>2</sup>. The suburb is blessed with beautiful river foreshore and beach access, plus an abundance of parks, reserves and bush areas. These coastal and river areas pose particular challenges when considering future climate changes.

Local Governments face the challenge of adapting to climatic change and protecting their infrastructure, whilst keeping the community safe and well provided for. The City of Nedlands believes that local government should lead the way towards a low-carbon future by striving to reduce greenhouse gas emissions, while maintaining the current high level of service to its residents.

## Carbon Neutral

The City has the opportunity to adopt policies and procedures to become “Carbon Neutral”. This means the City would reduce its net greenhouse gas emissions to nil. That is, all emissions for the organisation are avoided, reduced or offset to the point where net emissions are zero.

The process towards becoming carbon neutral is below:

- Step 1.** Measure greenhouse gas emissions.
- Step 2.** Reduce highest emission producing areas through a Carbon Reduction Plan.
- Step 3.** Switch to energy sources that create less greenhouse gas emissions.
- Step 4.** Offset all remaining greenhouse gas emissions.

Whether or not the City decides to adopt the carbon neutral approach, it should aim to reduce emissions as much as is feasible. An achievable starting point is to reduce carbon emissions by 20% by June 2015 based on 2009/2010 levels.

## Greensense Reporting Platform

From the WALGA Climate Change website:

*The WALGA Reporting Platform enables participating councils to track and report their greenhouse gas emissions, energy consumption, and energy production. It is a complete greenhouse gas accounting system that follows the methods and factors of the [National Greenhouse Accounts Factors](#). It is suitable for reporting under the [National Greenhouse and Energy Reporting Act \(NGER\)](#), the [National Carbon Offset Standard \(NCOS\)](#) and the [Greenhouse Gas Protocol \(ISO14061.1\)](#).*





The City of Nedlands subscribed to this service in January 2011, and includes all technical support from Greensense. Synergy and Land, Gas & Power data is downloaded directly from the providers in to the Platform, reducing the need for data entry by the City. Data for all other sources (fuel, natural gas, waste etc) is currently manually entered by the City's Sustainability Officer. Data has now been entered for June 2009 to present.

We have the opportunity to engage Greensense View, which shows in real-time our energy and greenhouse gas consumption. It allows us to identify anomalies and faults within the City's operations, and also to monitor the effectiveness of any solar panels. The Town of Cambridge has subscribed to this service, and they have installed touch-screens at their administration centres and libraries, where residents can explore the data at their leisure. This is being used as an educational tool for the community. Greensense View comes at a greater cost, around \$15,000 per building including installation and equipment (as of January 2011).

## Reporting Obligations

The Australian Government Department of Climate Change and Energy Efficiency manages the National Greenhouse and Energy Reporting Scheme (NGERS). They assess whether or not a business needs to report their carbon emissions based on the following criteria:

From 1 July 2008, all businesses must apply for registration with the Greenhouse and Energy Data Officer if they:

- are a constitutional corporation, and
- Meet a reporting threshold for greenhouse gases or energy use or production for a reporting (financial) year.

*(Department of Climate Change and Energy Efficiency 2011)*

The reporting thresholds for businesses are in the Table below:

Facility thresholds	25kt 100 TJ			
Corporate group thresholds	125kt 500 TJ	87.5kt 350 TJ	50kt 200 TJ	
	FIRST REPORTING YEAR 2008-09	SECOND REPORTING YEAR 2009-10	THIRD REPORTING YEAR 2010-11	FOURTH 2011-12
Corporations to apply for registration by	31 August 2009	31 August 2010	31 August 2011	31 Aug 2012
Corporations to provide data report by	31 October 2009	31 October 2010	31 October 2011	31 Oct 2012
Government to publish data by	28 February 2010	28 February 2011	28 February 2012	28 Feb 2013

*(Department of Climate Change and Energy Efficiency 2011)*





As the City of Nedlands' emissions are only 2.5kt of CO<sub>2</sub>-e, we are not obligated to report under NGERs. However, this requirement may change in future to include a requirement for local governments to report their emissions. Also, in the interest of being transparent and accountable, the City of Nedlands could report our emissions on the City of Nedlands website, and provide them to WALGA upon request.

## Aims

This report presents the City's greenhouse gas emission sources and total emissions for the baseline year, 1 July 2009 to 30 June 2010.

The aims of this report are:

- To present the City's greenhouse gas inventory, developed in accordance with the GHG Protocol, as a baseline year for their greenhouse gas emissions reporting;
- To identify any opportunities to save money by increasing the energy efficiency of the City's operations.
- To identify any opportunities to reduce greenhouse gas emissions within the City, and to consider committing to becoming a Carbon Neutral City

## Primary Greenhouse Gas Generating Activities

The primary activities identified through the carbon inventory that generated the most greenhouse gas emissions for the Town are:

- Purchased electricity (scope 2 emissions) for streetlights;
- Purchased electricity (scope 2 emissions) for Council buildings and infrastructure;
- Diesel and petrol combustion (scope 1 emissions) from fleet vehicles for transportation.

See Appendix 1 for a more detailed summary from the Platform.

## Scope Definitions

Scopes are used to categorise direct and indirect emissions. Scopes have been introduced by the Greenhouse Gas Protocol to improve carbon accounting transparency and avoid double counting of emissions.

- **Scope 1** – Direct greenhouse gas emissions occurring as a result of an activity that constitute the facility. Examples include burning of diesel in cars/trucks, and manufacturing processes that releases gases.
- **Scope 2** – Indirect greenhouse gas emissions from energy (e.g. electricity) that is generated off site and then purchased for use by the facility (eg. Purchased electricity).
- **Scope 3** – All other indirect greenhouse gas emissions that have been generated as a consequence of the facility's activities, but occur from sources not owned or operated by the City. Also, emissions that are not reported under the National Greenhouse and Energy Reporting (NGER) scheme.



Examples for the City of Nedlands include waste going to landfill from council operations.

## Boundaries

This section shows the organisational and operational boundaries that were used to develop the carbon inventory for the City. All activities that generate greenhouse gas emissions are shown as direct or indirect emissions (determined by their scope). As a Local Government, the City generally has 100% ownership of premises and vehicles that are managed under the guidance of the Chief Executive Officer. The exceptions are jointly funded or leased buildings and community centres, such as sports change rooms.

NGER defines a reportable facility as one that the organisation has operational control over. From this definition, we have excluded any buildings owned by the City but are rented out to other organisations, as we do not have operational control over their emissions.

The exception to this is the street lighting within the City of Nedlands. While we do not have operational control over streetlights, we feel this significant user of electricity should be recorded.



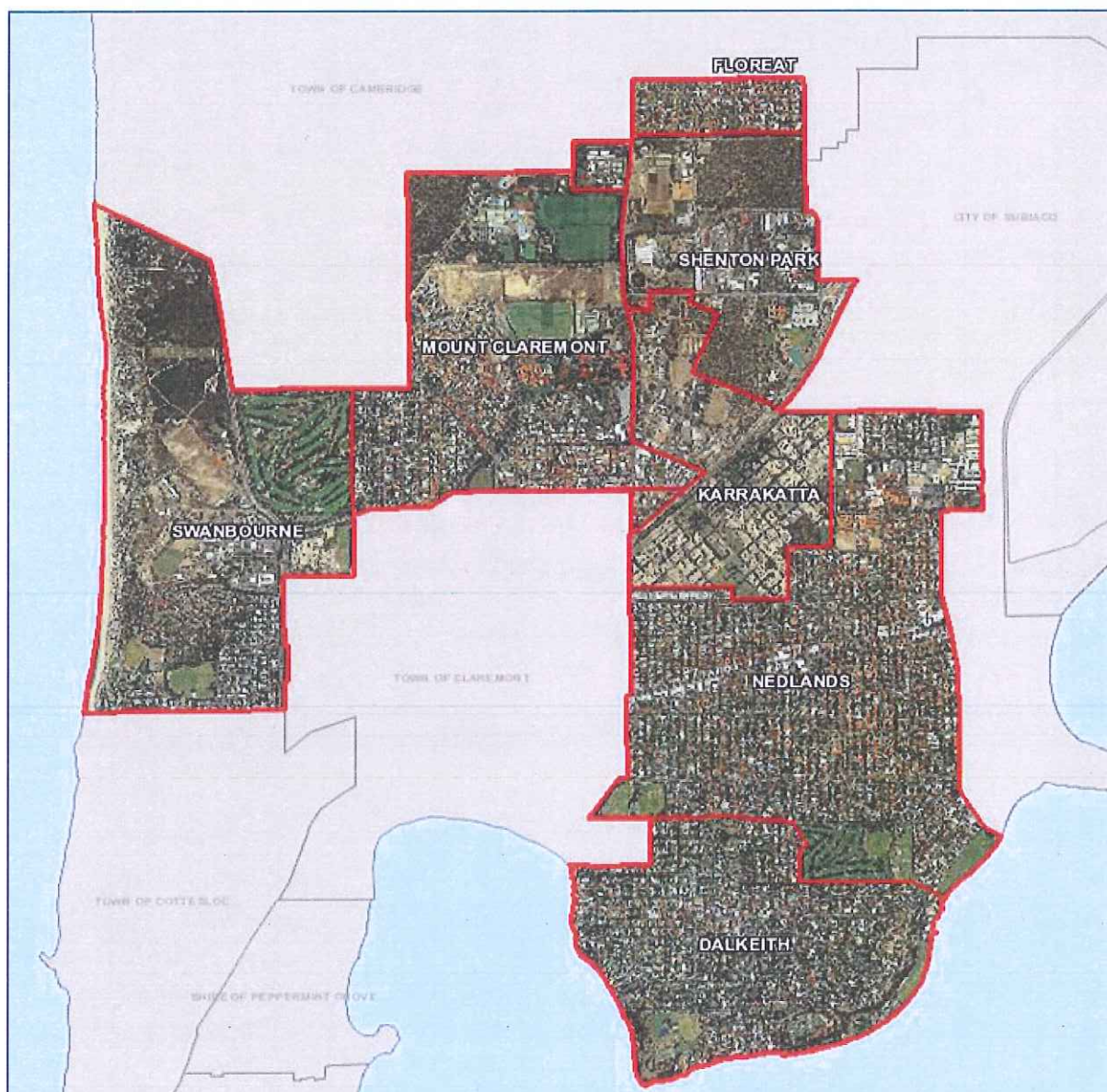


Figure 1: The City of Nedlands



## Emissions Sources Included

**Table 1: Emissions sources included in the boundary for the City's carbon inventory July 2009 – 30 June 2010**

<b>Emissions Source</b>	<b>Scope</b>	<b>Justification</b>
Petrol fuel (fleet)	Scope 1	The City consumed petrol for transportation, releasing greenhouse gases in to the atmosphere as a direct result of that activity. Both fuel delivered to the depot, and fuel purchased with fuel cards have been included.
Diesel fuel (fleet)	Scope 1	The City consumed petrol for transportation, releasing greenhouse gases in to the atmosphere as a direct result of that activity. Both fuel delivered to the depot, and fuel purchased with fuel cards have been included.
LPG (fleet)	Scope 1	The City consumed LPG for transportation, releasing greenhouse gases in to the atmosphere as a direct result of that activity. No fleet vehicles currently use LPG in 2011, however there were some purchases in the 2009/2010 base year, and there may be future purchases, so it has been included.
Purchased electricity (buildings)	Scope 2	The City consumed electricity
Purchased electricity (street lights)	Scope 2	The City has included purchased electricity for street lighting in its inventory. Although the City has no control over streetlights, it has been included to reflect the true electricity usage within the city.
Natural gas (buildings)	Scope 2	The City consumed natural gas for water heating within its buildings





## Emissions Sources Excluded

**Table 2: Emissions sources excluded from the City's carbon inventory 1 July 2009 – 30 June 2010**

Emissions Source	Scope	Justification
Refrigerant emissions	Scope 1	Emissions from refrigerators and air conditioners have been excluded since they were considered to be negligible
LPG cylinders	Scope 1	Emissions from LPG cylinders have been excluded as the City on uses these cylinders for powering the BBQ at the depot, and so have been considered to be negligible
Employee commuting	Scope 3	Employee commuting is outside the operational control of the organisation and so has been excluded
Water use	Scope 3	Water use is not reportable under NGER as it is not considered to be a major source of carbon emissions. Our water use is monitored through the ICLEI program. If this program was to cease, we may monitor water use as part of the carbon inventory
Leased buildings	Scope 3	The City has chosen to exclude emissions associated with buildings that are being leased to other organisations as the City has no operational control over these facilities. Should the City take over control in future, they will be added to the inventory.
Business travel – flights, taxis	Scope 3	Business travel has been excluded for this inventory as the City currently has no centralised record of staff business travel. This should be included in future inventories.
Paper use	Scope 3	Paper use is a major use of resources within the City's operations and will hopefully be included in future inventories. Discussion needs to be had regarding how the City records paper use, as some is sent to be recycled, some is kept and some is sent to landfill. The whole lifecycle of the product needs to be considered, and is outside the scope of this inventory.
Waste (waste mix)	Scope 3	Waste produced by council operations is classed as Scope 3 as they are not reported under the NGER scheme. Waste being sent to landfill should be included in future inventories, following a "waste produced during council operations" audit.



Waste (street litter bins)	Scope 3	Litter bins have been excluded as reliable data is not yet available for these. Waste being sent to landfill should be included in future inventories, following a "waste from public street litter bins" audit.
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## Carbon Inventory

WALGA's Greenhouse Gas reporting platform showed that the City's total greenhouse gas emissions were 2569.07 tonnes of carbon dioxide equivalent for the 2009/2010 financial year.

Figure 2, below, shows the breakdown of the City's greenhouse gas emissions. Over 83% of our total emissions were from purchased electricity (including street lighting), and almost 17% were from fuel consumption for transport. Therefore our two main opportunities for carbon reduction are reducing use of purchased electricity, and reducing use of fuel for transport in fleet vehicles.

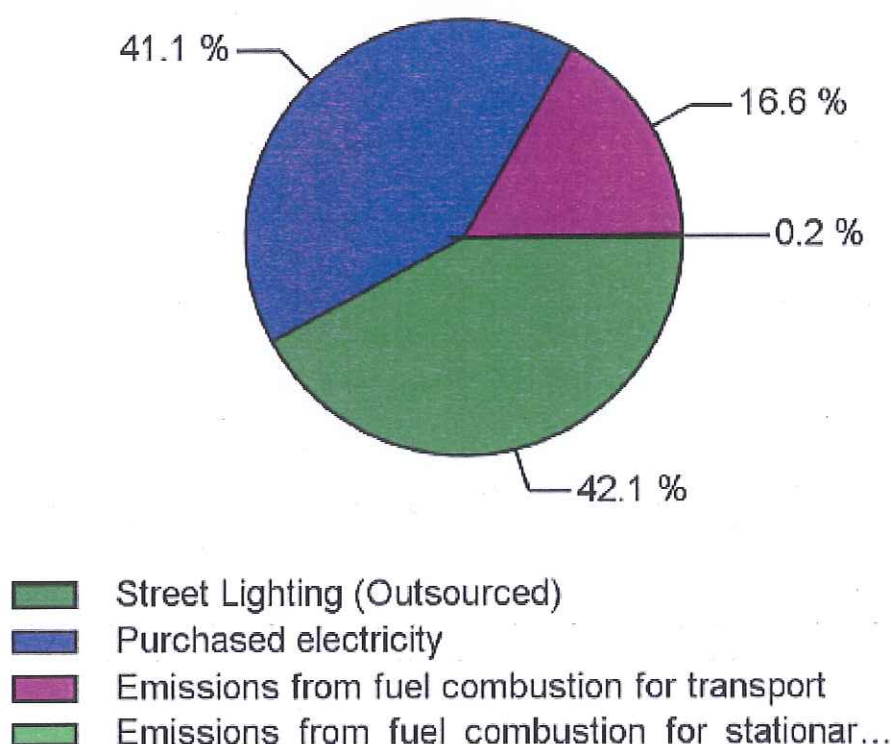


Figure 2: Greenhouse gas emission profile





The City's top 5 emitters of carbon are listed below. These indicate the priority areas for the City to be making changes to their current operations, in order to reduce our emissions of carbon.

Facility	Tonnes Carbon Dioxide Equivalent (CO <sub>2</sub> -e)
Lighting	1146.71
Diesel fuel	323.18
Administration building	165.53
Pumps & park lighting	112.29
Unleaded petrol	102.84

## Carbon Management

The City aims to reduce its Carbon emissions through a Carbon Reduction Plan. EPA Victoria's "Best Practice" Carbon Management Principles (Figure 3 below) is a simple, visual model of how the City can best achieve Carbon reduction or neutrality.

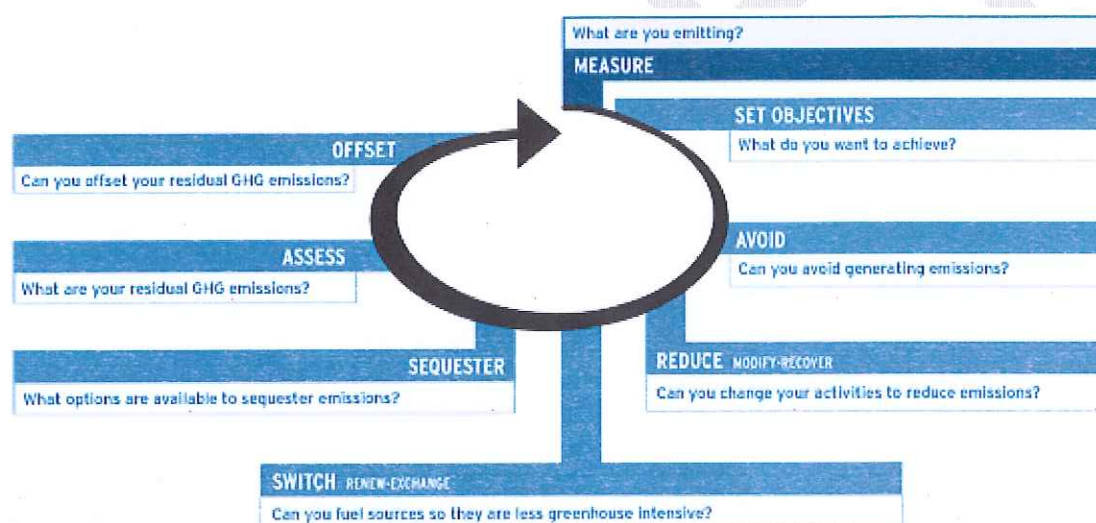


Figure 3: EPA Victoria's "Best Practice" Carbon Management Principles

## Carbon Reduction Plan

A recommendation of this Carbon Report is that the City develops a Carbon Reduction Plan. This Plan should follow EPA's Carbon Management Principles. The Plan should include actions to achieve the following, in the order written (as suggested by "Best Practice").

### Measure

This Carbon Report has achieved the first step towards Carbon Management, by measuring our baseline emissions. As established previously, the City's Carbon emissions for 2009/2010 was 2569.07 tonnes CO<sub>2</sub>-e.



## **Set Objectives**

The next step for the City towards carbon reduction is the development of the Carbon Reduction Plan. This Plan should include all Carbon Management Principles discussed here, and be based on the Carbon Inventory contained in this Carbon Report.

## **Avoid**

The priority for the City's Carbon Reduction plan should be to avoid creating carbon emissions in the first place. This requires behaviour, procedure or equipment change. Some examples are below:

- Behaviour-change programs for staff targeting turning off appliances overnight, turning off lights, using public transport during the workday (the City's Sustainability Officer already engages in behaviour change programs for staff but these programs could be expanded)

## **Reduce**

The City can reduce emissions by increasing the efficiency of council operations. Some examples are below:

- Altering the purchasing policy to favour more fuel efficient vehicles
- Retrofitting buildings with low-energy fittings such as LED lighting and motion sensor lights for bathrooms and kitchens.

## **Switch**

Switching to less greenhouse intensive fuel sources has already begun in the City with the installation of solar panels in 2010. The City could install more solar panels, or consider park lighting powered by solar or wind.

Another opportunity the City has is to switch to GreenPower. GreenPower is power purchased through Synergy that comes from renewable sources such as wind power. It costs more (around 6c extra per unit), but the emissions for GreenPower use are nil, as the energy is sourced from renewable sources.

If the city was to switch to 100% GreenPower, we would cut our greenhouse gas emissions by over 80%, for a 6-10% increase in electricity cost. Electricity cost for the City of Nedlands in 2010 was \$600,000. The purchase of GreenPower would increase this by \$36,000-\$60,000.

## **Sequester**

Sequestering is not a viable option for the City.





## Assess

Once all previous steps have been achieved, The City will need to assess its greenhouse gas emissions. The City will then decide to review its goals.

## Offset

Offsetting should be a final stage in any Carbon Reduction plan. Offsetting without reducing or avoiding emissions is **not** best practice for carbon management (EPA Vic 2011). However, Sustainability Strategy 2009-2012 KFA 5.3.1 requests an investigation in to the feasibility of City-wide carbon off-setting for Council activities. Therefore, three options for offsetting are explained below. This list is by no means exhaustive; it is simply to give some indication of cost and benefits. The City should exhaust all other options towards avoiding and reducing emissions before resorting to purchasing offsets.

*Option 1: Fully offset emissions without reducing/avoiding emissions*

*Total minimum yearly cost for Option 1: \$30,073*

*Carbon emissions reduced: NIL*

The City's emissions for the 2009/2010 base year were 2569.07 tonnes carbon dioxide equivalent. Some quotes for carbon offsetting have been sourced for the city, and are summarised below:

Company	Cost to offset per tonne CO2-e	Total yearly cost of offsetting 2569.07 tonnes CO2-e
Custom Fleet (via Origin Energy)	\$14.82	\$38,073
Carbon Neutral	\$20.00	\$51,381
Carbon Planet	\$23.00	\$59,088

*Option 2: Offsetting vehicle fleet only*

*Total minimum yearly cost for Option 2: \$6,313*

*Carbon emissions reduced: 426.02 tonnes CO2-e*

An interim solution while the City is reducing emissions would be to begin by offsetting emissions produced by the fleet only. As we reduce our emissions through more efficient vehicles, the cost per quarter would reduce as time goes on. Based on the 2009/2010 base year, where 426.02 tonnes CO2-e was produced by the fleet, the offset costs would be as follows:

Company	Cost to offset per tonne CO2-e	Total yearly cost of offsetting fleet 426.02 tonnes CO2-e
Custom Fleet (via Origin Energy)	\$14.82	\$6313



Carbon Neutral	\$20.00	\$8520
Carbon Planet	\$23.00	\$9800

## Review

Once the City has developed and adopted a Carbon Management plan, and the plan has been implemented, another inventory should be created and the Management plan should be reviewed.

## Reporting procedures and improvements

While preparing the City's initial Carbon Inventory, some areas for improvement for future reporting and inventories were identified.

Paper has been excluded from this inventory, as there is currently no national standard for reporting paper use. Paper sent to landfill could be reported, however this does not include paper used and kept within the City, and does not account for the production and transportation of the product. Paper purchased by the City could be reported, however this does not take in to account paper sent for recycling.

Waste produced by council operations needs to be included in future inventories. Waste is a significant contributor to greenhouse gas emissions once it arrives at landfill. a "waste produced during council operations" audit will need to be performed on waste produced by City operations so this can be included in future inventories.

Business travel has not been included in this inventory as the City currently has no consolidated record of business travel. Air travel is a huge contributor to greenhouse gas emissions, and needs to be included in future inventories. Taxi charges, although expected to be minimal, will also need to be included.

## Recommendations

To ensure the City begins and progresses through its Carbon Reduction program, the start of which has been the preparation of this Carbon Inventory Report, it is recommended that the following actions are completed within the proposed timeframes:

1. This report will be submitted to Elected Members following the receipt of the Sustainable Nedlands Committee's recommendations
2. This report will be published on the City's website to be available to residents.
3. A Carbon Reduction Strategy or Action Plan be developed.
4. Future annual inventories will be prepared each year and will be published on the City's Website.





## Acknowledgements

Format adapted from Town of Cottesloe's Carbon Inventory Report prepared by Elizabeth Lowrey, 10 June 2011

DRAFT



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## Appendix 1 – FY2009-2010 Greenhouse Gas Emissions Summary Report

### City of Nedlands

#### FY2009-10 Greenhouse Gas Emissions Summary Report

##### NGER Total Emissions (tCO<sub>2</sub>-e)

Offsets, such as any "green power" purchased from utilities, do not reduce reportable emissions under NGER regulations

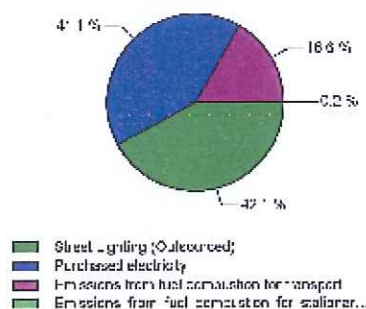
Scope 1	+	Scope 2	=	NGER Emissions
430.45	+	1,056.02	=	1,486.46

##### ISO 14064 Net Emissions By Scope (tCO<sub>2</sub>-e)

Scope 1	+	Scope 2	+	Scope 3	=	Total Emissions	-	Other Offsets	=	Net Emissions
430.45	+	1,056.02	+	1,082.61	=	2,569.07	-	0.00	=	2,569.07

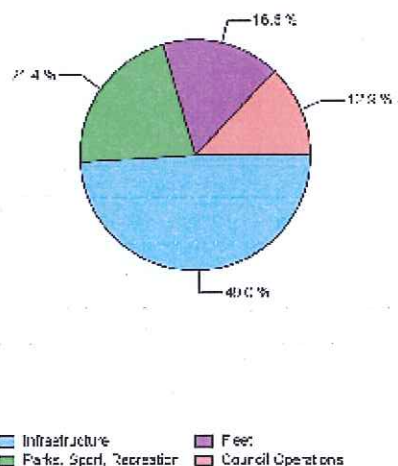
##### ISO 14064 Net Emissions By Source Type (tCO<sub>2</sub>-e)

Emission Source Type	Net Emissions
Street Lighting (Outsourced)	1,082.61
Purchased electricity	1,056.02
Emissions from fuel combustion for transport	426.02
Emissions from fuel combustion for stationary energy	4.43
Scope 3 emissions from waste (by waste mix)	0.00



##### ISO 14064 Net Emissions Breakdown (tCO<sub>2</sub>-e)

Organisation Unit / Facility / Source	Net Emissions
Infrastructure	1,269.73
Parks, Sport, Recreation	550.76
Fleet	426.02
Council Operations	332.56



Reporting Period: 1-Jul-2009 to 30-Jun-2010

Status: Reporting Period Open

Last Data Calculation Date: 05-Aug-2011

This report was prepared on: 26-Sep-2011



## Appendix 2 – Street lights within the City of Nedlands, 2009/2010

Quantity	Unit of Measure	Wattage	Lamp Type	Estimated Consumption kWh
134	Lamps	80	Mercury vapour	46,497.11
1,670	Lamps	125	Mercury vapour	905,435.73
12	Lamps	250	Mercury vapour	13,012.25
43	Lamps	150	High pressure sodium	27,976.34
202	Lamps	250	High pressure sodium	219,039.54
4	Lamps	70	Low pressure sodium	1,214.48
2	Lamps	70	Metal halide	607.24
2	Lamps	150	Low pressure sodium	1,301.23
31	Lamps	80	Mercury vapour	10,756.79
40	Lamps	125	Mercury vapour	21,687.08
136	Lamps	70	Low pressure sodium	41,292.21





## Appendix 3 – Climate Change Declaration DRAFT

# The City of Nedlands Declaration on Climate Change

The City of Nedlands acknowledges that:

- Evidence shows that climate change is occurring.
- Climate change will continue to have significant effects on the Western Australian environment, society and economy, and the Local Government sector.
- Human behaviours, pollution and consumption patterns have both immediate and future impacts on the climate and environment.

The City of Nedlands supports the:

- Environmental, social and economic benefits of addressing climate change immediately.
- Opportunity for Local Government to demonstrate leadership in climate change management at a community level.
- Development of equitable and implementable State and Commonwealth strategies for climate change management.

The City of Nedlands commits from date of signing to:

- Prepare a carbon inventory for the 2009/2010 base year and use these figures as the baseline for emission reduction targets.
- Work towards setting an appropriate, individual Local Government emissions reduction target and work toward its achievement.
- Work with State and Federal Government to ensure achievement of greenhouse gas emissions reduction targets as set out in key National and International agreements.
- Work with State and Federal Government to implement key actions and activities for climate change management at a local level.
- Assess the regionally specific risks associated with climate change and implications for Local Government services, and identify areas where appropriate mitigation and/or adaptation strategies should be applied.
- Develop an internal Carbon Reduction Strategy for climate change actions across all Local Government functions, with a focus on the two, five and ten year future.



- Ensure that, at appropriate review intervals, the strategic plan and policies for the Local Government are reviewed and amended to reflect climate change management priorities and emissions reduction targets.
- Encourage and empower the local community and local businesses to adapt to the impacts of climate change and to reduce their greenhouse gas emissions.
- Monitor the progress of climate change initiatives and ensure full communication of achievements for Council and Community.

Signed:

Mayor - City of Nedlands

Date:

Signed:

President - Western Australian Local Government Association

Date: