

FLOOD MANAGEMENT REPORT

Clemton Park Village – Lot 31

For

BUPA Care Services

Job Number: 048/11


25 November 2013



Craig & Rhodes Pty Ltd
ABN 77 050 209 991
Suite 400, Level 4
16-18 Cambridge St
EPPING NSW 2121

TABLE OF CONTENTS

1.	Introduction.....	3
1.1	Purpose	3
1.2	Site Description	3
2.	100 year Flood Event.....	5
3.	Summary And conclusion.....	6
	Appendix A-Pre Development Condition.....	7
	Appendix B Ground Floor Plan	9
	Appendix C Post Development Situation.	11

<div style="display: flex; justify-content: space-between; align-items: center;"> <div>DOCUMENT CONTROL</div>  </div>					
Rev No.	Date	Revision Details	Author	Reviewed	Approved
3	25/11/13	DA Submission	AC	AC	AC

1. INTRODUCTION

1.1 Purpose

Craig and Rhodes Pty Ltd. have been engaged by BUPA Care Services; to prepare civil engineering advice on Flood Levels to support a DA submission for their proposed aged care development at Lot 31, 60 Charlotte St, Clemton Park.

1.2 Site Description

The development at Lot 31, 60 Charlotte St, Clemton Park sits on the now demolished and cleared Sunbeam Factory site. The property is situated within the City of Canterbury and lies within the Cup and Saucer Creek tributary to the Cooks River Catchment.

Lot 31 is situated at the southern part of the overall Clemton Park Village development.

The stage is bound by the proposed Tedbury St (North) and the existing Alfred St (west) the cup and Saucer creek to the south.

The site generally drains from North to South, discharging to Cup and Saucer Creek.

Existing elevations currently range 21.50 and to RL 20.00 to the south.

Refer Figure 1 – Site Location Plan.



Figure 1 - Site Location Plan

2. 100 YEAR FLOOD EVENT.

The Cup and Saucer Creek flows in an easterly direction at the southern boundary of stage 5. In the 100 year flood event the Cup and saucer over tops to the adjacent land within stage 5 and the existing road network.

A flood study has been carried out and accepted as part of the Project Application Approval (MP No. 08_0087). The highest 100 year flood level in proximity to the site is 21.3m AHD at the corner of Alfred Street and Harp Street.

Craig and Rhodes have verified this model using HECRAS and the extents of the existing flooding is shown within Appendix A.

The proposed building and associated external works are shown in Appendix B.

The lowest habitable floor level of the proposed building is 22.90 which is more than 500mm higher than the highest adjacent 100year flood level at the corner of Alfred Street and Harp Street.

The proposed levels have been set to mitigate any affect to the existing 100 year flood regime.

Where the proposed external works impact the existing volume of flood storage compensatory storage greater than that of the existing situation is provided. This is achieved by re-profiling the existing site between the cup and saucer creek and the proposed building.

The eastern half of the building is built on columns above the 100 year flood extents which does not affect the flood plain. As previously discussed the lowest habitable flood level is over 500mm above the 100 year flood level.

3. SUMMARY AND CONCLUSION

The proposed site is within the 100 year flood plain of The Cup and Saucer creek.

The proposed development is designed to accommodate the 100 year flood event by providing compensatory storage where required, building over the existing 100 year flood plain and setting habitable floor levels over 500mm above the 100 year flood level.

Therefore, it can be concluded that the proposed building infrastructure does not negatively impact on the existing flood regime and therefore complies with the conditions of the concept plan approval.

Alasdair Cameron

Civil Engineer - B.Eng (Hons), M.I.E.Aust, C.P.Eng(N.P.E.R)

APPENDIX A-PRE DEVELOPMENT CONDITION

APPENDIX B GROUND FLOOR PLAN

General Notes
1. This drawing is the copyright of Group GSA Pty Ltd and may not be altered, reproduced or transmitted in any form or by any means in part or in whole without the written permission of Group GSA Pty Ltd.
2. All levels and dimensions are to be checked and verified on site prior to the commencement of any work, making of shop drawings or fabrication of components.
3. Do not scale drawings. Use figured Dimensions.

PRELIMINARY
ISSUED FOR INFORMATION ONLY
DATE OF ISSUE: 28/11/2013

Rev.	Date	Reason For Issue	Chk
8	28/11/13	FOR INFORMATION ONLY	SP
7	26/11/13	FOR INFORMATION ONLY	SP
6	18/11/13	FOR INFORMATION ONLY	SP
5	15/11/13	FOR INFORMATION ONLY	SP
4	14/11/13	FOR INFORMATION ONLY	SP
3	13/11/13	FOR INFORMATION ONLY	SP
2	25/10/13	FOR INFORMATION ONLY	RK
1	21/10/13	FOR INFORMATION ONLY	RK

Key Plan

Legend

Client
BUPA CARE SERVICES
Level 19,
201 Kent Street,
Sydney NSW 2000



Project Manager
SDHA
Suite 10.03, Level 10,
276 Pitt Street,
Sydney, NSW 2000

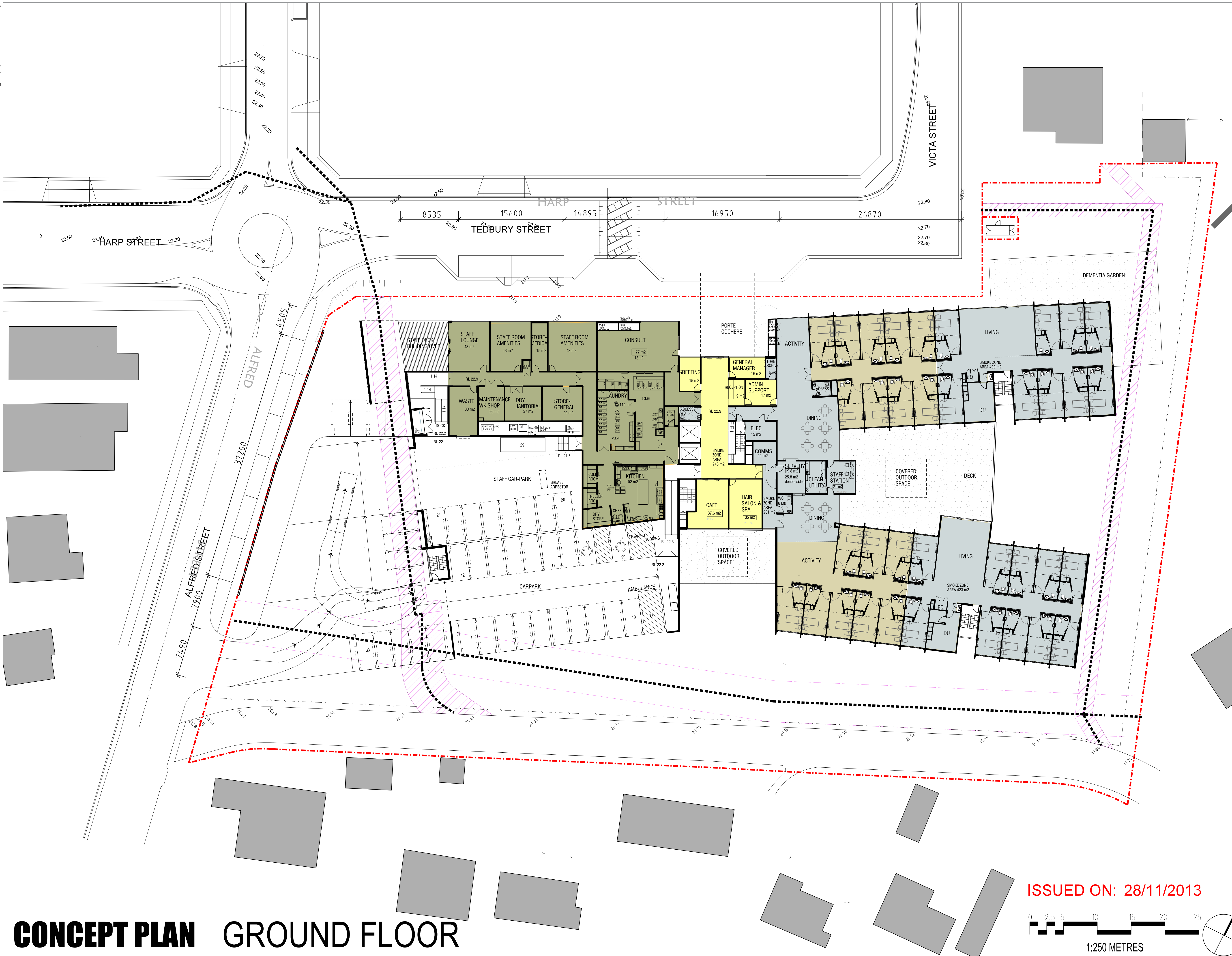


GROUP GSA
Group GSA Pty Ltd ABN 76 002 113 779
Level 7, 80 William St East Sydney NSW
Australia 2011 www.groupgsa.com
T +612 9361 4144 F +612 9332 3458
architecture interior design urban design planning
nom architect M. Sheldon 3990

Project
BUPA CARE - CLEMTON PARK
TEDBURY STREET, CLEMTON PARK, NSW

Title
GROUND FLOOR PLAN

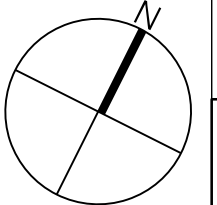
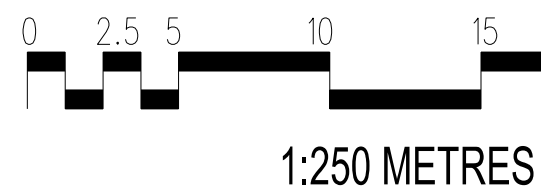
Project No.	Scale@A1	DATE	Drawn By
13219	1:250	28/11/13	GSA
Number	Revision		
DA 2001	8		



CONCEPT PLAN

GROUND FLOOR

ISSUED ON: 28/11/2013



APPENDIX C POST DEVELOPMENT SITUATION.



Project: LOT 31 - STAGE 5
POST DEVELOPMENT 100 YEAR FLOOD EXTENT

Principal: PRINCIPAL					
Scale: 1:250	Date: DATE		Council Ref: COUNCIL-REF		
	Datum: DATUM		L.G.A.: LGA		
Calc's: CALCD	Drawn: DRAWN	Proj Man: PM	Client Ref: PM		

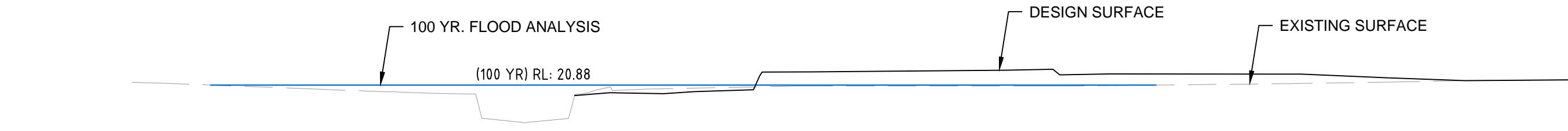


ABN 77 050 209 991
Level 4, Suite 400
16-18 Cambridge St
EPPING NSW 2121
PO Box 233
reception@craigandrhodes.com.au
www.craigandrhodes.com.au
EPPING NSW 1710

ACN 050 209 991
DX 4408 EPPING
Tel. 9869-1855
Fax. 9869-2341
reception@rhodes.com.au
www.rhodes.com.au
© Craig & Rhodes



Our Ref. 048-11
Dwg File Ref (Rev) - Sheet Ref.
048-11SK LOT31 502 [A]



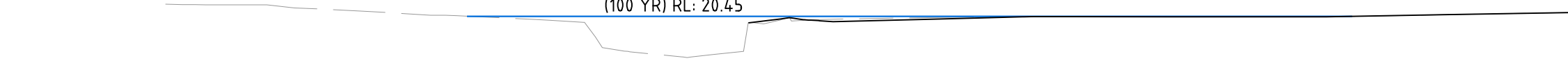
RL 10.00														
Proposed Levels	21.000		20.649	20.649	20.459	20.474	20.474	20.474	18.995	18.735	18.986	20.451	20.445	20.655
Existing Levels	21.000		20.649	20.459	20.474	20.474	20.474	18.995	18.735	18.986	20.451	20.445	20.655	20.396

SECTION 4
CH. 390.034



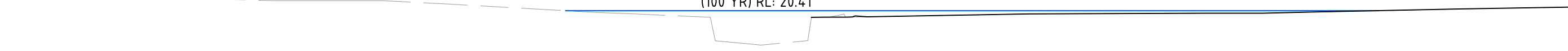
RL 10.00														
Proposed Levels	21.000		20.500		20.347	18.883	18.652	18.885	20.122	20.679	20.482	20.374	20.396	20.441
Existing Levels	21.000		20.500		20.347	18.883	18.652	18.885	20.122	20.679	20.482	20.374	20.396	20.441

SECTION 3
CH. 373.680



RL 10.00														
Proposed Levels	21.009	21.006	21.006	21.000	20.855	20.721	20.566	20.482	20.451	20.258	20.171	18.958	18.761	18.479
Existing Levels	21.009	21.006	21.006	21.000	20.855	20.721	20.566	20.482	20.451	20.258	20.171	18.958	18.761	18.479

SECTION 2
CH. 351.078



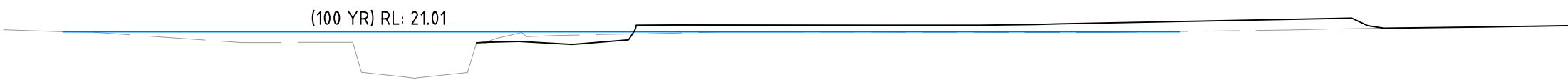
RL 10.00														
Proposed Levels	21.132	21.100	21.061	21.004	21.003	21.003	21.002	21.000	20.785	20.500	20.305	20.216	20.073	18.567
Existing Levels	21.132	21.100	21.061	21.004	21.003	21.003	21.002	21.000	20.785	20.500	20.305	20.216	20.073	18.567

SECTION 1
CH. 331.691



RL 10.00														
Proposed Levels	21.308	21.306	21.272	21.193	21.177		21.018	21.000	19.298	19.017	19.648	20.323	20.676	20.618
Existing Levels	21.308	21.306	21.272	21.193	21.177		21.018	21.000	19.298	19.017	19.648	20.323	20.676	20.618

SECTION 6
CH. 428.192



RL 10.00														
Proposed Levels	21.033	21.000	20.984	20.686	20.500	20.512	19.124	18.851	19.114	20.583	20.570	20.552	20.434	20.626
Existing Levels	21.033	21.000	20.984	20.686	20.500	20.512	19.124	18.851	19.114	20.583	20.570	20.552	20.434	20.626

SECTION 5
CH. 409.346