



**ISEBE LEMFUNDO LEMPUMA KOLONI  
EASTERN CAPE EDUCATION DEPARTMENT  
OOS-KAAP ONDERWYSDEPARTEMENT**

**NATIONAL SENIOR CERTIFICATE  
NASIONALE SENIOR SERTIFIKAAT**

**GRADE 11  
GRAAD 11**

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

**NOVEMBER 2020  
MEMORANDUM**

**MARKS / PUNTE: 200**

**TIME / TYD: 3 hours / uur**

**This memorandum consists of 7 pages.  
Hierdie memorandum bestaan uit 7 bladsye.**

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## PAPER 1

## VRAESTEL 1

## QUESTION 1: ANALYTICAL MARKING GUIDELINE

## VRAAG 1: ANALITIES NASIENRIGLYN

ANSWERS		
1	BOTHA ARCHITECTS	1
2	DP 2020 - 04	1
3	TYRON	1
4	LINDO	1
5	2020-04-01	1
6	MRS. X. RUPPING	1
7	BIDET	1
8	ARCH / OPENING IN THE WALL	2
9	NOT TO SCALE	1
10	NO. THE WINDOW MUST HAVE TWO LINES INSTEAD OF ONE	2
11	MECHANICAL HATCHING OR WRONG HATCHING TYPE USED	2
12	BUILD IN CUPBOARD	2
13	WEST VIEW / WEST ELEVATION	2
14	900 mm	2
15	ANSWER BELOW	4
16	ANSWER BELOW	4
<b>TOTAL</b>		<b>28</b>

ANTWOORDE		
1	BOTHA ARGITEKTE	1
2	DP 2020 - 04	1
3	TYRON	1
4	LINDO	1
5	2020-04-01	1
6	MEV. X. RUPPING	1
7	BIDET	1
8	BOOG (OPENING) IN DIE MUUR	2
9	NIE VOLGENS SKAAL	1
10	NEE. DIE VENSTERS MOET TWEE LYNE HÊ IPV EEN	2
11	MEGANIESE OF VERKEERDE TIPE ARSERING IS GEBRUIK	2
12	INGEBOUDE KAS	2
13	WESAANSIG / WES ELEVASIE	2
14	900 mm	2
15	ANTWOORD ONDER	4
16	ANTWOORD ONDER	4
<b>TOTAL</b>		<b>28</b>

## QUESTION / VRAAG 15

Toon alle berekeninge / Show all calculations

calculation: + / x  
 correct values  
 correct answer  
 correct unit

$$\begin{array}{l}
 2(L + B) \checkmark \\
 2(10 + 5,5) \checkmark \\
 2 \times 15,5 \checkmark \\
 = \underline{31 \text{ m}} \checkmark \checkmark
 \end{array}$$

[4]

## QUESTION / VRAAG 16

Toon alle berekeninge / Show all calculations

calculation (+)  
 correct values  
 correct answer  
 correct unit (m)

$$\begin{array}{l}
 7.03 \\
 2.48 \checkmark \\
 + 5.95 \\
 \hline
 15.46 \text{ m}^2 \checkmark \checkmark
 \end{array}$$

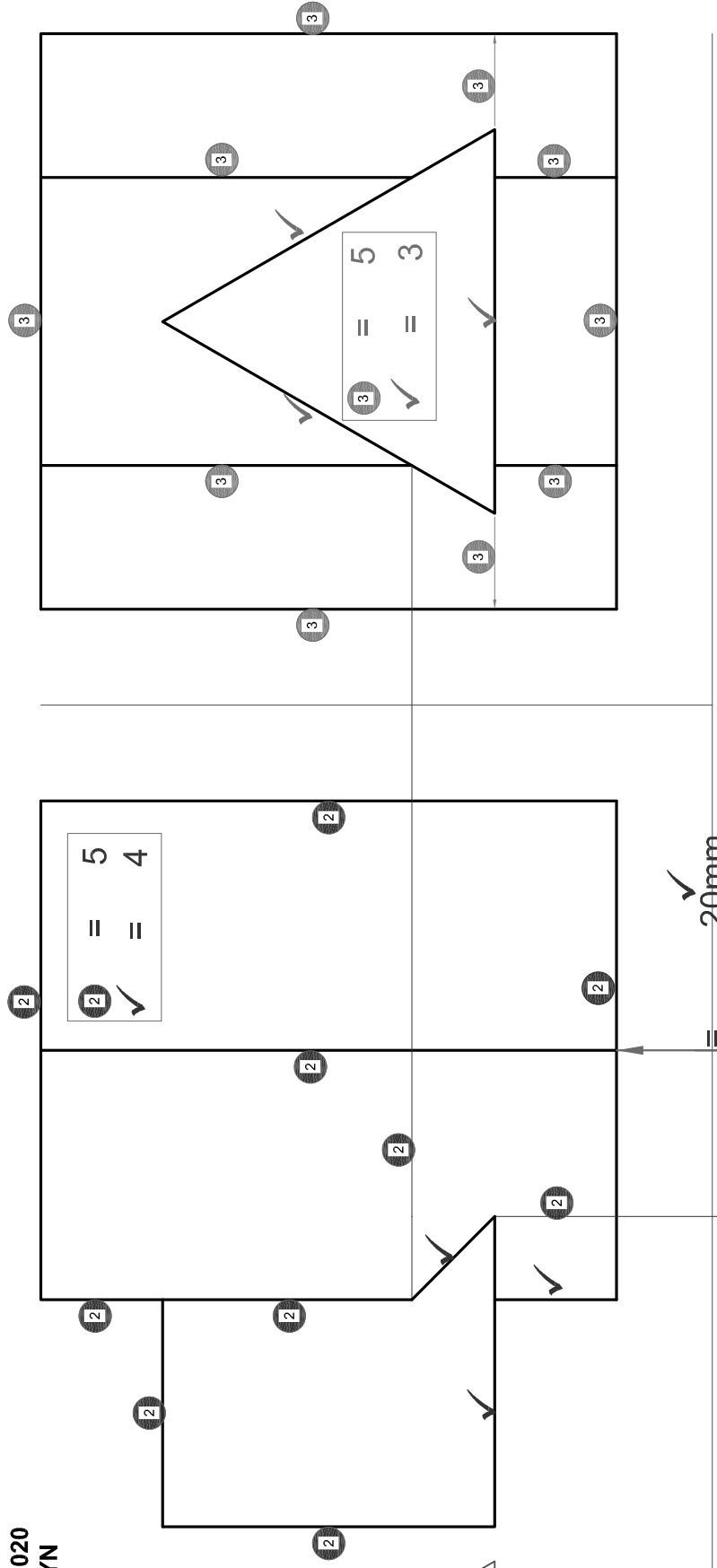
[4]

**PAPER 1 - QUESTION 2: INTERPENETRATION AND DEVELOPMENT**

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**VRAESTEL 1 - VRAAG 2: INTERPENETRASIE EN ONTWIKKELING**

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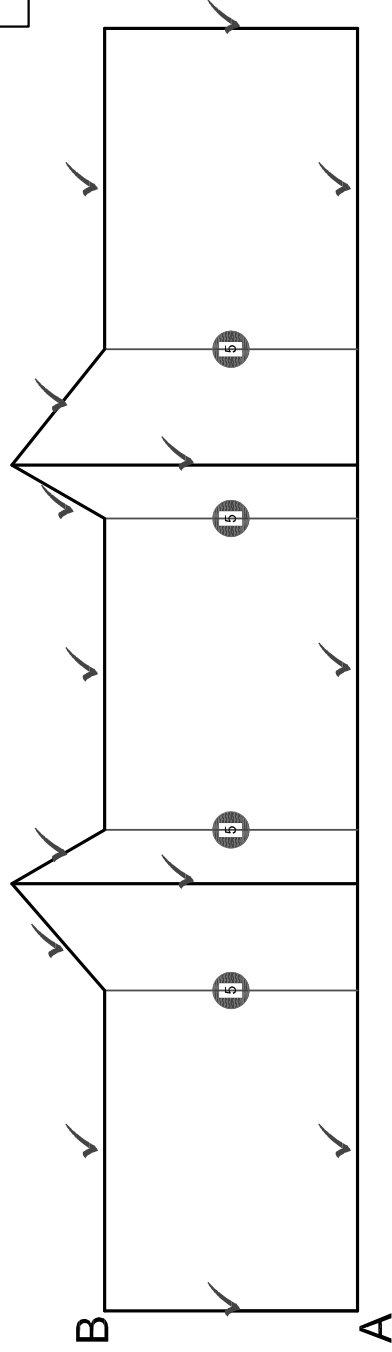


**Construction**  
 • correct placing  
 • hexagon construction

**Konstruksie**  
 • korrekte plasing  
 • seskant konstruksie

ASSESSERINGSKRITERIA		
1	BOAANSIG + KONSTRUKSIE	6
2	VOORAANSIG	9
3	LINKERAANSIG	8
4	ONTWIKKELING	16
<b>TOTAAL</b>		<b>39</b>

ASSESSMENT CRITERIA		
1	TOP VIEW + CONSTRUCTION	6
2	FRONT VIEW	9
3	LEFT VIEW	8
4	DEVELOPMENT	16
<b>TOTAL</b>		<b>39</b>



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**PAPER 1 - QUESTION 3: PERSPECTIVE**

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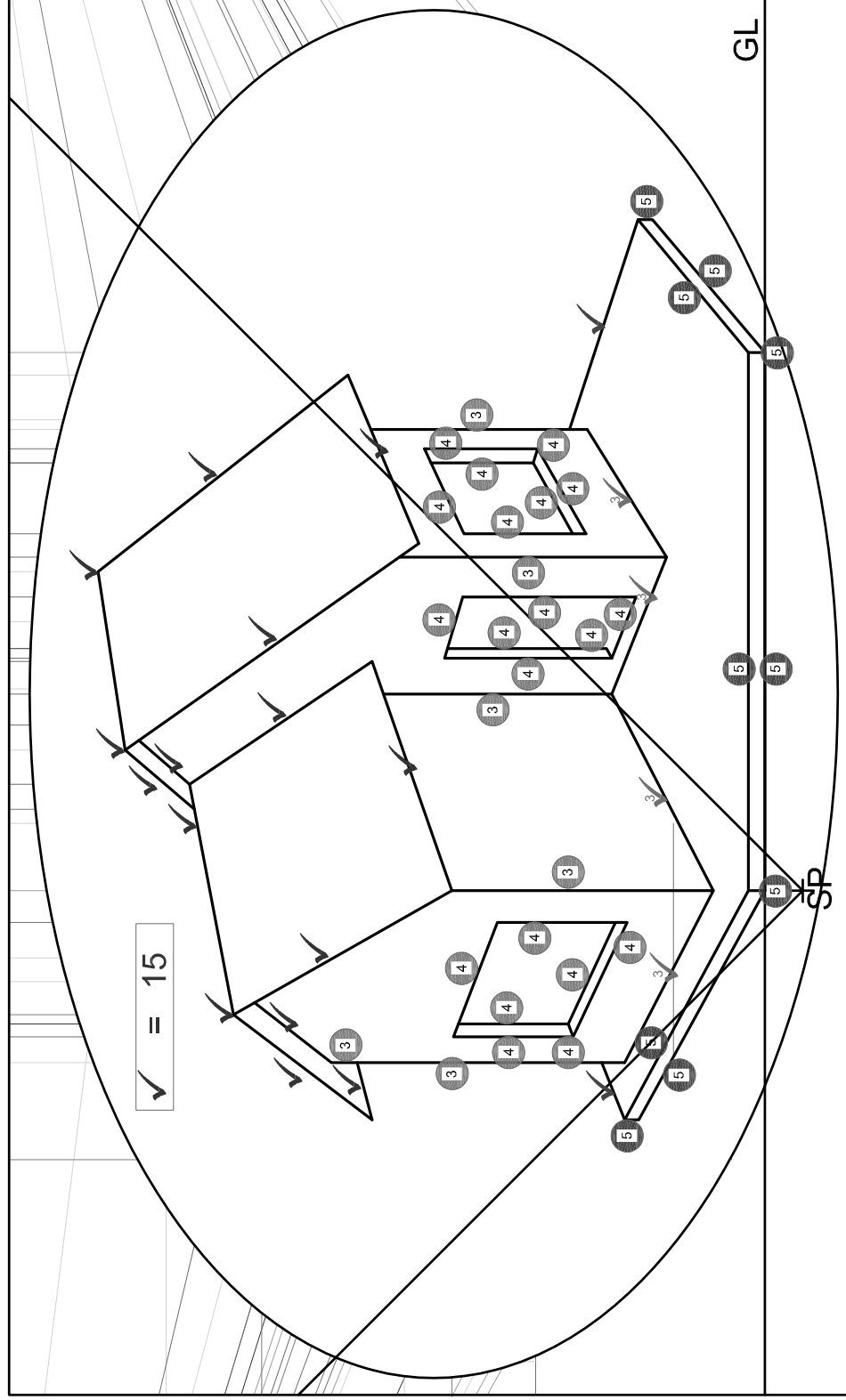
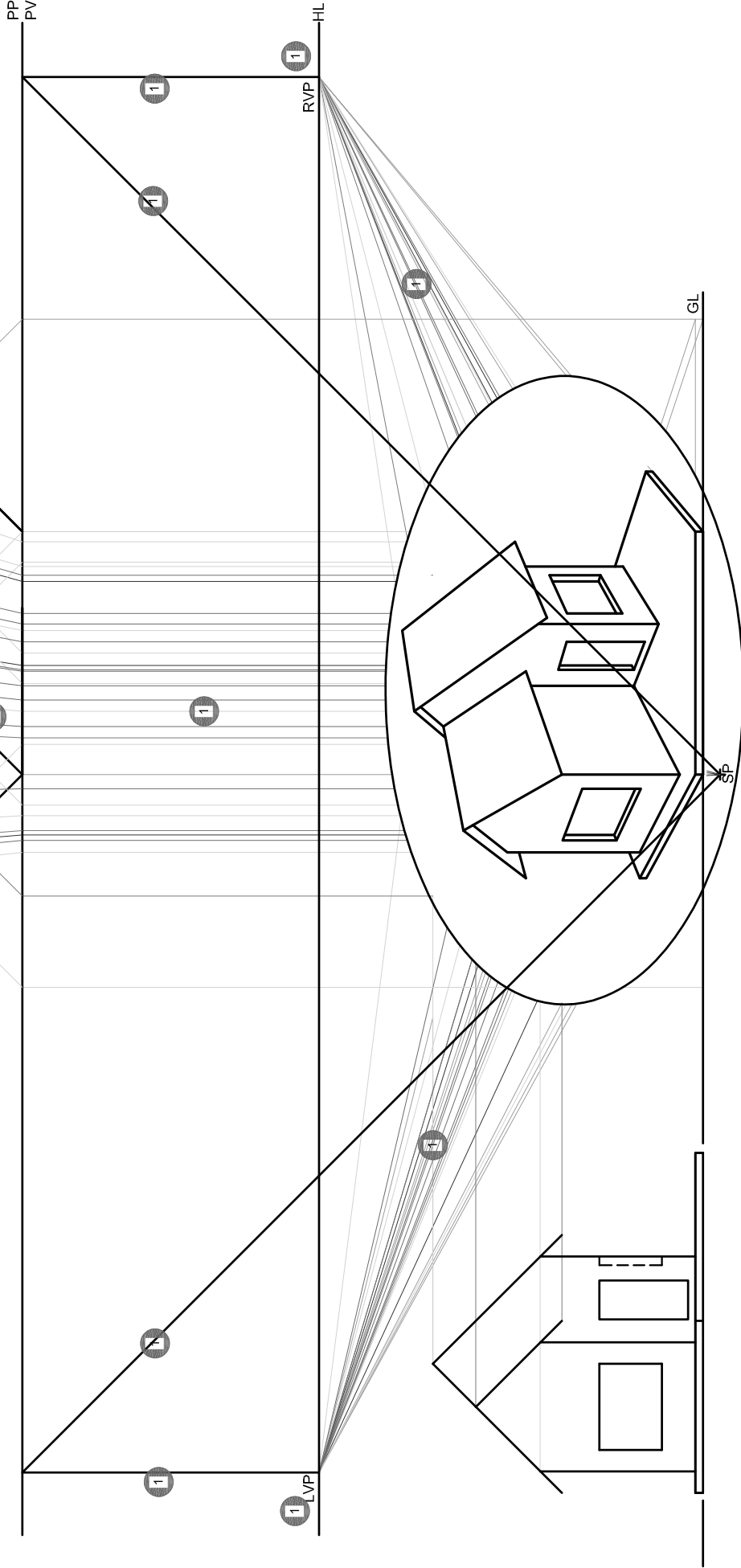
**VRAESTEL 1 - VRAAG 3: PERSPEKTIEF**

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CEMENT PORCH AROUND THE HOUSE



ASSESSMENT CRITERIA	
1	CONSTRUCTION + VPs
2	ROOF
3	WALLS
4	DOOR + WINDOWS
5	PORCH
<b>TOTAL 44</b>	

ASSESSERINGSKRITERIA	
1	KONSTRUKSIE & VPte
2	DAK
3	MURE
4	DEUR + VENSTERS
5	STOEP
<b>TOTAAL 44</b>	

**4**

**PAPER 1 - QUESTION 4: FLOOR PLAN**

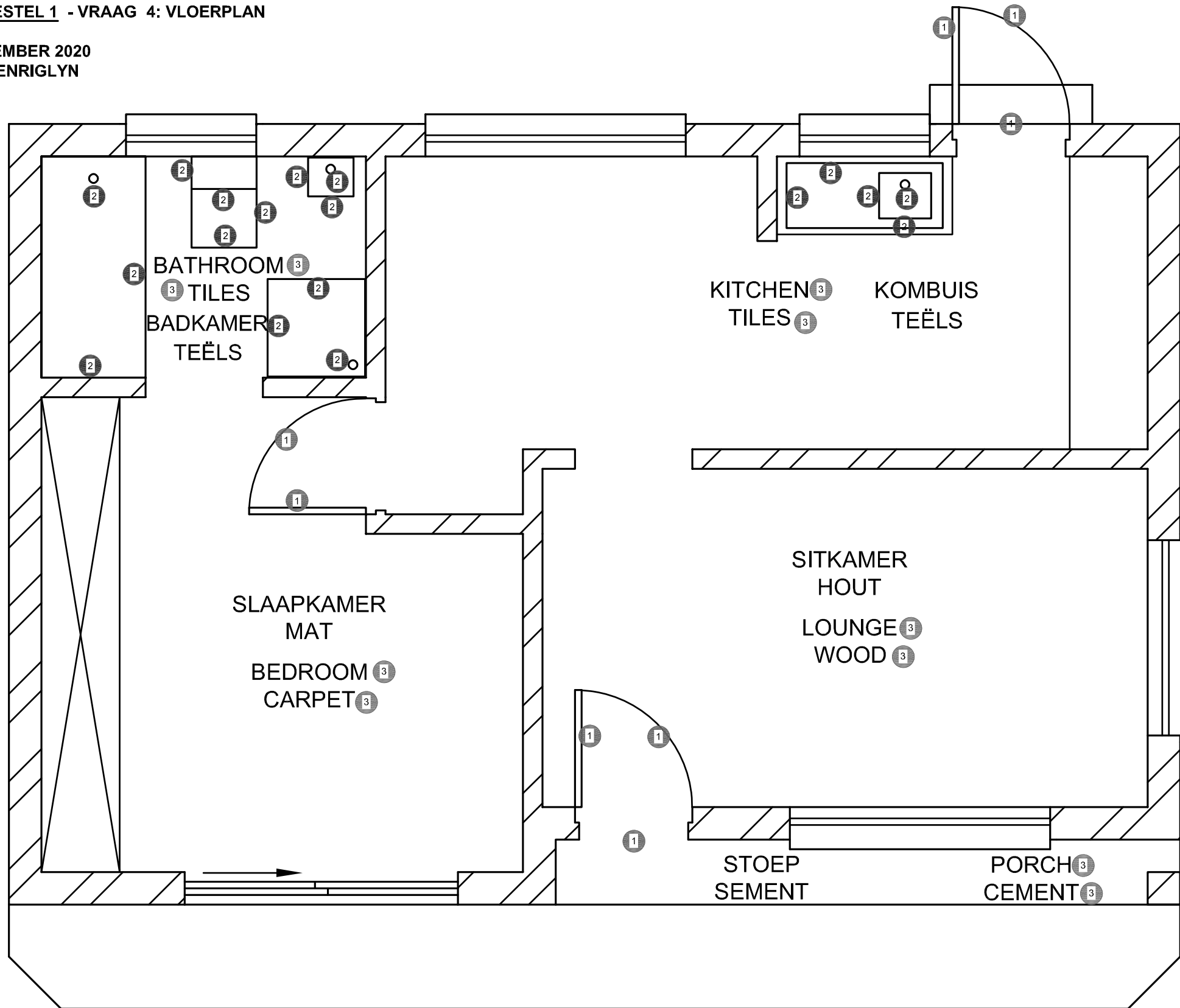
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**VRAESTEL 1 - VRAAG 4: VLOERPLAN**

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**Arsering:** Alles gearseer ✓4 ✓4 ✓4  
Volgens SANS riglyne ✓4  
Siviele arsering is gebruik ✓4  
Moet instrumente gebruik

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



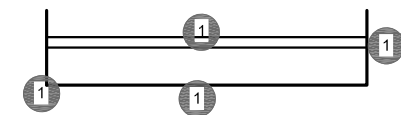
ASSESSMENT CRITERIA		
FLOOR PLAN		
1	DOORS + WINDOWS	17
2	FIXTURES	9
3	LABELS	5
4	HATCHING	5
<b>SUB TOTAL</b>		<b>36</b>

ASSESSERINGSKRITERIA		
VLOERPLAN		
1	DEURE & VENSTERS	17
2	TOEBEHORE	9
3	BYSKRIFTE	5
4	ARSERING	5
<b>SUBTOTAAL</b>		<b>36</b>

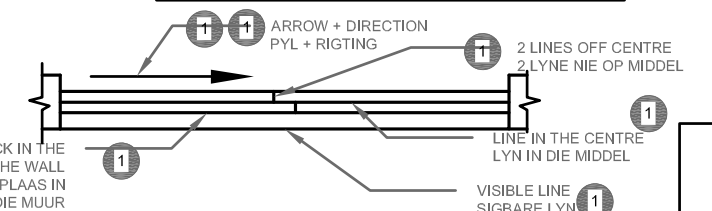
**VLOERPLAN**  
SKAAL 1 : 50

**FLOOR PLAN**  
SCALE 1 : 50

5 X VENSTERS / WINDOWS



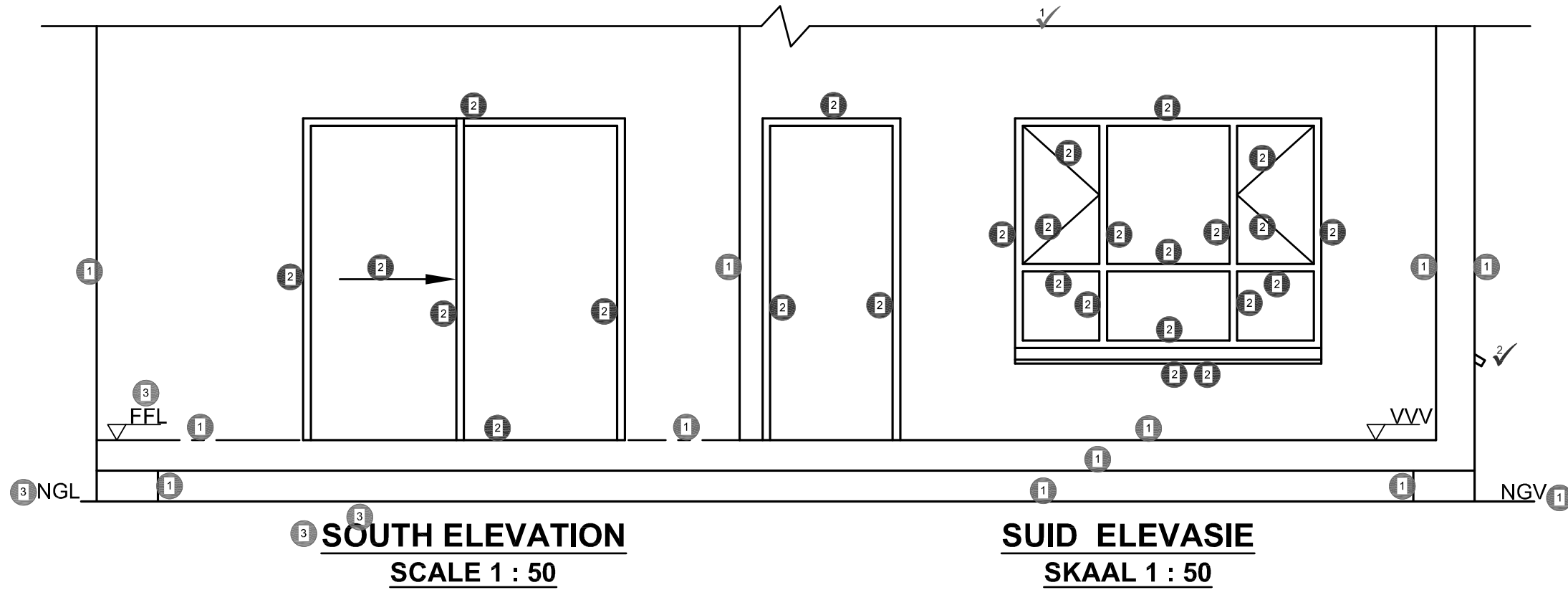
1 X SKUIFDEUR / SLIDING DOOR



RECTANGULAR BLOCK IN THE MIDDLE OF THE WALL  
REGHOEKIGE BLOK GEPLAAS IN DIE MIDDEL VAN DIE MUUR

**PAPER 1 - QUESTION 4: ELEVATION**  
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**VRAESTEL 1 - VRAAG 4: ELEVASIE**  
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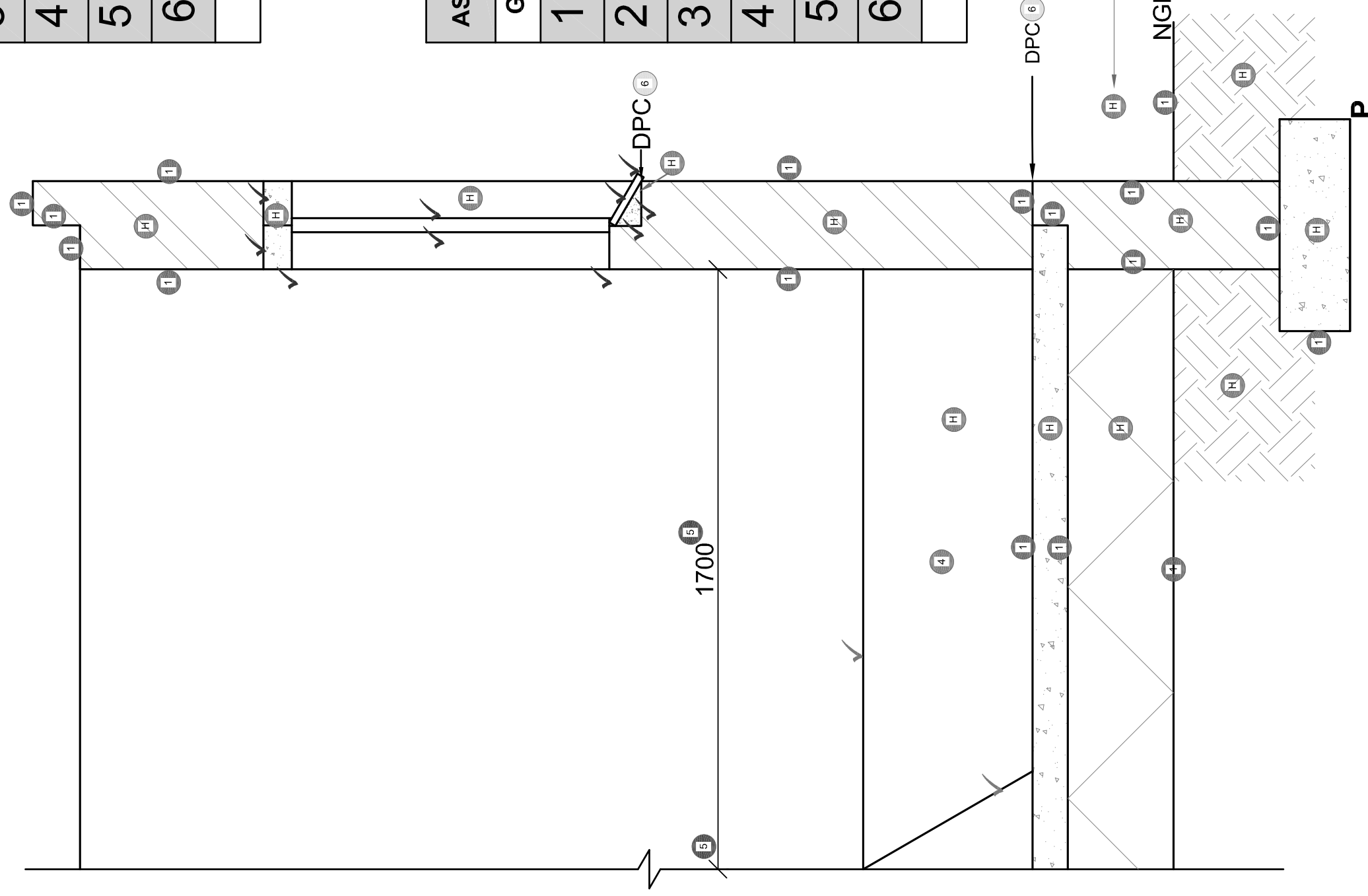
ASSESSMENT CRITERIA		
SOUTH ELEVATION		
1	WALLS + STEPS + FFL + BREAK LINE	7
2	DOOR + WINDOWS	14
3	LABELS	2
<b>SUB TOTAL</b>		<b>23</b>

ASSESSERINGSKRITERIA		
SUID ELEVASIE		
1	MURE + TRAPPE + VWV + BREEKLYN	7
2	DEURE + VENSTERS	14
3	BYSKRIFTE	2
<b>SUBTOTAAL</b>		<b>23</b>

**PAPER 1 - QUESTION 4: DETAILED SECTION**

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**VRAESTEL 1 - VRAAG 4: GEDETAILEERDE SNIT**  
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ASSESSMENT CRITERIA	
DETAILED SECTION	
1	FOUNDATIONS + WALLS + SLAB 8 $\frac{1}{2}$
2	WINDOW + SILL + LINTEL 10
3	HATCHING 6 $\frac{1}{2}$
4	BATH 2 $\frac{1}{2}$
5	DIMENSION 1
6	LABELS 1 $\frac{1}{2}$
<b>SUB TOTAL 30</b>	

ASSESSERINGSKRITERIA	
GEDETAILEERDE SNIT	
1	FONDASIE + MURE + VLOER 8 $\frac{1}{2}$
2	VENSTER + VENSTERBANK + LATEI 10
3	ARSERING 6 $\frac{1}{2}$
4	BAD 2 $\frac{1}{2}$
5	MAATSKRYWING 1
6	BYSKRIFTE 1 $\frac{1}{2}$
<b>SUBTOTAAL 30</b>	

**GEDETAILEERDE SNIT A : A**  
 SKAAL 1 : 20

**DETAILED SECTION ON A : A**  
 SCALE 1 : 20