



**higher education
& training**

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

NASIENRIGLYN

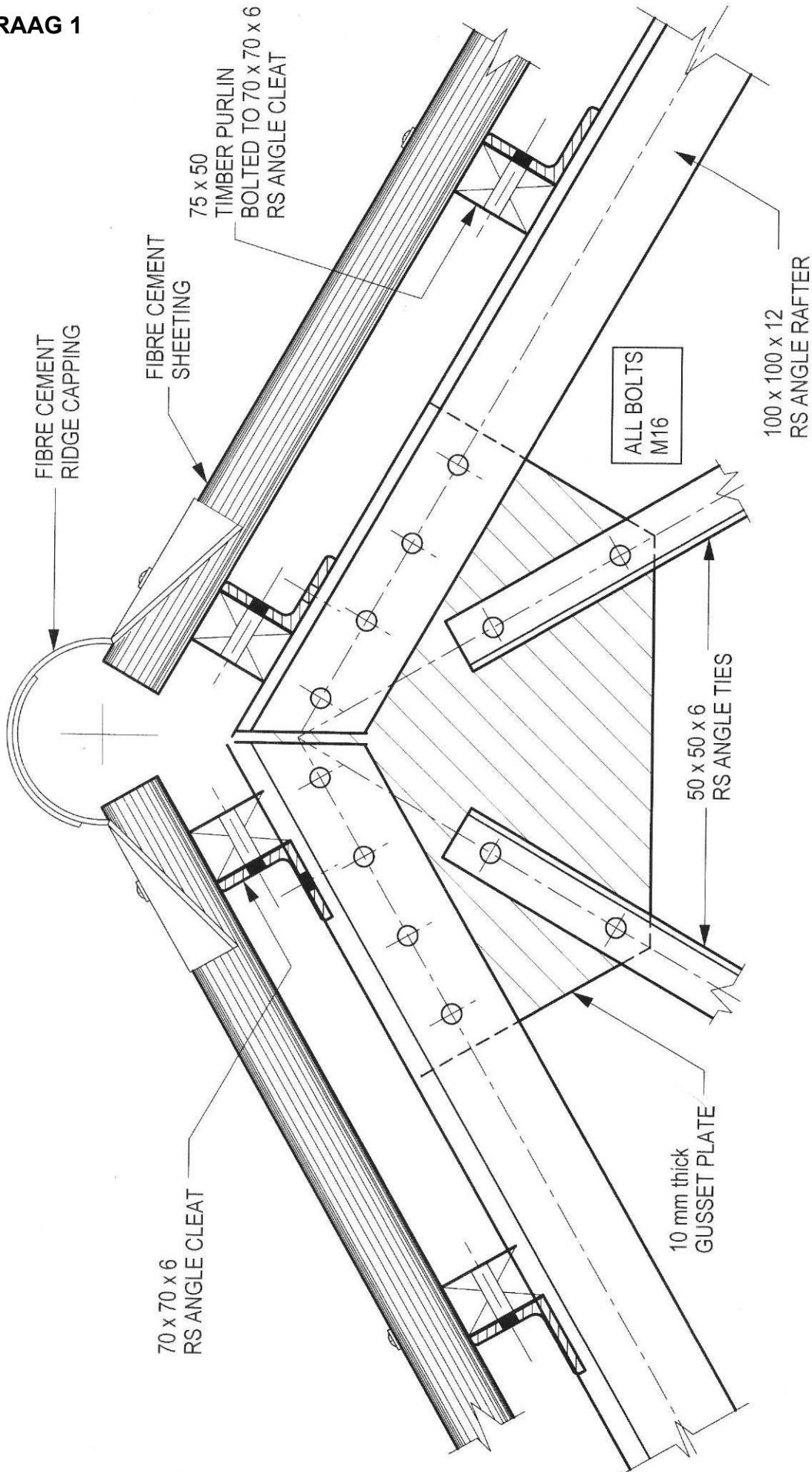
NATIONALE SERTIFIKAAT

BOU- EN STRUKTUURKONSTRUKSIE N4

7 AUGUSTUS 2019

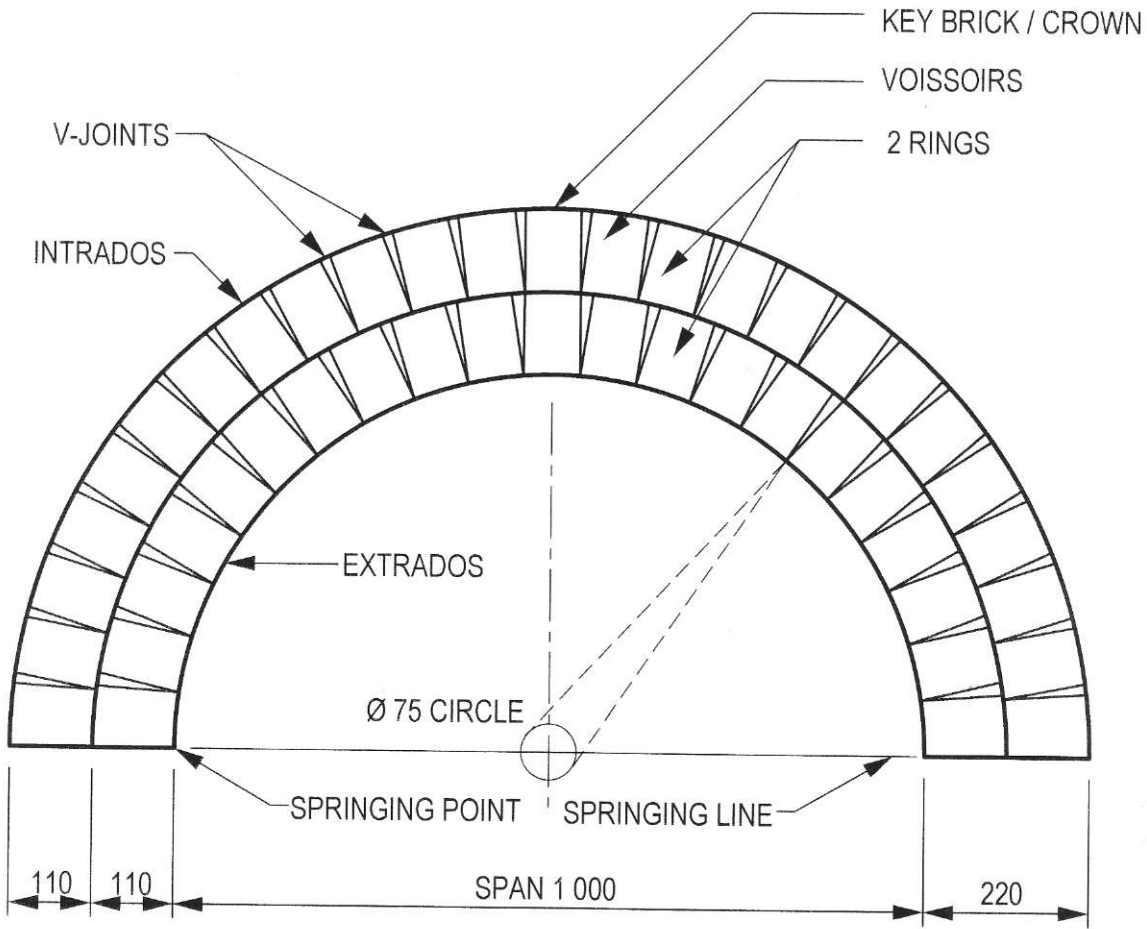
Hierdie nasienriglyn bestaan uit 9 bladsye.

VRAAG 1



DETAIL AT THE RIDGE OF A STEEL ROOF TRUSS
SCALE 1:5

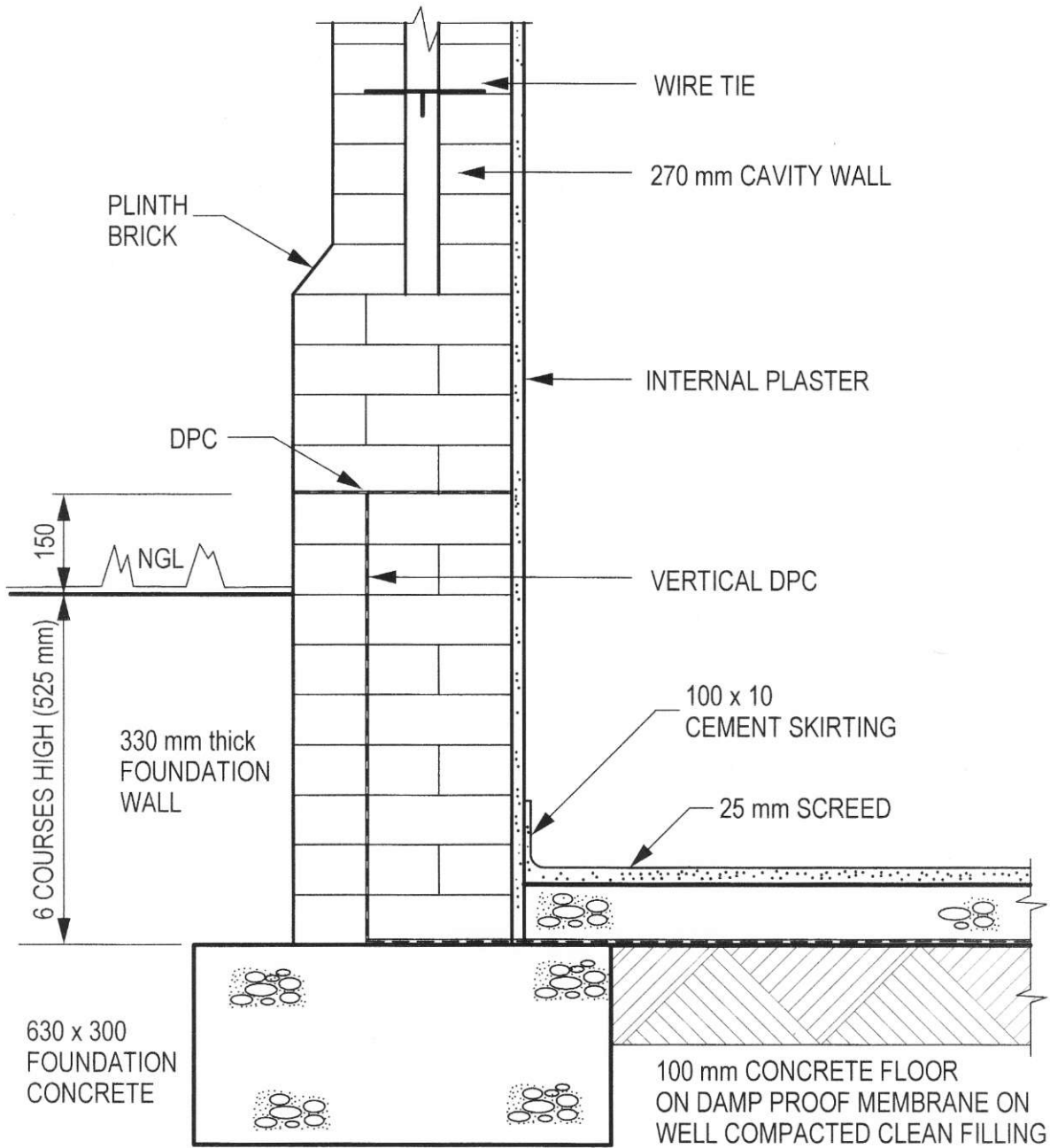
VRAAG 2



SEMI-CIRCULAR ROUGH BRICK ARCH
SCALE 1:10

[11]

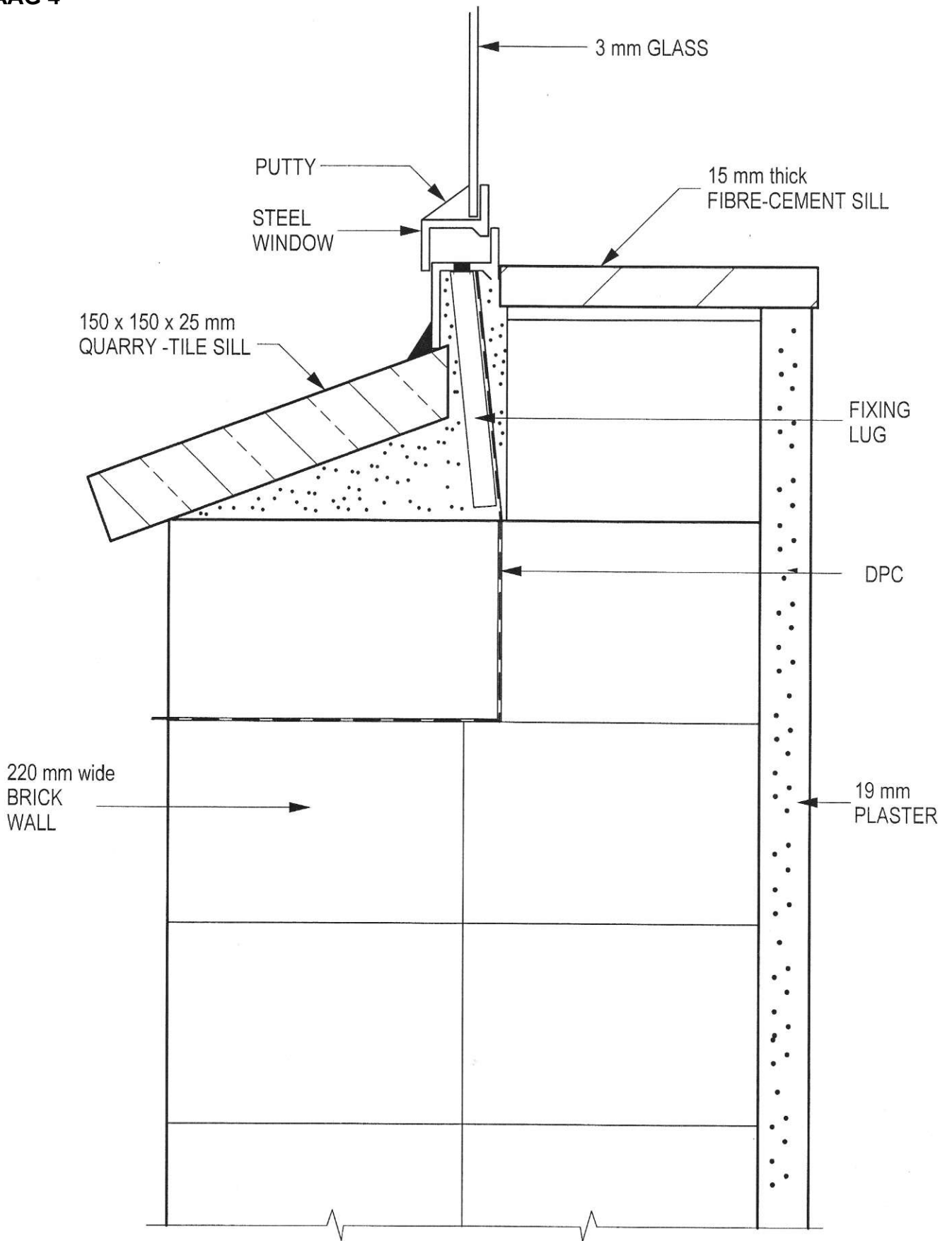
VRAAG 3



VERTICAL SECTION THROUGH AN EXTERNAL BASEMENT WALL
SCALE 1:10

[16]

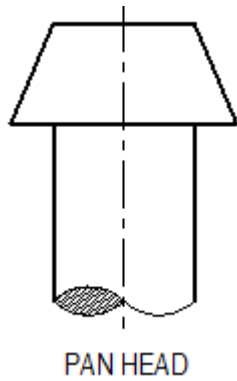
VRAAG 4



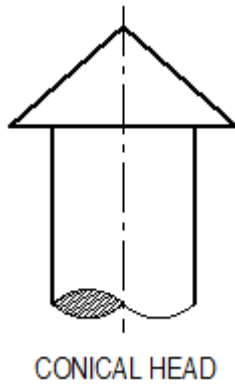
VERTICAL SECTION THROUGH STEEL CASEMENT WINDOW
SCALE 1:2

VRAAG 5

5.1.1



5.1.2



Mark Allocation	
Rivet corr.	2
Label	1
Total	3
3 x 2 = 6 Marks	

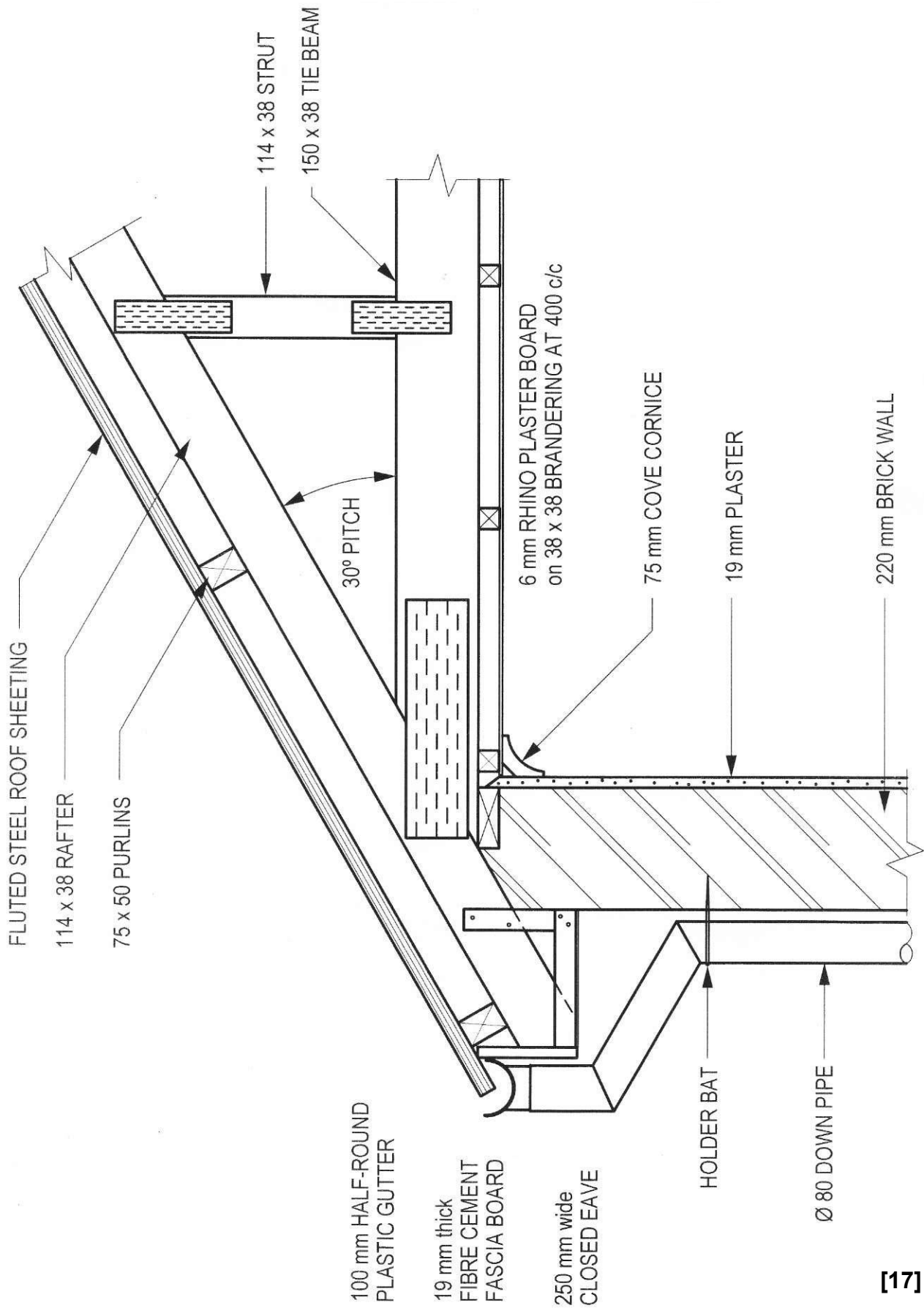
(2 x 3) (6)

'n Verskuilde geut sit agter die geutplank van 'n dak en kan dus nie van voor gesien word nie. 'n Borsweringgeut sit agter 'n borsweringmuur onderaan 'n plat of skuins dak. (2 + 2) (4)

5.3 Muurplate vorm 'n waterpasoppervlak vir die dakstruktuur. Dakkappe word ook op 'n muurplaat vasgespyker. (1)

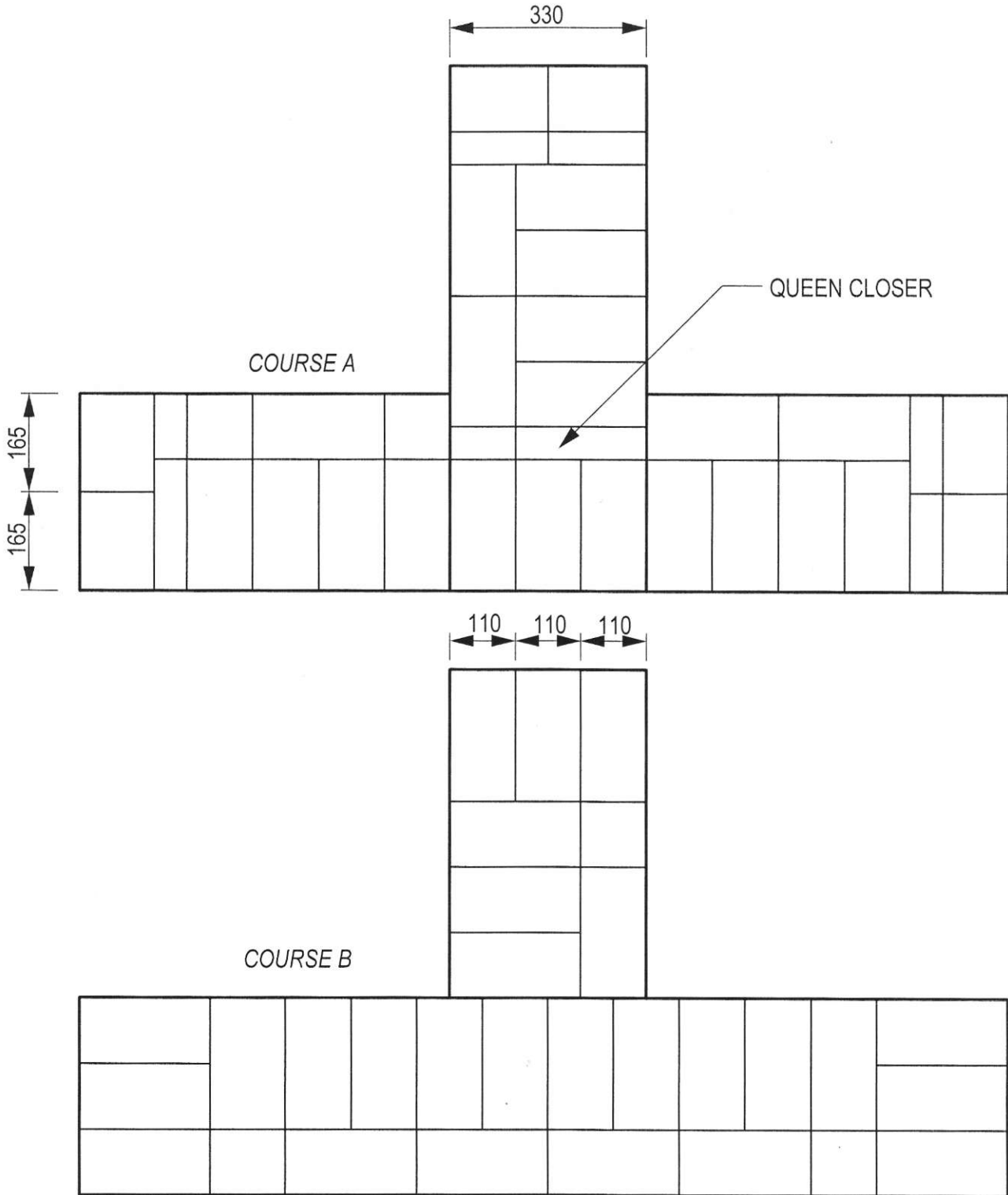
[11]

VRAAG 6



[17]

VRAAG 7



ALTERNATE PLAN VIEWS OF A T-JUNCTION BUILT IN ENGLISH BOND
SCALE 1:10

[10]

MARK SHEET
ALTERNATE CORRECT ANSWERS WILL BE CONSIDERED

QUESTION 1			
MARK ALLOCATION			
Correctness:			
Set-out lines corr.	1	Accuracy	3
2 Rafter	2	Cente lines	1
2 Struts	2	Labels	2
Gusset Plate corr.	1	TOTAL	
Steel cleats	2	14 + 6	
Purlins	2	= 20 Marks	
Roof covering	2		
Rivet lay-out corr.	2		

QUESTION 2		
MARK ALLOCATION		
Correctness:		6
Span corr.	1	
2 Rings	2	
Bricks corr.	2	
V-joints	1	
Accuracy		3
Labels		1
Dimensions		1
Total		11

QUESTION 3		
MARK ALLOCATION		
Correctness:		10
Conc Fndt	1	
Heights corr.	2	
Walls corr.	2	
Conc Floor	2	
DPC	2	
Ground Level	1	
Accuracy		3
Dimensions		1
Labels		2
Total		16

QUESTION 4		
MARK ALLOCATION		
Correctness:		10
Brick wall width corr.	1	
Window sections corr.	3	
Glass & putty	2	
Window sills	2	
Fixing lug	1	
DPC	1	
Accuracy		2
Plaster		1
Labels		2
Total		15

QUESTION 6			
MARK ALLOCATION		Accuracy	3
Correctness:		Finishes	1
Wall corr.	1	Labels	2
Roof construct.	2	TOTAL	
Roof covering	2	11 + 6	
Closed eave	1	= 17 Marks	
Ceiling construct	2		
Rainwater goods	2		
Nail plates	1		

QUESTION 7	
MARK ALLOCATION	
Wall width corr	2
Corr bonding	3
Stopped ends	3
Labels	1
Dimensions	1
Total	10

TOTAAL: 100