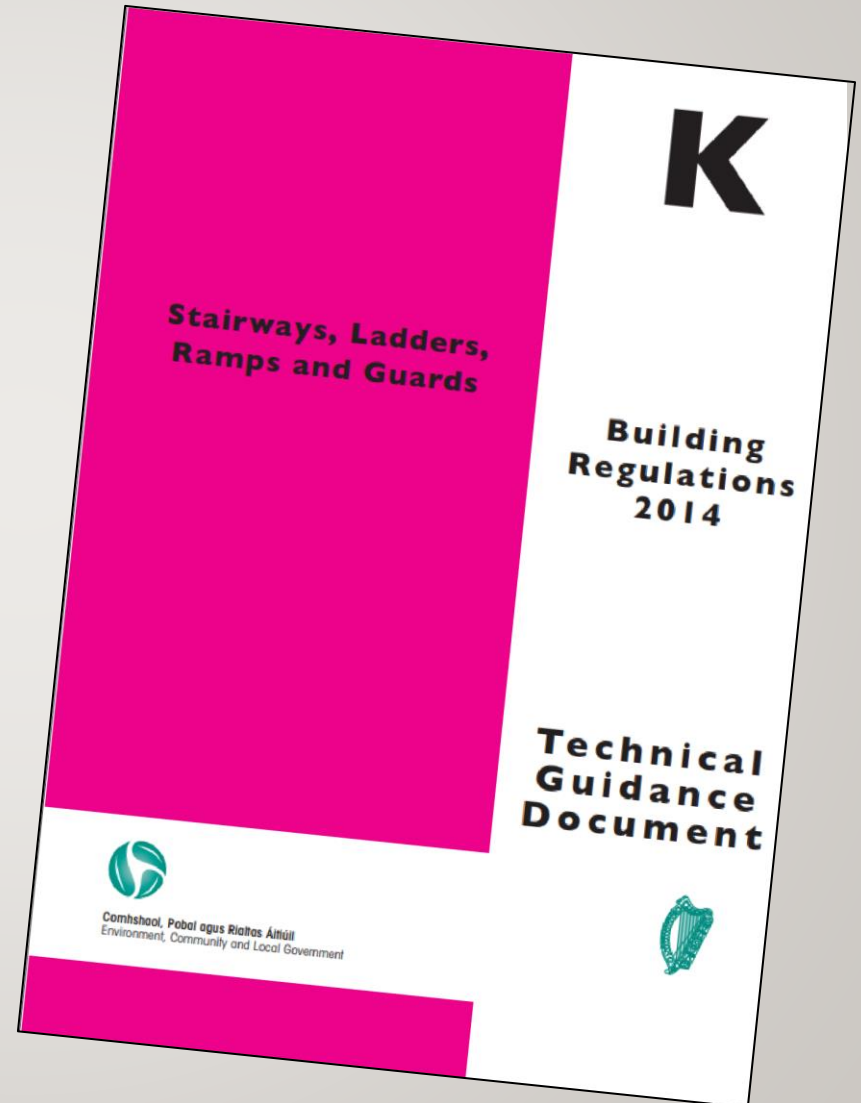
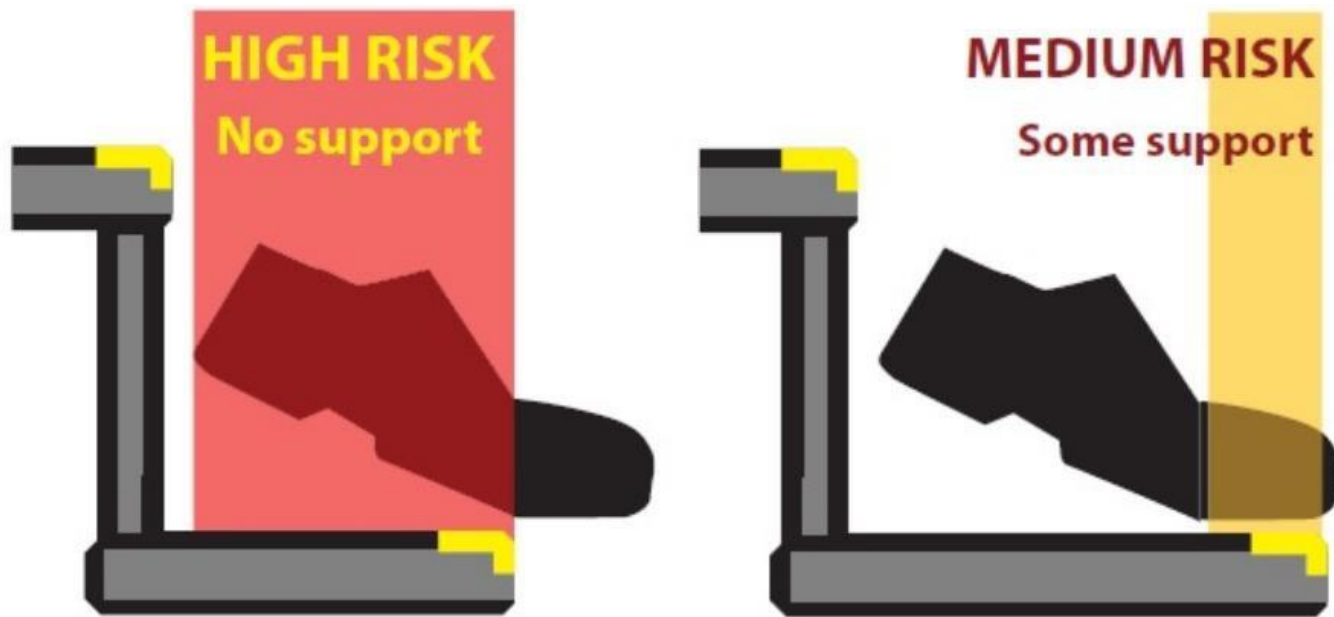


I STAIR REGULATIONS

- Due to their very nature, stairs are a trip hazard.
- For this reason, the Building Regulations are very clear regarding what is allowed and this information can be found in the [Technical Guidance Documents – Part K.](#)





- > The average male shoe is 290mm long
 - > On 250mm goings, a large overstep occurs every 10 days
 - > On 300mm goings, a large overstep occurs every 73 years

3 STAIR REGULATIONS

Regulation	Private	Semi-private	Public
Pitch (degrees)	42 degrees max	38 degrees max	33 degrees max
Headroom	2 metres min.	2 metres min.	2 metres min.
Rise	220 mm max	190 mm max	180 mm max
Going	220 mm min.	250 mm min.	280 mm min.
Twice rise plus going ($2r + g$)	550 – 700 mm	550 – 700 mm	550 – 700 mm
Width (unobstructed)	800 mm min.	1 m min.	1 m min.
Handrail height (sloped)	900 – 1000 mm	900 – 1000 mm	900 – 1000 mm
Handrail height (landing)	900 – 1100 mm	1100 mm min.	1100 mm min.

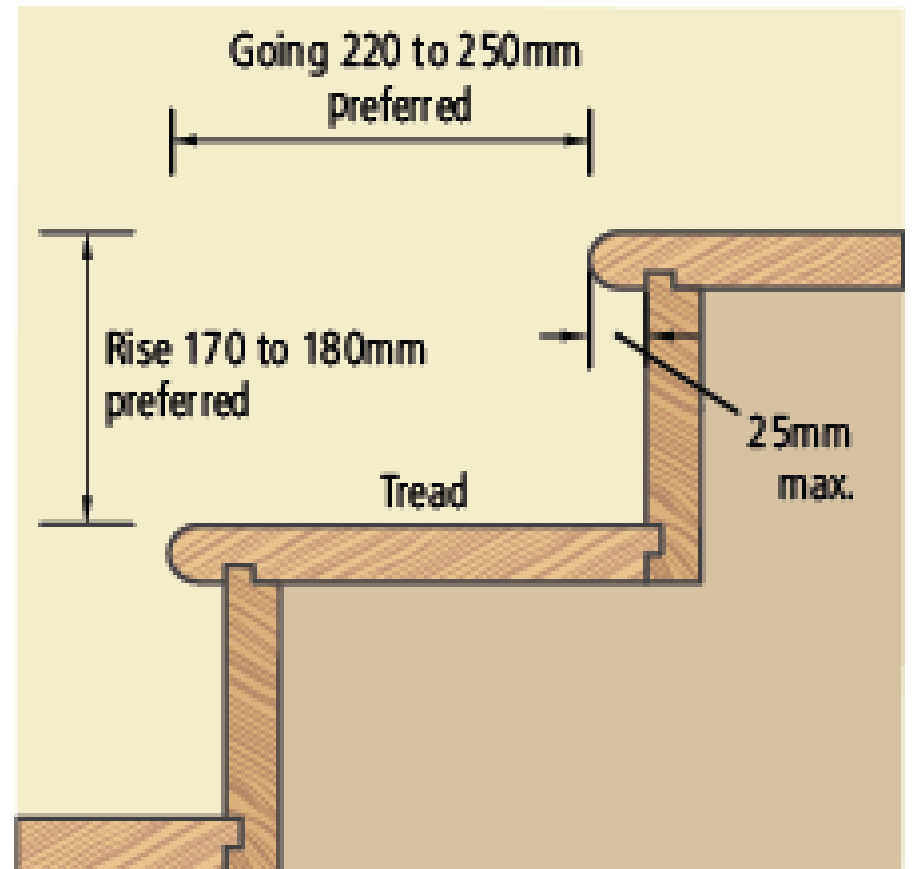
NOTE: Regulations regarding Semi-Private and Public buildings are provided for information purposes only, and students should focus on Private.

4 STAIR SAFETY

Twice the rise plus the going should equal between 550mm and 700mm

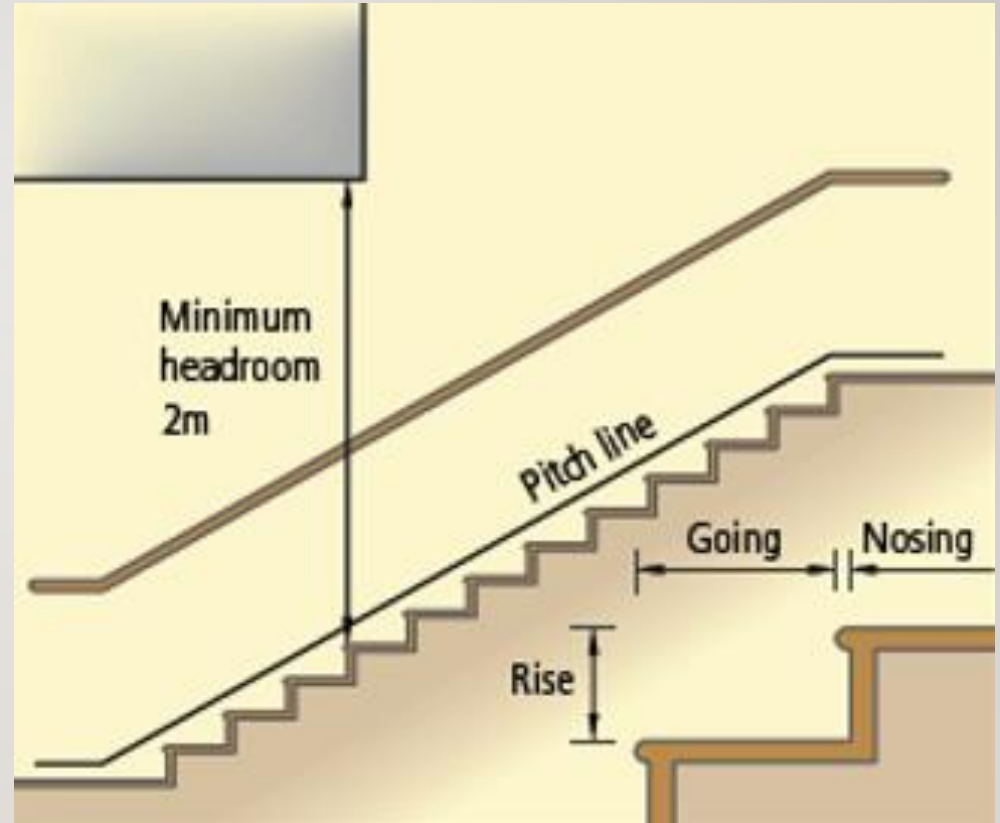
- Overhang
- Min. 16mm - Max. 25mm

$$2R + G = 550-700\text{mm}$$



5 STAIR SAFETY

- Max. rise = 220mm (optimal height 175mm)
- Min. going = 220mm (optimal depth 250)
- Headroom = 2m at least
- Max. pitch = 42° (optimal 35°)

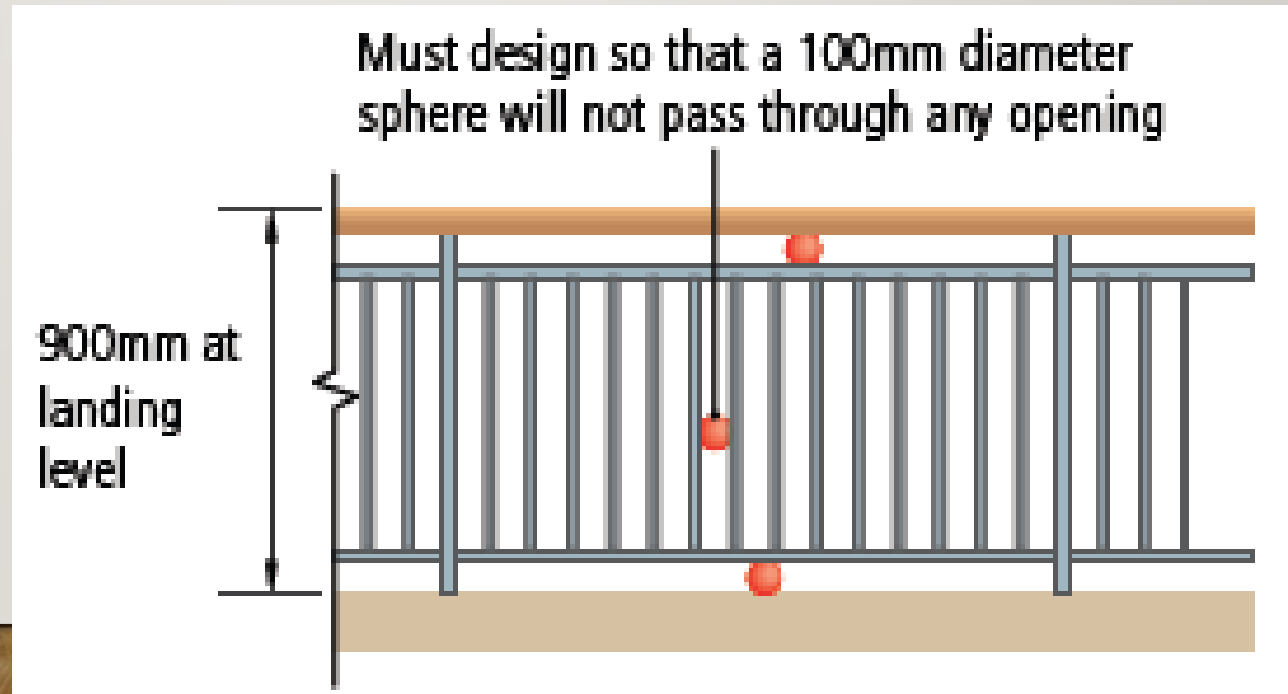


6 STAIR REGULATIONS

- The rises and goings should all be the same in any one flight.
- There should be no more than 16 risers in any one flight.
- A sphere of 100mm diameter should not be able to pass through any point of the stairs.
- If the width of the stairs exceeds 1m a second handrail is required.
- Landing should be at least as great as the width of the stairs.

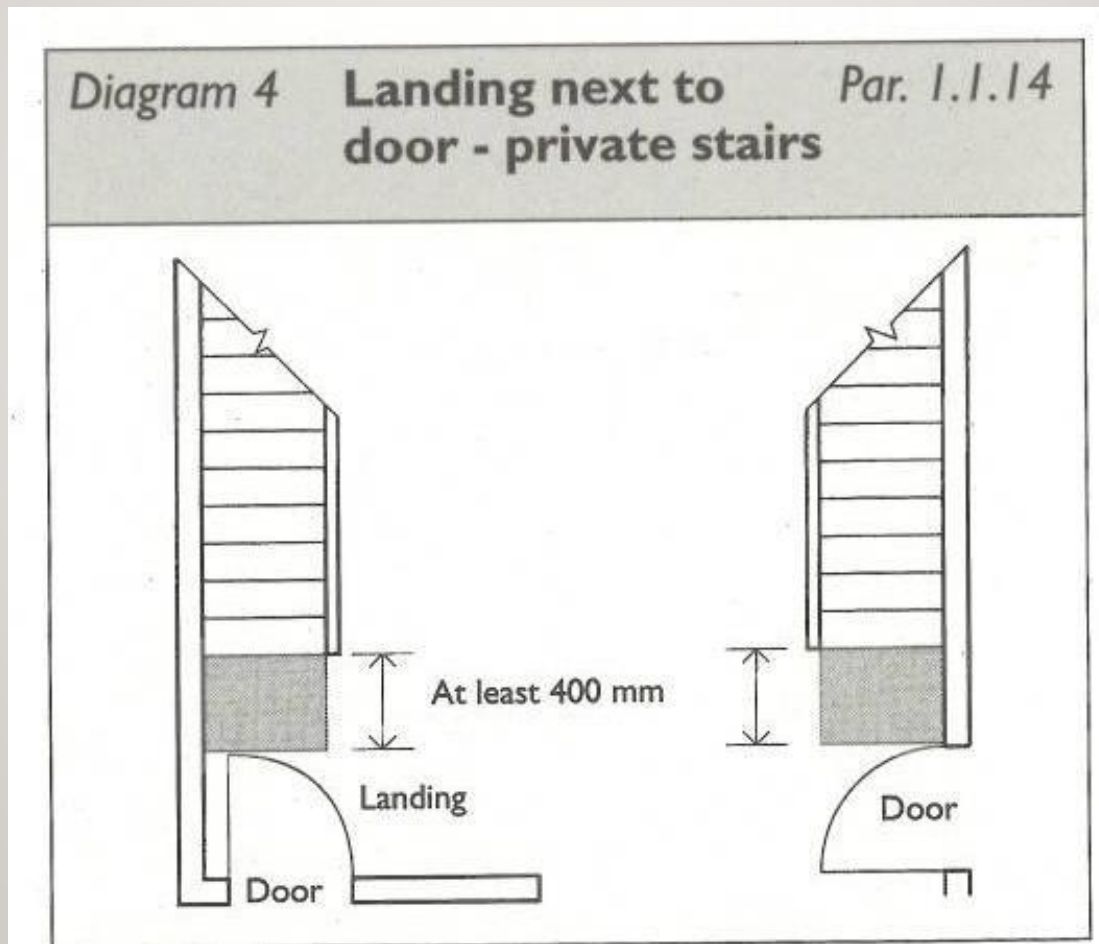
STAIR SAFETY 7

- Handrail = 900mm above pitch line
- Handrail = 900mm at landing
- Balusters spaced no further than 100mm apart
- Max. 16 steps in a flight
- Min. stair width 800mm



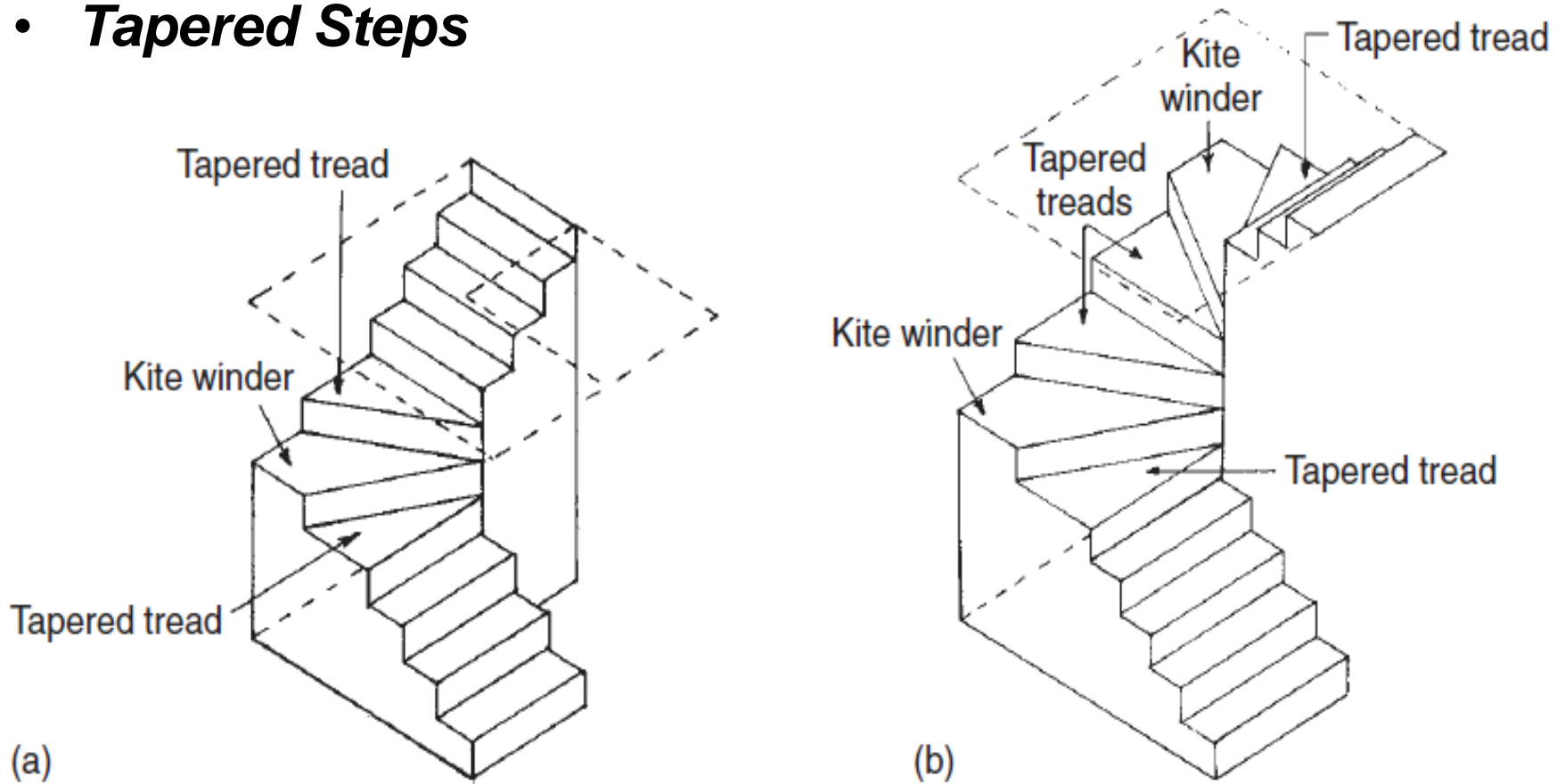
8 STAIR REGULATIONS

- Top and bottom of stairs should be at least 400mm clear of door opens



9 STAIR REGULATIONS

- ***Tapered Steps***



Examples of floor and well space in relation to tapered tread stairs

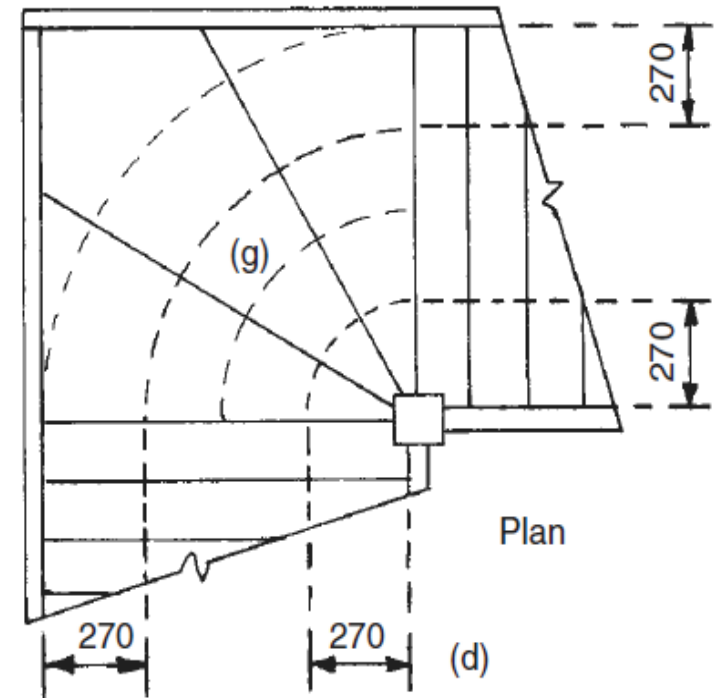
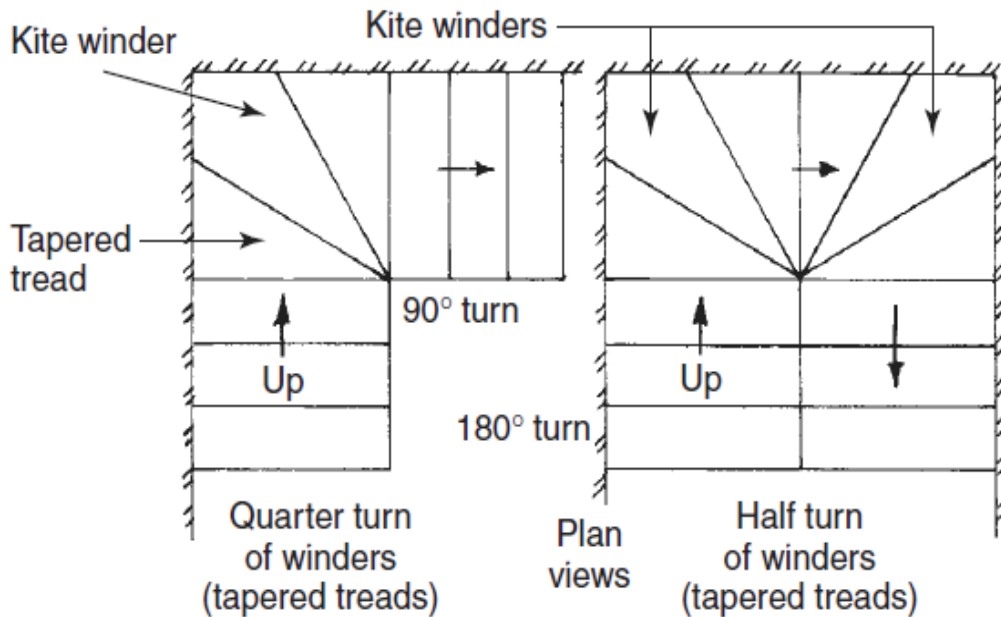
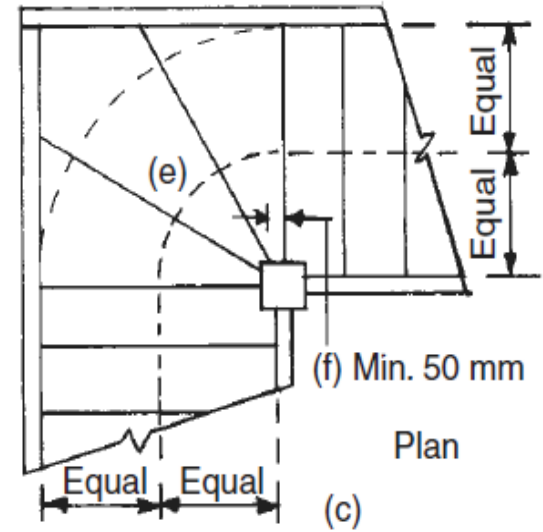
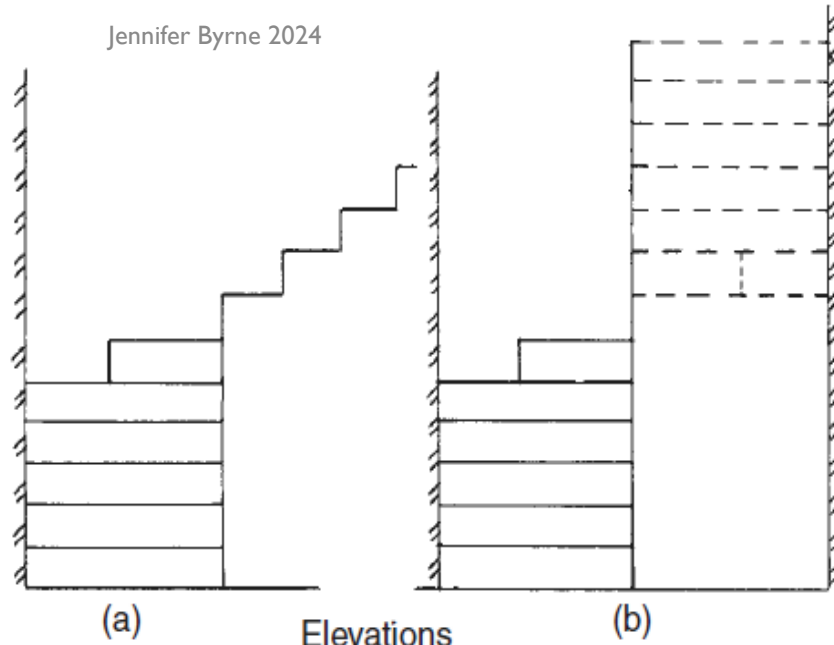
10

STAIR REGULATIONS: TAPERED STEPS

- The regulations as above apply to tapered steps as follows:
- If the flight is narrower than 1000mm – measure in the centre.
- If the flight is 1000mm or wider – measure in 270mm from each side.
- *In addition:* The going should measure at least 75mm at the narrow end.



Jennifer Byrne 2024



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STAIR REGULATIONS:REVISION

Regulation	Private	Semi-private	Public
Pitch (degrees)			
Headroom			
Rise			
Going			
Twice rise plus going ($2r + g$)			
Width (unobstructed)			
Handrail height(wall)			
Handrail height(flight)			
Handrail height(landing)			

13 STAIR REGULATIONS:REVISION

Regulation	Private	Semi-private	Public
Pitch (degrees)	42 degrees max	38 degrees max	33 degrees max
Headroom	2 metres min.	2 metres min.	2 metres min.
Rise	220 mm max	190 mm max	180 mm max
Going	220 mm min.	250 mm min.	280 mm min.
Twice rise plus going ($2r + g$)	550 – 700 mm	550 – 700 mm	550 – 700 mm
Width (unobstructed)	800 mm min.	1 m min.	1 m min.
Handrail height(wall)	900 – 1000 mm	900 mm	900 mm
Handrail height(flight)	900 – 1000 mm	900 mm	900 mm
Handrail height(landing)	900 – 1100 mm	1100 mm min.	1100 mm min.

14 STAIR REGULATIONS:REVISION

- The _____ should all be the same in any one flight.
- There should be no more than _____ risers in any one flight.
- A sphere of _____ diameter should not be able to pass through any point of the stairs.
- If the width of the stairs exceeds _____ a second handrail is required.
- Top and bottom of stairs should be at least _____ clear of door opes.
- Landing should be at least as great as _____ of the stairs

15 STAIR REGULATIONS:REVISION

- The Rise and Goings should all be the same in any one flight.
- There should be no more than 16 risers in any one flight.
- A sphere of 100mm diameter should not be able to pass through any point of the stairs.
- If the width of the stairs exceeds 1000mm a second handrail is required.
- Top and bottom of stairs should be at least 400mm clear of door opes.
- Landing should be at least as great as the width of the stairs

16

STAIR REGULATIONS:REVISION

The regulations apply to tapered steps as follows:

- a) If the flight is narrower than **1000mm** measure in the centre.
- b) If the flight is 1000mm or wider – measure in **270mm** from each side.

In addition: The going should measure at least **75mm** at the narrow end.

