

## Category 1 building

Part B: Structural Design  
Part C: Dimensions  
Part K: Walls  
Part O: Lighting & Ventilation  
Part T: Fire Protection

Occupancy H4  
Design Population: 2 persons per bedroom

### SANS 10400 XA Calculations (Zone 4)

#### FENESTRATION:

#### GROUND FLOOR STOREY:

Nett floor area (Excludes Garage & Store) = 61,8m<sup>2</sup>.  
Total area of glazed element = 6,93m<sup>2</sup> (11,2%).  
Glazed Type: Aluminium Single - Clear

Total Fenestration does not exceed maximum deemed to satisfy value of 15% of nett floor area.

#### ROOF INSULATION:

Target Value: 3,7  
Actual Value: R factor = 3,5  
\* less 0,35 Roofing and plaster board.  
\* less 135mm Flexible fibreglass blanket insulation to ceiling space.

\* A layer of reflective foil laminate (RFL) between the battens & rafters

#### HOT WATER & PIPE INSULATION:

\* Neoprene insulation to be used.  
\* 50% hot water from alternate source Solar Geyser.  
\* Fit water saving nozzles to all showers.  
\* Insulated hot water piping to conform to SANS 204.

#### LIGHTING:

\* Energy Saving CFL's to be used.  
\* Lighting to be max 5W per sq/m per SANS 204.

#### SANS 10400 XA Requirements

Roof overhang to remain at min. 300mm.  
No doors & window specs can be altered in any way without a recalculation.  
All insulation to roof, pipework etc. to be strictly adhered to.

#### SPECIFICATIONS

All work to be carried out in strict accordance with local authority regulations & by-laws.  
Contractor must check all levels & dimensions on site before the commencement of any work. Any such oversight resulting in errors in levels or dimensions will be the responsibility of the contractor. Written dimensions should be used in preference to scaling the drawings. All work to be carried out in strict accordance with the drawings. Drainage connection point & levels to be verified by the plumbing contractor before commencement of any work.

**FOUNDATIONS:**  
600x200mm mass concrete strip footings to external & load bearing walls & 600x200mm m/c slab thickening to int. walls. No footings to protrude over boundary line.

**FLOORS:**  
Floor finish to client's spec. on 25mm crnt. screed on 75mm thick m/c slab to dwelling, on 250 micron DPM, on 20mm sand blinding, on min. 150mm wet, and well compacted fill/hardcore.

**WALLS:**  
All brickwork to be 90-90 cement bricks 230mm thick, internal skin, 50mm clean cavity with 5x butterfly ties per sqm, 250 micron stepped DPC to min. 10mm wide weep holes at max. 600mm c/c. FFL min 150mm above N.G.L. Windowsills to be brashed with 250mic. plastic. PCL pre stressed lintels laid to manufacturers spec. over brickwork openings. with min. 4 courses gailv. brick-force over. Walls painted throughout.

**CEILINGS:**  
6,4mm Skrimmed Gypsum Rhinoboard & sid. 76mm coved cornice fixed to 38x38mm battens @ max. 400mm c/c.

**WINDOWS & GLAZING:**  
All Aluminium windows & doors as per plan. Natural light to each habitable room to be min. 10% of floor area, and natural ventilation min 5% of same floor area. Windows Min. 6mm thick throughout, except for: Bathroom windows with obscure glass & Doors & windows larger than 1m sqm. or less than 500mm above N.G.L. to be safety glass.

**RAINWATER GOODS:**  
100mm dia. UPVC with sid. 75mm down pipes. All water to discharge into storm water channels.

Designed by:  
**David Chatterton & Herman Maree**  
SACAP Reg. No:  
**PAD20566**  
Prof. Title:  
**Pr/ArchD**

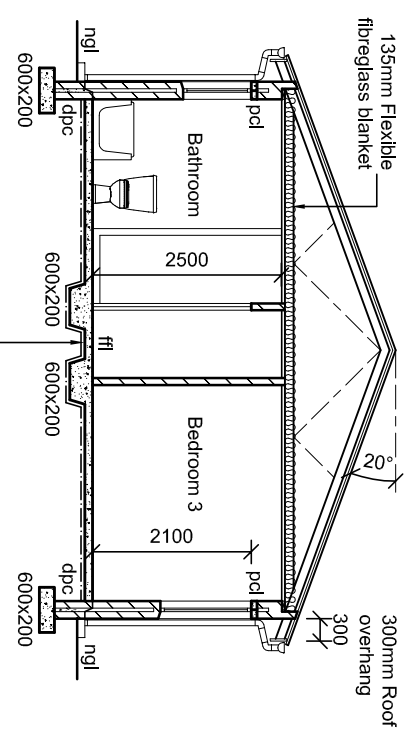
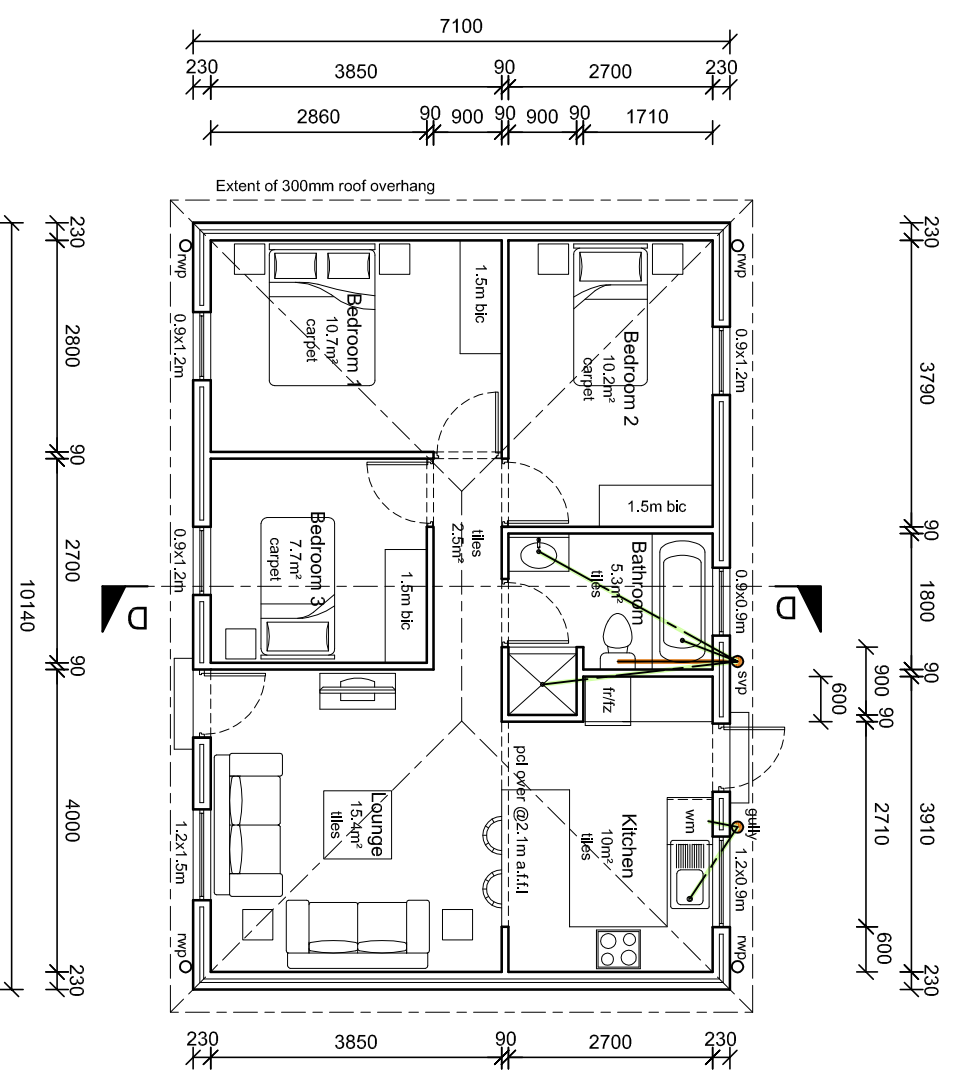
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Project:  
**New Dwelling**  
Type 'D' 72m<sup>2</sup>

Client:  
**Turnkey Holdings**  
Address:  
**Paarl**  
Eft:  
**0000**

Dwg. No:  
**Type 'D' /12-1**  
Scale:  
**1:100 @A3**

Date:  
**12.12.2012**  
Page:  
**1 of 1**  
Rev:  
**A**



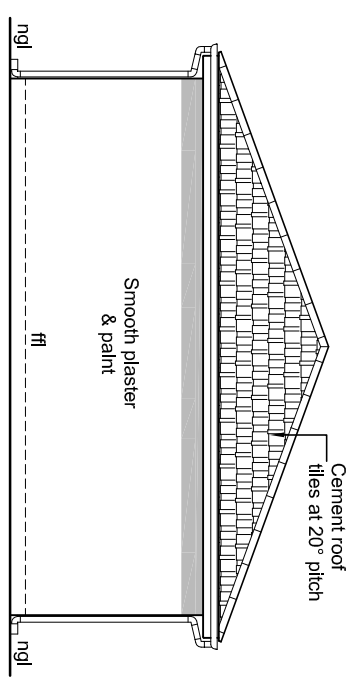
Cement roof tiles at 20° pitch on 38x38mm battens at 320mm c/c max. on a layer of reflective foil laminate (RFL) between the battens & rafters on prelab. roof trusses (by specialist) at 760mm c/c anchored to 114x38mm wallplates by GH straps built min. 600mm into brickwork. Provide adequate wind bracing.

## Ground Floor Storey Type 'D' 72m<sup>2</sup>

Scale 1:100

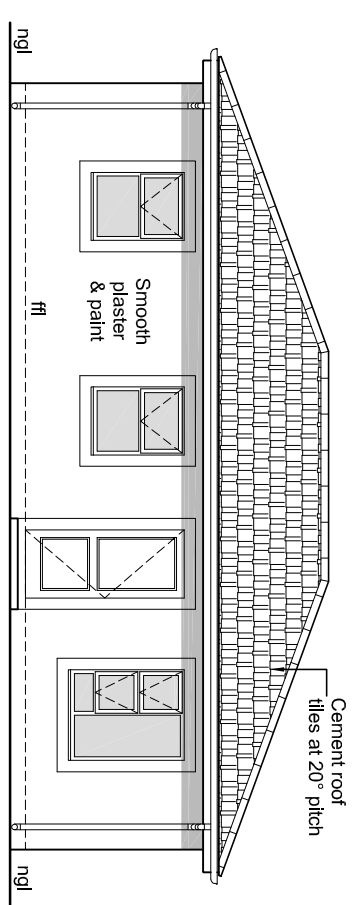
### East Elevation

Scale 1:100



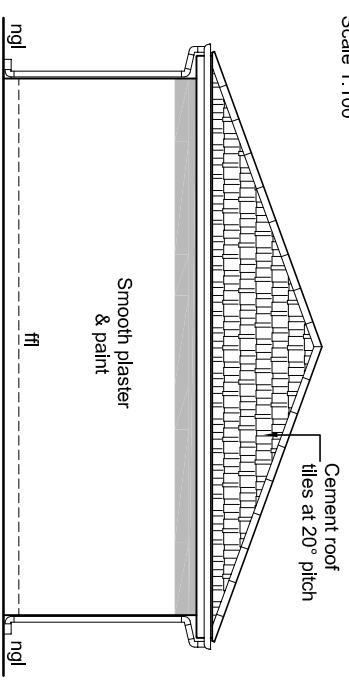
### North Elevation

Scale 1:100



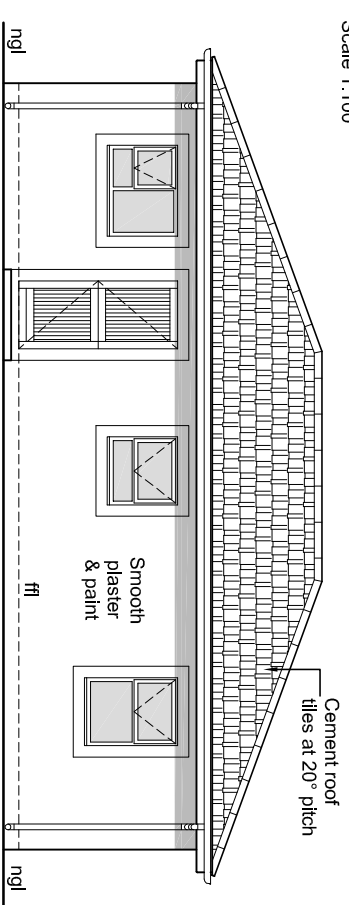
### West Elevation

Scale 1:100



### South Elevation

Scale 1:100



Owner: .....  
Designer: *David Chatterton*