



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

NATIONAL SENIOR CERTIFICATE

ENGINEERING GRAPHICS AND DESIGN P1

NOVEMBER 2018

MARKING GUIDELINES

MARKS: 100

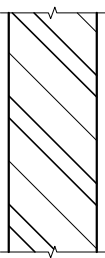
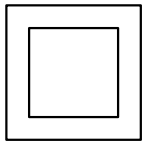
These marking guidelines consist of 7 pages.



AB
21/11/18
WJ

ANSWERS		
1	SITE PLAN	1
2	2018 - 04 - 05	1
3	1 : 500	1
4	FEROX STREET	1
5	3	1
6	8	1
7	RODDING EYE	1
8	2200	1
9	GATE SWING	1
10	ELECTRICAL METER/WATT METER	1
11	3	1
12	PALISADE	1
13	WALL/STRUCTURE/BUILDING	1
14	3290	2
15	MUST BE REMOVED	1
16	DIRECTION OF FLOW	1
17	1 : 40	1
18	GREEN	1
19	<i>See the title panel</i>	4
20	226,18 m (calculation 2, answer 1, converted to metre 1)	4
21	315.045 m ² (calculation 1, answer 1, metre ² 1)	3
TOTAL		30

ANSWER 19

<p>a)</p>  <p>FACE BRICK hatching MARK ALLOCATION - DOUBLE-SINGLE-DOUBLE 1 - FREEHAND $\frac{1}{2}$ TOTAL $1\frac{1}{2}$</p>	<p>b)</p>  <p>FREEHAND $\frac{1}{2}$</p> <p>GULLY MARK ALLOCATION 2 SQUARES or RECTANGLES TOTAL 2</p>
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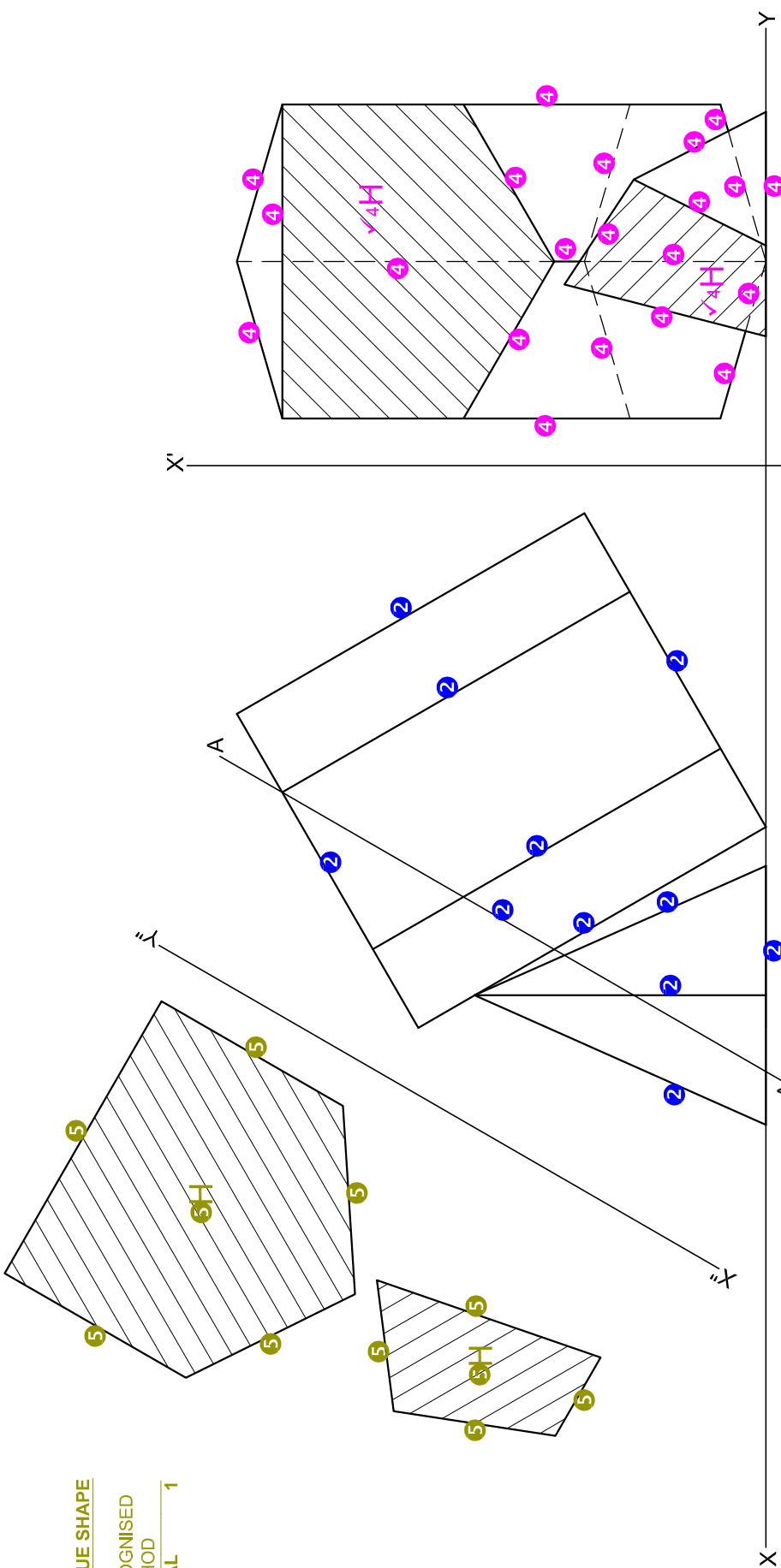
ANSWER 20

$$\begin{aligned}
 \text{Perimeter} &= (22,5 + 9,85 + 26,69 + 65,05 + 49,19 + 74,9) - (12 + 10) \\
 &= 248,18 \text{ m} - 22 \text{ m} \\
 &= 226,18 \text{ m}
 \end{aligned}$$

ANSWER 21

$$\begin{aligned}
 \text{Area} &= (7200 \times 24100) + (11100 \times 7200) + \frac{1}{2}(11100 \times 11100) \\
 &= 173,52 + 79,92 + 61,605 \\
 &= 315,045 \text{ m}^2
 \end{aligned}$$

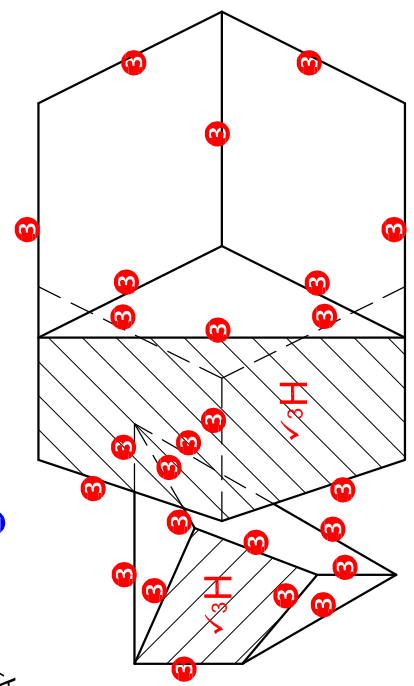
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5. TRUE SHAPE
 ANY RECOGNISED METHOD
 TOTAL 1

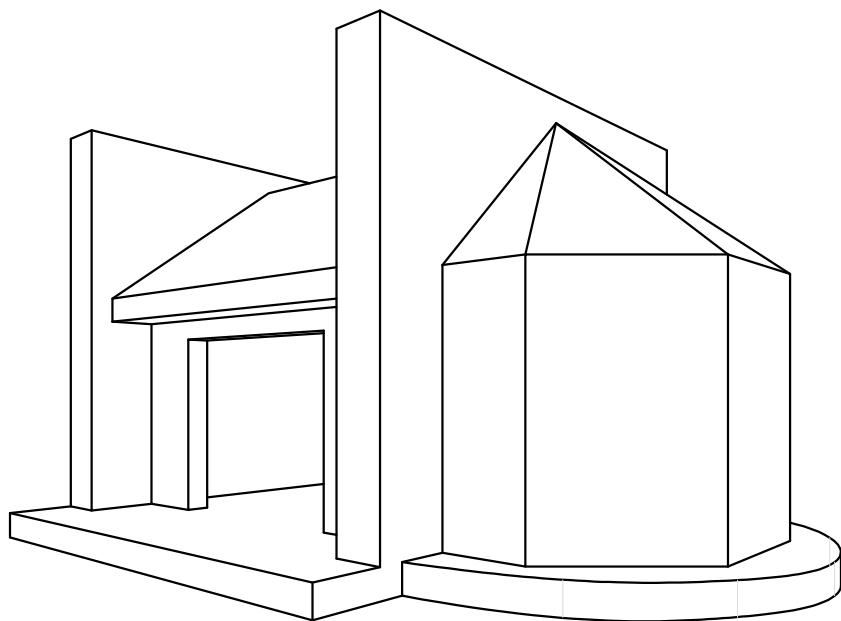
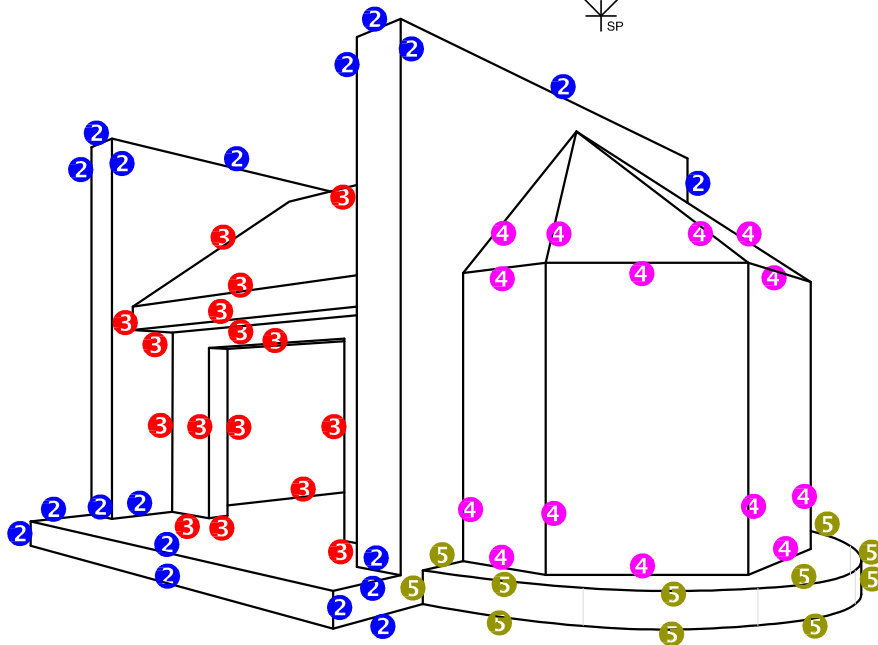
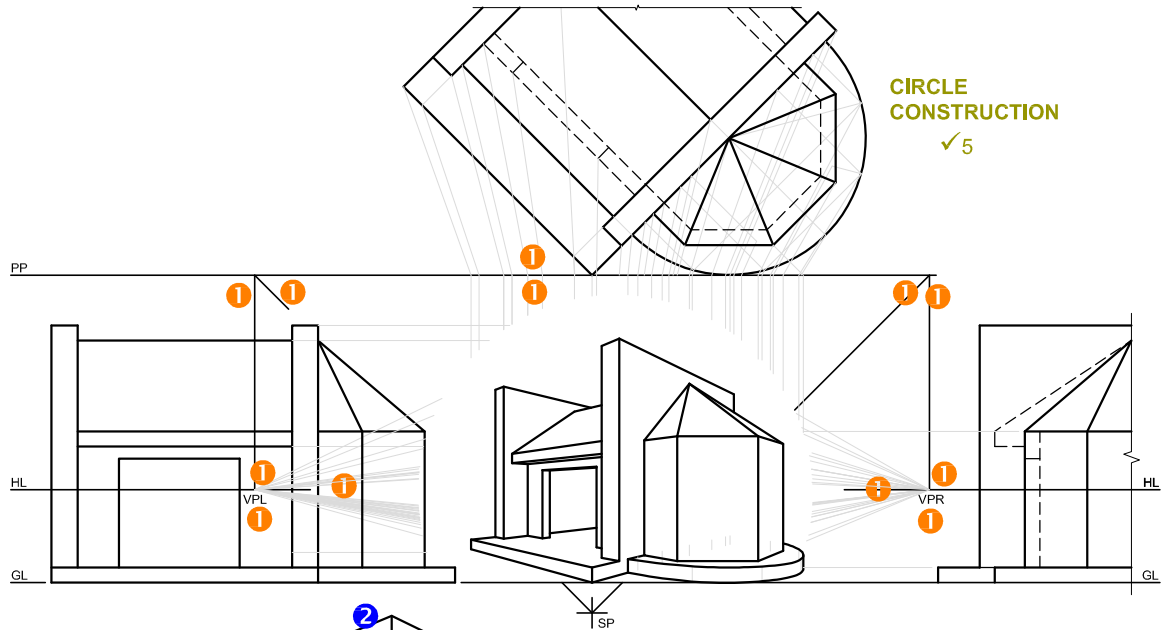
1. CONSTRUCTION
 - TRIANGLE 1/2
 - HEXAGON 1/2
 TOTAL 1

ASSESSMENT CRITERIA		
1	CONSTRUCTION	1
2	FRONT VIEW	5 1/2
3	SECTIONAL TOP VIEW	14 1/2
4	SECTIONAL LEFT VIEW	12 1/2
5	TRUE SHAPE	6 1/2
TOTAL		40



PAPER 1 QUESTION 2
 GRADE 12
 NOVEMBER 2018
 MARKING GUIDELINE

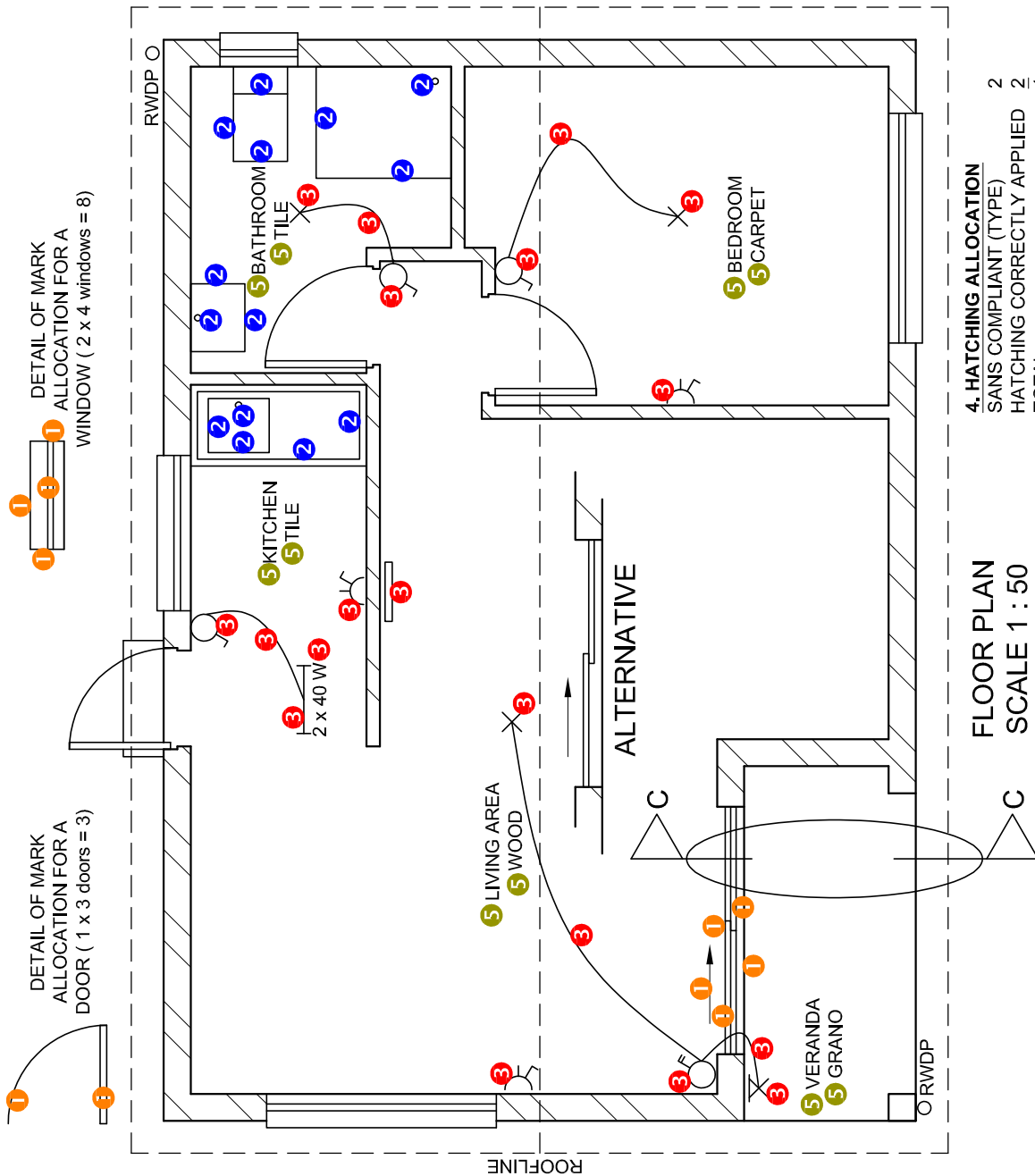
Handwritten signatures and initials



ASSESSMENT CRITERIA		
1	CONSTRUCTION	6
2	OUTER STRUCTURE	9 1/2
3	INNER STRUCTURE	8
4	SIDE STRUCTURE	7
5	ARCS	6 1/2
PENALTIES (-)		
TOTAL		37

PAPER 1 QUESTION 3
 GRADE 12
 NOVEMBER 2018
 MARKING GUIDELINE

Handwritten signatures and initials:
 AB
 23/11/20
 Lily



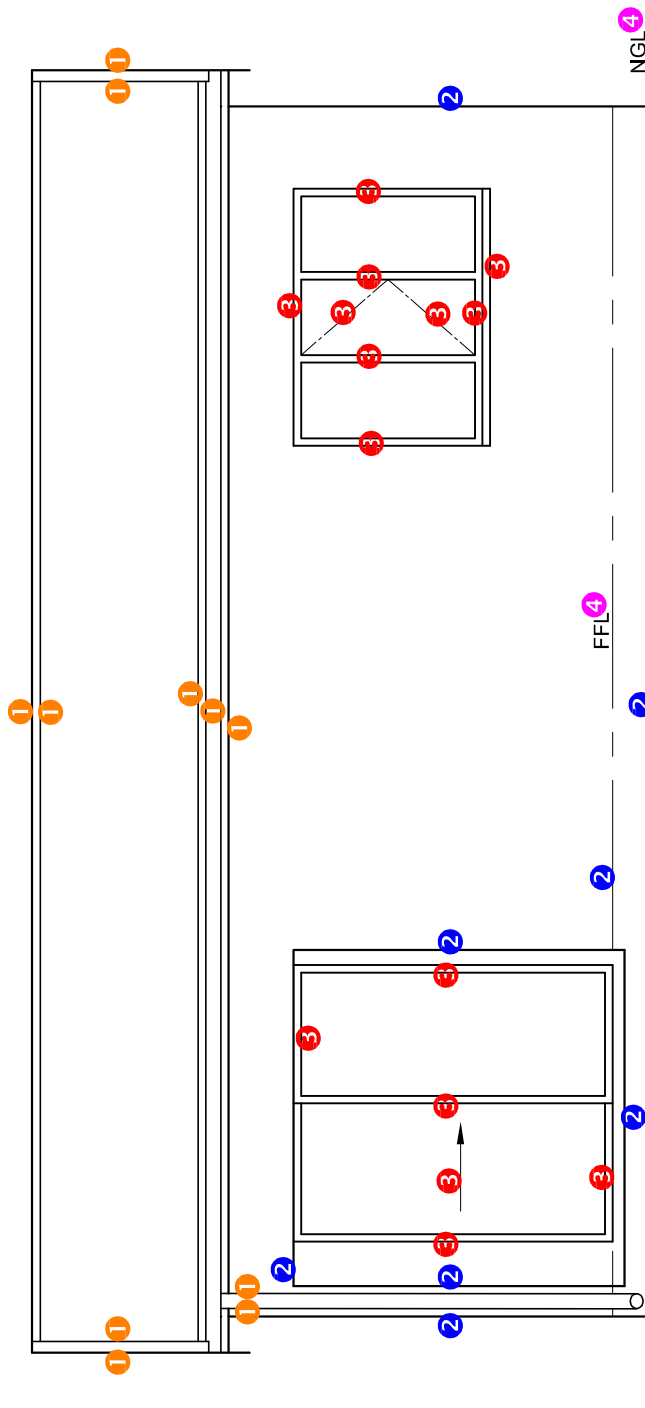
FLOOR PLAN
SCALE 1 : 50

4. HATCHING ALLOCATION
SANS COMPLIANT (TYPE) 2
HATCHING CORRECTLY APPLIED 2
TOTAL 4

PAPER 1 QUESTION 4
GRADE 12
NOVEMBER 2018
MARKING GUIDELINE

ASSESSMENT CRITERIA		POSSIBLE
FLOOR PLAN		
1	DOORS + WINDOWS	13 1/2
2	FIXTURES	7
3	ELECTRICAL	9 1/2
4	HATCHING	4
5	LABELS	5
SUBTOTAL		39

Handwritten signatures and initials.

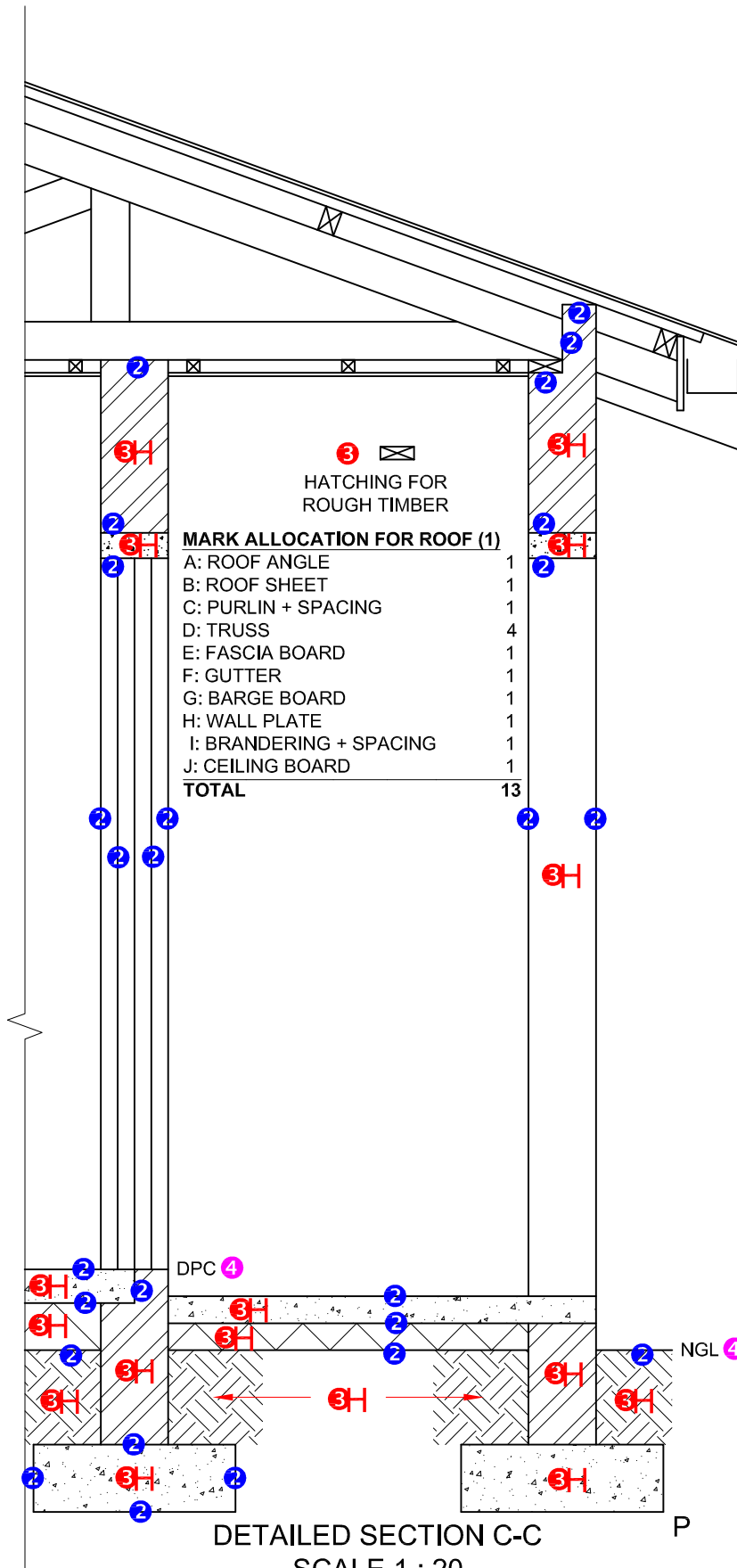


WEST ELEVATION 4

ASSESSMENT CRITERIA		
WEST ELEVATION		
1	ROOF + RWDP	5 1/2
2	WALLS + FFL + STEP	4
3	DOOR + WINDOW	7 1/2
4	LABELS	1 1/2
SUBTOTAL		18 1/2

PAPER 1 QUESTION 4
 GRADE 12
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PAPER 1 QUESTION 4
GRADE 12
NOVEMBER 2018
MARKING GUIDELINE

ASSESSMENT CRITERIA		
DETAILED SECTION		
1	ROOF	13
2	FOUNDATION + WALL + SLAB + DOOR + LINTEL	13
3	HATCHING	8 $\frac{1}{2}$
4	LABELS	1
SUBTOTAL		35 $\frac{1}{2}$

Handwritten signatures and initials:
AB
2/11/20
Lily