

6° Typical Recommended Clearance for Stair Access

## **SPECIFICATIONS**

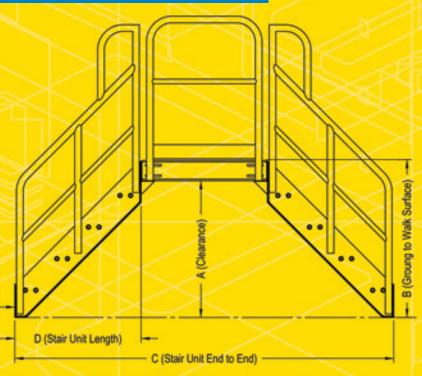
'Add 36" To Column C

Platform Used In Cross-

For Each Additional

Over Assembly

Please refer to nominal dimensions provided below. If any existing obstructions are critically close to the designed limit stated, please contact us for any clarifications to insure proper fit.



	Cross-	Over Clearano	e Table	
	A (in)	B (in)	C (in)	D (in)
1-Step	12	18	54	9
2-Step	21	27	72	18
3-Step	30	36	90	27
4-Step	39	45	108	36
5-Step	48	54	126	45
6-Step	57	63	144	54
7-Step	66	72	162	63
8-Step	75	81	180	72

## APPLICABLE OSHA REGULATIONS DESIGNED TO:

**OSHA 1910.23(e)(1)** A standard railing shall consist of top rail, intermediate rail, and posts, and shall have a vertical height of 42 inches nominal from upper surface of top rail to floor, platform, runway, or ramp level. The top rail shall be smooth-surfaced throughout the length of the railing. The intermediate rail shall be approximately halfway between the top rail and the floor, platform, runway, or ramp. The ends of the rails shall not overhang the terminal posts except where such overhang does not constitute a projection hazard.

**OSHA 1910.23(e)(5)(iv)** The mounting of handrails shall be such that the completed structure is capable of withstanding a load of at least 200 pounds applied in any direction at any point on the rail.

**OSHA 1910.23(e)(6)** All handrails and railings shall be provided with a clearance of not less than 3 inches between the handrail or railing and any other object.

**OSHA 1910.23(e)(3)(ii)** For pipe railings, posts and top and intermediate railings shall be at least 1-1/2 inches nominal diameter with posts spaced not more than 8 feet on centers.

OSHA 1910.23(e)(2) A stair railing shall be of construction similar to a standard railing but the vertical height shall be not more than 34 inches nor less than 30 inches from upper surface of top rail to surface of tread in line with face of riser at forward edge of tread.

**OSHA 1910.24(c) "Stair strength."** Fixed stairways shall be designed and constructed to carry a load of five times the normal live load anticipated but never of less strength than to carry safely a moving concentrated load of 1,000 pounds.

OSHA 1910.24(d) "Stair width." Fixed stairways shall have a minimum width of 22 inches

**OSHA 1910.24(e) "Angle of stairway rise."** Fixed stairs shall be installed at angles to the horizontal of between 30 deg. and 50 deg. Any uniform combination of rise/tread dimensions may be used that will result in a stairway at an angle to the horizontal within the permissible range. Table D-1 gives rise/tread dimensions which will produce a stairway within the permissible range, stating the angle to the horizontal produced by each combination. However, the rise/tread combinations are not limited to those given in Table D-1.

Table D-1	Disco (in inches)	Torredown (in in the chara)
Angle to norizontal	Rise (in inches)	Tread run (in inches)
30 deg. 35'	6-1/2	11
32 deg. 08'	6-3/4	10-3/4
33 deg. 41'	7	10-1/2
35 deg. 16'	7-1/4	10-1/4
36 deg. 52'	7-1/2	10
38 deg. 29'	7-3/4	9-3/4
40 deg. 08'	8	9-1/2
41 deg. 44'	8-1/4	9-1/4
43 deg. 22'	8-1/2	9
45 deg. 00'		
46 deg. 38'	9	8-1/2
48 deg. 16'		
49 deg. 54'	9-1/2	8

**OSHA 1910.24(f) "Stair treads."** All treads shall be reasonably slip-resistant and the nosings shall be of nonstip finish. Welded bar grating treads without nosings are acceptable providing the leading edge can be readily identified by personnel descending the stairway and provided the tread is serrated or is of definite nonstip design. Rise height and tread width shall be uniform throughout any flight of stairs including any foundation structure used as one or more treads of the stairs.

**OSHA 1910.144(a)(3) Yellow.** Yellow shall be the basic color for designating caution and for marking physical hazards such as: Striking against, stumbling, falling, tripping, and "caught in between."

OSHA 1926.451(f)(16) Platforms shall not deflect more than 1/60 of the span when loaded.