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**NATIONAL SENIOR CERTIFICATE
NASIONALE SENIOR SERTIFIKAAT**

**GRADE 12
GRAAD 12**

**ENGINEERING GRAPHICS AND DESIGN P1
INGENIEURSGRAFIKA EN -ONTWERP V1**

**SEPTEMBER 2022
PREPARATORY EXAMINATION / VOORBEREIDINGSEKSAMEN
MARKING GUIDELINE / NASIENRIGLYN**

MARKS / PUNTE: 200

TIME / TYD: 3 hours / uur

**This marking guideline consists of 7 pages.
Hierdie nasienriglyn bestaan uit 7 bladsye.**

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PAPER 1**QUESTION 1: ANALYTICAL**

Gr. 12

SEPTEMBER 2022

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VRAESTEL 1**VRAAG 1: ANALITIES**

Gr. 12

SEPTEMBER 2022

NASIENRIGLYN

QUESTION 1 ANSWERS		
1	MLANDWA ARCHITECS	1
2	MRS DLAYEDWA	1
3	SITE- 121A-22	1
4	1,2 metres	1
5	THE WORKSHOP MUST BE DEMOLISHED	2
6	WATER METER	1
7	4	1
8	PALISADE FENCING	1
9	RED	1
10	THREE	1
11	TWO	1
12	13 mm CRUSHED STONE	1
13	SOUTH EAST	2
14	42,2 - 16 = 26.2 m	2
15	CALCULATION BELOW	3
16	CALCULATION BELOW	5
17	SKETCH BELOW	4
TOTAL		29

VRAAG 1 ANTWOORDE		
1	MLANDWA ARGITEKTE	1
2	MEV. DLAYEDWA	1
3	SITE- 121A-22	1
4	1,2 meter	1
5	DIE WERKSWINKEL MOET GESLOOP / AFGEBREEK WORD	2
6	WATERMETER	1
7	4	1
8	PALISADE-HEINING	1
9	ROOI	1
10	DRIE	1
11	TWEE	1
12	13 mm FYN KLIP	1
13	SUID-OOS	2
14	42,2 - 16 = 26.2 m	2
15	BEREKENINGE ONDER	3
16	BEREKENINGE ONDER	5
17	SKETS ONDER	4
TOTAAL		29

VRAAG / QUESTION 15

Toon alle berekeninge / Show all calculations

calculation: (+)(-)

$$S + S + S$$

correct values

$$28 + 22,4 + 22,4$$

correct answer

$$= \underline{72,8 \text{ m}}$$

correct unit

berekening: (+)(-)

korrekte waardes

korrekte antwoord

korrekte eenheid

[3]

VRAAG / QUESTION 16

Toon alle berekeninge / Show all calculations

$$(L \times B) - (L \times B) + (L \times B)$$

$$31,3 \times 9,6 = 300,48$$

$$5,2 \times 3,8 = - 19,76$$

$$= \underline{280,72}$$

$$3,4 \times 2,7 = + 9,18$$

$$= \underline{289,9 \text{ m}^2}$$

subtract BL

correct values

Multiply

correct answer

correct unit m²

afrek van BL

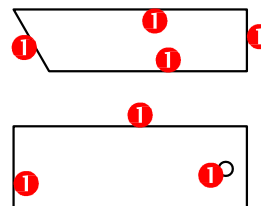
korrekte waardes

Vermenigvuldig

korrekte antwoord

korrekte eenheid m²

[5]

VRAAG / QUESTION 17Vryhand
Freehand

[4]

PAPER 1 - QUESTION 3: SOLID GEOMETRY
Gr. 12
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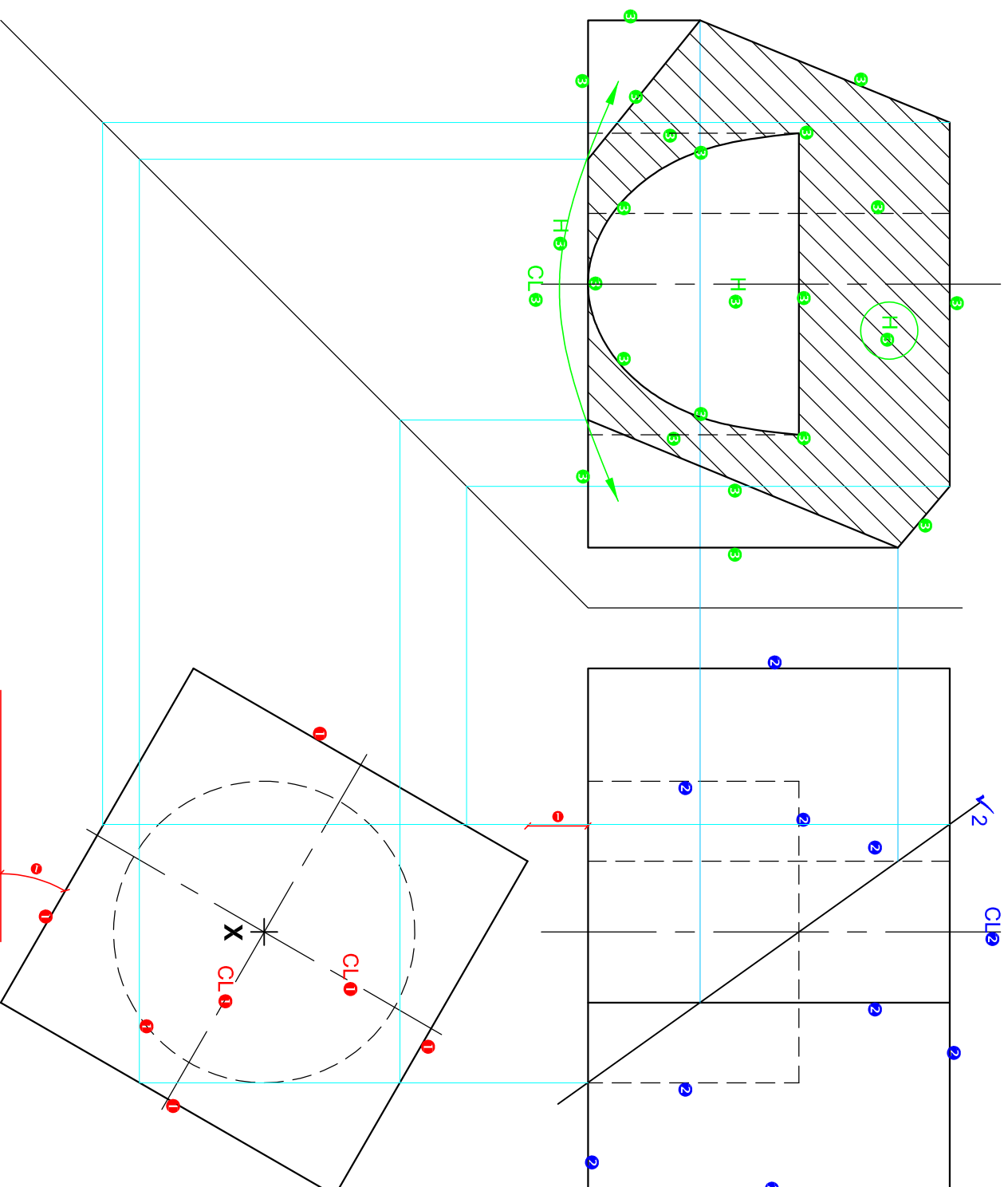
VRAESTEL 1 - VRAAG 3: VASTE LIGGAMME
Gr. 12
SEPTEMBER 2022
NASIERNIGLYNE

ASSESSERINGSKRITERIA

1	BOAANSIG	4 $\frac{1}{2}$
2	VOORAANSIG	6
3	REGERAANSIG	12
4	WARE VORM	8 $\frac{1}{2}$
TOTAL		31

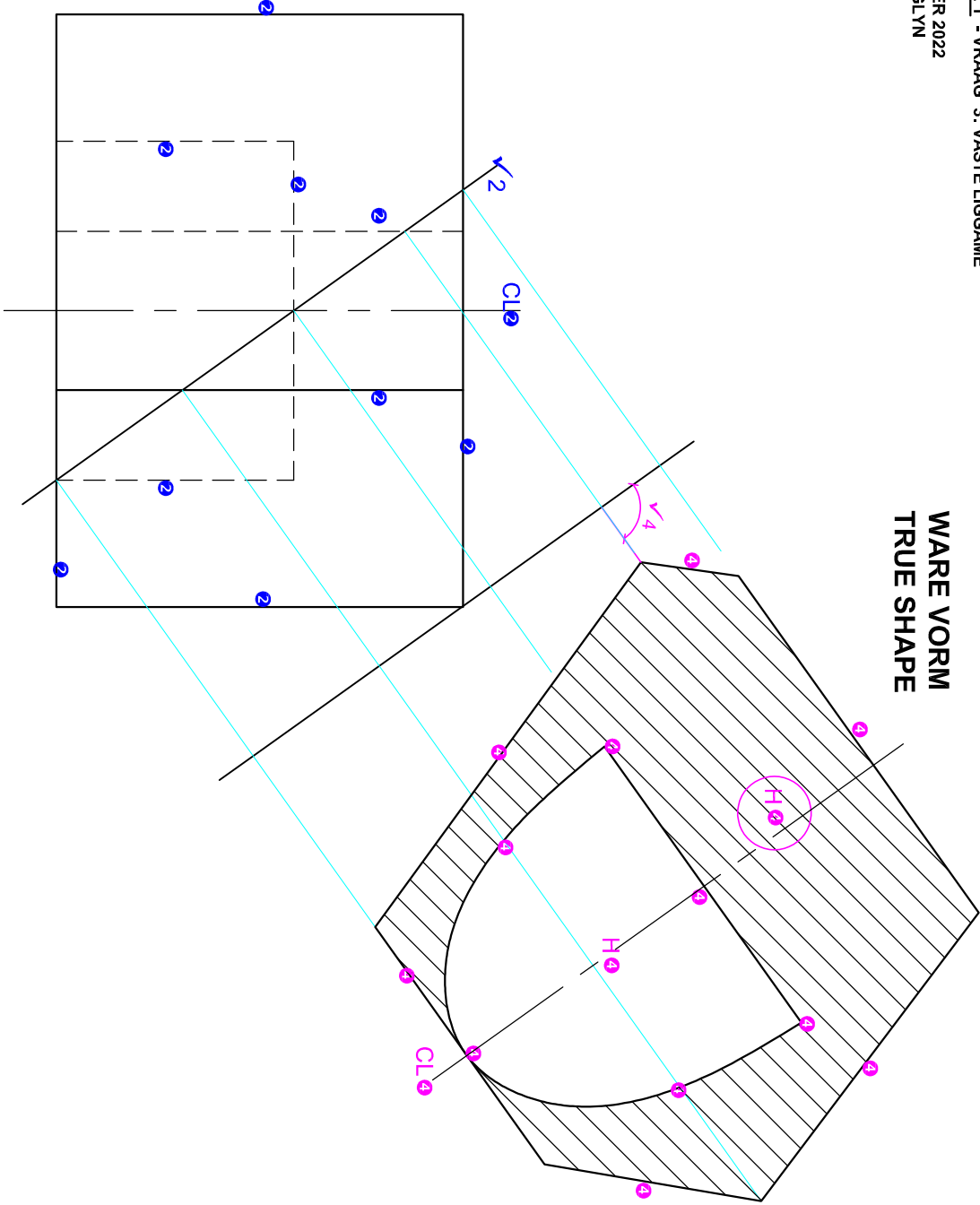
ASSESSMENT CRITERIA

1	TOP VIEW	4 $\frac{1}{2}$
2	FRONT VIEW	6
3	RIGHT VIEW	12
4	TRUE SHAPE	8 $\frac{1}{2}$
TOTAL		31



PAPER 1 - QUESTION 3: SOLID GEOMETRY
Gr. 12
SEPTEMBER 2022
MARKING GUIDELINE

VRAESTEL 1 - VRAAG 3: VASTE LIGGAME
Gr. 12
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NASIENRIGGLYN



ASSESSERINGSKRITERIA	
1	BOAANSIG 4 ¹ / ₂
2	VOORAANSIG 6
3	REGTERAANSIG 12
4	WARE VORM 8 ¹ / ₂
TOTAL 31	

ASSESSMENT CRITERIA	
1	TOP VIEW 4 ¹ / ₂
2	FRONT VIEW 6
3	RIGHT VIEW 12
4	TRUE SHAPE 8 ¹ / ₂
TOTAL 31	

PAPER 1 - QUESTION 3: PERSPECTIVE

Gr. 12

SEPTEMBER 2021

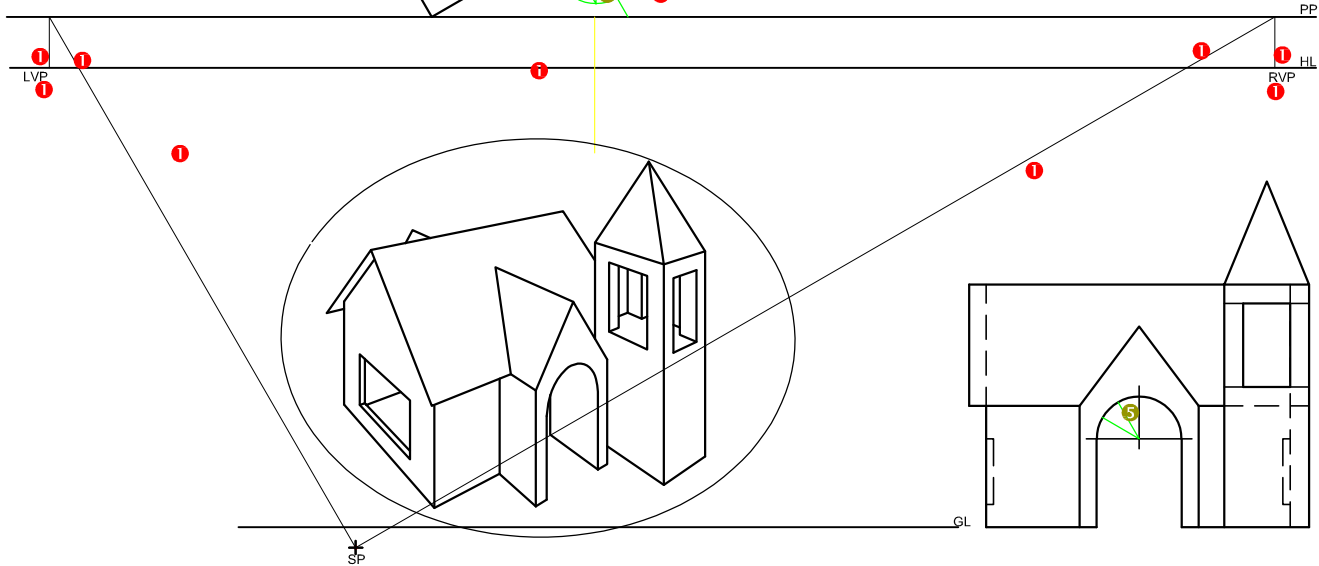
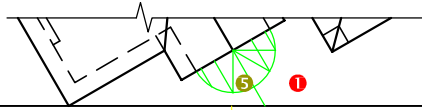
MARKING GUIDELINE

VRAESTEL 1 - VRAAG 3: PERSPEKTIEF

Gr. 12

SEPTEMBER 2021

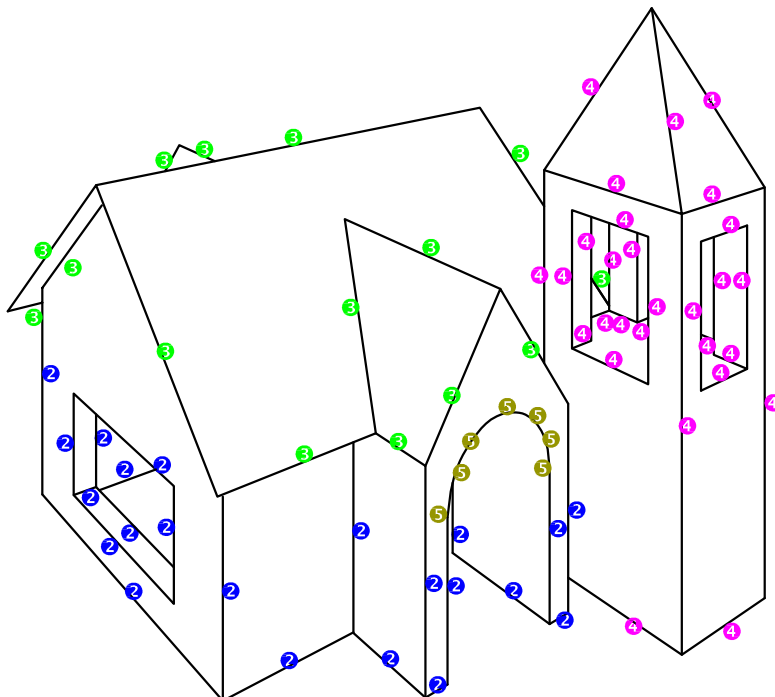
NASIENRIGLYN

**ASSESSMENT CRITERIA**

1	CONSTRUCTION AND VP's	5			
2	WALLS + WINDOW	11			
3	ROOF	7 $\frac{1}{2}$			
4	TOWER	14			
5	ARCH AND CONSTRUCTION	4 $\frac{1}{2}$			
TOTAL		42			

ASSESSERINGSKRITERIA

1	KONSTRUKSIE EN VP'te	5			
2	MURE + VENSTER	11			
3	DAK	7 $\frac{1}{2}$			
4	TORING	14			
5	BOOG EN KONSTRUKSIE	4 $\frac{1}{2}$			
TOTAAL		42			



PAPER 1 - QUESTION 4: FLOOR PLAN

Gr. 12

SEPTEMBER 2022

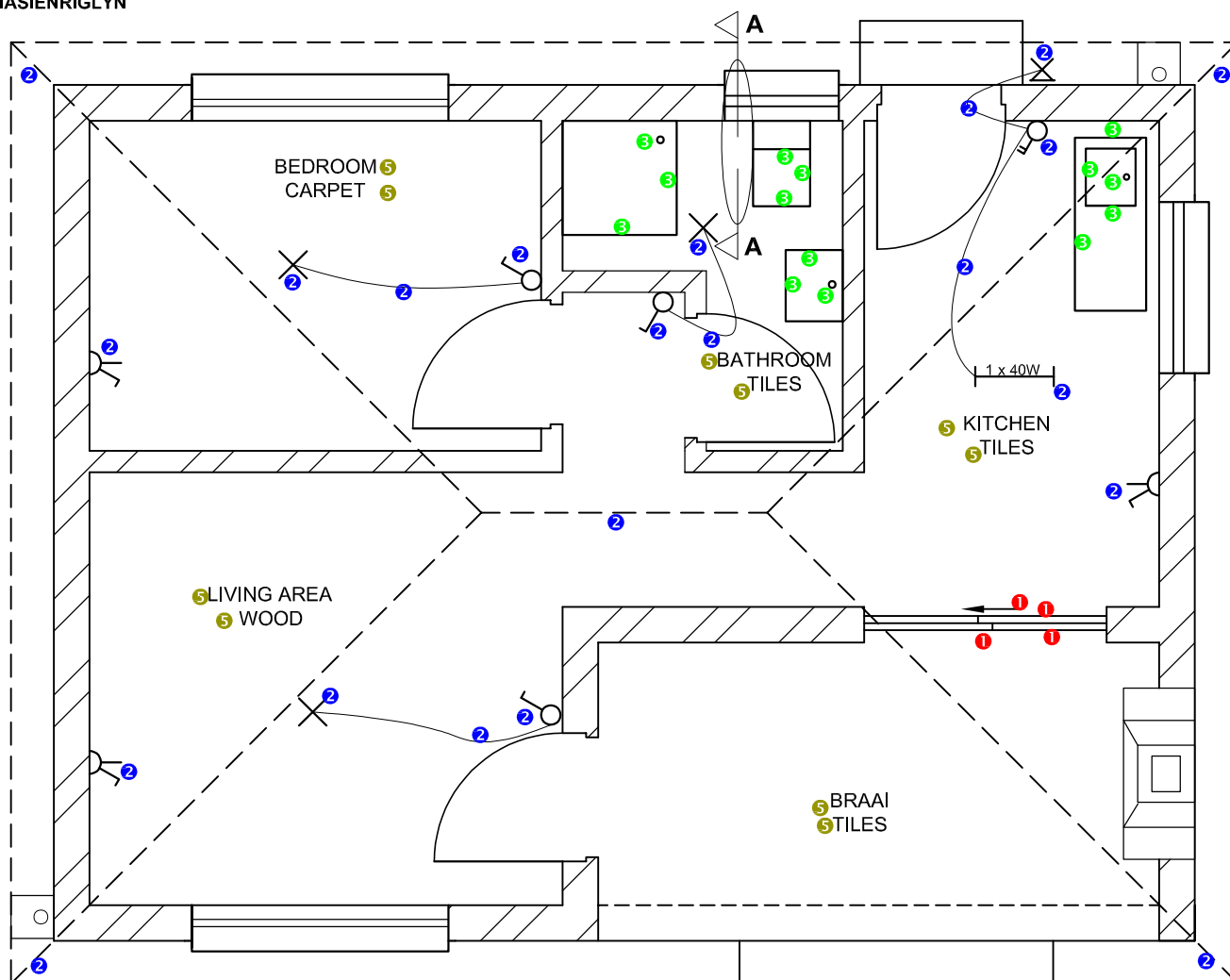
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VRAESTEL 1 - VRAAG 4: VLOERPLAN

Gr. 12

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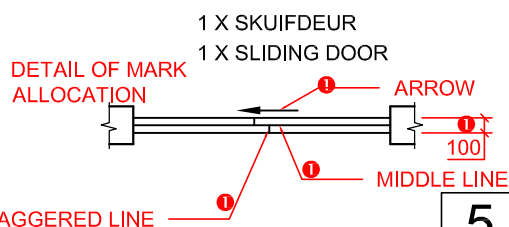
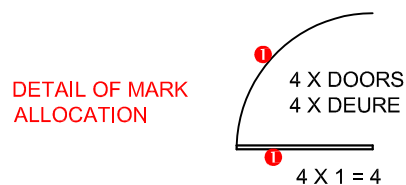
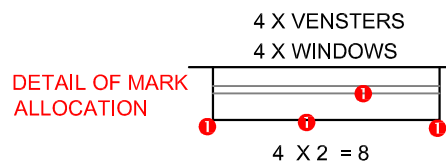
FLOOR PLAN
SCALE 1 : 50

Hatching: All hatched ✓4 ✓4
SANS compliant ✓4
Instruments must be used

Arsering: Alles gearseer ✓4 ✓4
Volgens SANS riglyne ✓4
Moet instrumente gebruik

ASSESSMENT CRITERIA		
FLOOR PLAN		
1	DOORS + WINDOWS	14
2	ELECTRICAL + ROOF LINES	11
3	FIXTURES	7
4	HATCHING	3
5	LABELS	5
SUBTOTAL		40

ASSESSERINGSKRITERIA		
VLOERPLAN		
1	DEURE + VENSTERS	14
2	ELEKTRIES + DAKLYNE	11
3	TOEBEHORE	7
4	ARSERING	3
5	BYSKRIFTE	5
SUBTOTAAL		40



PAPER 1 - QUESTION 4: ELEVATION

Gr. 12

SEPTEMBER 2022

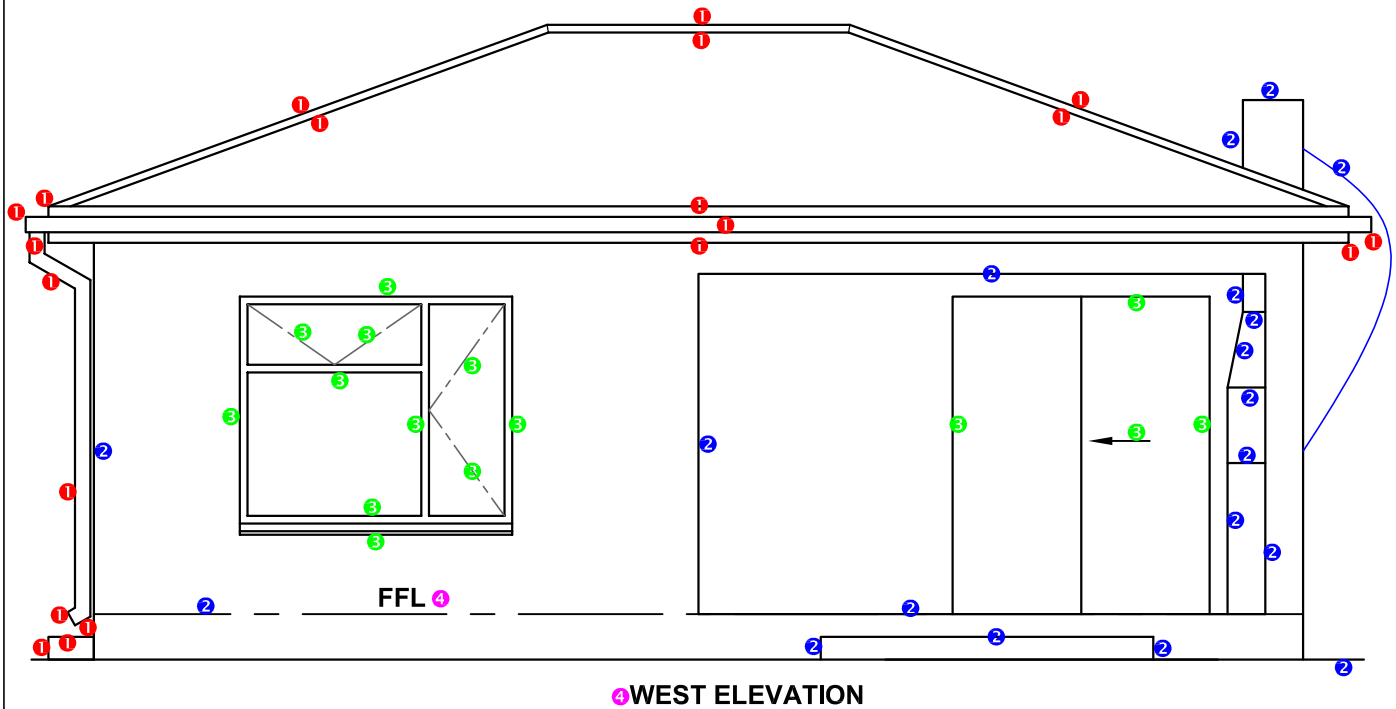
MARKING GUIDELINE

VRAESTEL 1 - VRAAG 4: ELEVASIE

Gr. 12

SEPTEMBER 2022

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ASSESSERINGSKRITERIA		
NOORDAANSIG		
1	DAK, GEUT, RWAP, DREINPUT, FASSIE, VORS	10
2	MURE, STOEP, BRAAI, VVV	9 $\frac{1}{2}$
3	DEUR EN VENSTER	7 $\frac{1}{2}$
4	BYSKRIFTE	1
SUBTOTAAL		28

ASSESSMENT CRITERIA		
NORTH ELEVATION		
1	ROOF, GUTTER, RWDP, GULLEY FACIA BOARD, RIDGE COVER	10
2	WALLS, PORCH, BRAAI, FFL	9 $\frac{1}{2}$
3	DOOR AND WINDOW	7 $\frac{1}{2}$
4	LABELS	1
SUBTOTAL		28

