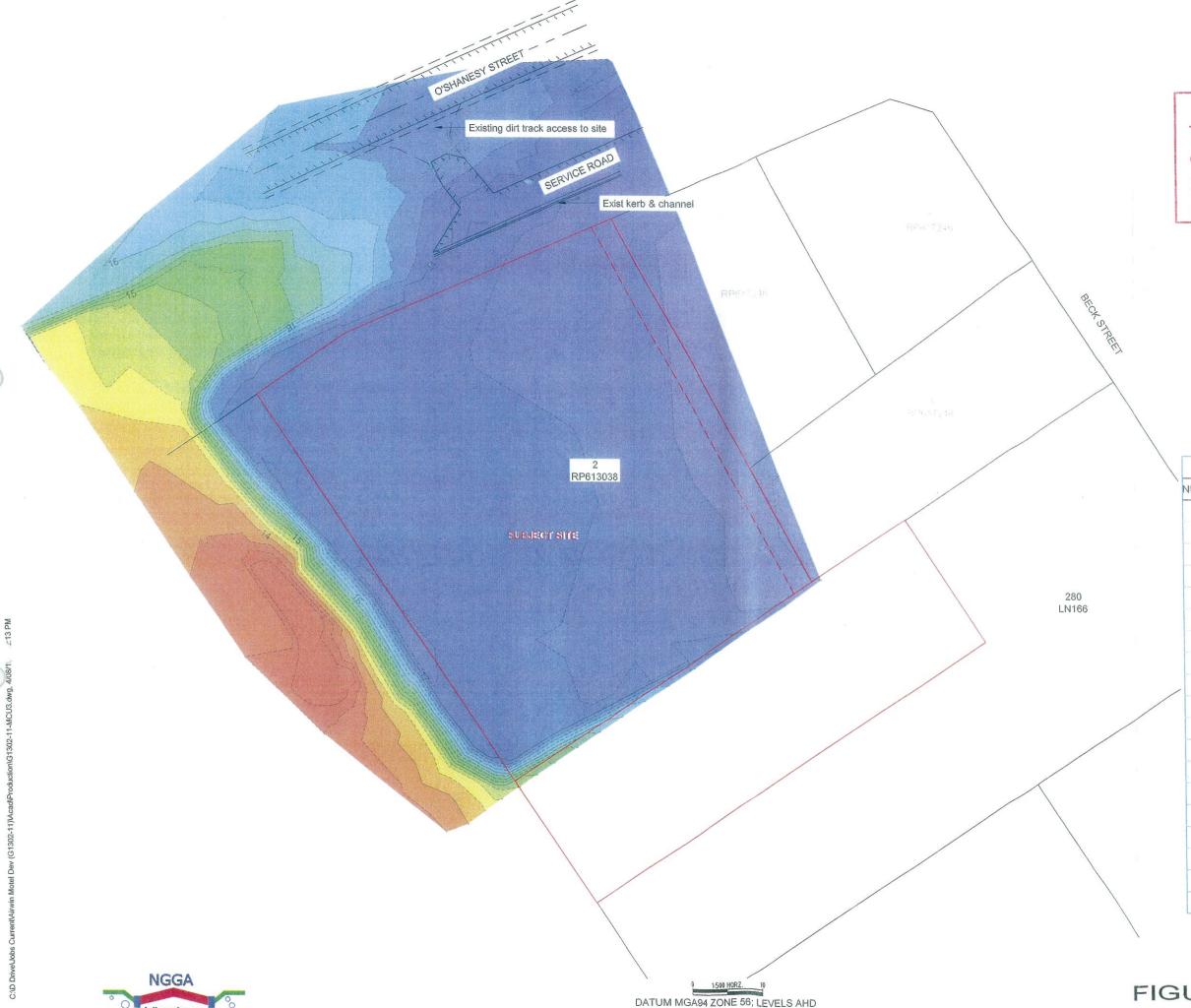


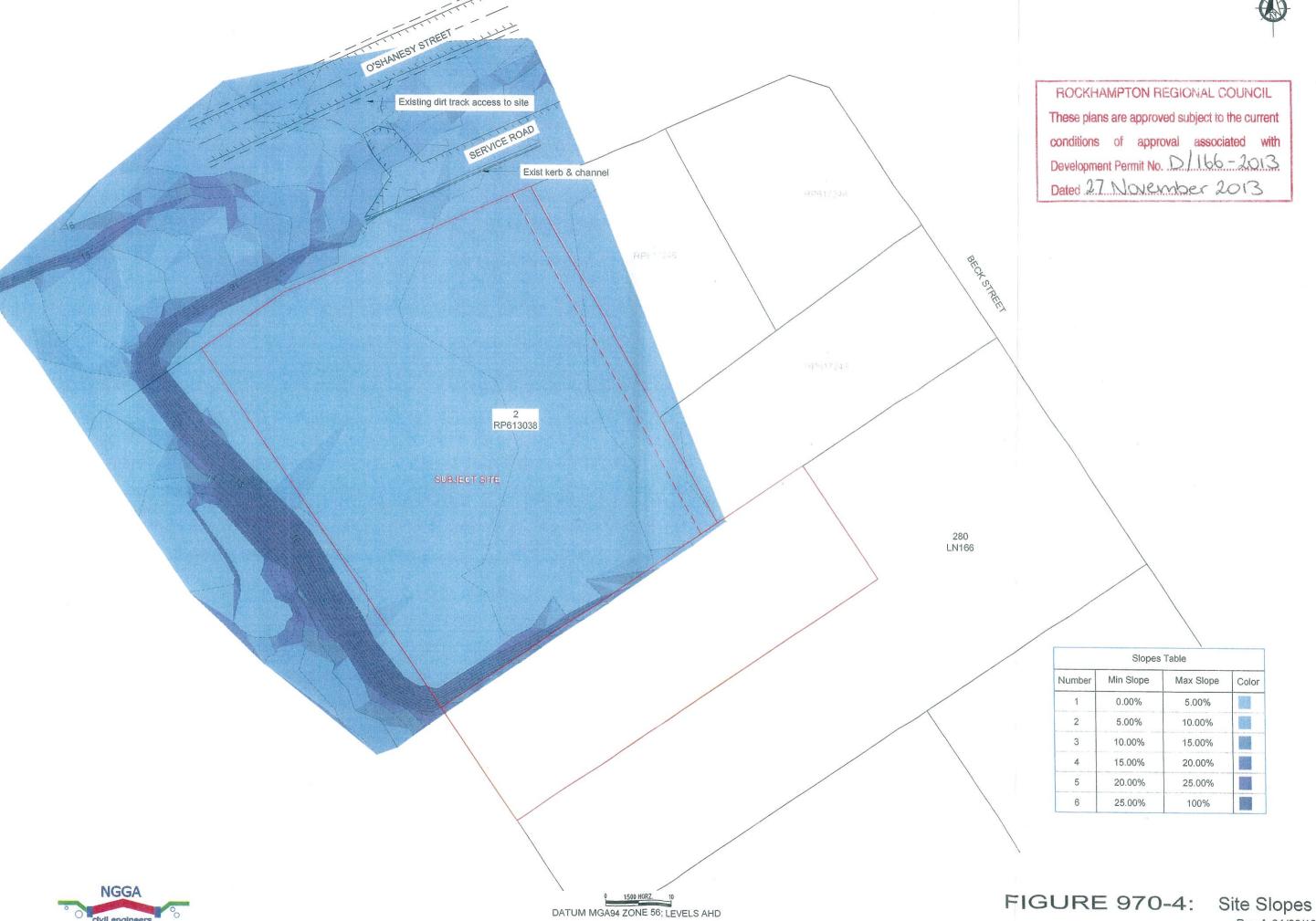
LEVELS TABLE NUMBER MIN LEVEL MAX LEVEL COLOR 13.000 13.250 13.250 13.500 13.500 13.750 13.750 14.000 5 14.000 14.250 6 14.250 14.500 14.500 14.750 14.750 15.000 15.000 15.250 10 15.250 15.500 11 15.500 15.750 12 15.750 16.000 13 16.000 16.250 14 16.250 16.500 15 16.500 16.750 16 16.750 17.000 17 17.000 17.250 18 17.250 17.500 19 17.500 17.750

FIGURE 970-3:

Site Levels
Rev A 01/08/13







Rev A 01/08/13



Rev A 01/08/13

REFERENCES

The site based storm water management plan has been based on the following publications and guidelines:

- Healthy Waters Music Modeling Guidelines (HWMMG),
- Queensland Water Quality Guidelines, 2009 (QWQG), Central Coast Region.
- Queensland Development Code (QDC)for water savings targets

OPPORTUNITIES, CONSTRAINTS & PRECEDENTS

The type of development complies with the Council standards for Commercial (Units) subdivisional works.

The principal pollutants likely to be generated from the site development will be hydrocarbons, metals, sediment and nutrients such as nitrogen and phosphorus fixed to the sediments.

- Dwelling units can be provided with rain water tanks for stormwater recovery and re-use. This provides reduction in discharges to the drainage system with associated removal of sediments and nutrients. Provision of these tanks is not mandatory.
- the development will include an underground stormwater drainage collection system that will be sized for a 1 in 10 year design storm. Opportunity therefore exists for the incorporation of in-line SQUIDs within the pipe
- the type of development, site coverage and functionality requirements precludes the use of above ground and end of line SQUIDs comprising swales, basins & similar.

RECEIVING WATERS

The nominated receiving waterway is the freshwater Gracemere Lagoon on Neerkol Creek 0.5km downstream of the site. Refer graphic below. Although some infiltration of storm water is likely to occur at the site, use of groundwater does not occur downstream of the site. Consequently, only surface water Environmental Values (EVs) and water quality objectives (WQOs) have been identified.



PROPOSED STORM WATER TREATMENT

After consideration of the available opportunities & constraints, a treatment train comprising the following storm water quality improvement devices (SQUIDs) is proposed:

in line SQUIDs within the pipe drainage system for gross pollutant, sediment and nutrient removal.

PROPOSED STORM WATER TREATMENT EVALUATION & SIZING

The evaluation & sizing of the components proposed and/or adopted for the treatment train has been carried out using the MUSIC Version 5 computer package and 6 minute rainfall for the period from 1 January 1970 to 31 December 2000. The pollutant types and concentrations evaluated for removal are -

- gross pollutants (GP):
- sediments and dissolved soilds, Total Suspended Solids (TSS);
- total dissolved nitogen (TN): and
- total dissolved phosphorus (TP).

All catchments have been modeled as 'Urban Residential' split catchments. The split catchment surface types & associated runoff generation parameters; pollutant concentrations and generation parameters applicable to these type of catchments and surface compositions recommended in Healthy Waters Music Modeling Guidelines have been adopted. Details of these areas are shown in Table 1.

nline proprietary product SQUID HUMECEPTORS or equivalent have been nominated. The size of the unit(s) has been determined using the manufacturers software package based on a minimum 80% TSS removal rate and associated nitrogen and phosphorus removed being that component 'fixed' to the suspended solids.

PERFORMANCE EVALUATION

Details of the target water quality objectives (WQO) for storm water discharging from the site to the receiving waters are summarised in Table 2. Details of performance of the proposed treatment train-in relation to the target WQO are summarised in Tables 3 & 4.



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In-line squid - gross pollutant & sediment removal (Humeceptor or equiv.)

Outlet Total		Roof	Roads	Ground level	
1 (Connected)	2853	1103	1750	Nil	
Not Connected	1098	Nil	Nii	1698	

			AVENTE S
TABLE 2: TARGET \	NATER QUALI	TY OBJECTIVE	S (WQO
Contract of the second	atau satu matatal a s	1 - 2 Sea N. 9	42 165

Load Reduction (ref QWQG)
% Reduction
85
45
70
90

TABLE 3: PERFORMANCE EVALU			ONS (mg/L)
	TSS	TN	TP
At Site Boundary	3.14	0.0000396	0.00022

	TSS	TN	TP	GP
At Site Boundary for Connected Area (Outlet 1)	72	36	35	>90

CERTIFICATION

An assessment has been carried out of how the proposed site water quality management meets the water quality objectives of the state planning policy 4/10 healthy waters & how potential pollutants in storm water discharged from the site will be managed in accordance with current best industry practices & healthy waterway guidelines. Details of the nominated standards & evaluation of the effectiveness of the proposals in meeting the standards have been provided. With reference to the available opportunities & constraints & existing precedents, the proposals are in excess of what has been provided in adjacent developments and are deemed to provide an acceptable water quality management strategy. This ROCKHAMPTON REGIONAL COUNCIPVALUATION and certification is subject to review at the time of carrying out detail design and submission to Council for Operational Works approval.

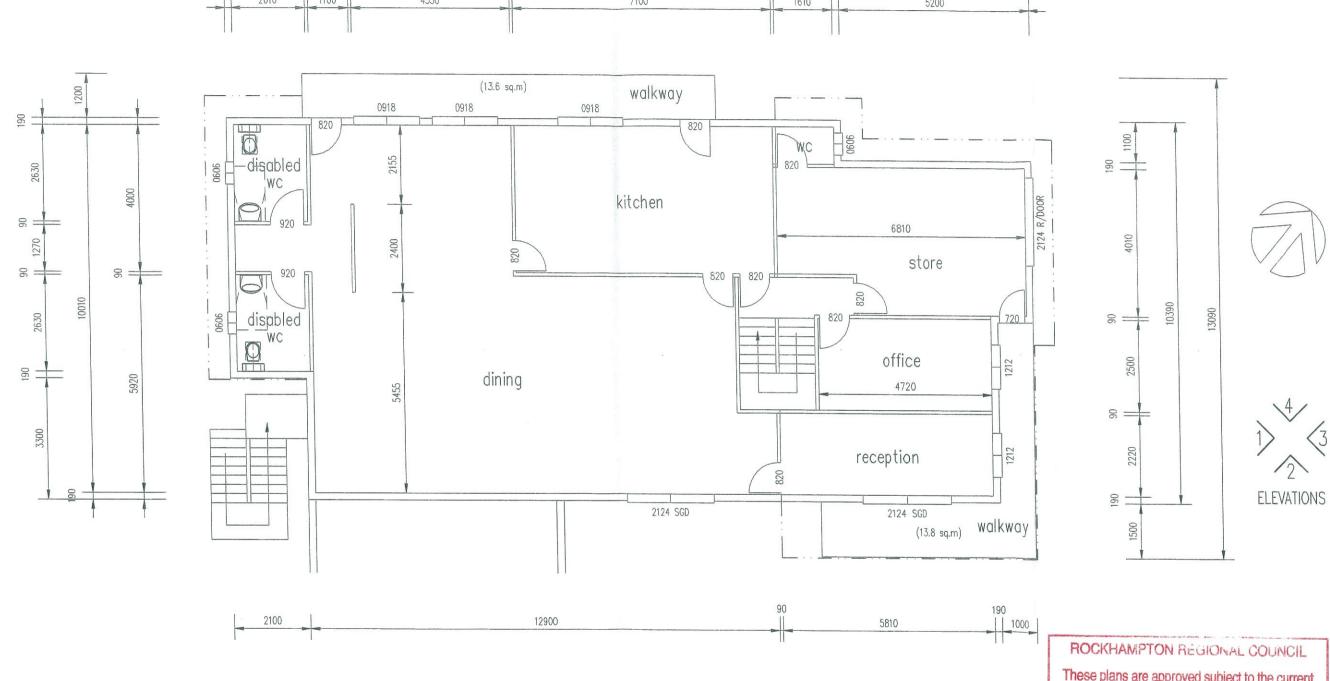
DATUM MGA94 ZONE 56; LEVELS AHD

LEGEND STORMWATER LINE; GULLY PITS. SITE OUTLET LEGAL POINT OF DISCHARGE: DRAINAGE SYSTEM OUTLET CATCHMENT FIGURE 970-8: Storm Water Management Water Quality

SUBJECT SITE

Rev A 01/08/13

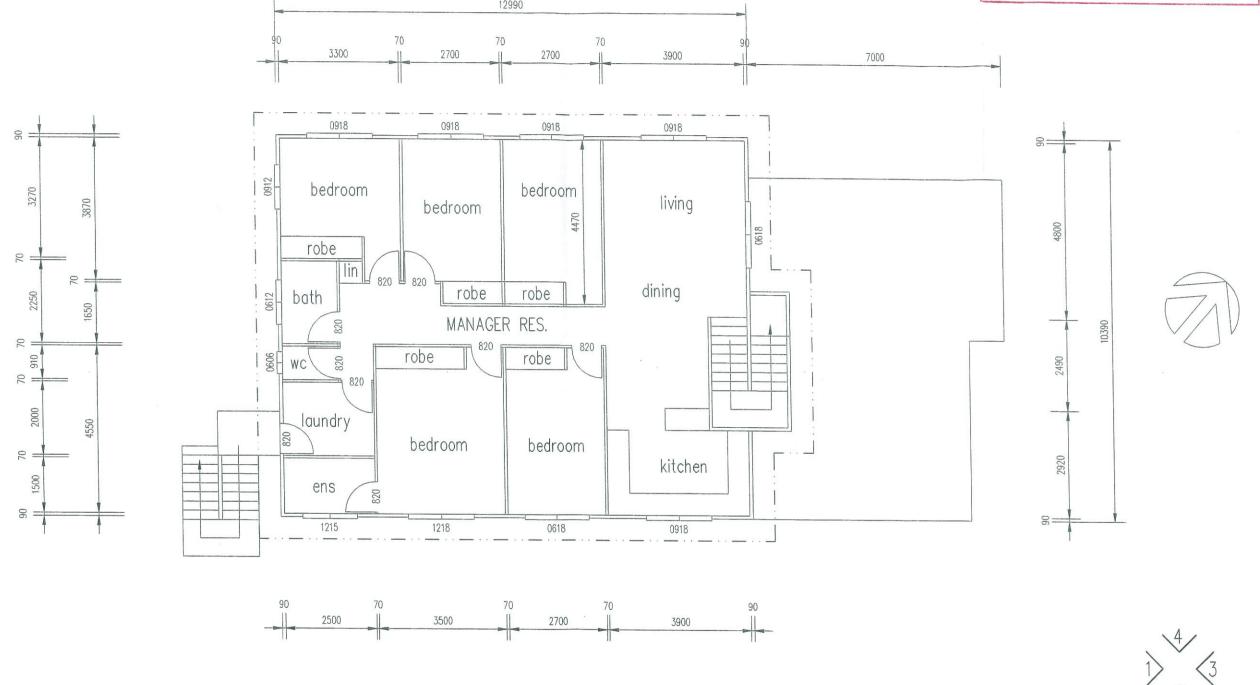
Gross Floor Area = 210.0m² excluding
Walkway Floor Area = 27.4m² 22090 4330 7100 5200 (13.6 sq.m) walkway 0918 0918 g — disabled wc kitchen 6810



Lower Floor Plan

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REGION:-			SCALE 1:100	~	KEVIN ORR DRAFTING	SERVICE	CLIENT:- 4IRWIN PTY LTD AS TRUSTEE	JOB NUMBER
TERRAIN CATEGORY CLASS:- TOPOGRAPHIC CLASS:-			0 1000 2000	IZE A.	16 Eden Way, Yeppoon	5.50. 5.500 to 7.5500. Or Q.D.	PROPOSED CONSTRUCTION:- NEW MOTEL	041212-01
SHIELDING CLASS:- SOIL CLASSIFICATION:-				S TIN:	Phone/Fax:- 4939 2227	LICENSEE: KEVIN ORR LICENCE NUMBER: 063446	SITE ADDRESS:-	CTIZIZ OI
SOIL CLASSIFICATION.	NO. DATE	REVISIONS	UNLESS NOTED OTHERWISE	_		ELICENCED UNDER OBSA ACT 1991.	LOT 2, D'SHANESY STREET, GRACEWERE	TOTAL No. OF SHEETS

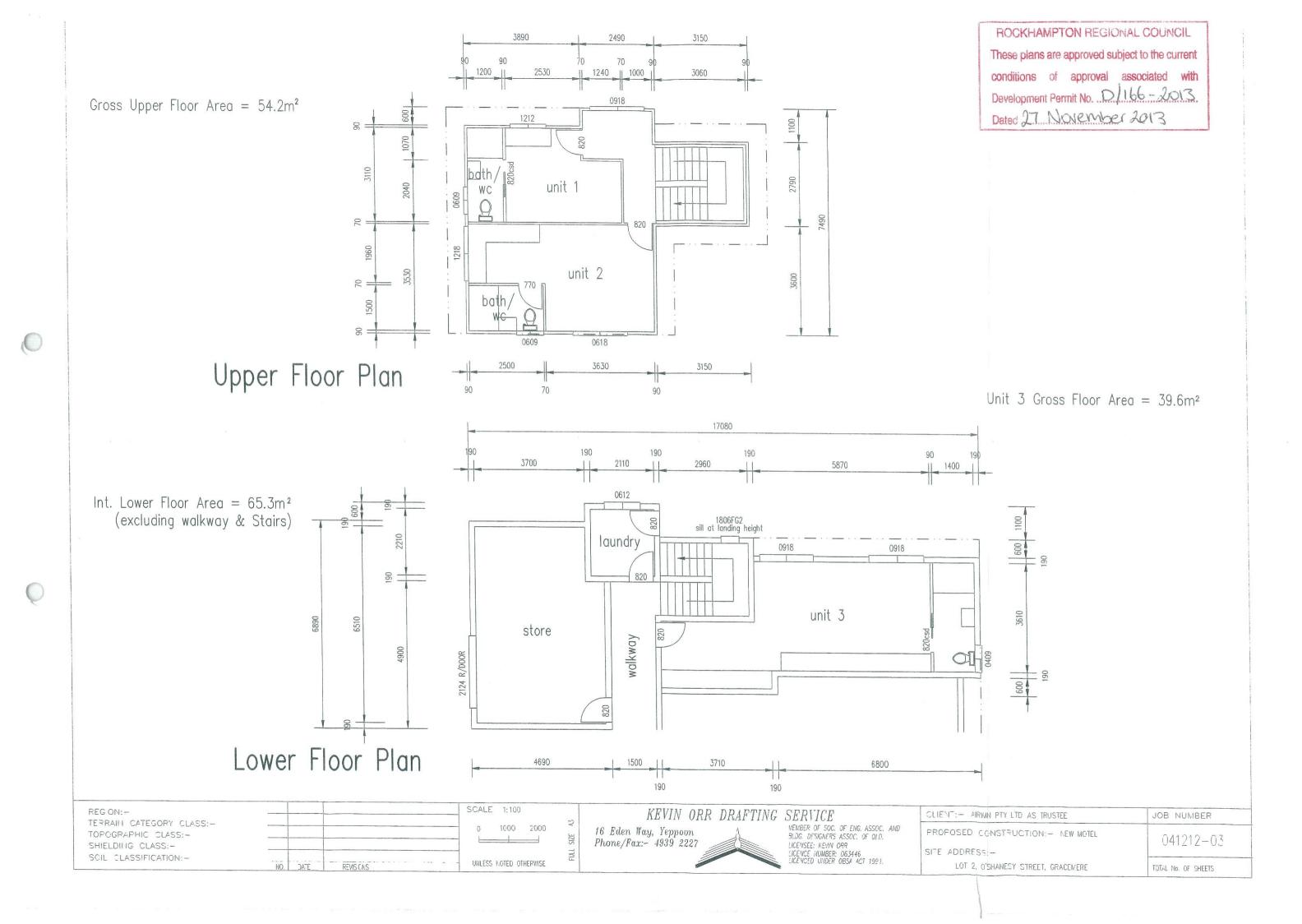


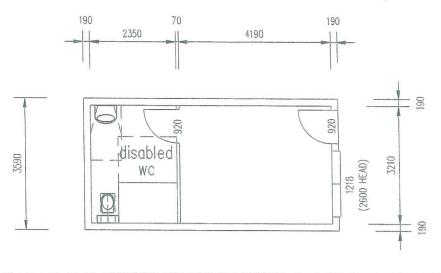
Upper Floor Plan

KEVIN ORR DRAFTING SERVICE

MEMBER OF SOC. OF ENG. ASSOC. AND
BLOG. DESIGNERS ASSOC. OF OLD. SCALE 1:100 CLIENT: - AIRMIN PTY LTD AS TRUSTEE JOB NUMBER TERRAIN CATEGORY CLASS:-1000 2000 16 Eden Way, Yeppoon Phone/Fax:- 4939 2227 PROPOSED CONSTRUCTION: - NEW MOTEL TOPOGRAPHIC CLASS:-041212-02 UCENSEE: KEVIN ORR LICENCE NUMBER: 063446 LICENCED UNDER OBSA ACT 1991. SHIELDING CLASS:-SCIL CLASSIFICATION:-UNLESS NOTED OTHERWISE LOT 2, O'SHANESY STREET, GRACEWERE REVIS CAS TOTAL No. OF SHEETS

ELEVATIONS

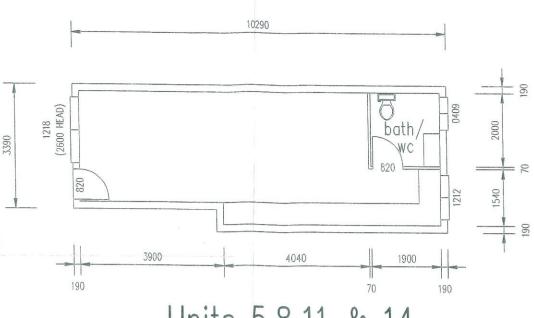




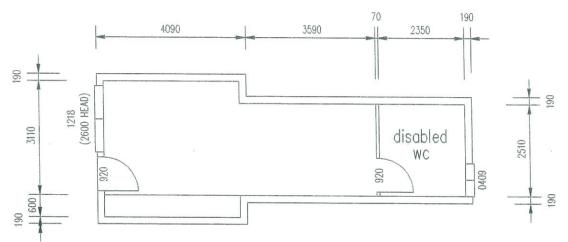
Disabled Unit 17

ROCKHAMPTON REGIONAL COUNCIL These plans are approved subject to the current conditions of approval associated with Development Permit No. D 1166-2013 Dated 27 November 2013

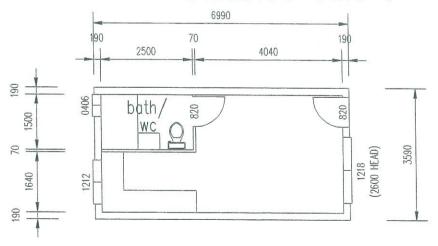
Disabled Unit 17 Int. Floor Area = 21.2m² Units 5,8,11 & 14 Int. Floor Area = 33.4m²each Disabled Unit 6 Int. Floor Area = 29.3m² Units 9,12 & 15 Int. Floor Area = 29.3m² each Units 18-29 Int. Floor Area = 21.2m² each Units 4,7,10,13 & 16 Int. Floor Area = 33.4m²each



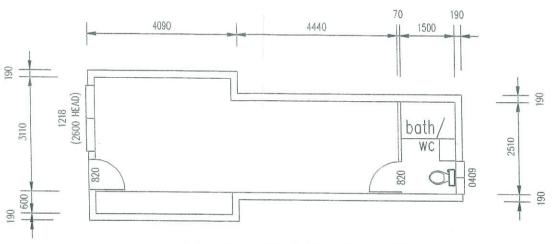
Units 5,8,11 & 14



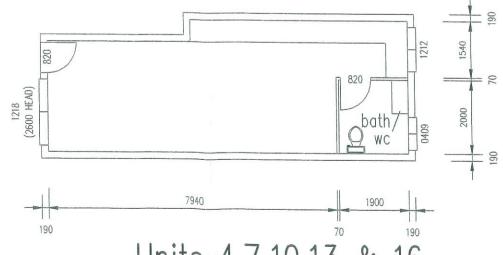
Disabled Unit 6



Units 18-29



Units 9,12 & 15



Units 4,7,10,13 &

SCALE 1:100 TERRAIN CATEGORY CLASS:-1000 2000 TOPOGRAPHIC CLASS:-SHIELDING CLASS:-SOIL CLASSIFICATION:-UNLESS NOTED OTHERWISE REVISIONS

KEVIN ORR DRAFTING SERVICE
VEMBER OF SOC. OF ENG. ASSOC. AND BIDG. DESIGNERS ASSOC. OF OLD. 16 Eden Way, Yeppoon Phone/Fax:- 4939 2227

LICENSEE: KEVIN ORR LICENCE NUMBER: 063446 LICENCED UNDER OBSA ACT 1991.

CLIENT: - AIRVAN PTY LTD AS TRUSTEE JOB NUMBER PROPOSED CONSTRUCTION: - NEW MOTEL 041212 - 04LOT 2, C'SHANESY STREET, GRACEWERE TOTAL No. OF SHEETS

