



- NOTES TO ALTERATIONS & ADDITIONS**
- EXISTING DOUBLE STOREY DWELLING - ROOF TO BE REMOVED.
 - NEW REINFORCED CONCRETE SLAB ROOF OVER FIRST FLOOR
 - ALL EX-SUSPENDED WOODEN FLOORS AT GROUND LEVEL TO BE DEMOLISHED AND NEW FLOOR SUPPORTED ON GROUND CAST
 - INTERNAL CHANGES TO PARTITION WALLS
 - BATHROOMS TO BE RE-FITTED & CHANGES TO WINDOWS
 - NEW WOODEN DECK
 - NEW DRY STACK RAINING WALL & CHANGES TO BOUNDARY WALL TO D/S/E ELEVATION
- SPECIFICATION AND NOTES TO CONSTRUCTION**
- CLIMATIC ZONE 5**
- WALLS
MASONRY WALLS - 220MM COLLAR JOINTED DOUBLE SKIN PLASTERED INTERNALLY AND EXTERNALLY WITH A MIN. R-VALUE OF 0.35
CONCRETE WALLS - 100MM COLLAR JOINTED PLASTERED INTERNALLY AND EXTERNALLY
 - ORIENTATION
ROOMS USED MOST AND MAJOR GLAZING AREAS ORIENTATED TO THE NORTH TO ALLOW SOLAR HEAT TO PENETRATE THE GLAZING IN THE WINTER MONTHS.
 - ROOF
170MM SOLID REINFORCED CONCRETE ROOF TO PROFESSIONAL ENGINEERS DETAIL
170MM SOLID CONCRETE ROOF - R-VALUE 0.119
OUTDOOR AIR FILM - 0.030
4MM WATERPROOF MEMBRANE - 0.030
MOOR AIR FILM - STILL AIR - 0.389
TOTAL R-VALUE 0.289
 - FLOORS
4.1 100MM SOLID CONCRETE SLAB ON GROUND REINFORCED WITH WELDED BRC WIRE MESH ON 250 MICRON UNDERLAY. SOIL 4.2 FLOORS IN KITCHEN, BATHROOMS AND SCULLERY TO BE IMPERVIOUS. FLOORS TO BE FINISHED WITH WATERPROOFED MATERIAL E.G. CERAMIC TILES ETC.
4.2 FLOOR SLAB TO ENGINEERS DETAIL.
- FLAT ROOF**
- FALL TOWARDS EXTERNAL OUTLETS OF NOT LESS THAN 1:80
 - FLAT ROOF SHOULD BE CONSTRUCTED WITH A FALL OF 1:80 TO ENSURE THAT A FINISHED FALL OF 1:80 IS ACHIEVED FALL INACCURACIES.
 - OUTLETS TO BE FLUSH WITH CONCRETE AND AT LEAST 500MM AWAY FROM UPSHOTS AND PARAPET WALLS.
 - ANY FROM UPSHOTS AND PARAPET WALLS - ACCOUNT THE THERMAL PROPERTIES OF THE CONCRETE WHICH IS DETERMINED BY ITS DENSITY AND ITS BUILT UP WATERPROOFING LAYER.
 - DROPS TO BE PROVIDED BENEATH ALL OVERHANGS.
 - ROOF SHOULD BE PROTECTED FROM OVERHEATING AND PERFORATED BY A COMPETENT PERSON ACCORDING TO THE MANUFACTURERS
- DETAILS OF ROOF OVER SECOND FLOOR**
- LEAN-TO ROOF WITH CLEAR SPAN OF 4710
FULL HAND LERN PROFILE METAL SHEETING FIXED TO 50X75 PURLINS @ 1M CENTRES, 60X225 GABLE & @ 1M CENTRES PITCH 1:11 DEGREES
250 MICRON UNDERLAY OVER PARAPETS
PARAPETS FIXED TO BRICKWORK WITH GALVANISED HOOP IRON.
ROOF ASSEMBLY WITH METAL SHEETING TO OBTAIN A R-VALUE OF NOT LESS THAN 0.2
- R-VALUE OF METAL SHEETS** 0.30
R-VALUE OF CEILING 0.05
R-VALUE OF INSULATION 2.64
TOTAL R-VALUE ACHIEVED 2.99
INSULATION - FLEXIBLE FIBRE GLASS BLANKET MINIMUM THICKNESS TO BE 100MM
- 5. FENESTRATION**
CONDUCTANCE AND SOLAR HEAT GAIN ACCEPTABLE CALCULATIONS PROVIDED IN TABLE
- 6. ENERGY CONSUMPTION & ENERGY DEMAND**
NETT FLOOR AREA GROUND FLOOR 123.245
NETT FLOOR AREA FIRST FLOOR 110.880
TOTAL FLOOR AREA 234.125
TOTAL NETT FLOOR AREA 234.915
- 7. LIGHTS**
- ENERGY DEMAND**
ALLOWED SWH/m² per sw.m.
= 266.000 kWh
= 1275kWh
= 1275kWh
- ENERGY CONSUMPTION**
(hours per year) x (no. of lights)
(1850 hours x 50watts per day) x (29 lights x 11 watts)
= 282,175 kWh
= 282,175 kWh
CONSUMPTION OF 582,175 kWh < 1275 kWh
ACCEPTABLE CONSUMPTION
- 7. HOT WATER SERVICES**
VOLUME OF AVERAGE ANNUAL HOT WATER DWELLING HOUSE 3 BEDROOMS
HOT WATER DEMAND
140 LITRES X 6 PEOPLE = 840 LITRES PER DAY
GEYSER SIZE - 200 LITRE
AN MINIMUM OF 50% VOLUME OF ANNUAL AVERAGE HOT WATER REQUIREMENTS TO BE PROVIDED BY MEANS OF SOLAR HEATING IE. HEAT PUMP - 200 litre
- ALL HOT WATER PIPES FROM GEYSER AND HEAT PUMP TO BE INSULATED WITH CLADDING WITH A R-VALUE OF 1 TO ALL PIPES TO BE CLADDED WITH GLASS-WOOL SWAP ON CLADDING. GEYSER BLANKET
A FLEXIBLE FOIL LINED GLASS WOOL INSULATION BLANKET 100MM THICK TAPED ALL ROUND WITH TOP COVER.**

SCHEDULE OF FLOOR AREAS

SITE AREA	1086.000 SQ.M
EX. DWELLING GROUND FLOOR	151.056
EXISTING OUTBUILDING	1111.168
EXISTING CARPORT	26.154
TOTAL EXISTING FLOOR AREA	300.256
PROPOSED SECOND FLOOR	12.821
PROPOSED WOODEN DECK	38.761
TOTAL FLOOR AREA PROPOSED	340.017
EXISTING COVERAGE: DECK	188.088
PROPOSED COVERAGE: DECK	38.761
TOTAL COVERAGE	226.849

DRAINAGE NOTES

- ANY DAMAGED FITTINGS TO BE REPLACED
- ALL GALLEY SURFACES AND MANHOLE COVERS TO BE F70M
- CONTRACTOR TO DETERMINE DEPTH OF EX SEWER PIPE
- BEFORE COMMENCING DRAINAGE WORK
- LET TO ALL BENDS AND JOINTS
- WASTE PIPES TO BE 50MM PVC
- SEWER UNDER BUILDING TO BE 100MM O UPVC RIBBED PIPE.

LIPTEL COMPLIANCE

REQUIREMENTS	COMPLIANCE
FOR 220MM COLLAR-JOINTED WALL	
MIN. DEPTH ABOVE SOFTT COURSE MM	3500
MAX. SPAN OPENINGS	CONCRETE ROOF TO ENGINEERS DETAIL
MIN. DEPTH ABOVE SOFTT COURSE MM	3000
MAX. SPAN OPENINGS	CONCRETE ROOF TO ENGINEERS DETAIL

**LIPTEL'S TO BE SET IN MORTAR WITH A MIN. BEARING OF 150MM FOR SPAN LESS THAN 1.5M
250MM FOR SPAN BETWEEN 1.5M TO 2.5M**

ALTERATIONS AND ADDITIONS TO DWELLING FOR ISMAIL BHANA TRUST AT 125 PETER MAKOKA ROAD, DURBAN ON ERF 197 SPRINGFIELD

SCALE 1 : 100

OWNER	AUTHOR

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