

TITLE:
STAIR RAIL AND HANDRAIL DESIGN GUIDANCE

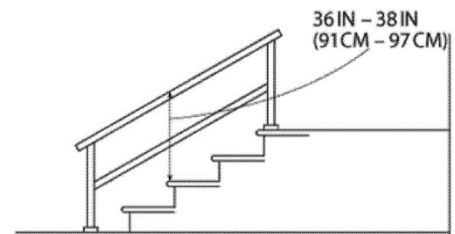
1.0 General

- Handrails and stair rail systems are smooth-surfaced and do not present any projection hazards.
- Height is measured from the leading edge of the stair tread to the top surface of the top stair rail or handrail.
- Stair rails and handrails must meet a force of at least 200 pounds applied in any downward or outward direction within 2 inches of any point along the top edge of the rail.

2.0 Stair Rail Systems

Stair rail or stair rail system means a barrier erected along the exposed or open side of stairways to prevent employees from falling to a lower level. Stair rail systems are required on stairs with four or more risers.

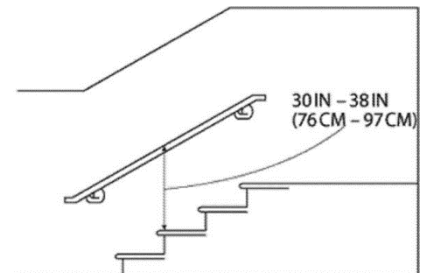
- Stair rail is not less than 30 inches in height (installed before January 17, 2017).
- Stair rail is not less than 42 inches in height (installed after January 17, 2017).
- Intermediate rails (midrails) are present halfway between the top rail and the leading edge of the stair tread, or intermediate vertical members are installed that are not be more than 19 inches apart.
- Stair rail may serve as the handrail only when:
 - The stair rail height is 36 – 38 inches, and
 - The rail meets all other requirements of a stair rail system.



3.0 Handrails

Handrail means a rail used to provide employees with a handhold for support. Handrails are required based on the stair width and the number of open sides.

- Handrails have a shape and dimensions that allow it to be grasped firmly.
- Minimum clearance between handrails and any other object (including the wall to which the handrail is attached) is 2.25 inches.
- Handrails are between 30 – 38 inches in height.
- Stair width (less than 44 inches)
 - Enclosed stairwell: at least one handrail.
 - One open side: stair rail with handrail on the open side.
 - Two open sides: stair rail on each open side with at least one handrail.
- Stair width (greater than 44 inches)
 - Enclosed stairwell: handrail on each enclosed side.
 - One open side: stair rail with handrail on open side and handrail on enclosed side.
 - Two open sides: stair rail with handrail on each open side.





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- Stair width (greater than 88 inches)
 - Enclosed stairwell: handrail on each enclosed side and intermediate handrail located in the middle of the stairs.
 - One open side: stair rail with handrail on open side, handrail on enclosed side, and intermediate handrail in the middle of the stairs.
 - Two open sides: stair rail with handrails on each open side and intermediate handrail in the middle of the stairs.