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basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

NASIONALE SENIOR SERTIFIKAAT

GRAAD 12

INGENIEURSGRAFIKA EN -ONTWERP V1

NOVEMBER 2019

NASIENRIGLYNE

PUNTE: 100

Hierdie nasienriglyne bestaan uit 8 bladsye.

ANTWOORDE		
1	CLARK	1
2	1818	1
3	KRYPTON EDMS (BPK)	1
4	2018/12/20	1
5	BEVESTIG ALLE AFMETINGS EN HOOGTES	1
6	GRUIS	1
7	6 m	1
8	2044	1
9	BRUIN	1
10	INGEBOUDE KASTE	1
11	MOET VERWYDER WORD	1
12	NOORD	1
13	IO	1
14	STRUIKE	1
15	SEPTIESE TENK en STAPELRIOOL	2
16	SUIDWES	1
17	KLUBHUIS, DEK, SWEMBAD	3
18	Sien hieronder	3
19		3
20		4
TOTAAL		30

ANTWOORD 18

$$\begin{aligned}
 &AB + BC + CD + DE + EF + FG + GA \\
 &= 16.06 + 7.05 + 23.36 + 26.41 + \\
 &\quad 18.07 + 53.16 + 47.69 \\
 &= 191.80 \text{ m}
 \end{aligned}$$

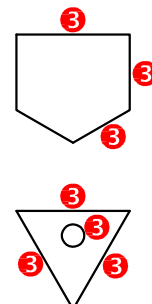
ANTWOORD 19

$$\begin{aligned}
 \text{OPPERVLAK} &= (5 \times 6) + (7 \times 4) \\
 &= 30 + 28 \\
 &= 58\text{m}^2 \\
 &= 5.3 \times 5.95 \\
 &= 31.54\text{m}^2 \\
 &= 3 \times 5 \\
 &= 15\text{m}^2
 \end{aligned}$$

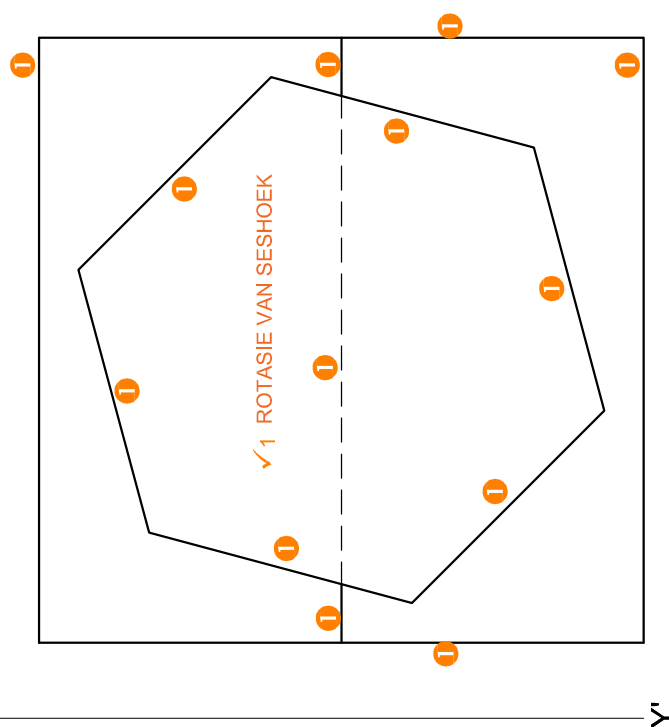
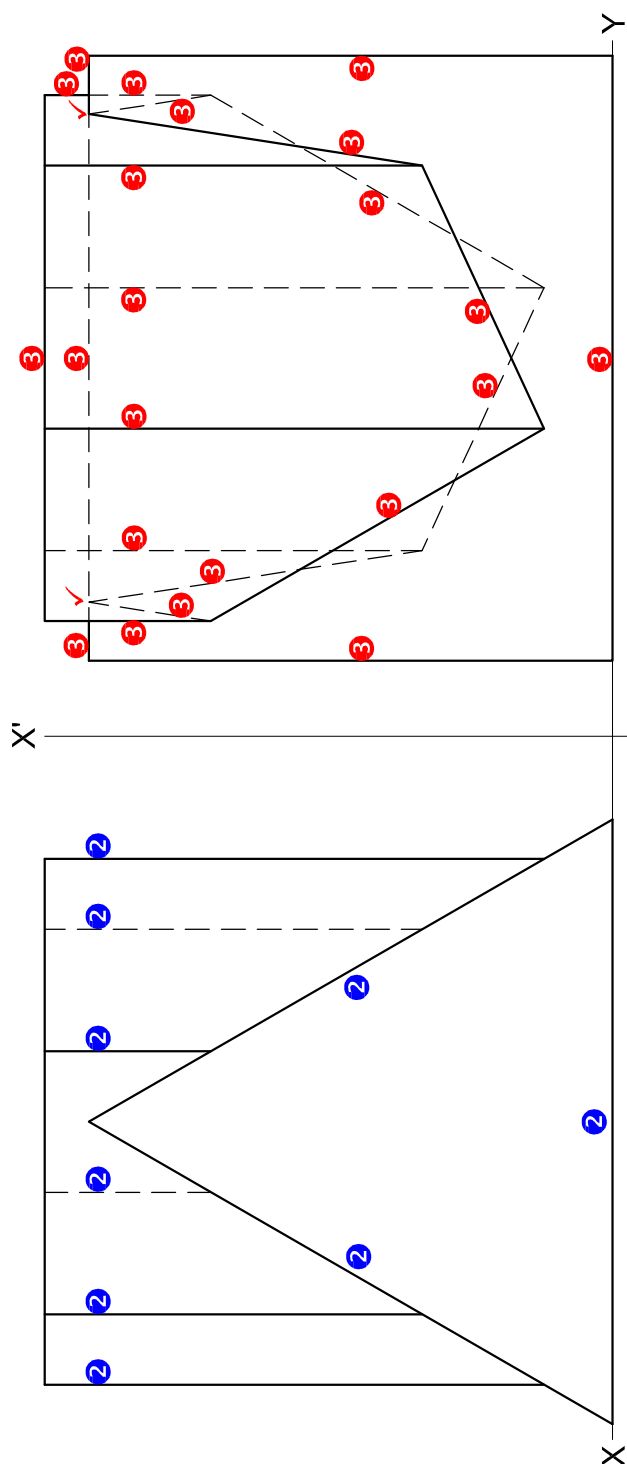
$$\begin{aligned}
 \text{AREA} &= 58 + 31.54 + 15 \\
 &= 104.54\text{m}^2
 \end{aligned}$$

ANTWOORD 20

VRYHAND 3

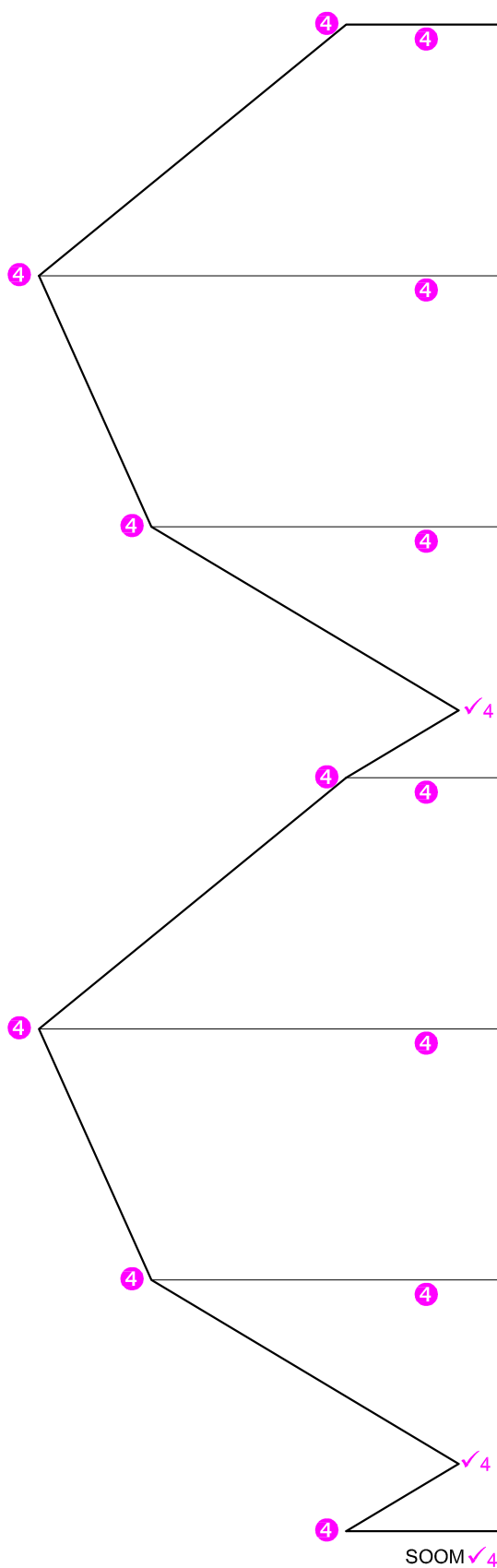


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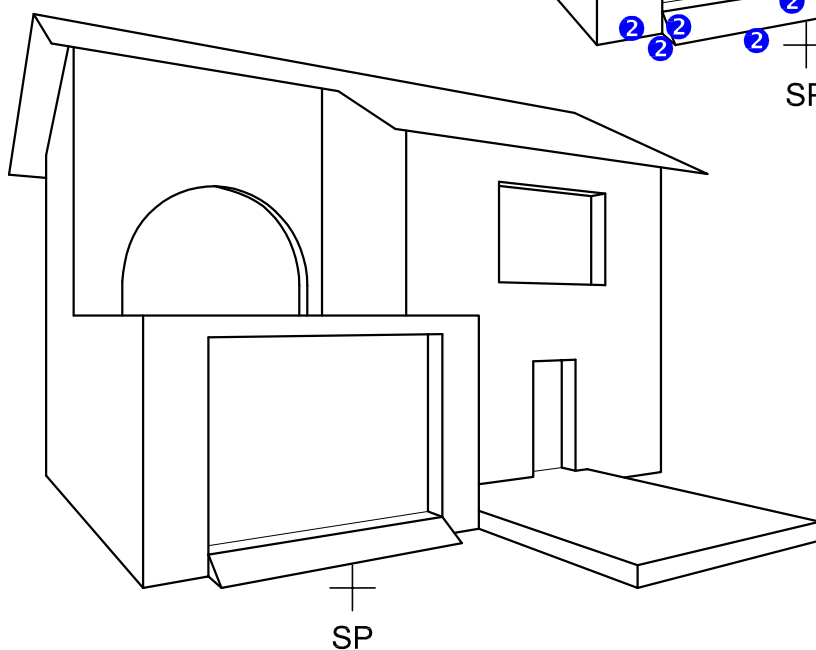
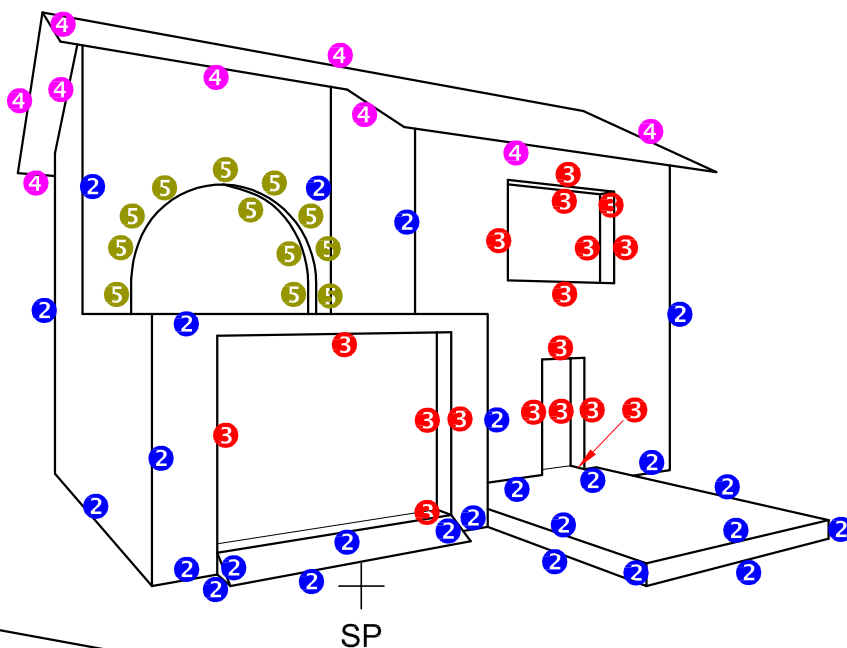
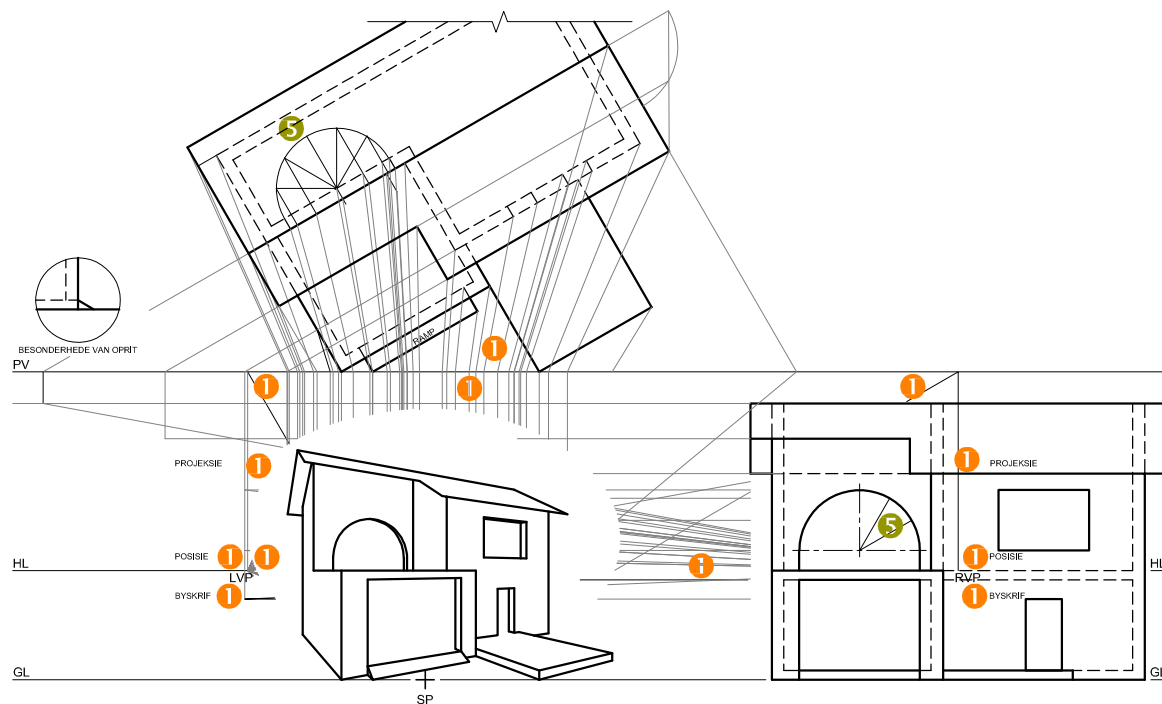
ASSESSERINGSKRITERIA		
1	BOAANSIG	7 $\frac{1}{2}$
2	REGTERAANSIG	5
3	VOORAANSIG	13
4	ONTWIKKELING	11 $\frac{1}{2}$
TOTAAL		37

VRAESTEL 1 VRAAG 2
GRAAD 12
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✓ 4 SES EWE GROOT SPASIES
✓ 4 BASISLYN

VRAESTEL 1 VRAAG 2
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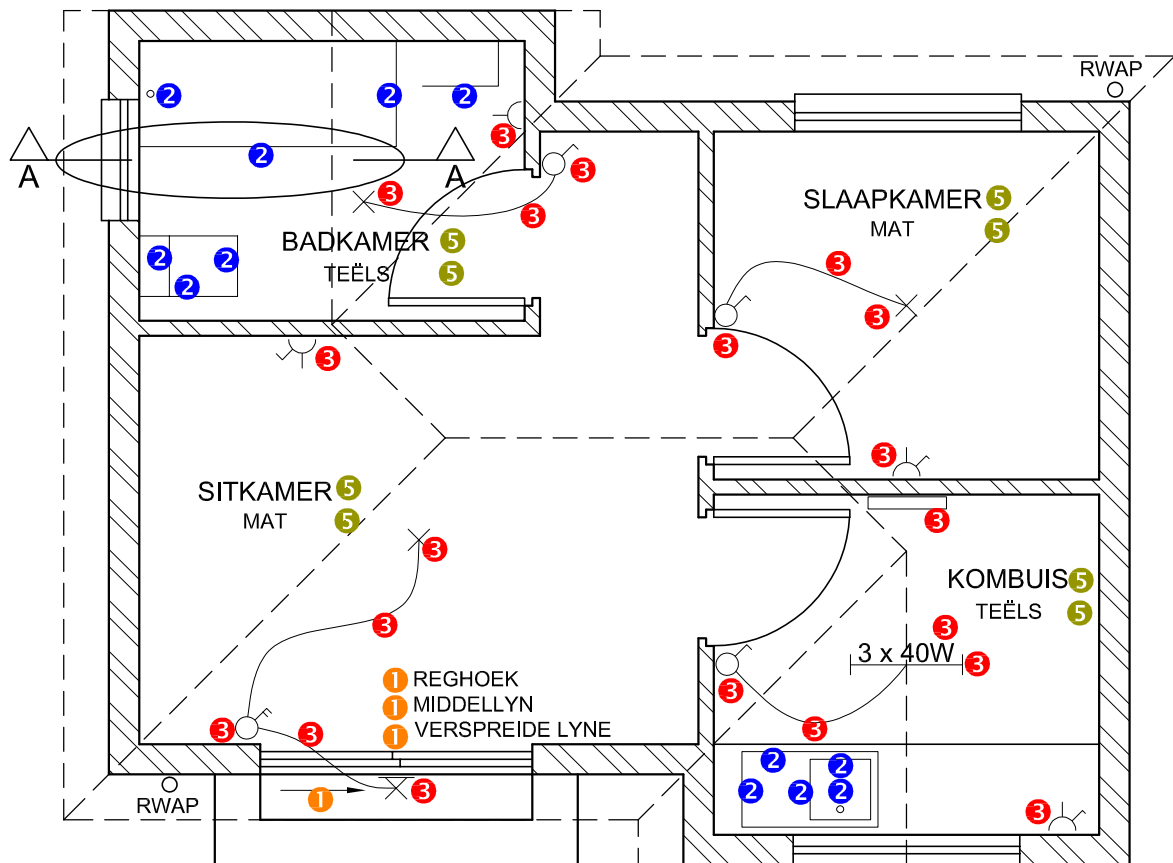
ASSESSERINGSKRITERIA		
1	KONSTRUKSIE	6
2	MURE	13
3	DEURE + VENSTERS	8 $\frac{1}{2}$
4	DAK	4 $\frac{1}{2}$
5	BOË	7
TOTAAL		39

VRAESTEL 1 VRAAG 3
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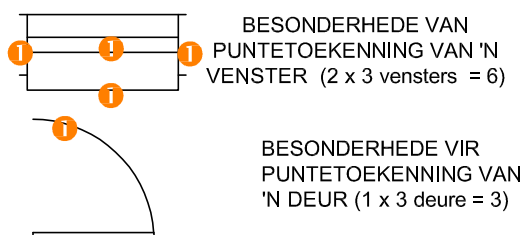
VLOERPLAN

1	DEURE + VENSTERS	11
2	TOEBEHORE	7
3	ELEKTRIES	10
4	ARSERING	3
5	BYSKRIFTE	4
SUBTOTAAL		35

4. ARSERINGSTOEKENNING
 VOLDOEN AAN SANS (TIPE) 1
 ARSERING KORREK TOEGEPAS 2
 TOTAAL 3



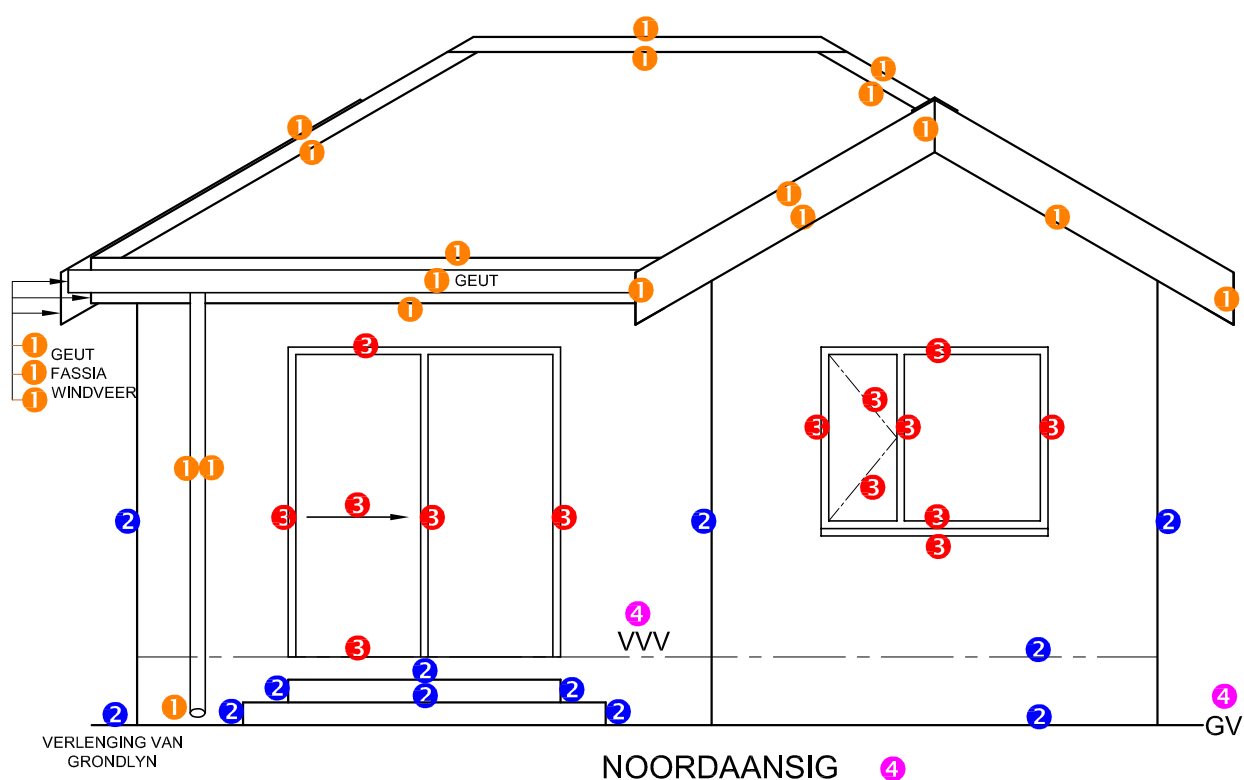
VLOERPLAN
SKAAL 1 : 50



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NOORDAANSIG

1	DAK + RWAP	10 $\frac{1}{2}$
2	MURE + TRAPPE + VVV	6
3	DEUR + VENSTER	7
4	BYSKRIFTE	1 $\frac{1}{2}$
SUBTOTAAL		25



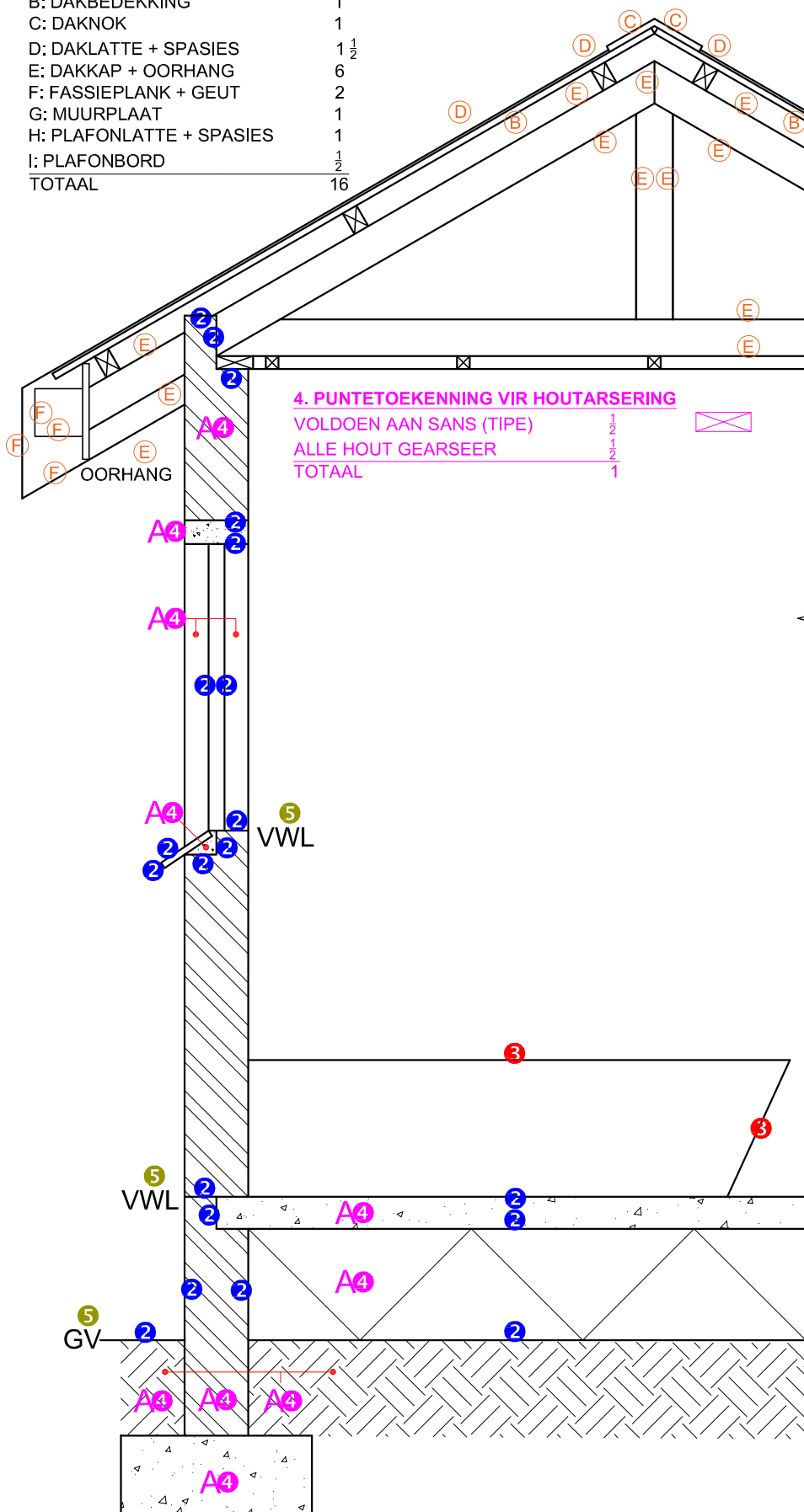
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1. PUNTTOEKENNING VIR SNIT VAN DAK

A: DAKHELLING	1 + 1	2
B: DAKBEDEKKING	1	1
C: DAKNOK	1	1
D: DAKLATTE + SPASIES	1 1/2	1 1/2
E: DAKKAP + OORHANG	6	6
F: FASSIEPLANK + GEUT	2	2
G: MUURPLAAT	1	1
H: PLAFONLATTE + SPASIES	1	1
I: PLAFONBORD	1/2	1/2
TOTAAL		16

GEDETAILEERDE SNIT

1	DAKBESONDERHEDE	16
2	FONDASIE + MUUR + VENSTER	10
3	BAD	1
4	ARSERING	5 1/2
5	BYSKRIFTE	1 1/2
SUBTOTAAL		34



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