



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

**NATIONAL
SENIOR CERTIFICATE**

GRADE 12

ENGINEERING GRAPHICS AND DESIGN P1

NOVEMBER 2025

MARKING GUIDELINES

MARKS: 100

These marking guidelines consist of 7 pages.

ANSWERS		
1	1 : 400	1
2	02/07/2025	1
3	58	1
4	STRAND	1
5	8/ EIGHT	1
6	6000	1
7	<u>DIRECTION OF GATE</u> OPENING	1
8	1 : 40	1
9	1/ ONE	1
10	MANHOLE	1
11	DRIVEWAY	1
12	<u>ELECTRIC FENCE</u>	1
13	CONC	1
14	BLUE	1
15	DRAINAGE PLANS	1
16	3/ THREE	2
17	26500 ✓ ANSWER IN MILLIMETRES ✓	2
18	See below	3
19		3
20		5
TOTAL		30

ANSWER 18
Show ALL calculations.

APPLYING CORRECT FORMULA ✓

LENGTH OF FENCE
 = (AB + BC + DE + EA) - GATE
 = (46,07 + 38,84 + 30 + 64,78) - 6
 = 173,69 ✓ ANSWER IN METRES ✓

ANSWER 19
Show ALL calculations.

APPLYING CORRECT FORMULA ✓

5,5 x 8 = 44
 3,5 x 5 = 17,5
 8 x 12 = 96
 7 x 5 = 35 ✓
 = 192,5 m² ✓ ANSWER IN SQUARE METRES, WITH m² INCL.

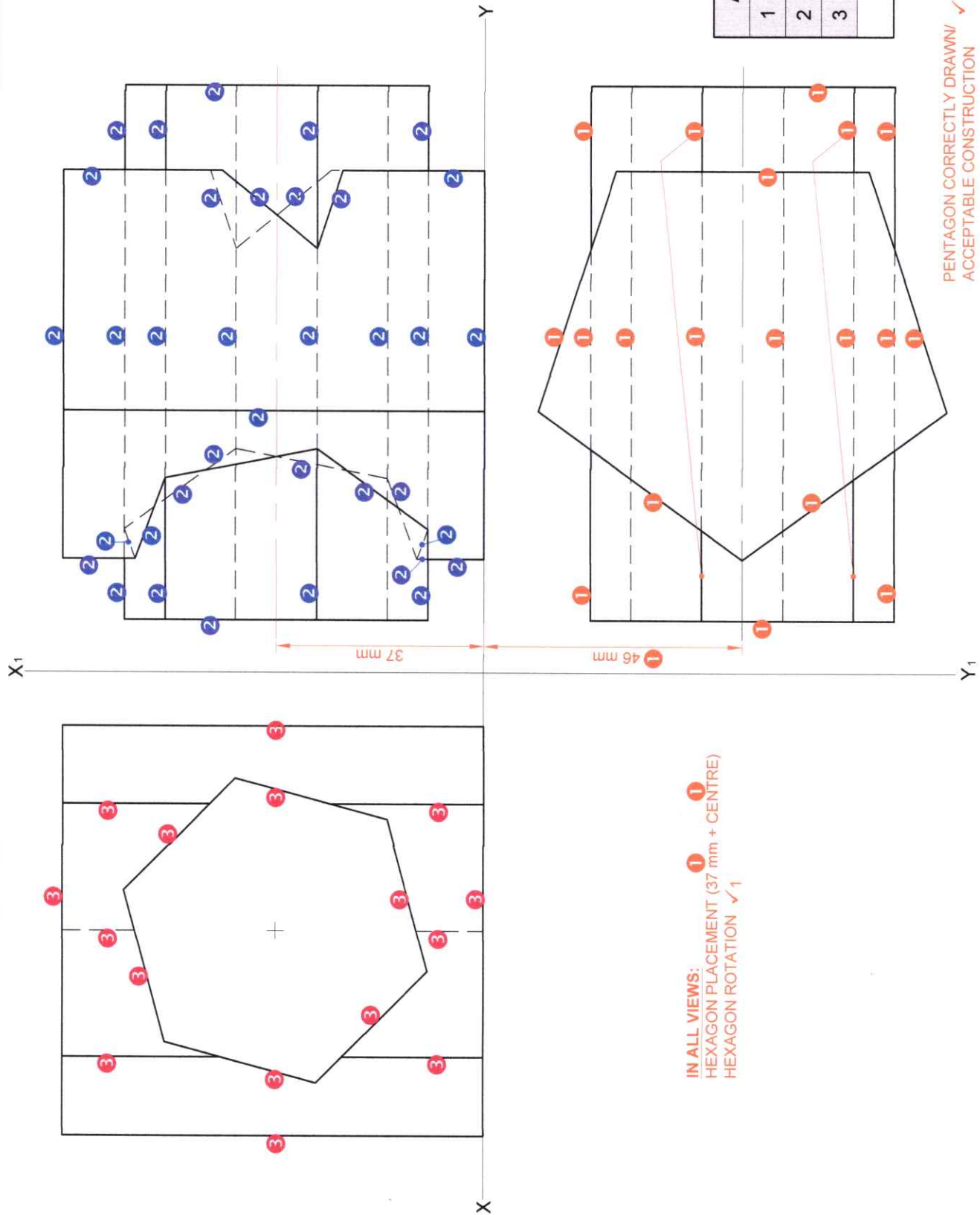
ANSWER 20

(a) RAMP

RECTANGLE 0.5
 ARROW + DOT + DIRECTION 0.5 + 0.5 + 0.5
 GRADIENT 0.5
 FREEHAND 0.5

(b) DOUBLE SINK

TOP LINE/ RECTANGLE 0.5
 BOTTOM RECTANGLE(S) 0.5
 TWO BOWLS 1

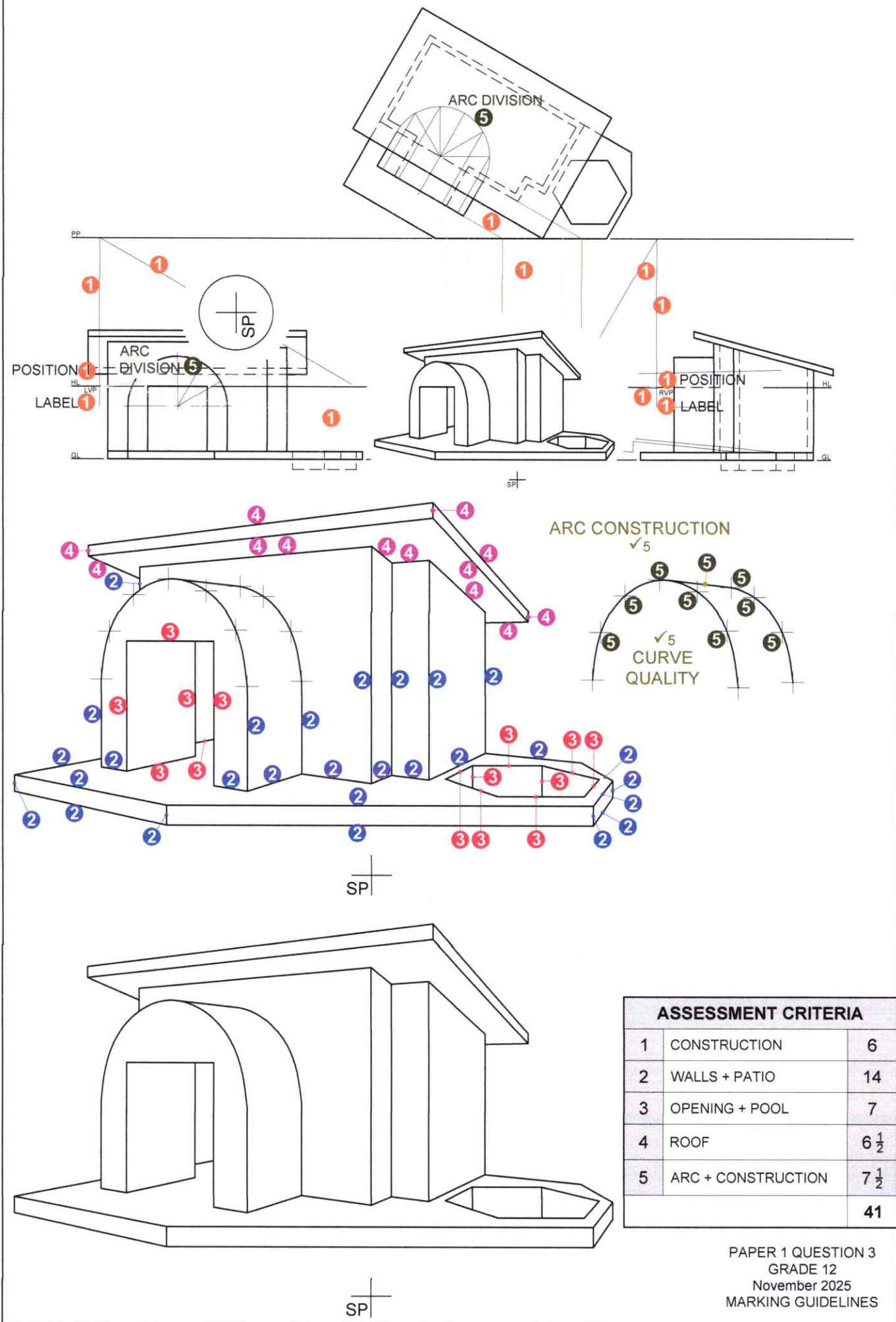


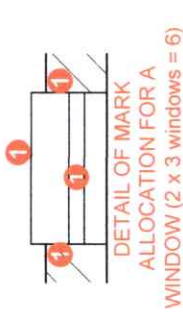
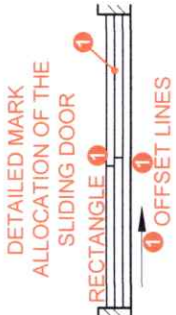
ASSESSMENT CRITERIA	
1	TOP VIEW
2	FRONT VIEW
3	RIGHT VIEW
TOTAL	

PAPER 1 QUESTION 2
 GRADE 12
 November 2025
 MARKING GUIDELINES

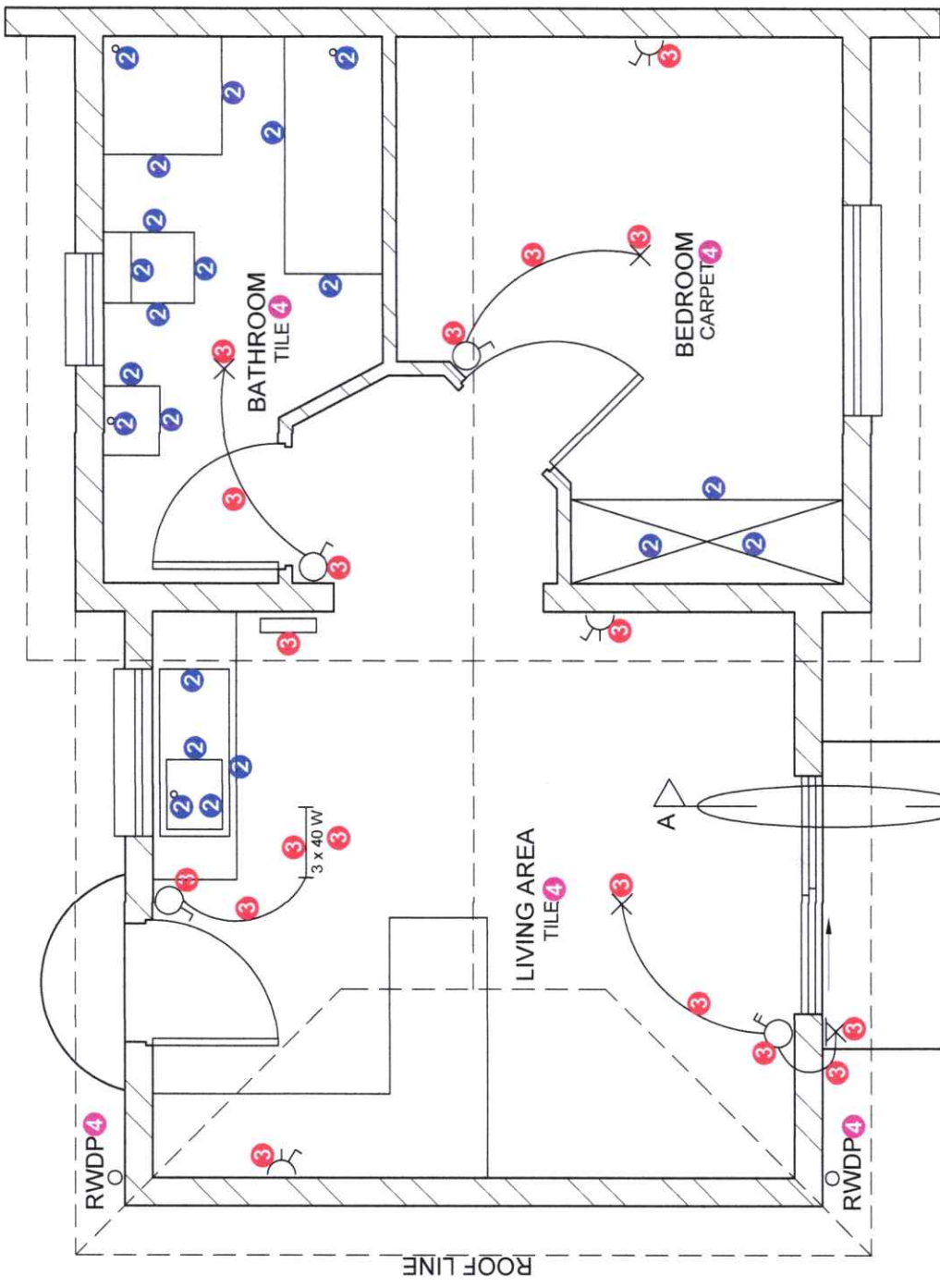
IN ALL VIEWS:
 HEXAGON PLACEMENT (37 mm + CENTRE)
 HEXAGON ROTATION ✓1

PENTAGON CORRECTLY DRAWN/ ✓1
 ACCEPTABLE CONSTRUCTION ✓1



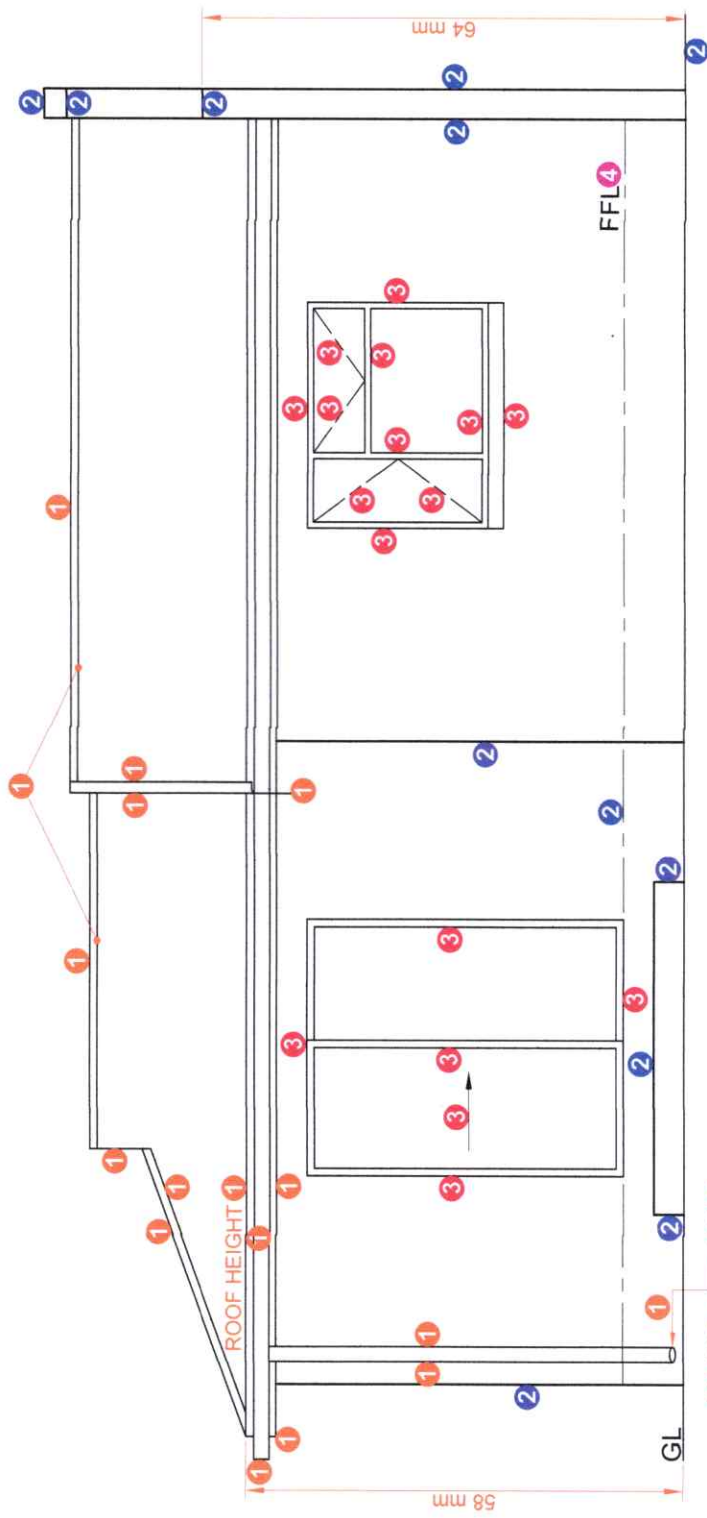


5. HATCHING ALLOCATION
 SANS COMPLIANT (TYPE) 1
 HATCHING CORRECTLY APPLIED 2
 TOTAL 3



FLOOR PLAN
 SCALE 1 : 50

FLOOR PLAN	
1	DOORS + WINDOWS 11
2	FIXTURES 10 1/2
3	ELECTRICAL 9 1/2
4	LABELS 2 1/2
5	HATCHING 3
SUBTOTAL 36 1/2	



SOUTH-EAST ELEVATION 4

SOUTH-EAST ELEVATION	
1	ROOF + RWDP 8 1/2
2	WALLS + STEPS 6
3	DOOR + WINDOW 8 1/2
4	LABELS 1
SUBTOTAL 24	

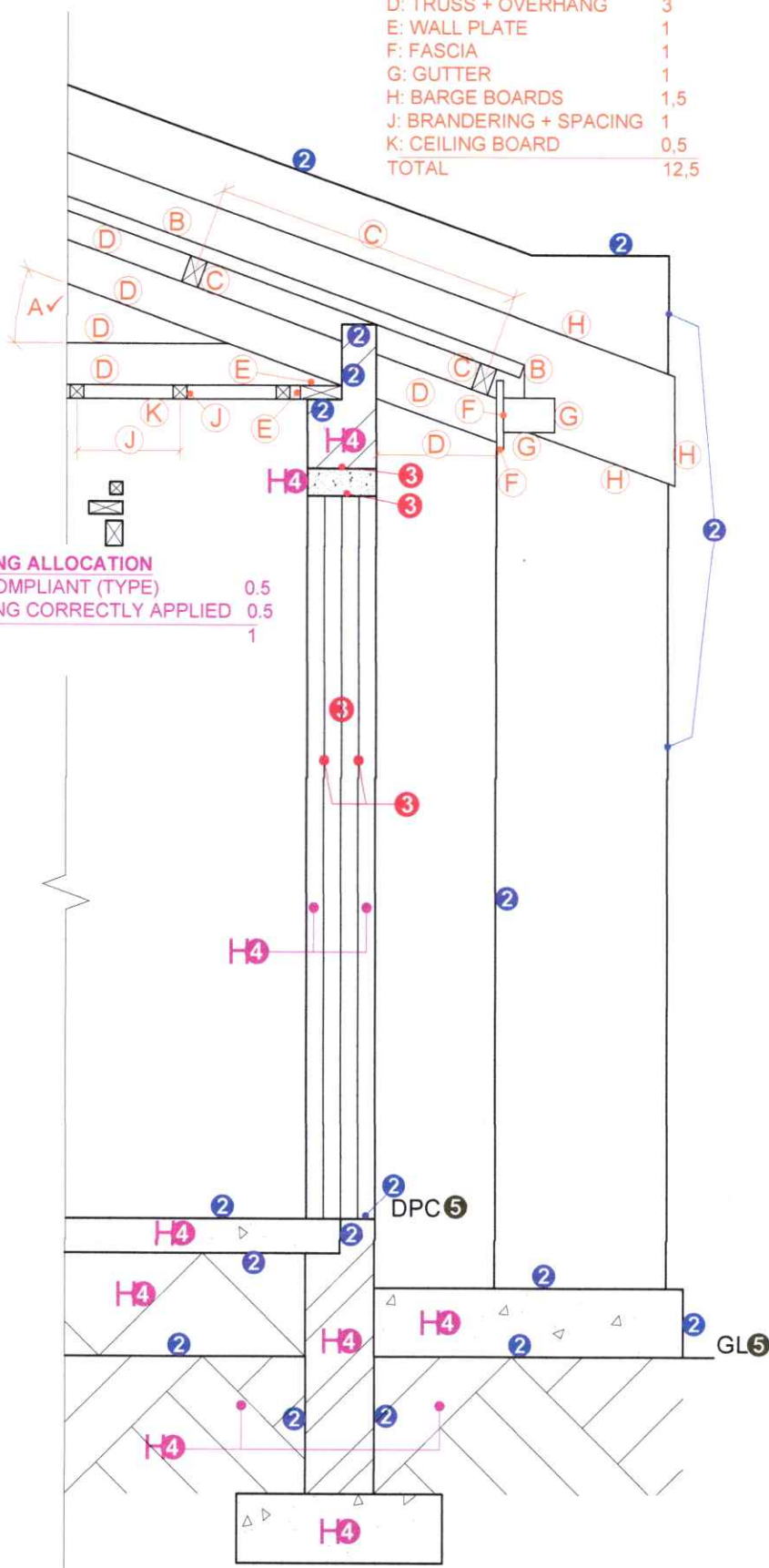
PAPER 1 QUESTION 4
 GRADE 12
 November 2025
 MARKING GUIDELINES

1. MARK ALLOCATION FOR ROOF

A: ROOF ANGLE	1
B: ROOF SHEET	1
C: PURLIN + SPACING	1,5
D: TRUSS + OVERHANG	3
E: WALL PLATE	1
F: FASCIA	1
G: GUTTER	1
H: BARGE BOARDS	1,5
J: BRANDERING + SPACING	1
K: CEILING BOARD	0,5
TOTAL	12,5

HATCHING ALLOCATION

SANS COMPLIANT (TYPE)	0,5
HATCHING CORRECTLY APPLIED	0,5
TOTAL	1



SECTION A-A
SCALE 1 : 20

DETAILED SECTION		
1	ROOF DETAIL	12 1/2
2	SLAB + WALLS + STEP	8 1/2
3	DOOR + LINTEL	2
4	HATCHING	5 1/2
5	LABELS	1
SUBTOTAL		29 1/2

PAPER 1 QUESTION 4
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