

Egress + Stairs

Learning to Build

- Different structural systems
↳ interior finish Enclosure
- First cost, maintenance cost, energy consumption cost, useful lifetime and replacement cost of the system.

- A choice is often influenced by considerations of environmental sustainability
- How materials feel in your hand and how materials are manufactured, how they look in buildings, how they perform in service.

- The architects, engineers, materials suppliers, contractors, subcontractors, workers, inspectors, managers and building owners.

(understanding everyone's points of view, problems and their own respective methods)



The Work of The Design Professional: Choosing Building Systems

- The start of an idea (the building)
- Zoning ordinances govern the types of activities that may take place on a given piece of land.
- Building codes protect public health and safety by setting minimum standards for construction quality, structural integrity, durability, livability, accessibility, and fire safety.

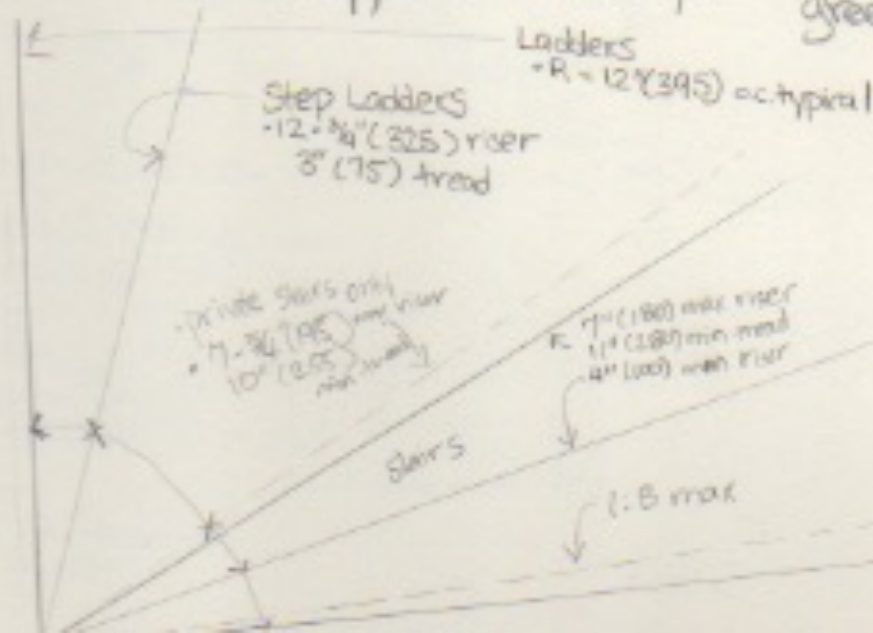
↑ ↓
A ≤ 2.3 T ≤ 25

* Sustainability

- Meeting the needs of present generation without compromising the ability of future generations to meet their needs.

- Architect helps organize the owner's ideas about the new building, develops the form of the building and assembles a group of engineering specialists to help work out concepts and details of foundation structural support, and mechanical, electrical and communication services.

- A carbon-neutral building is one that causes no net increase in the emission of carbon dioxide the most prevalent atmospheric greenhouse gas.*



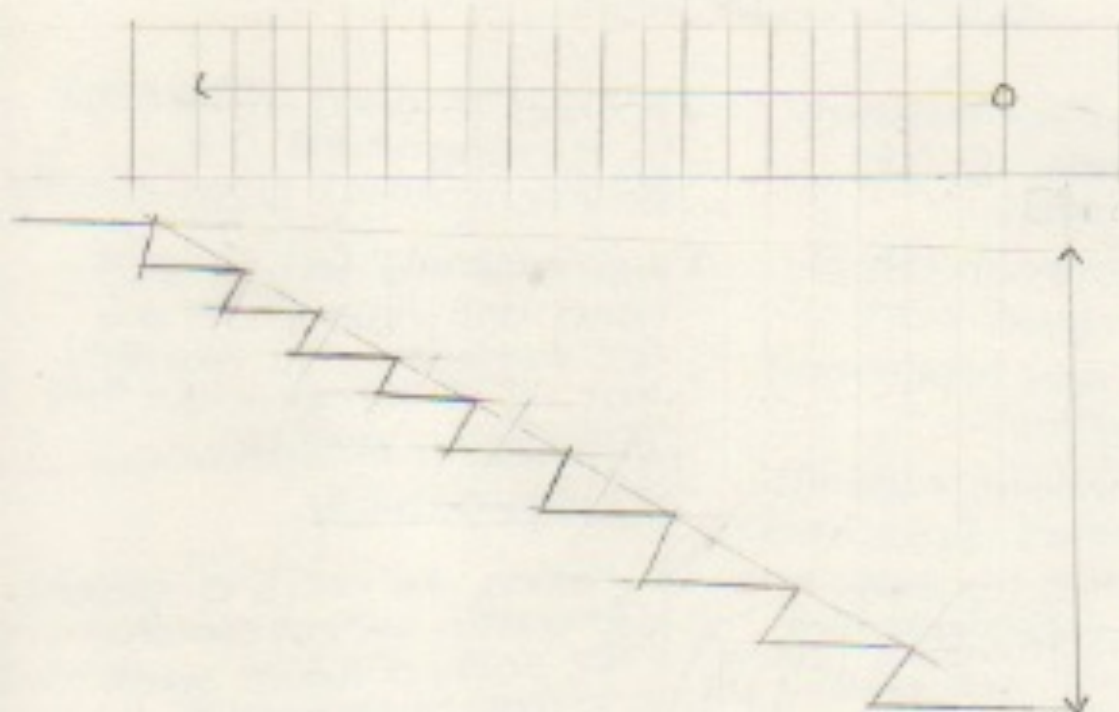
Egress route - a way to exit the building

area of refuge - A disabled person's safety spot

1:12 max when part of an accessible route or an emergency egress system

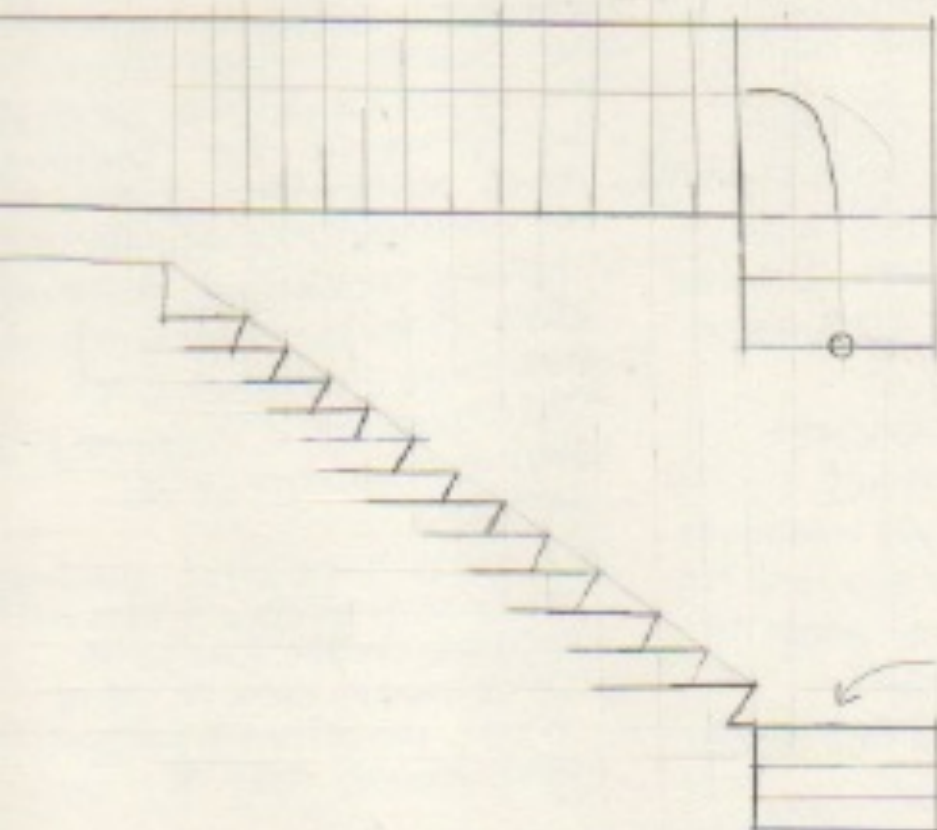
Straight-Run Stair

Extends from one level to another w/o turns or winders. Vertical rise between landings 12' (3660)



Quarter-Turn Stairs

L-shaped stairs right-angled turn



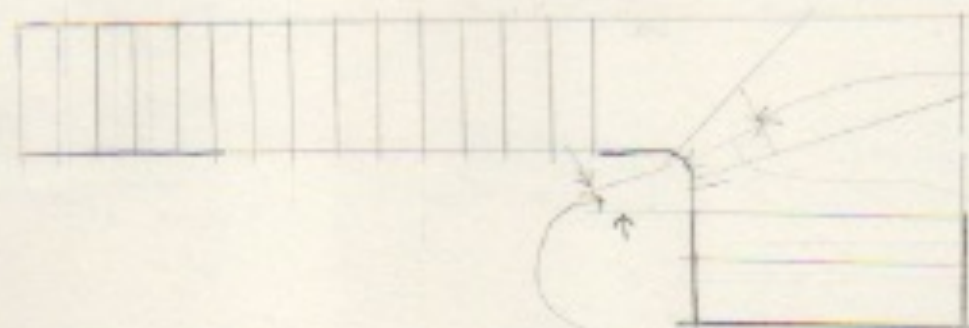
landings that are below normal eye level and provide a place to rest or pause are inviting

-Old Buildings-

Winders must have the required tread dimension at a point.

12" (305) in from the narrow end of the treads

6" (150) min at the narrow end of the treads.

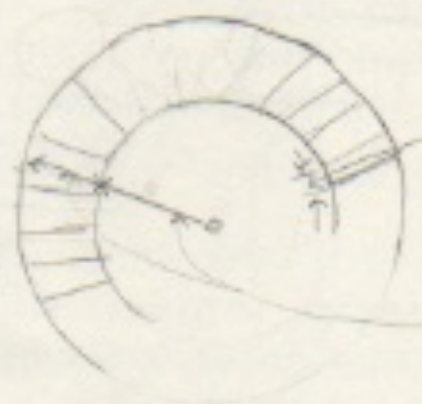


Half turn / Switch back
Used in V-Building
Egress.

Circular Stairs

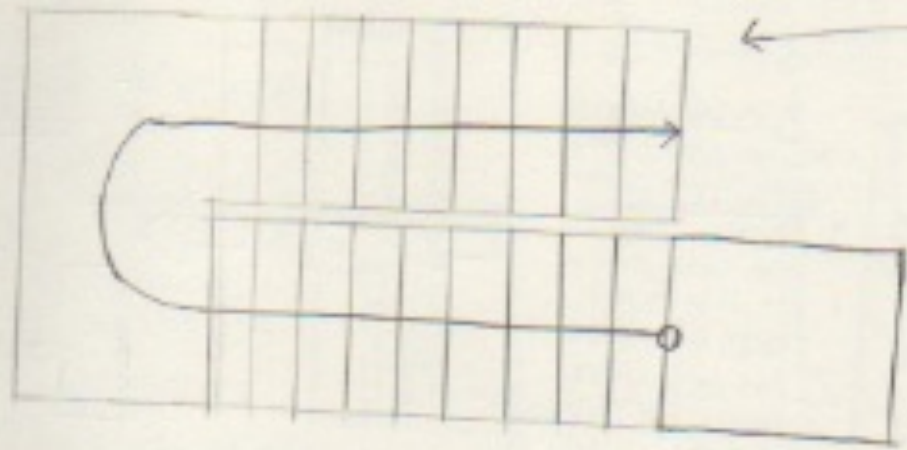
Guardrail 3
42" (1070) high
In dwellings
36" (915) high

Handrails
1-1/2" (38) min
clearance betw
handrail and wall.

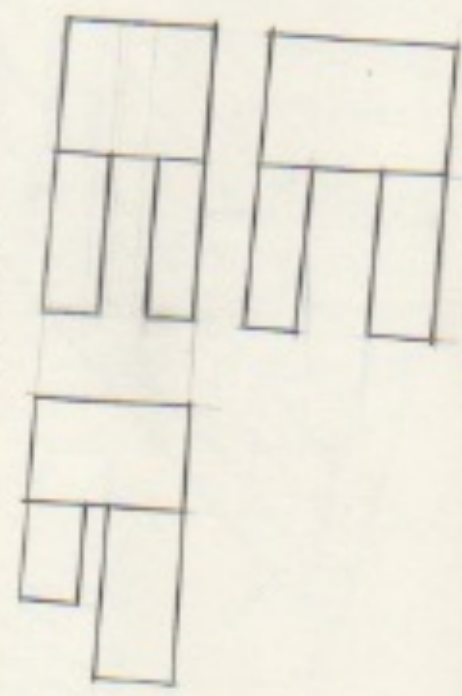
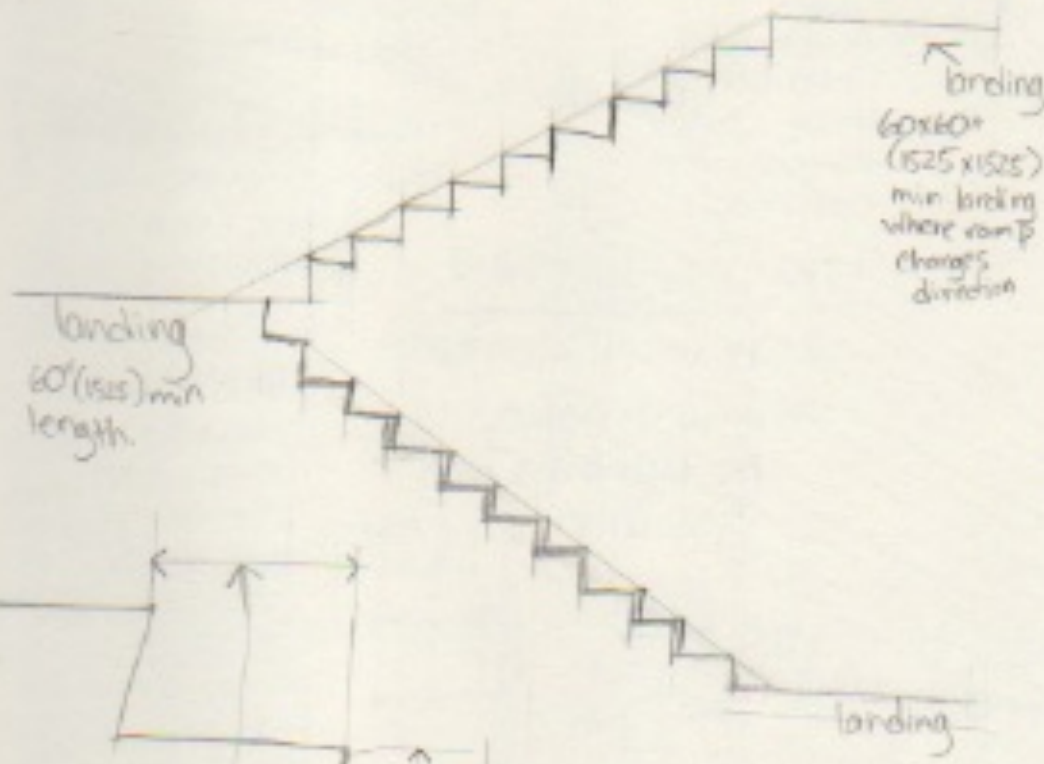


10" (255) min at the narrow end of the treads

The inside radius should be at least twice the actual width of the stair



Turns 180° or through two right angles at an intervening landing.



Risers and Treads
Tread depth: 11" (280) min
Riser height: 4" (100) min, 7" (178) max

Nosings
1-1/2" (38) max protrusion
1/2" (13) max radius

Risers shall be sloped or nosings shall have 60° angle min from horizontal.