QUESTION 4: CIVIL DRAWING

Given:

- The incomplete north elevation of a **house**, showing the walls, sliding door, window openings, the roof and notes.
- The incomplete floor plan showing roof line, walls, steps, position of the doors, windows, fixtures and the electrical layout.
- A schematic diagram of the roof truss and roof notes.
- The incomplete foundation and external wall detail.
- Room designations and floor finishes.
- A door and window schedule.
- A table of sanitary fixtures.
- A table of roof components.
- A table of electrical symbols.
- A table of rainwater items.
- The incomplete floor plan of the **house**, drawn to scale 1 : 50, the steps of the kitchen and breakline of the detailed section, drawn to scale 1 : 20 on page 6.

Instructions:

Answer this question on page 6.

4.1 Use the given incomplete floor plan, draw, in first-angle orthographic projection and to **scale 1 : 50**, the following views of the **house**:

4.1.1 **THE COMPLETE FLOOR PLAN**

Add the following features to the drawing:

- ALL doors and windows
- ALL sanitary fixtures as indicated by the abbreviations
- ALL electrical fittings as indicated by the numbers
- ALL hatching detail

4.1.2 **THE COMPLETE NORTH ELEVATION**

Show the following features on the drawing:

- Use the step as starting point.
- The outside walls, steps, porch, slidingdoor and window detail.
- The roof detail, including the barge boards, fascia boards, ridge cover, gutter and rainwater down-pipe.
- The finished floor level.

4.2 In the space provided on page 6, using the steps, as starting point, and the break line, draw, to **scale 1 : 20**, a **DETAILED SECTION** on cutting plane **A-A** of the area in the ellipse shown on the incomplete floor plan.

Show the following features on the drawing:

- The complete foundation and external wall detail
- The door detail and kitchen window
- The sink
- The roof detail, including the fascia board and gutter.
- ALL hatching detail. ONLY the substructure hatching may be drawn in neat freehand.

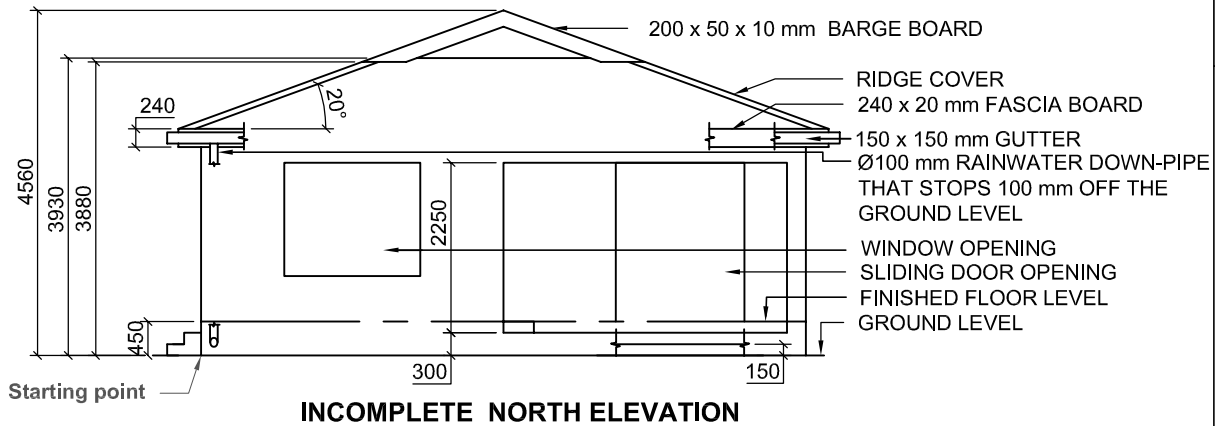
Label the following:

- The north elevation.
- The room designations and floor finishes.
- Ground level, finished floor level and damp proof course (use the correct abbreviations and show it on ALL the relevant views)

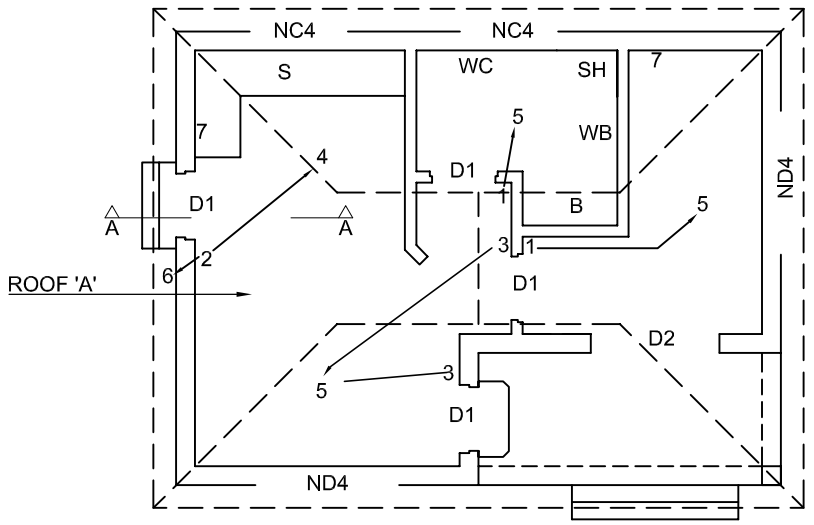
NOTE:

ALL drawings must comply with the **guidelines** and **graphical symbols** as contained in the *SANS 10143*.

[101]



INCOMPLETE NORTH ELEVATION



INCOMPLETE FLOOR PLAN

FEATURES

D1 + D2	DOORS
NC4 + ND4	WINDOWS

FIXTURES

WC	TOILET
WB	WASH BASIN
B	BATH
S	SINK
SH	SHOWER

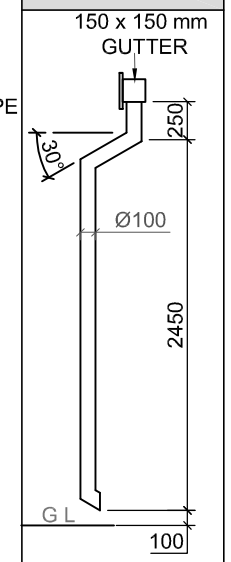
ELECTRICAL FITTINGS

1. ONE-WAY SWITCH - SINGLE-POLE
2. ONE-WAY SWITCH - DOUBLE-POLE
3. TWO-WAY SWITCH
4. FLUORESCENT LIGHT 3 x 40 W
5. CEILING LIGHT
6. WALL-MOUNTED LIGHT
7. SWITCHED SOCKET OUTLET

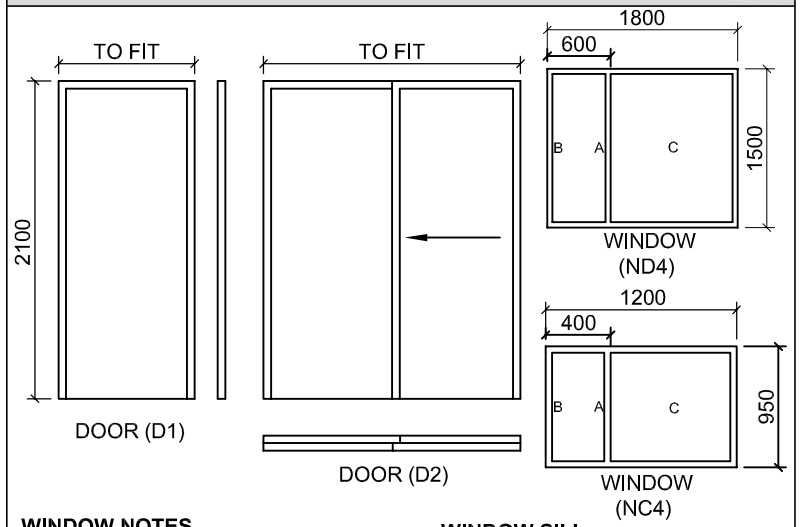
NOTE:

THE ARROWS ON THE FLOOR PLAN SHOW THE LIGHT CONNECTION TO THE SWITCH.

RAINWATER ITEMS



DOOR AND WINDOW SCHEDULE



WINDOW NOTES

A = OPENING SIDE
B = HINGED SIDE
C = FIXED PANE
THICKNESS OF ALL FRAMES: 50 mm

WINDOW SILL:

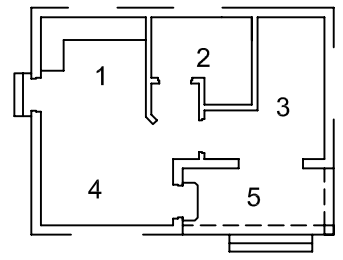
180 x 20 mm FIBRE CEMENT SILL UNDER ALL WINDOWS

ROOF COMPONENTS

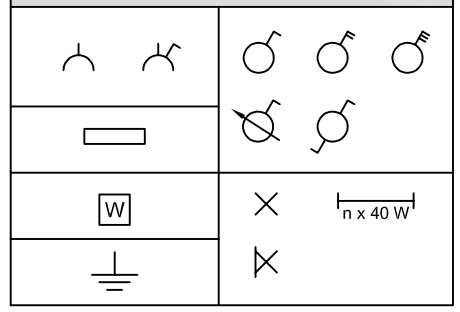
240	240 x 20 mm FASCIA BOARD
300 / 60	450 x 60 x 10mm RIDGE COVER
	75 x 50 mm PURLIN
200 / 50	200 x 50 x 10 mm BARGE BOARD

ROOM DESIGNATIONS AND FLOOR FINISHES

1. KITCHEN:	TILES
2. BATHROOM:	TILES
3. BEDROOM:	CARPET
4. LOUNGE:	TILES
5. PORCH:	GRANO

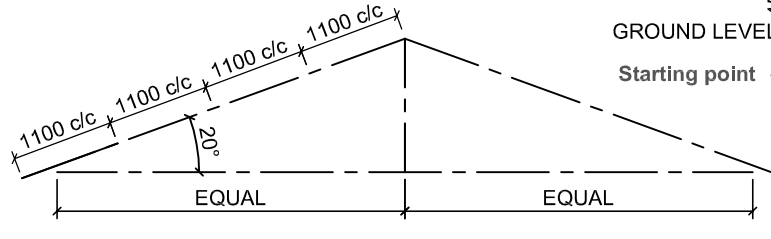


ELECTRICAL SYMBOLS

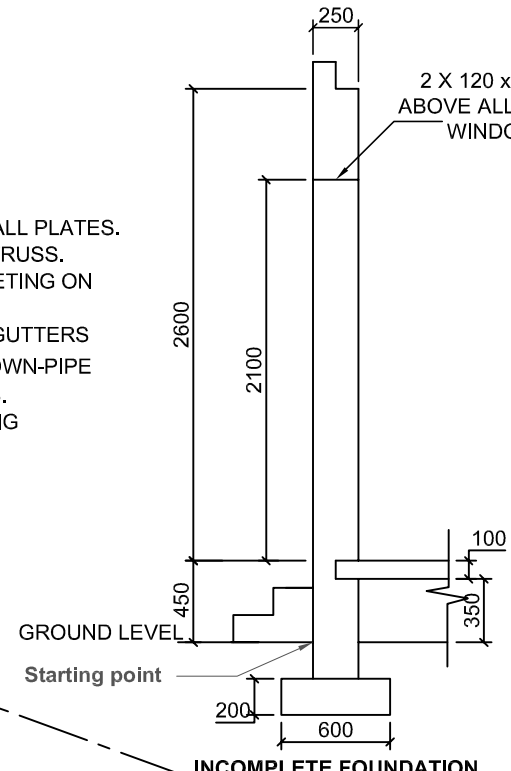


ROOF NOTES:

- 20° ROOF PITCH.
- 114 x 38 mm ROOF TRUSSES ON 114 x 38 mm WALL PLATES.
- 300 mm ROOF OVERHANG TO THE END OF THE TRUSS.
- ROOF COVER: 20 mm FIBRE CEMENT ROOF SHEETING ON 75 x 50 mm PURLINS @ 1100 mm c/c.
- 240 x 20 mm FASCIA BOARD WITH 150 X 150 mm GUTTERS ON ALL SIDES WITH A Ø100 mm RAINWATER DOWN-PIPE
- 200 x 50 x 10 mm BARGE BOARD ON GABLE ENDS.
- 9 mm CEILING BOARD ON 38 x 38 mm BRANDERING @ 600 mm c/c.

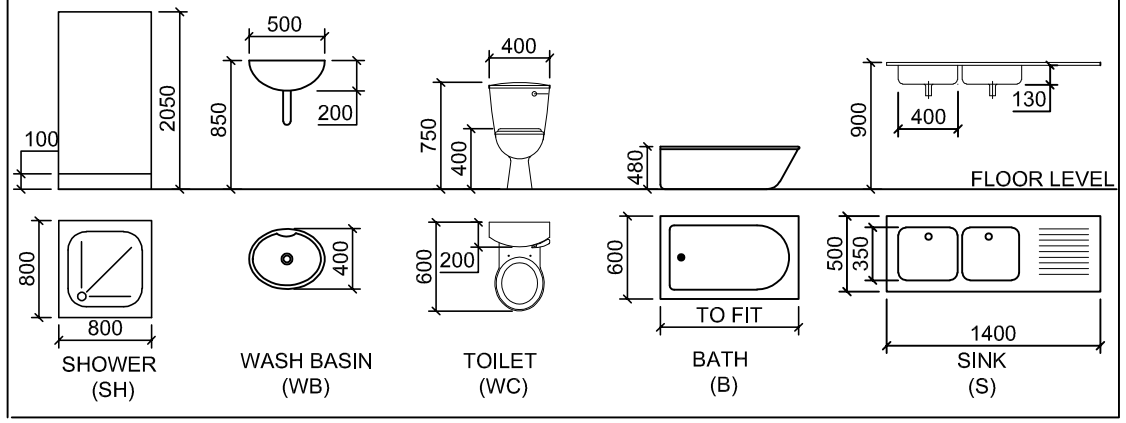


SCHEMATIC DIAGRAM OF A ROOF TRUSS FOR ROOF 'A'



INCOMPLETE FOUNDATION AND EXTERNAL WALL DETAIL

SANITARY FIXTURES



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