

AMENDMENT

GRANTED  
29/01/2019

HUTT CITY COUNCIL

**2. DRAWINGS**



These documents must be retained on site. Inspections may not be carried out if they are not.

BC181033.01

**macroVentures**

**STAGE 1 RETAINING WALL DESIGN**

GENESIS RESIDENTIAL LIMITED

64 WAIPOUNAMU DRIVE

PROJECT REF:18-016

**SCHEDULE OF DRAWINGS**

SHEET #	TITLE	REV
COVER	COVER SHEET	A
NOTES	GENERAL NOTES	A
1	SITE PLAN	A

**AMENDMENT****GRANTED**  
29/01/2019**HUTT CITY COUNCIL****FOR BUILDING CONSENT**

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GENESIS RESIDENTIAL LIMITED  
64 WAIPOUNAMU DRIVE  
COVER PAGE

THIS DESIGN AND DRAWING SHALL NOT BE USED OR REPRODUCED WITHOUT WRITTEN AUTHORITY

SURVEYED	----	REVISION	DATE	SHEET
DESIGNED	TSN	B-FFL ADDED	07/06/18	COVER
DRAWN	TSN	C-WATER MAIN	26/07/18	
CHECKED	----	D-ROAD SECTION	06/11/18	
APPROVED	----	DATE	SCALE	SERIES
		9/12/18	AS SHOWN	100
				REF 18-016
CAD FILE	17-016-BC STG1 RTW	PLOT DATE	12/9/18	ORIG. SIZE A3

GENERAL NOTES:

1. ALL WORKS SHALL COMPLY WITH ALL RELEVANT NZ STANDARDS, THE NZ BUILDING CODE & TERRITORIAL AUTHORITY REGULATION INCLUDING THE CURRENT VERSIONS OF NZS 3604 AND NZS 4404. ANY CONFLICTS TO BE DISCUSSED WITH THE ENGINEER PRIOR TO CONSTRUCTION.
2. IF MAXIMUM HEIGHT DIMENSIONS VARY FROM THAT SHOWN CONTACT ENGINEER IMMEDIATELY. IT IS THE CONTRACTOR'S RESPONSIBILITY FOR THE SET OUT SITE AND DETERMINING ACTUAL WALL HEIGHTS AS THESE MAY VARY FROM THAT SHOWN.
3. ENGINEERING DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE SPECIFICATIONS, ARCHITECTURAL, CIVIL AND ENGINEERING SERVICES DOCUMENTS.
4. UNLESS OTHERWISE NOTED ALL LEVELS ARE IN METERS, AND ALL DIMENSIONS ARE METRIC, AND SHALL BE CHECKED BY CONTRACTOR PRIOR TO CONSTRUCTION.
5. DIMENSIONS SHALL NOT BE OBTAINED BY SCALING FROM DRAWINGS.
6. ALL DISCREPANCIES SHALL BE REFERRED TO THE ARCHITECT OR ENGINEER FOR RESOLUTION BEFORE PROCEEDING WITH THE WORK.
7. ALL MATERIAL AND WORKMANSHIP SHALL BE ON ACCORDANCE WITH THE CURRENT CODES OF PRACTICE EXCEPT WHERE VARIED BY THE SPECIFICATION AND/OR DRAWINGS.
8. WHERE PROPRIETY PRODUCTS ARE SPECIFIED IN THE DOCUMENTS THE CONTRACTOR MAY SUBMIT AN ALTERNATIVE PRODUCT OF APPROVAL.
9. THE CONTRACTOR IS TO DISCUSS THE REQUIREMENTS OF ALL THE SITE INSPECTION FOR THE ISSUE OF THE PS4 PRIOR TO CONSTRUCTION.
- 10.ENGINEER REQUIRES 24 HOURS NOTICE BEFORE ANY INSPECTION (REFER TO CALCULATIONS FOR SCHEDULE OF INSPECTIONS).
- 11.ALL DIMENSIONS AND LEVELS ARE SUBJECT TO FINAL SURVEY.
- 12.ALL WORKS SHALL COMPLY UNDER THE CURRENT HEALTH AND SAFETY WORK ACT.
- 13.THESE NOTES APPLY TO THE ENTIRETY OF THE DRAWING SET.

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FILL:

1. SITE TO BE CLEARED OF ALL TOPSOIL AND ANY ORGANIC MATERIAL THEN CUT TO A SERIES OF LEVEL BENCHES.
2. ENGINEER TO INSPECT PRIOR TO ANY FILL PLACEMENT.
3. FILL MATERIAL TO BE CRUSHED ROCK TOPCOURSE MATERIAL FREE OF ORGANIC MATERIAL FULLY COMPACTED TO 90% OF MAXIMUM DENSITY TO BS1377 TEST 9.
4. COMPACT IN MAXIMUM LAYERS OF 150mm THICK WITH A 2 TONNE ROLLER - TRACK ROLLING WITH A DIGGER IS NOT ACCEPTABLE.
5. ENGINEER TO INSPECT AND TEST EVERY 2ND LAYER PLACED (300mm INTERVALS).

EXISTING SERVICES:

1. THE LOCATIONS OF UNDERGROUND SERVICES SHOWN ON THESE DRAWINGS ARE APPROXIMATE ONLY AND BASED ON INFORMATION PROVIDED BY TERRITORIAL AUTHORITIES AND NETWORK UTILITY OPERATORS. WE ACCEPT NO LIABILITY FOR THE INACCURACIES.
2. CONTRACTOR SHALL LOCATE AND PROTECT EXISTING SERVICES PRIOR TO CONSTRUCTION.

ROADING:

1. ALL PAVEMENT MATERIALS AND WORK STANDARDS TO BE IN ACCORDANCE WITH ALL RELEVANT NZ STANDARDS, TERRITORIAL AUTHORITY REGULATION INCLUDING THE CURRENT VERSION OF NZS 4404.
2. THE CONTRACTOR SHALL UNDERTAKE BENKELMAN BEAM TESTS ON THE FINISHED BASECOURSE ON ALL PAVEMENT AREAS AND PROVIDE RESULTS TO THE ENGINEER.
3. REINSTATE ALL DAMAGE TO ADJACENT FEATURES CAUSED BY THE WORKS.
4. ROAD MARKINGS AND SIGNAGES SHALL BE IN ACCORDANCE WITH CURRENT NZTA MANUAL OF TRAFFIC SIGNS AND MARKINGS (MOTSAM). ALL SIGNS TO BE VIP GRADE REFLECTIVITY.

TIMBER:

1. ALL BOLTED TIMBER CONNECTIONS TO HAVE 50x50x3 WASHERS.
2. ALL TIMBER TO BE MSG8 UNLESS SPECIFIED OTHERWISE.
3. TIMBER CONNECTIONS NOT SHOWN TO BE IN ACCORDANCE WITH NZS3604. TIMBER SIZES NOT SHOWN REFER ARCHITECT.
4. ALL FIXINGS ARE TO BE 304 STAINLESS STEEL.

TIMBER HAZARD CLASSIFICATIONS		
HAZARD CLASS	SERVICE CONDITIONS	TYPICAL USERS
H1.2	PROTECTED FROM WEATHER, BUT WITH A RISK OF MOISTURE CONTENT CONDUCTIVE TO DECAY	WALL FRAMING - SEE NZS3604
H3.2	PERIODIC WETTING, NOT IN CONTACT WITH THE GROUND, MORE CRITICAL END USES	DECKS, PERGOLAS, EXTERNAL BEAMS, POST NOT IN GROUND
H4	GROUND CONTACT, OR CONDITIONS OF SEVERE OR CONTINUOUS WETTING	FENCE POSTS, LANDSCAPING TIMBER NOT REQUIRING A BUILDING CONSENT
H5	GROUND CONTACT, OR CONDITIONS OF SEVERE OR CONTINUOUS WETTING, WHERE USES ARE CRITICAL AND WHERE A HIGHER LEVEL OF PROTECTION THAN H4 IS REQUIRED	HOUSE PILES AND POLES, CRIB WALLING, POSTS IN GROUND FOR DECKS VERANDAS, PERGOLAS

CONCRETE:

1. ALL CONCRETE WORK SHALL COMPLY WITH THE REQUIREMENTS OF NZS3109:1997
2. IF MAXIMUM HEIGHT DIMENSIONS VARY FROM THAT SHOWN CONTACT ENGINEER IMMEDIATELY. IT IS THE CONTRACTOR'S RESPONSIBILITY FOR THE SET OUT ON SITE AND DETERMINING ACTUAL WALL HEIGHTS AS THESE MAY VARY FROM THAT SHOWN
3. CONCRETE SHALL HAVE A 28 DAY STRENGTH OF:

- SLABS & FOOTINGS 25MPa

- PILES 20MPa

- TIDY SLABS 10MPa
4. MAXIMUM SLUMP TO BE 100mm UNLESS NOTED OTHERWISE
5. CONCRETE FINISHES SHALL BE:

- SLABS U3

- EXPOSED FOOTINGS F4
6. ALL REINFORCEMENT SHALL COMPLY WITH AS/NZS4671:2001 (HD BARS SHALL NOT BE REBENT)
7. THE CONCRETE SHALL BE KEPT CONTINUOUSLY WET FOR A PERIOD OF AT LEAST 4 DAYS. FROM 4-10 DAYS AFTER POURING IT SHALL BE KEPT DAMP BY OCCASIONAL HOSING.
8. ALL HOLD DOWN BOLTS SPECIFIED AS CHEMICAL ANCHORS TO BE DRILLED AND EPOXY GROUTED AFTER SLAB HAS CURED.
9. ALL CHEMICAL ANCHOR HOLES TO BE CLEANED OUT IN ACCORDANCE WITH MANUFACTURES INSTRUCTIONS.

STEEL:

1. ALL WELDS TO BE 6 FILLET WELDS ALL ROUND UNLESS NOTED OTHERWISE.
2. ALL M12 BOLTS TO BE GRADE 4.6. ALL M16 BOLTS TO BE GRADE 8.8 UNLESS NOTED OTHERWISE.
3. ALL PLATES TO BE 10 THICK UNLESS NOTED OTHERWISE.
4. STEEL GRADES:

- PLATES 250MPa

- HOT ROLLED SECTIONS 300MPa

- HOLLOW SECTIONS 350MPa
5. ALL WELD ELECTRODES ARE E48XX OR W50X.
6. ALL INTERNAL STRUCTURAL STEEL TO BE PAINTED IN ACCORDANCE WITH SYSTEM DESIGNATION AS/NZS2312/AKL1 BEFORE DELIVERY TO SITE. ANY AREAS DAMAGED TO BE MADE GOOD UPON INSTALLATION.
7. ALL EXTERNAL STRUCTURAL STEEL TO BE HOT DIP GALVANIZED IN ACCORDANCE WITH SYSTEM DESIGNATION AS/NZS2312/HDG600. ANY AREAS DAMAGED TO BE MADE GOOD UPON INSTALLATION.

MASONRY:

1. ALL MASONRY IS LAID IN RUNNING BOND CONFIGURATION UNLESS NOTED OTHERWISE.
2. ALL MASONRY WITHIN THE BUILDING STRUCTURE IS GRADE B AS DEFINED IN NZS4230.
3. ALL CONCRETE MASONRY BLOCKS SHALL CONFORM TO NZS3012 UNLESS NOTED OTHERWISE. DENSITY SHALL BE >1750kg/m³.

4. ALL MASONRY WORK SHALL COMPLY WITH THE REQUIREMENTS OF NZS4210:2001 AND NZS4229:2013. LINTELS WHERE NOT SPECIFICALLY DETAILED SHALL COMPLY WITH THE PROVISIONS OF NZS4229:2013. USE 800G/M³ OF SIKA 'CAVEX' EXPANSION AGENT, OR APPROVED ALTERNATIVE, FOR MASONRY BLOCK INFILL.
5. IF MAXIMUM HEIGHT DIMENSIONS VARY FROM THAT SHOWN CONTACT ENGINEER IMMEDIATELY. IT IS THE CONTRACTOR'S RESPONSIBILITY FOR THE SET OUT ON SITE AND DETERMINING ACTUAL WALL HEIGHTS AS THESE MAY VARY FROM THAT SHOWN.
6. CONCRETE SHALL BE:

B1 B2

- BLOCK FILL 17.5MPa 25MPa
7. ALL REINFORCEMENT SHALL COMPLY WITH AS/NZS4671:2001 (HD BARS SHALL NOT BE REBENT).
8. CHASING OF LOAD BEARING MASONRY UNITS IS NOT PERMITTED WITHOUT THE PRIOR APPROVAL OF THE ENGINEER.

REINFORCING LAP LENGTHS				
	MASONRY (17.5MPa)		CONCRETE (25MPa)	
BAR SIZE	300	500	300	500
10	400	700	-	-
12	480	840	360	600
16	640	1120	480	800
20	800	1400	600	1000
25	-	-	750	1250

REINFORCEMENT COVER				
	MASONRY	CONCRETE		
EXPOSURE CLASSIFICATION	17.5MPa	25MPa	30MPa	
INTERIOR	A1	35	25	25
EXTERIOR - MOD	B1	50	40	35
EXTERIOR - HIGH	B2	60 (25MPa)	-	45
AGAINST GROUND		-	75	75

HEALTH AND SAFETY:

1. PROPPING:

EXISTING LOAD BEARING STRUCTURAL ELEMENTS SHALL BE ADEQUATELY PROPPED PRIOR TO REMOVING ANY SUPPORTING STRUCTURE. PROPPING SHALL REMAIN UNTIL NEW SUPPORTING STRUCTURE IS INSTALLED AS PER THE ENGINEER'S DRAWINGS AND REQUIREMENTS.

THE STABILITY OF THE STRUCTURE DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE BUILDER.

TEMPORARY WORK AND PROPPING IS THE RESPONSIBILITY OF THE BUILDER.

2. ASBESTOS CONTAINING MATERIAL (ACM)

THE BUILDER IS RESPONSIBLE FOR IDENTIFYING ANY EXISTING ACM THAT MAY BE PRESENT PRIOR TO COMMENCING ANY WORKS. IDENTIFICATION. ASBESTOS MANAGEMENT PLAN, REMOVAL AND DEMOLITION SHALL BE CARRIED OUT AS PER:

HEALTH AND SAFETY AT WORK (ASBESTOS) REGULATIONS 2016

3. PRECAST WALL

THE PRE-CAST PANEL MANUFACTURER AND BUILDER SHALL FOLLOW THE:

APPROVED CODE OF PRACTICE FOR THE SAFE HANDING, TRANSPORTATION AND ERECTION OF PRECAST CONCRETE, AND

ANY REQUIREMENTS SPECIFIED BY THE HEALTH AND SAFETY AT WORK REGULATIONS:

REFER TO:  
www.business.govt.nz/worksafe/information-guidance/all-guidance-items/scaffolding-best-practice-guideline-for-scaffolding-in-new-zealand/section-6-particular-scaffolds-and-scaffolding-structures/6.13-falsework-or-propping

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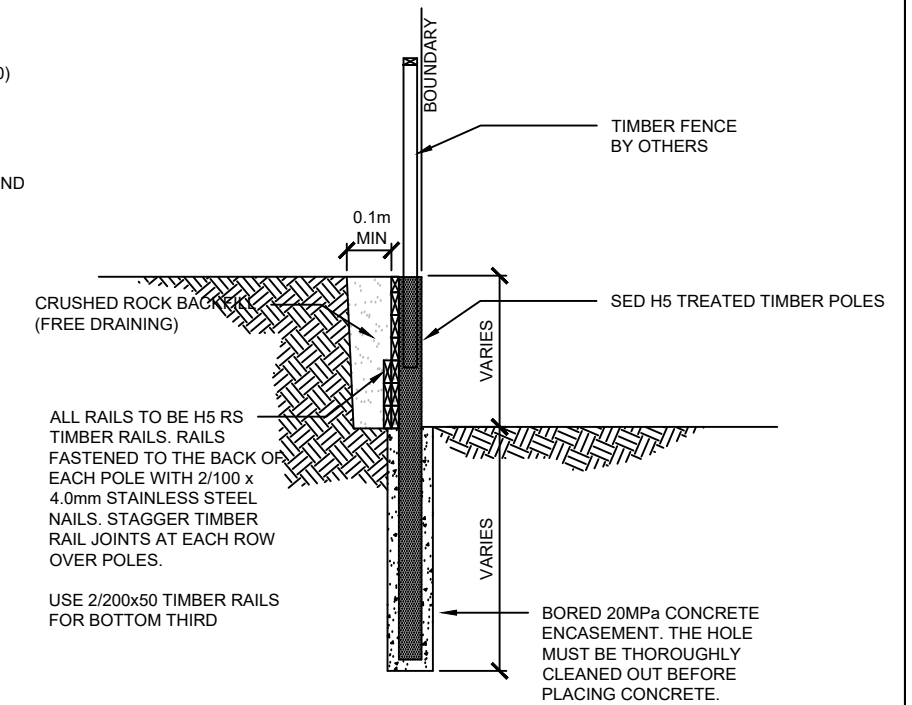
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[illegible]

HEIGHT	POLE Ø (mm)	BORE Ø (mm)	SPACING (m)	EMBEDMENT (m)
1.0m	Ø150 SED	450	1.2	1.7
1.5m	Ø200 SED	450	1.2	2.1
2.0m	Ø275 SED	450	1.2	2.2
2.5m	Ø325SED	600	1.2	3.0
3.0m	Ø400 SED	600	1.2	4.0
3.5m	Ø425 SED	600	1.2	4.5



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**HUTT CITY COUNCIL**

The logo for Hutt City, featuring the words "HUTT CITY" in a bold, sans-serif font. Below the text is a stylized graphic of a bridge or a wave, with the words "TE HĀU KAIHĀKE" written underneath it.