



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

**NATIONAL
SENIOR CERTIFICATE**

GRADE 12

ENGINEERING GRAPHICS AND DESIGN P1

NOVEMBER 2023

MARKING GUIDELINES

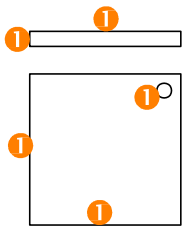

MARKS: 100

These marking guidelines consist of 8 pages.

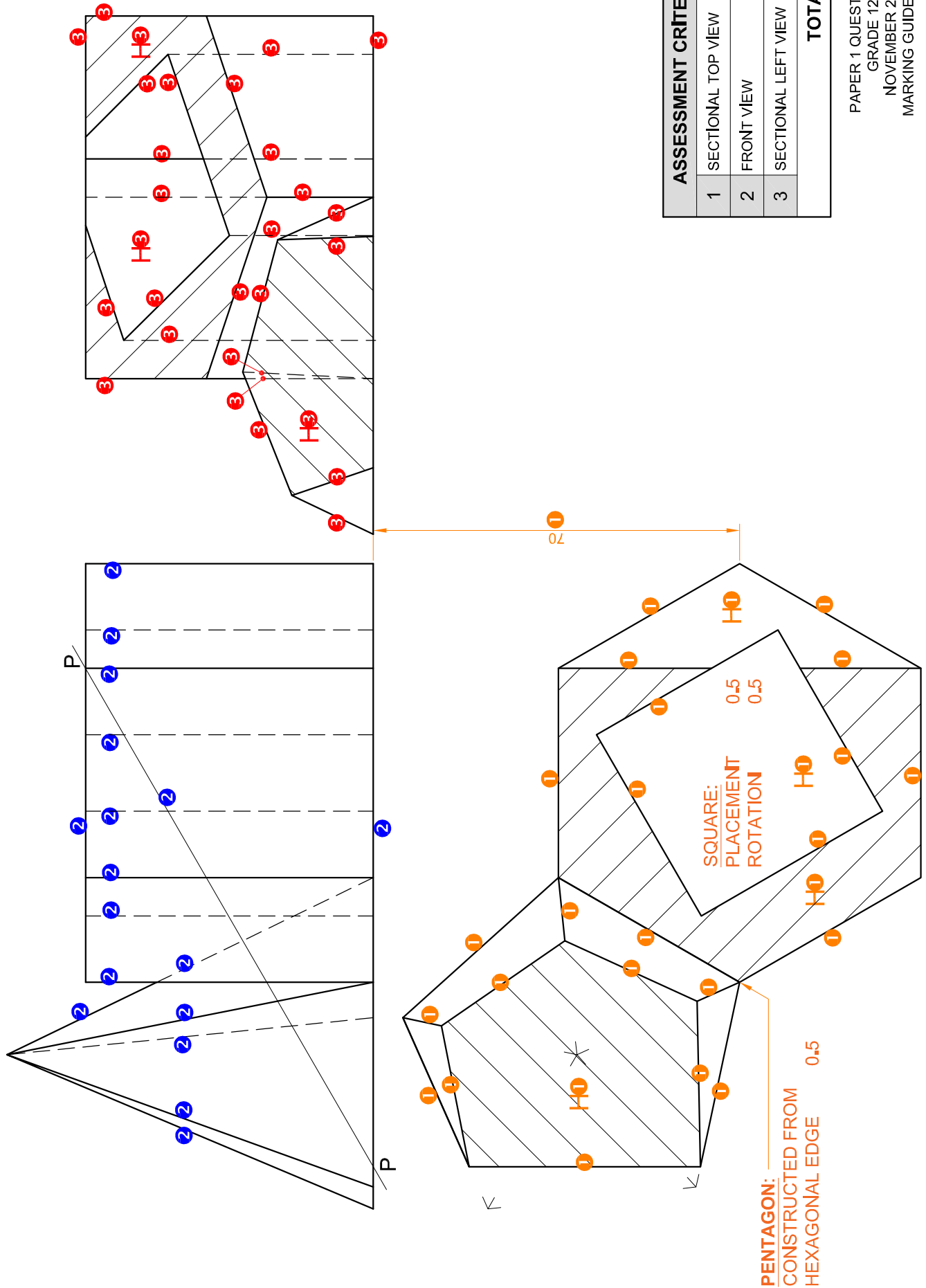
ANSWERS		
1	acearc@africa.com / ACEARC@AFRICA.COM	1
2	1 : 450	1
3	30/01/2023	1
4	QUALITY STREET	1
5	351	1
6	<u>BRICK PAVING</u>	1
7	3	1
8	<u>SPEED HUMP</u>	1
9	1 : 40	1
10	2500	1
11	GULLY	1
12	EVERGREEN <u>TREE</u> (TREE = $\frac{1}{2}$)	1
13	ADJACENT BUILDING / CIVIL STRUCTURE	1
14	<u>EXISTING SEWER LINE</u>	1
15	0,15	1
16	RED	1
17	SOUTH EAST / EAST-SOUTH-EAST / SE	2
18	1800	2
19		3
20	See below	3
21		4
TOTAL		30

ANSWER 19
 Show ALL calculations.
 APPLYING CORRECT FORMULA ✓
 $P = AB + BC + CD + DE + EA$
 $= 40 + 48 + 23,34 + 7,5 + 44,56$
 $= 163,4$ ✓ ANSWER IN METRES ✓

ANSWER 20
 Show ALL calculations.
 APPLYING CORRECT FORMULA ✓
 $A = (10 \times 9,2) + (7,4 \times 4) + (6,2 \times 3,2)$
 $= 92 + 29,6 + 19,84$
 $= 141,44$ ✓ ANSWER IN SQUARE METRES ✓

ANSWER 21
 (a) NOT FAO P = - $\frac{1}{2}$

 (b)


1 FREEHAND



ASSESSMENT CRITERIA		
1	SECTIONAL TOP VIEW	15 ½
2	FRONT VIEW	8 ½
3	SECTIONAL LEFT VIEW	14
TOTAL		38

PAPER 1 QUESTION 2
 GRADE 12
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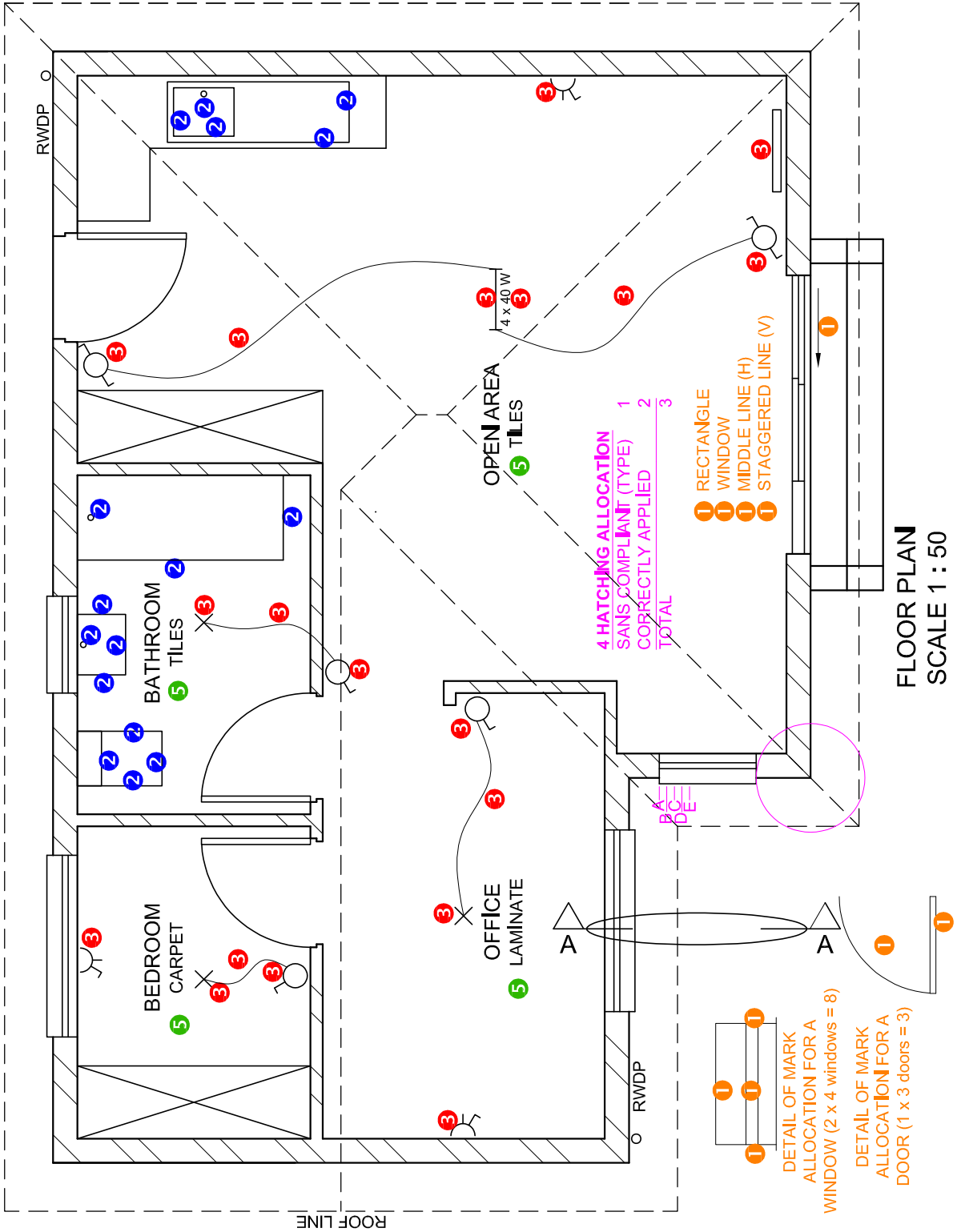
ASSESSMENT CRITERIA

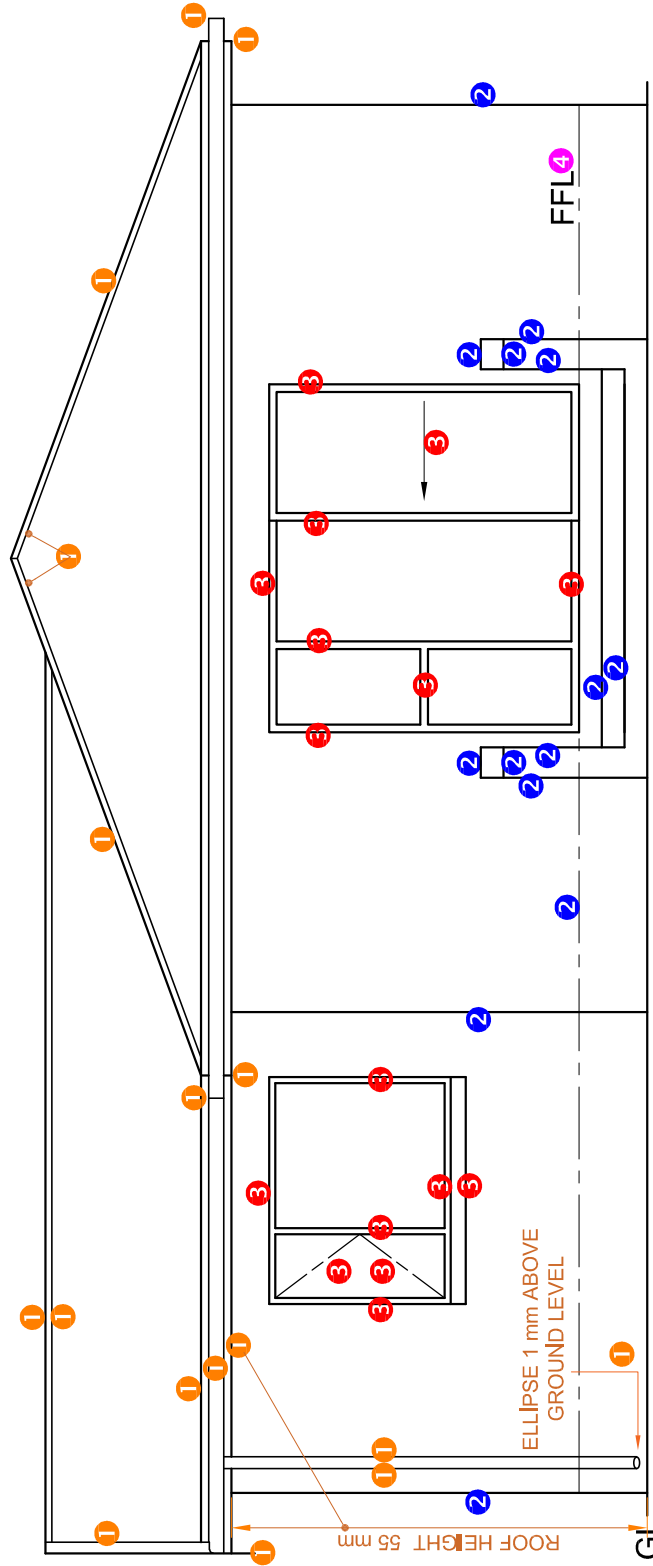
1	CONSTRUCTION	6
2	FLOOR	11
3	WALLS	8 $\frac{1}{2}$
4	ROOF	4 $\frac{1}{2}$
5	WINDOWS + ARC	10
TOTAL		40

PAPER 1 QUESTION 3
 GRADE 12
 NOVEMBER 2023
 MARKING GUIDELINES

ASSESSMENT CRITERIA	
FLOOR PLAN	
1	DOORS + WINDOWS 13 1/2
2	FIXTURES 8
3	ELECTRICAL 9 1/2
4	HATCHING 3
5	LABELS 2
SUBTOTAL	36

PAPER 1 QUESTION 4
 GRADE 12
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 MARKING GUIDELINES

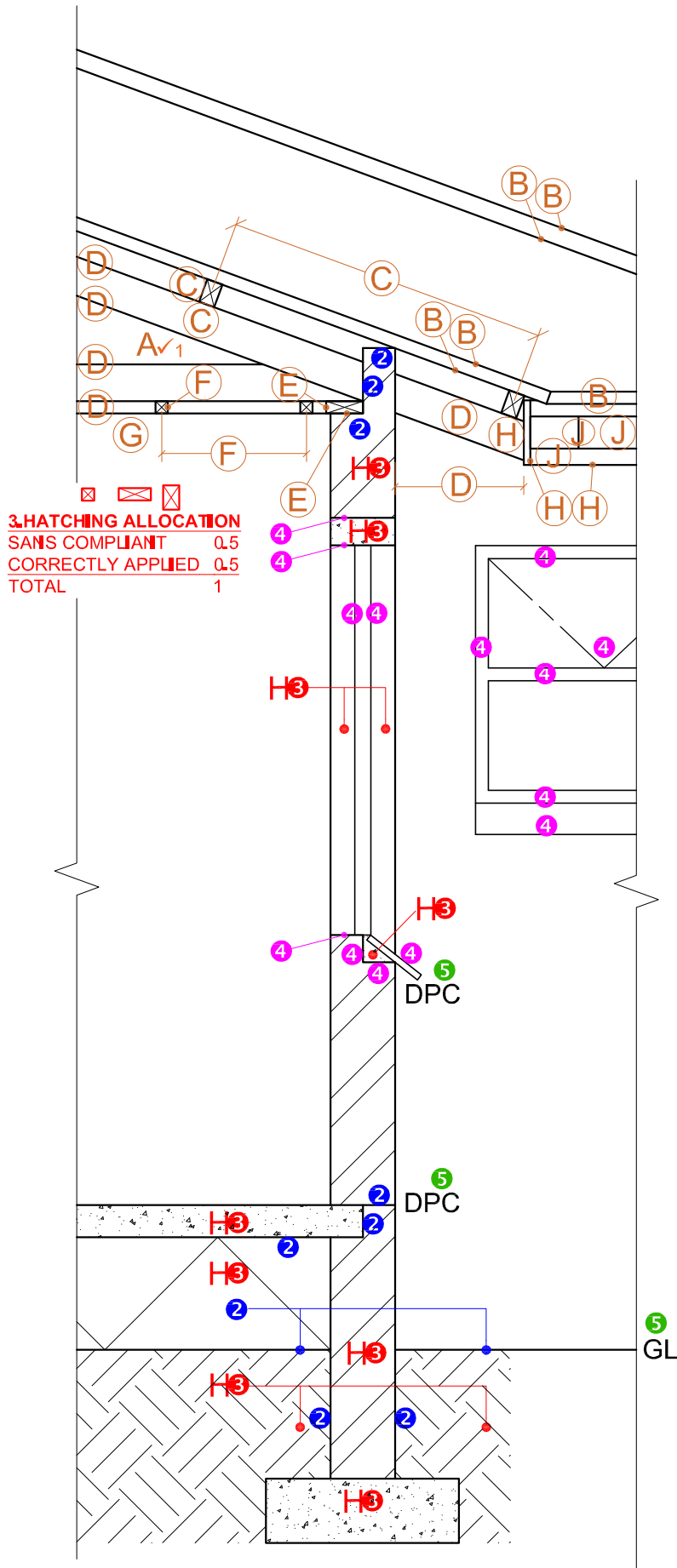




NORTH EAST ELEVATION

ASSESSMENT CRITERIA	
1	ROOF + RWDP 8 1/2
2	WALLS + STEPS 7
3	DOOR + WINDOW 8
4	LABELS 1 1/2
SUBTOTAL 24	

PAPER 1 QUESTION 4
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3. HATCHING ALLOCATION
 SANS COMPLIANT 0.5
 CORRECTLY APPLIED 0.5
 TOTAL 1

1. MARK ALLOCATION FOR ROOF

A: ROOF ANGLE	1
B: ROOF SHEET + R. CAP	2.5
C: PURLIN + SPACING	1.5
D: TRUSS + OVERHANG	3
E: WALL PLATE	1
F: BRANDING + SPACING	1
G: CEILING BOARD	0.5
H: FACIA	1.5
J: GUTTER	1.5
TOTAL	13.5

ASSESSMENT CRITERIA		
DETAILED SECTION		
1	ROOF DETAIL	13 1/2
2	SLAB + WALL	4 1/2
3	HATCHING	5 1/2
4	WINDOWS	7
5	LABELS	1 1/2
SUBTOTAL		32

SECTION A-A
SCALE 1 : 20

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