



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

**NATIONAL
SENIOR CERTIFICATE**

GRADE 12

ENGINEERING GRAPHICS AND DESIGN P1

NOVEMBER 2015

MEMORANDUM

MARKS: 100

This memorandum consists of 7 pages.

ANSWERS		
1	AFSP-2015	1
2	2	1
3	1	1
4	MRS SCHUTTE	1
5	2015-02-13	1
6	2	1
7	INSPECTION CHAMBER	1
8	DIRECTION OF FLOW	1
9	TREE	1
10	RED	1
11	CONTOUR LINE	1
12	DEMOLISH/REMOVE	1
13	30,25 m	1
14	4 700 mm	1
15	3 m	2
16	SOUTH-WEST	2
17	ELECTRICAL SUBSTATION	2
18	72 m [calculation 1, answer 1, converted to metres 1]	3
19	248m ² [calculation 1, answer 1, metres ² 1]	3
20	See below	4

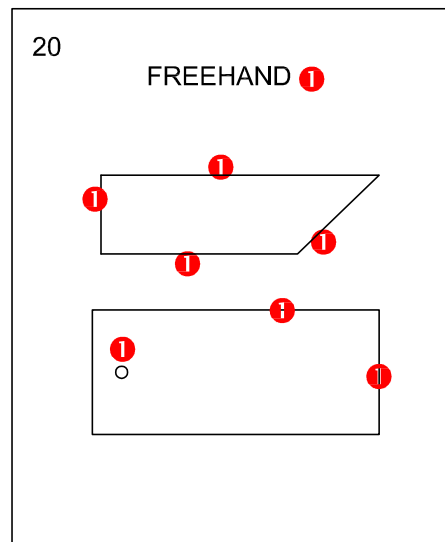
TOTAL 30

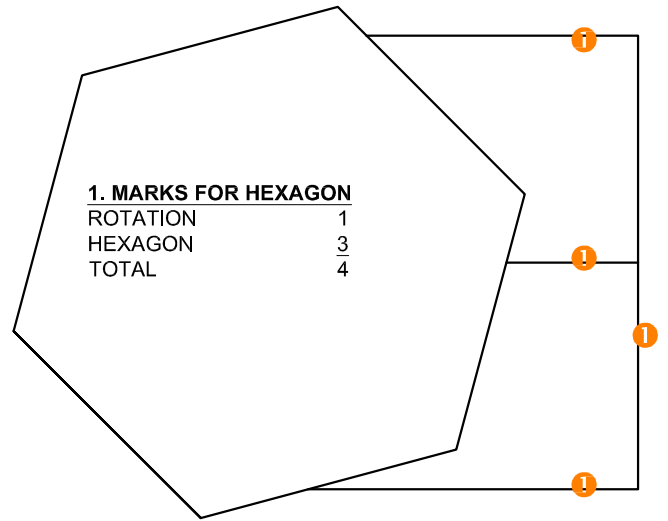
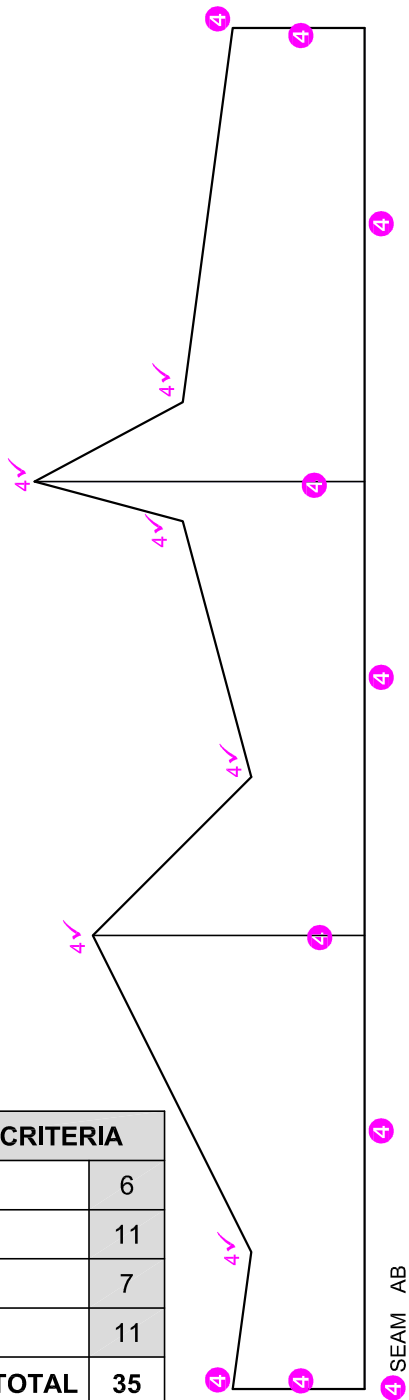
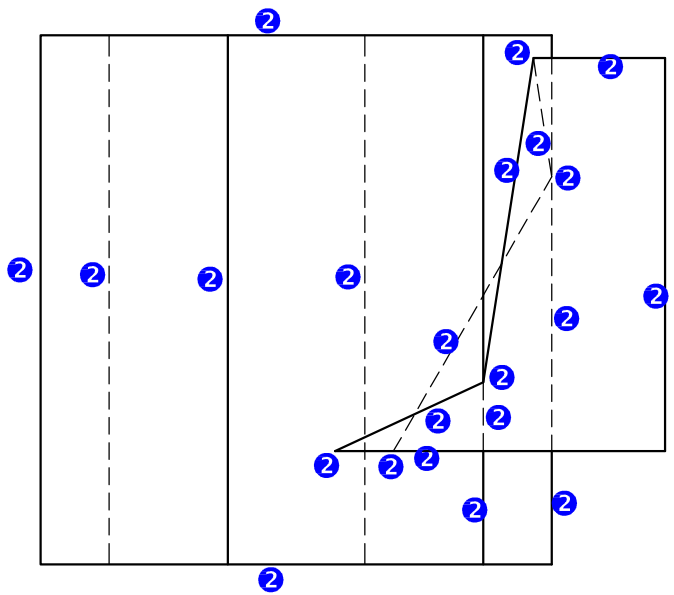
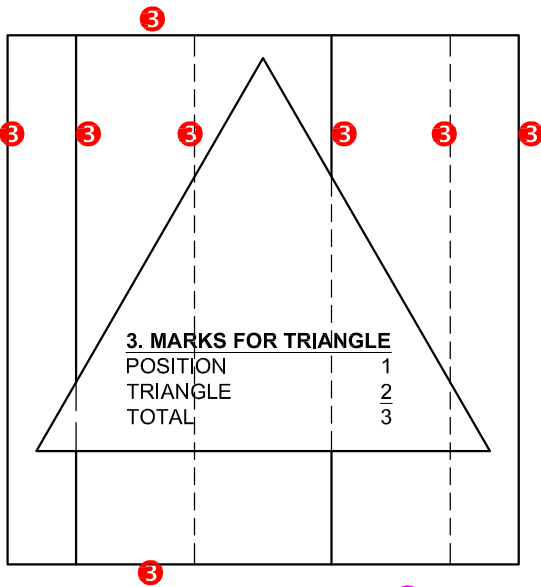
ANSWER 18
 Show ALL calculations.

$$13 + 6 + 6 + 6 + 3 + 8 + 10 + 20 = 72 \text{ m}$$

ANSWER 19
 Show ALL calculations.

13 x 6	= 78
6 x 7	= 42
10 x 8	= 80
8 x 6	= 48
	<hr style="width: 50px; margin-left: 0;"/>
	248 m ²

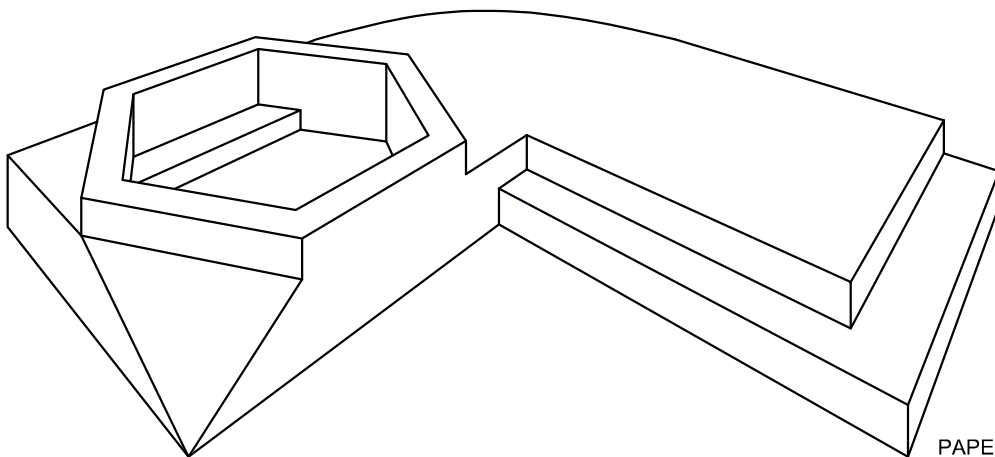
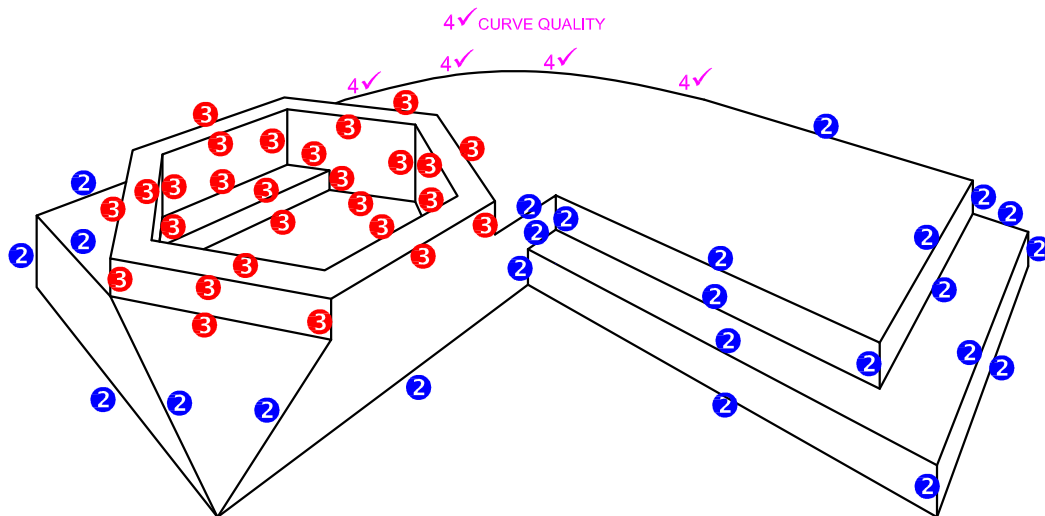
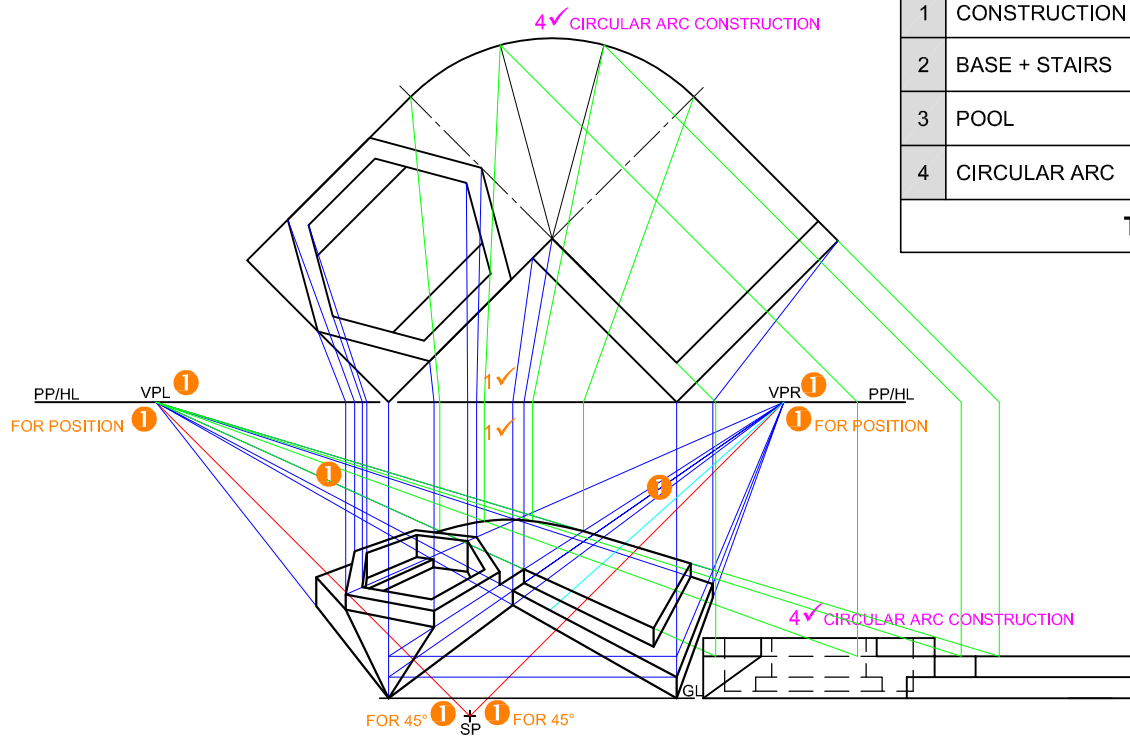




ASSESSMENT CRITERIA		
1	TOP VIEW	6
2	FRONT VIEW	11
3	RIGHT VIEW	7
4	DEVELOPMENT	11
TOTAL		35

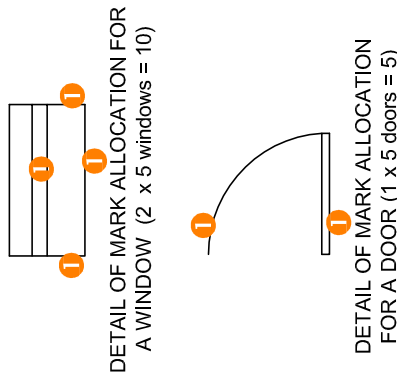
ASSESSMENT CRITERIA

1	CONSTRUCTION + VPs	6
2	BASE + STAIRS	12½
3	POOL	13½
4	CIRCULAR ARC	7
TOTAL		39

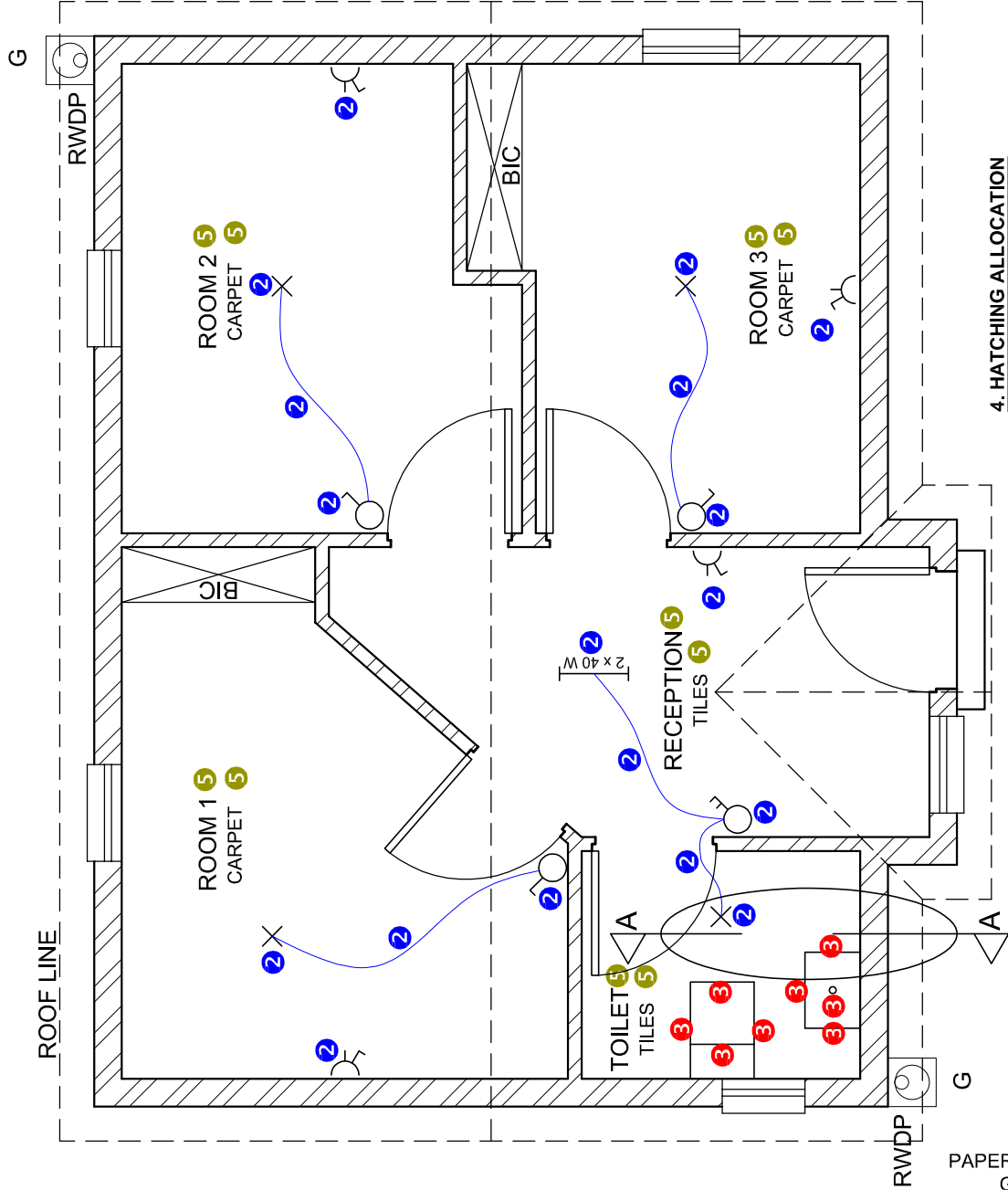


⊕
SP

PAPER 1 QUESTION 3
GRADE 12
November 2015
MEMORANDUM



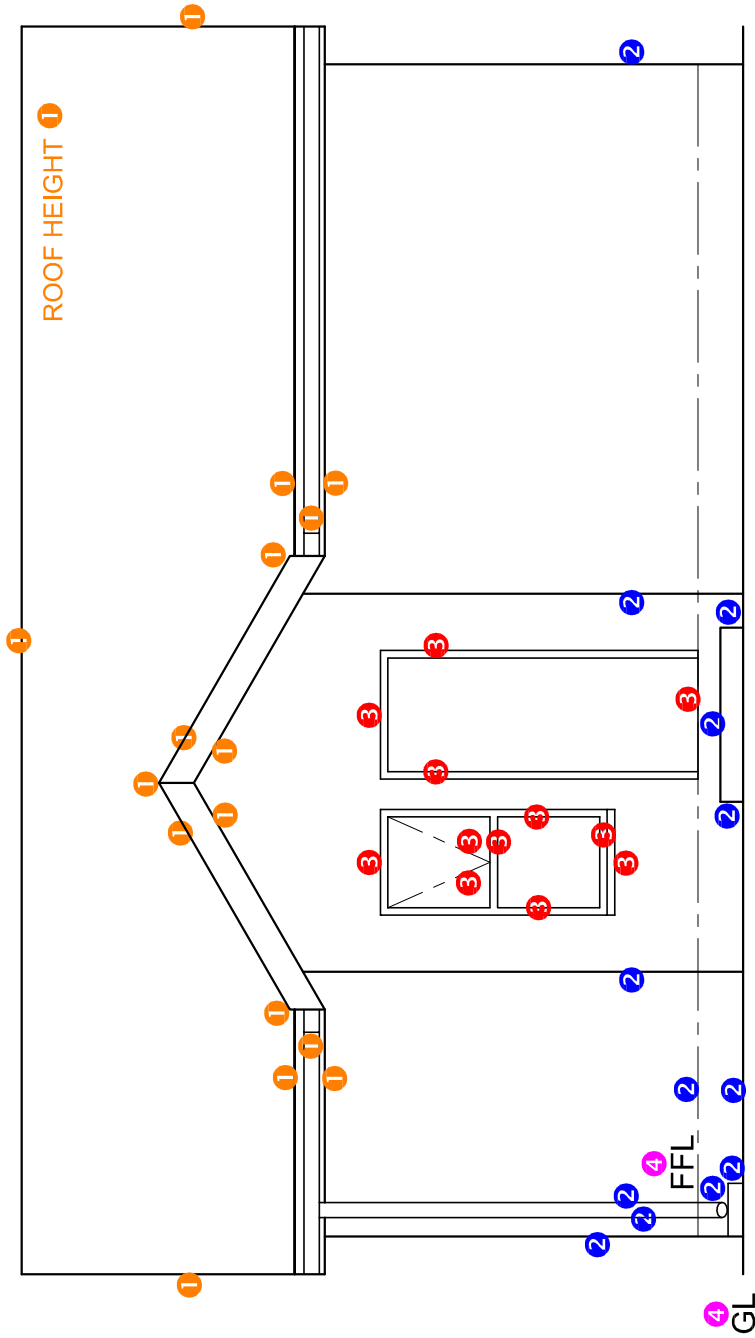
AUXILIARY VIEW FOR ROOF HEIGHT



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

PLAN
 SCALE 1 : 50

ASSESSMENT CRITERIA		POSSIBLE
FLOOR PLAN		
1	DOORS + WINDOWS	15
2	ELECTRICAL	9
3	FIXTURES	4
4	HATCHING	4
5	LABELS	5
SUBTOTAL		37



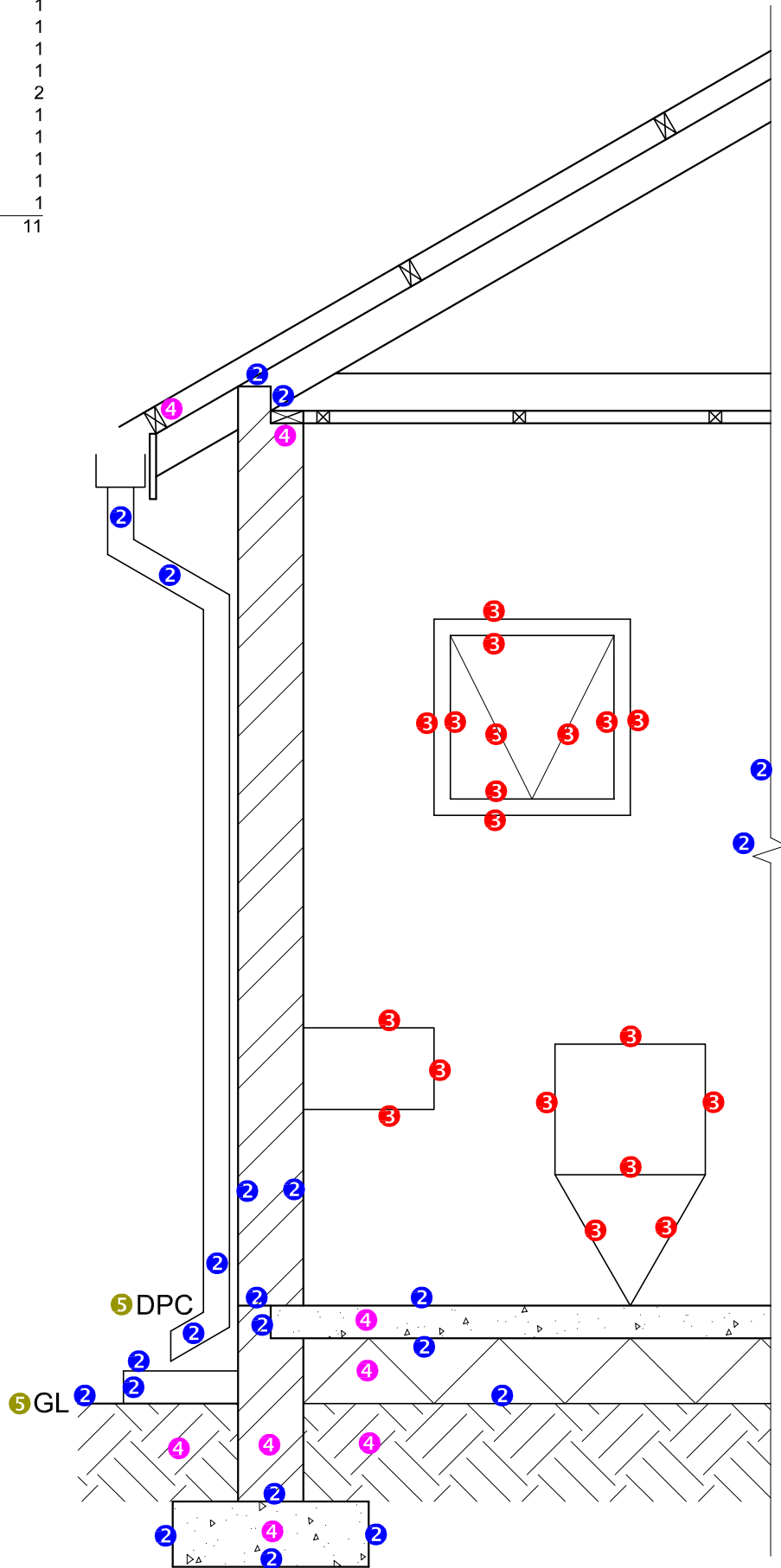
ASSESSMENT CRITERIA		
NORTH ELEVATION		
1	ROOF	8½
2	WALLS + RWDP + FFL + GULLY	6½
3	DOOR + WINDOW	6
4	LABELS	1½
SUBTOTAL		22½

NORTH ELEVATION 4

PAPER 1 QUESTION 4
 GRADE 12
 November 2015
 MEMORANDUM

1. MARK ALLOCATION FOR ROOF

A: ROOF ANGLE	1
B: ROOF SHEET	1
C: PURLIN	1
D: PURLIN SPACING	1
E: TRUSS	2
F: FASCIA BOARD	1
G: WALL PLATE	1
H: BRANDING	1
I: CEILING BOARD	1
J: GUTTER	1
TOTAL	11



ASSESSMENT CRITERIA		
DETAILED SECTION		
1	ROOF DETAIL	11
2	FOUNDATION + WALL + RWDP + GULLEY + LINE BREAK	11
3	WINDOW + WC + WB	9½
4	HATCHING	4
5	LABELS	1
SUBTOTAL		36½

DETAILED SECTION
SCALE 1 : 20

PAPER 1 QUESTION 4
GRADE 12
November 2015
MEMORANDUM