higher education & training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

MARKING GUIDELINE

NATIONAL CERTIFICATE

BUILDING DRAUGHTING

19 November 2020

This marking guideline consists of 7 pages.

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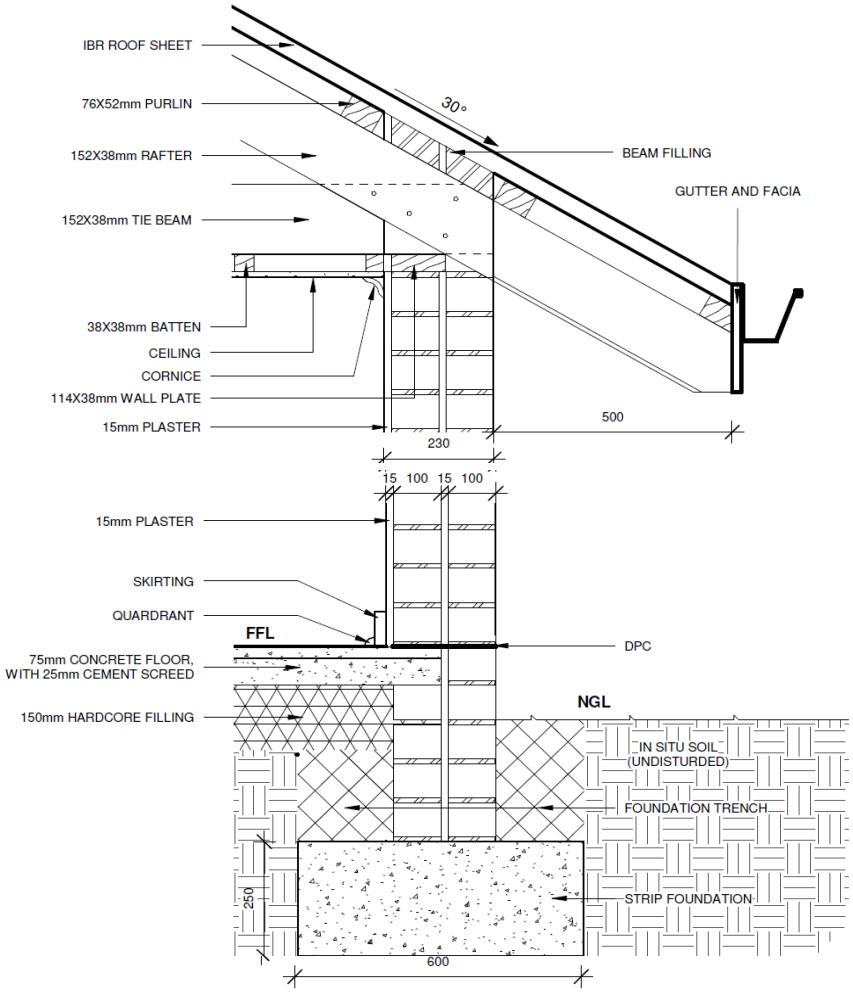
QUESTION 1

1.1

ABBREVIATION	DRAINAGE FITTINGS
G	***GULLY***
SWP	***STACK VENT PIPE***
WSP	***NO ANSWER PROVIDED***
VP	***VENT PIPE***
DP	***DAMP PROOFING***

(5)

1.2

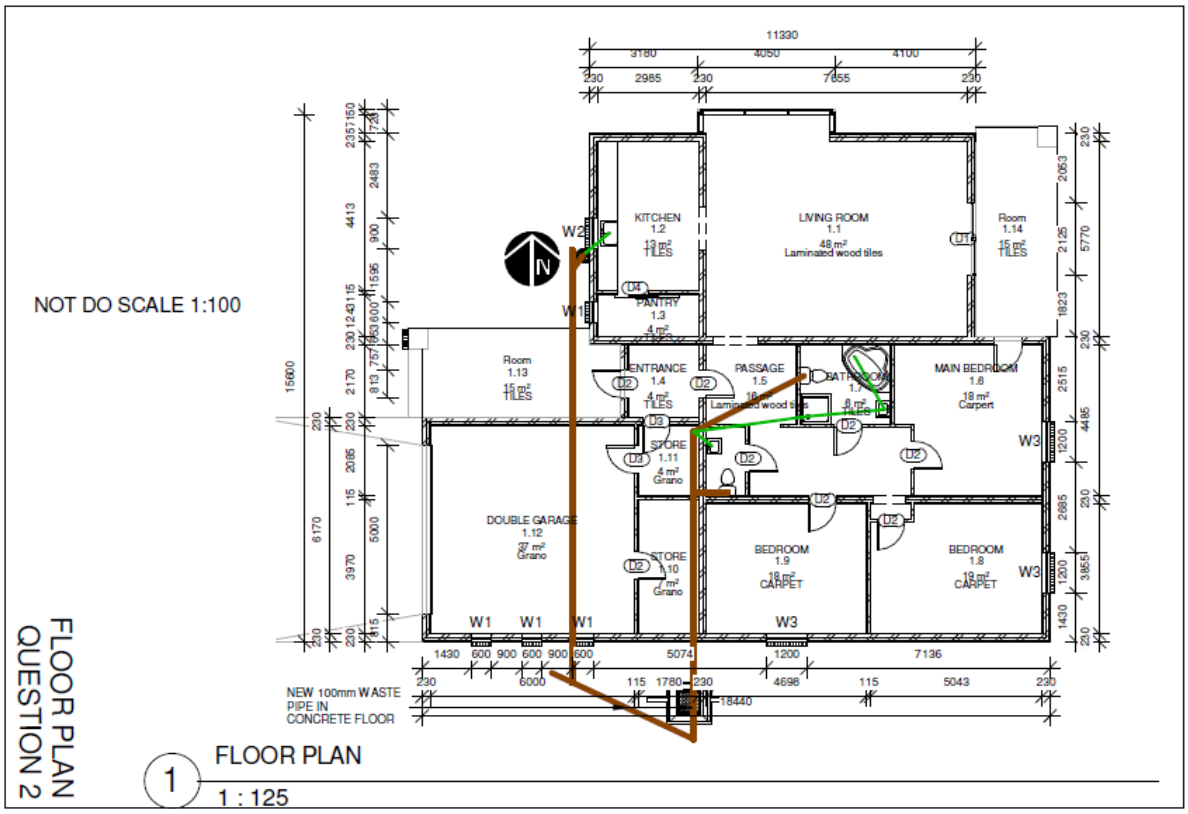


1 TYPICAL DETAIL STRIP FOUNDATION AND EAVE
1 : 10

CONSTRUCTION DRAWING / KONSTRUKSIE TEKENING
QUESTION / VRAAG 1

(10)
[15]

QUESTION 2: FLOOR PLAN LAYOUT



2.1 3 Bedrooms, kitchen/living-room, full bathroom (wc, basin, bath and shower), WC and double garage, with storerooms (INFORMATION SHEET 1 (attached)) (12)

2.2 Room names and floor finishes (2)

2.3 All external, internal and wall dimensions (7)

2.4 Window and door symbols (2)

2.5 Sanitary installation symbols must be in accordance with the SABS Code of Practice for Building Drawing (2)

2.6 Window codes(SEE DIAGRAM 2 (attached)) (1)

2.7 Section arrows (2)

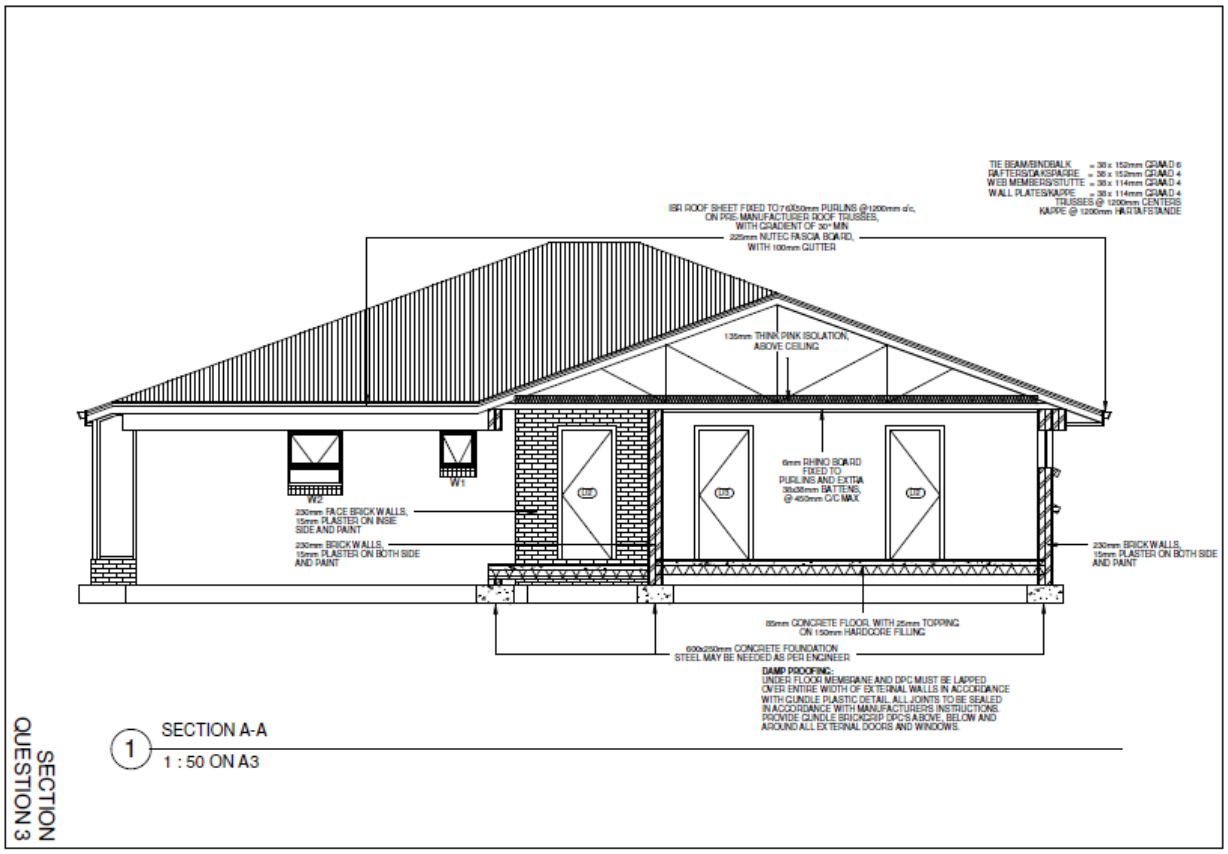
2.8 Title and scale (2)

2.9 True North (2)

[32]

QUESTION 3: SECTION THROUGH DWELLING

Draw, to scale 1:50, a section A-A through the middle of dwelling. Indicate the following specifications:



3.1 The pitch, roof cover, truss and ceiling (INFORMATION DIAGRAM 1 (attached)) (3)

3.2 Gutter on fascia (2)

3.3 Roof covering (eaves projection) = 600mm (2)

3.4 Strip foundation (to include sizes) (2)

3.5 Concrete slab (2)

3.6 Damp-proof course (to include minimum height above FGL) (2)

3.7 Damp-proof membrane (2)

3.8 Compacted fill (2)

3.9 Screed (2)

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3.10 External and internal walls (2)

3.11 Finished ground level and finished floor level (2)

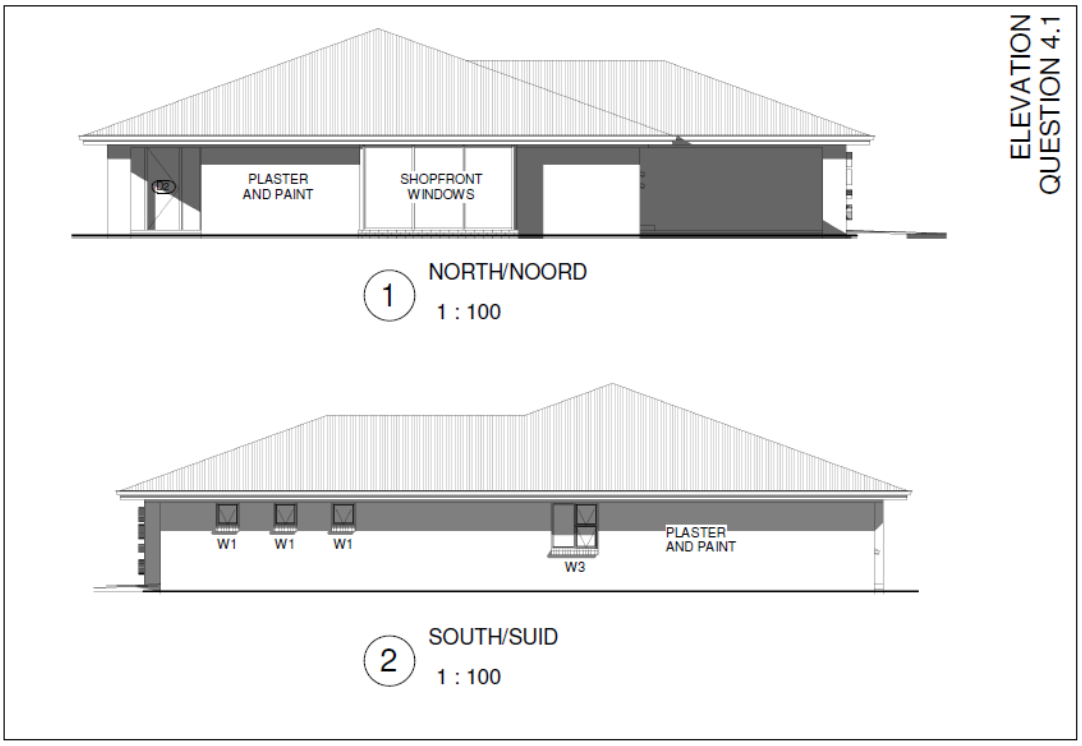
3.12 Dimension the ceiling height, roof overhang, total height and minimum damp-proof course distance from the ground level. (3)

3.13 Title and scale (2)
[28]

QUESTION 4

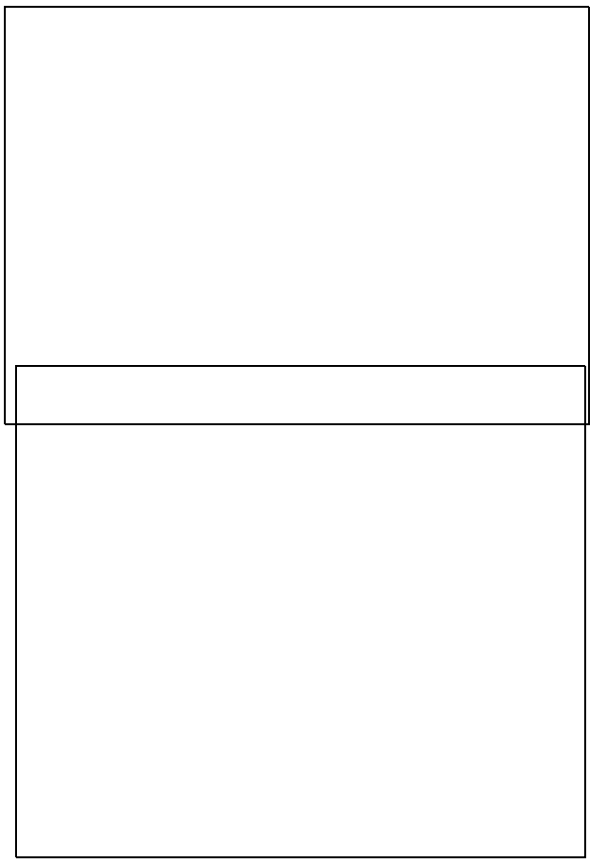
Draw, to scale 1:100, ALL the views (north, east, south and west) from your design of the complete dwelling. Indicate the following on each elevation:

4.1 Wall finish (Face brick, with brick on edge window sill)



(4)

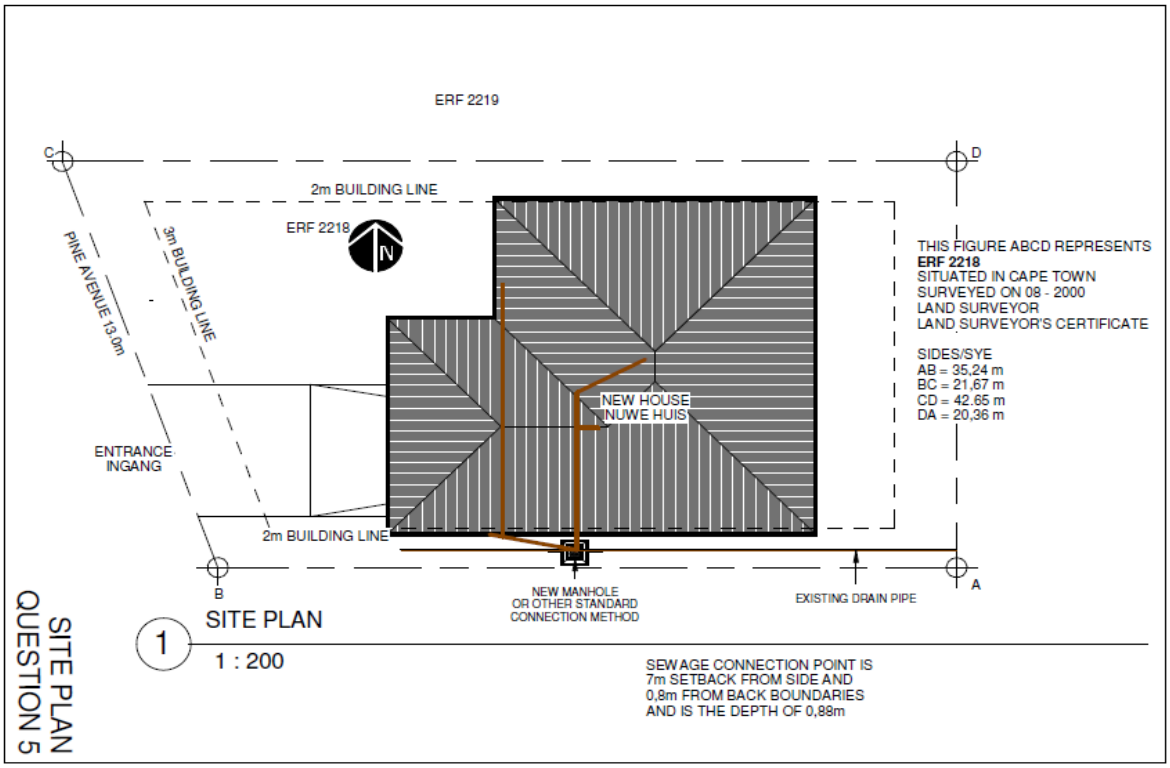
4.2 Window and door codes(SEE DIAGRAM 2 (attached))



(4)

4.3 Title and scale (2)
[10]

QUESTION 5



5.1	The boundary lines and pegs	(2)
5.2	The position of the driveway (carriage-way crossing)	(2)
5.3	The building lines	(2)
5.4	The complete dwelling and double garage in the correct position (show the roof as seem from the top)	(2)
5.5	The drainage system	(2)
5.6	The direction of the true north	(2)
5.7	Title and scale	(2)
5.8	The name of the street	(1)
		[15]

TOTAL: 100

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INFORMATION SHEET 1

Table 4 — Howe-type roof trusses

1	2	3	4	5	6	7	8	9	10	11	12	13	14
Roof covering	**Pitch degrees**			**Maximum clear span m**	**Maximum centre-to-centre truss spacing mm**	**Bolts at heel and splice joints (number × type)[a]**	**Member sizes and grade of timber in accordance with SANS 1783-2[b, c]**						**Number of bays**
							TC[d]		**BC**		**Web**		
	Minimum	**Maximum**	**Recommended**				**Size mm**	**Grade**	**Size mm**	**Grade**	**Size mm**	**Grade**	
Tiles and slates with 38 mm × 38 mm battens spaced at centres that do not exceed 345 mm maximum, and in accordance with the manufacturer's instructions	17,5	35	26	3,0 4,0 5,0 6,0 6,5 7,0 7,5 8,0	760 (650 where slates or tiles have a self-mass in excess of 55 kg/m^2)	2 × M12	114	5	114 114 114 114 114 152 152 152	5	114	5	2 4 4 4 6 6 6 6
Metal or fibre-cement sheets with 50 mm × 76 mm purlins on edge spaced at centres that do not exceed 1 200 mm	15	30	17,5	3,0 4,0 5,0 6,0 6,5 7,0 7,5 8,0	1 200	2 × M12	114	5	114 114 114 114 114 152 152 152	5	114	5	2 4 4 4 6 6 6 6
Metal tiles with 38 mm × 38 mm battens spaced in accordance with the manufacturer's instructions	15	30	20	3,0 4,0 5,0 6,0 6,5 7,0 7,5 8,0	1 000	2 × M12	114	5	114 114 114 114 114 152 152 152	5	114	5	2 4 4 4 6 6 6 6

TC = top chord or rafter
BC = bottom chord or tie beam

[a] Heel joints shall have 2 × M12 bolts per joint with 40 mm washers at each end.
[b] All timber members shall have a thickness of 38 mm (36 mm if planed).
[c] 38 mm × 114 mm grade 7 members may be substituted for 38 mm × 152 mm grade 5 material, if required.
[d] The maximum overhang of a 114 mm TC is 600 mm. The TC needs to be increased to 152 mm if the overhang is greater than 600 mm but less than or equal to 900 mm.

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