

Creation Date: July 8, 2020 11:12 am

Floor Level: 1

Nett Floor Area: 55

Climate Zone: Zone 1 Cold Interior

Solar Heat Gain Coefficient (SHGC): 0.15

Conductance Coefficient (Cv): 1.2

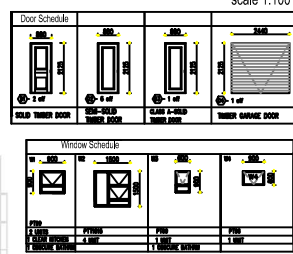
Acknowledged: Not Observed

Target: 11.16 m²

Solar Heat Gain: 4.77

Conductance: 68.94

Description	Qty	Width (m)	Height (m)	U-value (W/m²K)	SHGC	SHGC Proposed	U-value (W/m²K)	Total U-value
PT1-5133 Aluminum/Double Glazed E SANSI Intermediate Solar E TO LIGHTENED SAFETY GLASS 204 2040 (0)	3	1.5	1.5	0.75	0.19	0.31	3.05	30.08
PT1-5133 Aluminum/Double Glazed E SANSI Intermediate Solar E TO LIGHTENED SAFETY GLASS 204 2040 (0)	3	0.6	0.9	0.36	0.37	0.60	0.37	3.73
PT1-5133 Aluminum/Double Glazed E SANSI Intermediate Solar E TO LIGHTENED SAFETY GLASS 204 2040 (0)	3	1.5	1.5	0.75	0.19	0.66	1.33	13.89
PT1-5133 Aluminum/Double Glazed E SANSI Intermediate Solar E TO LIGHTENED SAFETY GLASS 204 2040 (0)	3	0.9	0.9	0.81	0.37	0.31	0.31	3.73
PT1-5133 Aluminum/Double Glazed E SANSI Intermediate Solar E TO LIGHTENED SAFETY GLASS 204 2040 (0)	3	0.9	0.9	0.81	0.37	0.60	0.33	3.73
TOTAL								11.16 m²
								4.77



LIGHTING CALCULATIONS

221181 = 4.329

NET FLOOR = 7382

ALLOWED = 6042

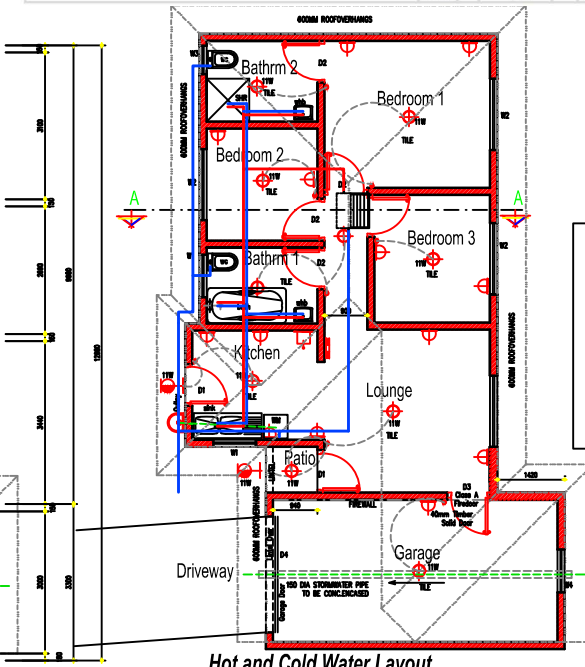
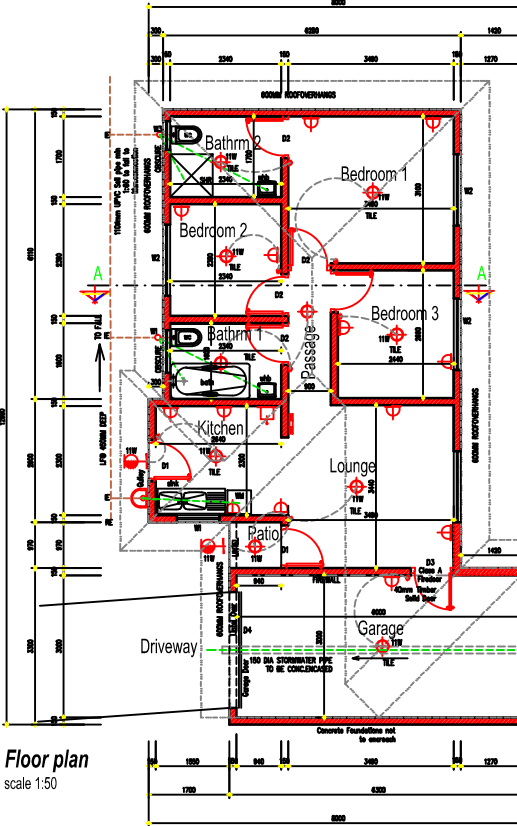
04/02/2020

4.329

4.329/7382

ENERGY CONSUMPTION

1.02307523 = 0.162364 = 0.000216



A minimum of 50 % by volume of the annual average hot water heating requirement shall be provided by means other than electric resistance heating, including, but not limited to, solar heating, heat pumps, heat recovery from other systems or processes.

The solar water heating systems shall comply with SANS 1307 and SANS 1010A, based on the thermal performance determined in accordance with the provisions of SANS 6211-1 and SANS 6211-2. The installation thereof shall comply with SANS 10254.

Roofs, external walls, and floors that form the building envelope and any opening such as windows and doors in the external fabric shall be constructed to minimize air leakage. The building sealing can be done by methods such as caulking, or adding air-tight gaskets or combers.

ELECTRICAL LEGEND

- CEILING LIGHT
- SWITCH PLUG
- DOUBLE PLUG
- ON
- STOVE
- SWITCH
- OUTSIDE LIGHT
- GEYSER

R-VALUE CALCULATIONS

GENERAL INSULATION PRODUCT-CELLULOSE FIBRE LOOSE FILL

INTERNAL CONDUCTIVITY = U VALUE

THICKNESS OF MATERIAL = R VALUE

$U=1/R$ $R=1/U$

$0.040W/mK \times 1m = 0.040W/m^2K$

$0.040W/mK \times 25m^2A/m = 25m^2A/m$

ZONE 1 UP
REQUIRED: 3.30W/m

TYPICAL ROOF = 0.30W/m

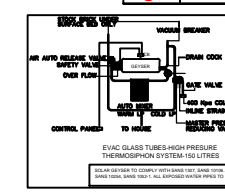
3.30-0.30=2.92

2.92/0.040=72.75mm

0.30-0.040=0.26W/m

3.30-0.26=1.04W/m

1.04/0.040=26.00mm



House 81 sqm

scale 1:50

- GEYSER WITH SOLAR PANELS ROOF MOUNTED
- 15 AMP CEILING MOUNTED PLUG
- COLD WATER ON COPPER PIPE TO SUPPLY
- HOT WATER ON COPPER PIPE FROM GEYSER TO SUPPLY

DEVELOPER: MASCOP CONSTRUCTION(PTY)LTD

CLIENT: PROPOSED NEW HOUSE

PROJECT: PROPOSED NEW HOUSE

WORKING DRAWINGS

REVISIONS

NO.	DATE	DESCRIPTION
1		ISSUE FOR PERMIT

DATE: 08/02/2020

DRAWN BY: [Signature]

CHECKED BY: [Signature]

REVISION NO: 1