

QUESTION 4: CIVIL DRAWING

Given:

- The incomplete south view of a **cottage**, showing the walls, the windows, the door opening, the roof and notes.
- The incomplete floor plan showing the roof line, walls, position of the doors, windows, fixtures and electrical layout.
- A schematic diagram of a roof truss and roof notes
- The incomplete foundation and 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 floor plan of the **cottage**, drawn to scale 1 : 50 and the incomplete foundation 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 to draw, in first-angle orthographic projection and to **scale 1 : 50**, the following views of the **cottage**:

4.1.1 THE COMPLETE FLOOR PLAN

Add the following features to the drawing:

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

4.1.2 THE COMPLETE SOUTH VIEW

Show the following features on the drawing:

- The outside walls, steps and window detail
- The roof detail, including the roof cap, barge boards, fascia boards, gutter and rain- water down pipes
- The finished floor level

4.2 In the space provided on page 6, using the incomplete foundation and 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 detail of the foundation, external wall with window detail, shower wall and relevant sanitary fixtures.
- The roof detail, including the barge board, fascia board, gutter and rainwater down-pipe
- ALL hatching detail. **ONLY** the substructure hatching may be drawn in neat freehand.

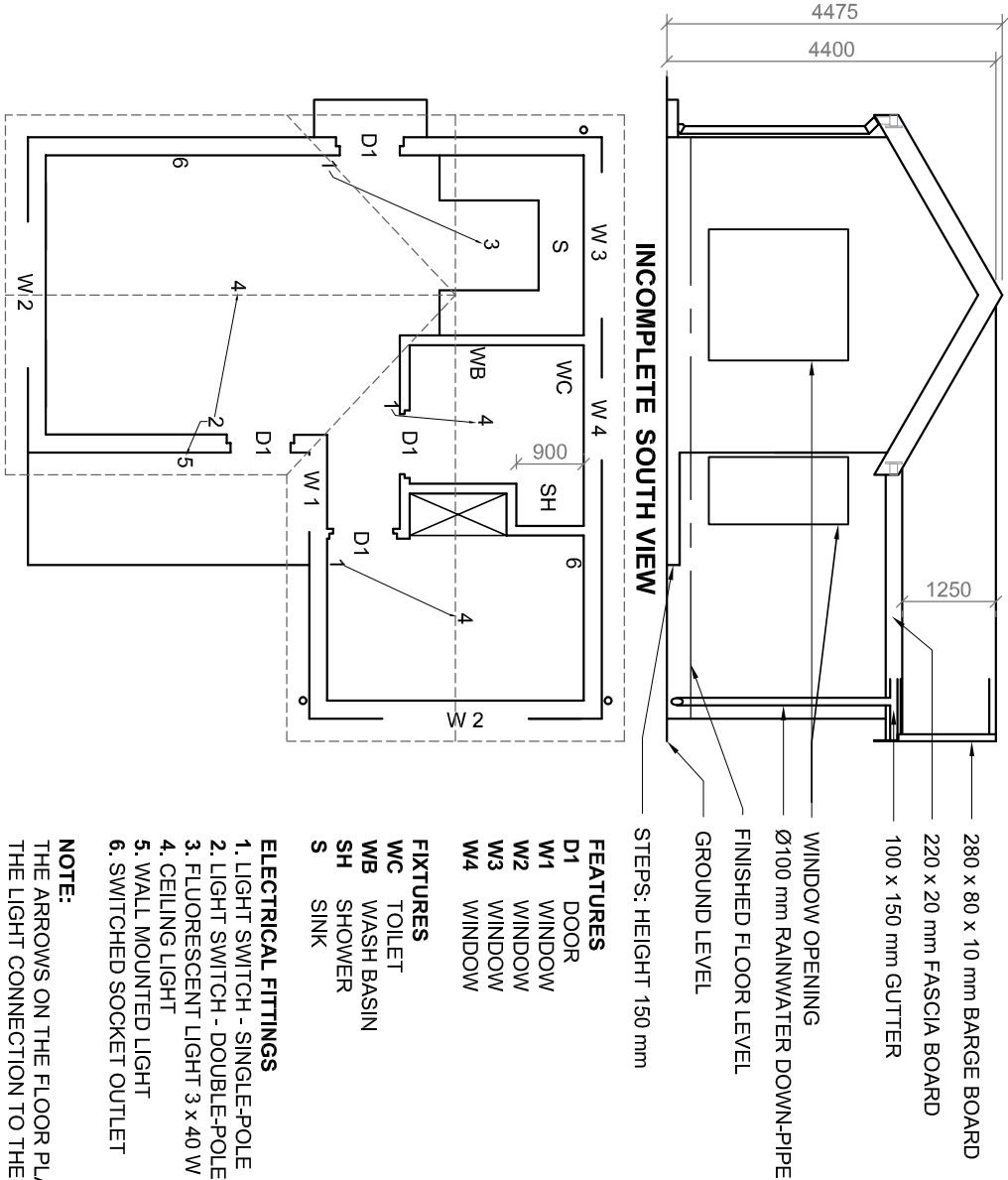
Label the following:

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

NOTE:

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

[100]



INCOMPLETE SOUTH VIEW

INCOMPLETE FLOOR PLAN

- 280 x 80 x 10 mm BARGE BOARD
- 220 x 20 mm FASCIA BOARD
- 100 x 150 mm GUTTER
- WINDOW OPENING
- Ø100 mm RAINWATER DOWN-PIPE
- FINISHED FLOOR LEVEL
- GROUND LEVEL
- STEPS: HEIGHT 150 mm

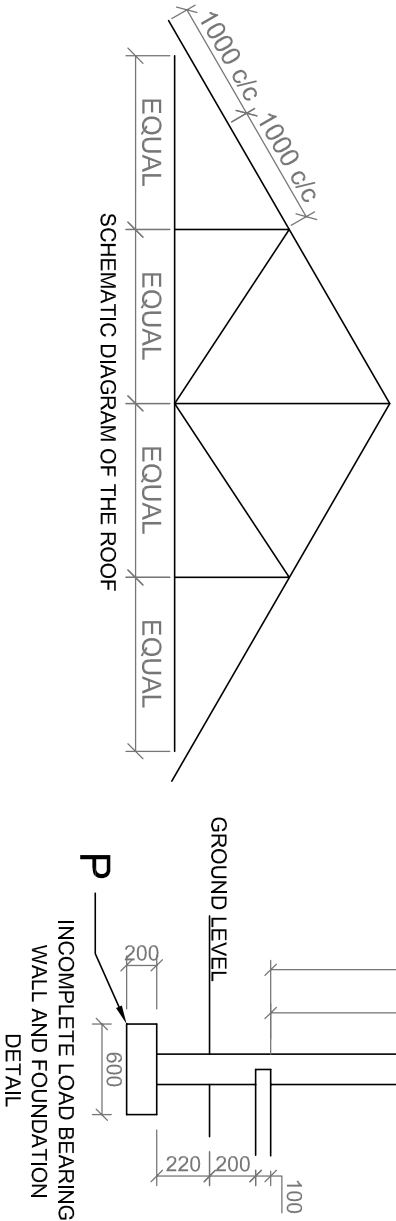
- FEATURES**
- D1 DOOR
 - W1 WINDOW
 - W2 WINDOW
 - W3 WINDOW
 - W4 WINDOW
- FIXTURES**
- WC TOILET
 - WB WASH BASIN
 - SH SHOWER
 - S SINK

- ELECTRICAL FITTINGS**
- 1. LIGHT SWITCH - SINGLE-POLE
 - 2. LIGHT SWITCH - DOUBLE-POLE
 - 3. FLUORESCENT LIGHT 3 x 40 W
 - 4. CEILING LIGHT
 - 5. WALL MOUNTED LIGHT
 - 6. SWITCHED SOCKET OUTLET

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





ROOF NOTES:

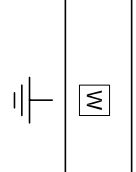
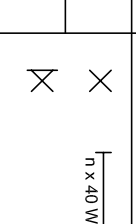

- 30° ROOF PITCH
- 114 x 38 mm ROOF TRUSSES ON 114 x 38 mm WALL PLATES
- ROOF COVER: 20 mm IFR SHEETING ON 75 x 50 mm PURLINS @ 1000 mm c/c
- 280 x 80 x 10 mm BARGE BOARD ON GABLE ENDS AND OVERHANG IS IN LINE WITH THE GUTTERS. TOTAL OVERHANG IS 300 mm (**GUTTERS INCLUDED**)
- 220 x 20 mm FASCIA BOARD ON ALL SIDES
- 150 x 100 mm GUTTERS ON ALL SIDES WITH Ø100 mm RAINWATER DOWN-PIPES
- ROOF CAPS MUST BE MOUNTED ON THE ROOF PITCH.
- 9 mm CEILING BOARD ON 38 x 38 mm BRANDERING @ 400 mm c/c



RAINWATER ITEMS	DOOR AND WINDOW SCHEDULE
	<p>WINDOW NOTES</p> <p>A = OPENING SIDE B = HINGED SIDE C = FIXED PANE THICKNESS OF ALL FRAMES: 50 mm</p> <p>WINDOW SILL:</p> <p>220 x 110 mm (Brick on edge) BRICK SILL UNDER ALL WINDOWS</p>

ROOM DESIGNATIONS
1 BEDROOM: 2 BATHROOM: 3 KITCHEN: 4 LIVING AREA:
CARPET TILE WOOD

ROOF COMPONENTS	
	220 x 20 mm FASCIA BOARD
	ROOF CAP
	75 x 50 mm PURLIN
	280 x 80 x 10 mm BARGE BOARD

ELECTRICAL SYMBOLS	
	
	

SANITARY FIXTURES	
