GLAZING SCHEDULE

	3190	1800	550	1200	900	530	900	2980
	4.79msq	4.32msq	1.06msq	2.32msq	1.62msq	0.28msq	2.16msq	7.15msq
window/door number	W01, W02, W03, W20, W22, W23	D01	W04, W06, W10, W12, W24, W26, W28, W30	W05, W11, W25, W27, W29	W13, W14, W17	W15, W16	D04	W21
frame material	ALUMINUM	ALUMINUM	ALUMINUM	ALUMINUM	ALUMINUM	ALUMINUM	ALUMINUM	ALUMINUM
frame type	AWNING AND FIXED	SIDEHUNG	FIXED	FIXED	AWNING AND FIXED	AWNING	SIDEHUNG	FIXED
glazing material	A - MONOLITHIC ANNEALED GLASS B - TOUGHENED SG	TOUGHENED SAFETY GLASS	MONOLITHIC ANNEALED GLASS	MONOLITHIC ANNEALED GLASS	MONOLITHIC ANNEALED GLASS	TOUGHENED SAFETY GLASS	TOUGHENED SAFETY GLASS	TOUGHENED SAFETY GLASS
no. of sides supported	ALL SIDES	ALL SIDES	ALL SIDES	ALL SIDES	ALL SIDES	ALL SIDES	ALL SIDES	ALL SIDES
glazing pane min. thickness	4mm	4mm	4mm	4mm	4mm	4mm	4mm	8mm
glazing pane max. area	A - 1.5m2 B - 3.0m2	3.0m2	1.5m2	1.5m2	1.5m2	3.0m2	3.0m2	8.0m2

	900	1800	1800	877	3751
	0.54msq	1.08msq	4.32msq	2.10msq	9.00msq
window/door number	W31, W33, W34, W35	W32, W36	W19	D03	W18
frame material	ALUMINUM	ALUMINUM	ALUMINUM	ALUMINUM	ALUMINUM
frame type	AWNING	AWNING	FIXED	AWNING	AWNING
glazing material	TOUGHENED SAFETY GLASS	MONOLITHIC ANNEALED GLASS	TOUGHENED SAFETY GLASS	TOUGHENED SAFETY GLASS	TOUGHENED SAFETY GLASS
no. of sides supported	ALL SIDES	ALL SIDES	ALL SIDES	ALL SIDES	ALL SIDES
glazing pane min. thickness	4mm	4mm	6mm	4mm	8mm
glazing pane max. area	3.0m2	1.5m2	6.4m2	3.0m2	9.2m2

GENERAL NOTES:
- All glazing to comply with SANS 10400-N:2010.
- Float glass to comply with SANS 50572-1/EN 572,1 & 572,2
- Toughened & Laminated safety glass to comply with SANS 1263-1.
- ALL individual panes of safety glazing material to be permanently marked by installer and a certificate to such effect be issued to the owner on completion of installation.
- Installer to issue a certificate on completion of the glazing installation & that the glazing material indicated has been installed in the position indicated and such installation complies with the provisions of SANS 10137.
- No changes are to be effected to the size, thickness or type of glazing material without prior approval of the Architectural Professional, as any such changes may affect the compliance with SANS 10400-N and the National Building Regulations.
- All sizes are inclusive of frames and should not be taken as glazing sizes only.
- All frameless shower doors in main house to have minimum 10mm toughened safety glss over a maximum glazed area of 2.1msq.

FENESTRATION CALCULATIONS:

ORIENTATION	WINDOW NO.	WINDOW AREA
NORTH EAST	W01	4.79msq
NORTH EAST	W02	4.79msq
NORTH EAST	W03	4.79msq
EAST	W04	1.06msq
EAST	W10	1.06msq
SOUTH EAST	W05	2.32msq
SOUTH EAST	W07	1.27msq
SOUTH EAST	W08	1.27msq
SOUTH EAST	W09	1.10msq
SOUTH EAST	D02	2.07msq
SOUTH EAST	W11	2.32msq
SOUTH	W06	1.06msq
SOUTH	W12	1.06msq
SOUTH WEST	W13	3.78msq
SOUTH WEST	W14	3.78msq
SOUTH WEST	W15	0.28msq
SOUTH WEST	W16	0.28msq
SOUTH WEST	W17	3.78msq
TOTAL AREA - GROUND STOREY WINDOWS		40.86msq

ORIENTATION	WINDOW NO.	WINDOW AREA
NORTH EAST	W20	4.79msq
NORTH EAST	W22	4.79msq
NORTH EAST	W23	4.79msq
SOUTH EAST	W24	1.06msq
SOUTH EAST	W25	2.32msq
SOUTH EAST	W26	1.06msq
SOUTH EAST	W27	2.32msq
SOUTH EAST	W28	1.06msq
SOUTH EAST	W29	2.32msq
SOUTH EAST	W30	1.06msq
SOUTH WEST	W31	0.54msq
SOUTH WEST	W32	1.08msq
SOUTH WEST	W33	0.54msq
SOUTH WEST	W34	0.54msq
SOUTH WEST	W35	0.54msq
SOUTH WEST	W36	1.08msq
TOTAL AREA - FIRST STOREY WINDOWS		29.89msq

ZONE	NET FLOOR AREA - GROUND STOREY	TOTAL GLAZED AREA	%AGE OF AREA OF GLAZING TO FLOOR AREA	CONDUCTIVITY VALUE OF FRAME - U-value	MAX. SOLAR HEAT GAIN CO-EFFICIENT (SHGC value)
SH	214.41msq	40.86msq	19.06%	>20% (42.88msq) therefore, ANY SOLUTION	>20% (42.88msq) therefore, ANY SOLUTION

ZONE	NET FLOOR AREA - FIRST STOREY	TOTAL GLAZED AREA	%AGE OF AREA OF GLAZING TO FLOOR AREA	CONDUCTIVITY VALUE OF FRAME - U-value	MAX. SOLAR HEAT GAIN CO-EFFICIENT (SHGC value)
SH	219.30msq	29.89msq	13.63%	>20% (43.86msq) therefore, ANY SOLUTION	>20% (43.86msq) therefore, ANY SOLUTION

ROOF ASSEMBLY CALCULATIONS

ZONE	DIRECTION OF HEAT FLOW	MIN. TOTAL 'R' VALUE REQD
SH	DOWNWARD	2.7msq.K/W

'R' VALUE OF PROPOSED ROOF ASSEMBLY - ALUMINUM ROOFSHEETING	
OUTDOOR AIR FILM (7m/s)	0.05msq.K/W
METAL ROOF SHEETING	0.00msq.K/W
9.0mm RHINOBOARD CEILING	0.06msq.K/W
10.5mm x 12kg FIBRE GLASS BLANKET INSULATION	2.63msq.K/W
INDOOR AIR FILM (still)	0.15msq.K/W
TOTAL	2.89msq.K/W

solar panel general notes

SOLAR PANELS ARE TO IDEALLY FACE NORTH AND BE ANGLED AT 10°+LATTITUDE LOCATION OF INSTALLATION

PANELS ARE TO BE FIXED TO MANUFACTURES SPECIFICATION & TO COMPLY WITH SANS 1307

SUPPLIER TO VERIFY THAT THE NUMBER OF PANELS PROVIDED WILL ADEQUATELY COVER THE NEEDS OF THE HOUSEHOLD AS PER SANS 10252-1:2012

INSTALLERS ARE TO ENSURE THAT THE PANELS ARE INSTALLED IN A MANNER THAT WILL ENSURE MAXIMUM EXPOSURE TO THE SUN ESPECIALLY BETWEEN 10.00am AND 14.00pm DAILY.
SHADOWS CAST BY TREES AND/OR ADJACENT BUILDINGS DURING THESE PEAK HOURS SHOULD BE AVOIDED.

SOLAR PANELS ARE TO BE MAINTAINED AS PER MANUFACTURE'S SPECIFICATIONS IN ORDER TO ENSURE MAXIMUM OUTPUT.

PART XA - insulation

Install 50mm thick non-combustible, lightweight glasswool geyser blanket around geyser. Seal edges with duct tape.

Apply 20mm 'snap-on-pipe' on incoming cold water pipes and insulate all outgoing hot water pipes to within 1.0m of plumbing fixtures.

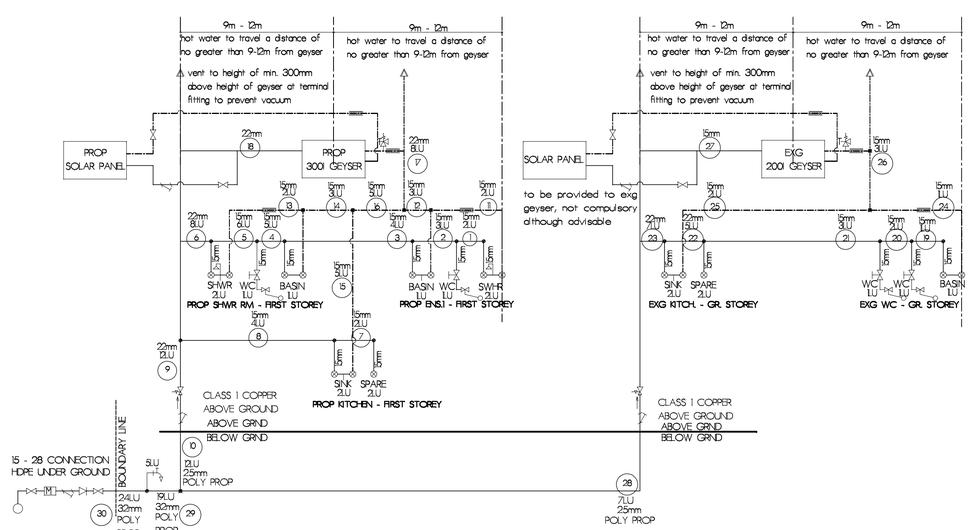
provide 100mm thick flexible fibre glass blanket with overlaps of minimum 50mm over a wall member or to be tightly fitted against walls thickness of blanket to be maintained throughout

GEYSER

existing ground storey to re-use existing geyser, provide new geyser for first storey.

provide blanket to existing geysers

client to consider solar power and/or heat pump to heat existing geyser.



ALL WATER RETICULATION & DRAINAGE TO BE INSTALLED ON SITE AS PER SANS 10252:2012

SCHEMATIC WATER RETICULATION SYSTEM

NTS

HOT WATER DEMAND

OCCUPANCY	OCCUPANCY TYPE	NO. OF BEDRMS	NO. OF PEOPLE	TOTAL HOT WATER DEMAND/CAPITA/DAY	TOTAL HOT WATER DEMAND
H4	MEDIUM TO HIGH RENTAL	3	6	115L PER CAPITA PER DAY	6 x 115L/d = 690L/DAY +20% water loss = 828L/DAY 50% x 1104L/DAY = 414L/DAY
				STORAGE VOLUME/ CAPITA/DAY @60° 40L PER CAPITA	SIZE OF STORAGE TANK 6 x 40L/d = 240L/DAY +20% water loss = 288L/DAY MIN. TANK SIZE = 300L

SOLAR HEAT INPUT REQD	AREA OF SOLAR COLLECTORS REQD.
H = (V x C x delta T) / n	A = H / S (winter solar radiation)
H = (0.414 x 4.18kJ/L x 40°) / 0.56 = 123 608.571 kJ/DAY	A = 123 608.571 kJ / 11100kJ = 11.14msq

owner
BRIGHT THOUGHTS (pty) ltd

signature

billing no.

project
PROPOSED DWELLING UNIT & ALTERATIONS TO EXISTING OFFICES

address
319 LILIAN NGOYI ROAD

cadastral description
REM OF ERF 756 OF DURBAN

DESIGN & drawing TECHNOLOGY
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scale
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sheet no.
2/2

job no.
n22-12wd02 rev A

date
15.09.2022