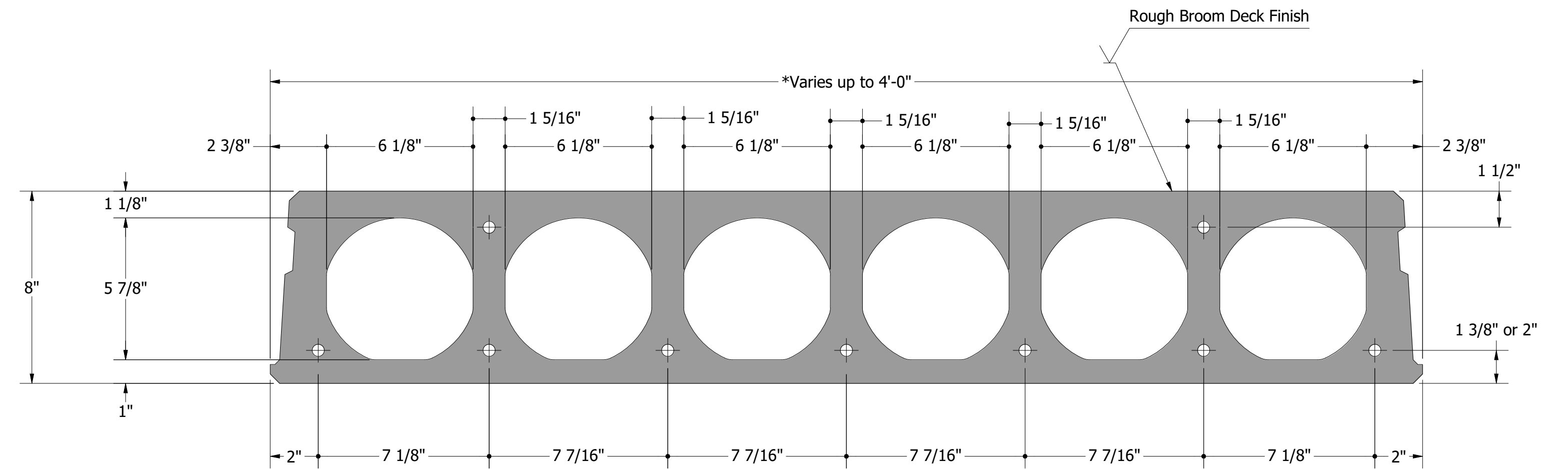
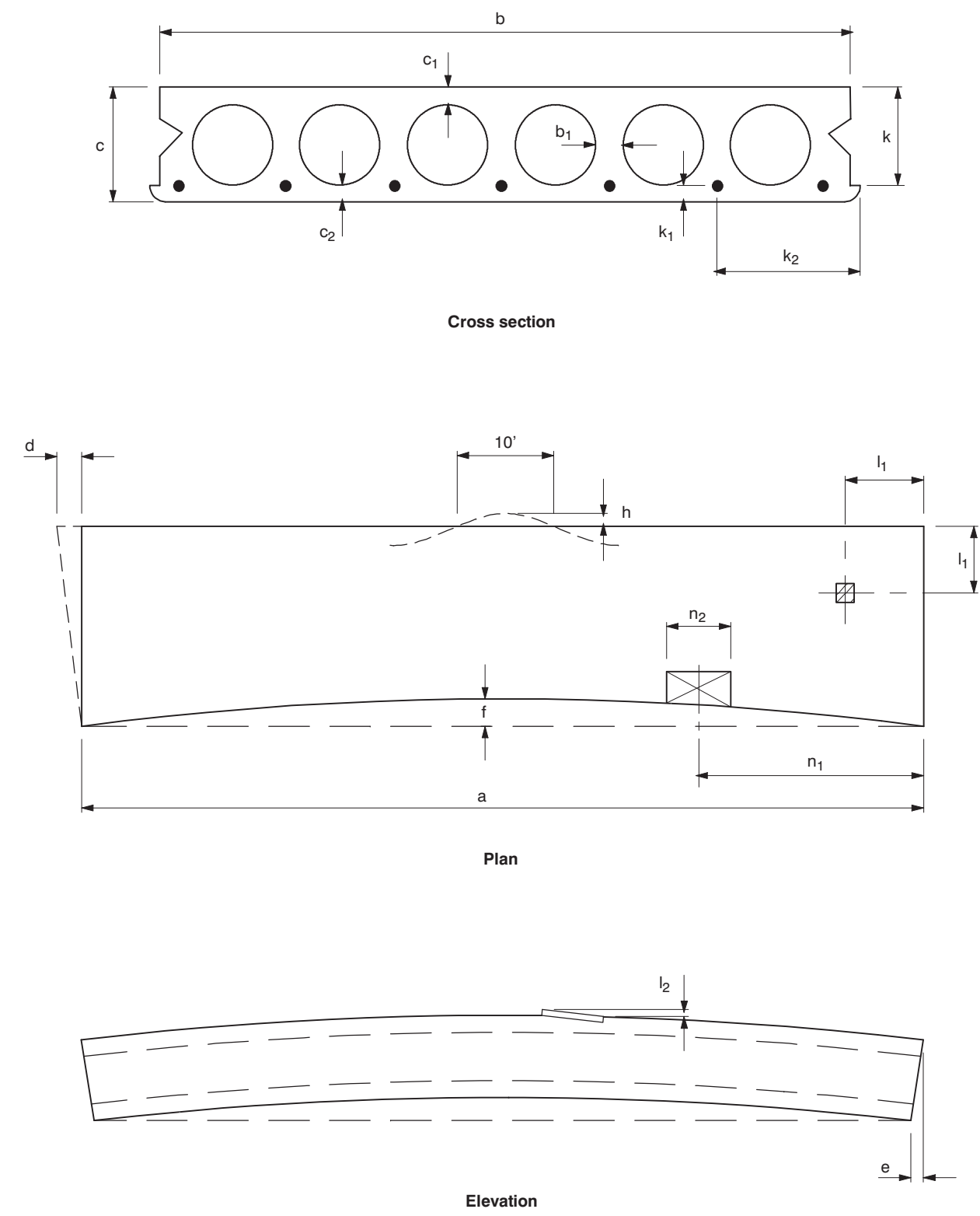


Fig. 10.13.1 Hollow-core Slabs



10.13 Hollow-core Slabs

- a = Length ± 1/2 in. [±13 mm]
- b = Width (overall) ± 1/4 in. [±6 mm]
- b₁ = Web width:
The total web width defined by the sum of the actual measured values of "b₁" shall not be less than 85 percent of the sum of the nominal web widths "b_{1, nominal}"
- c = Depth (overall) ± 1/4 in. [±6 mm]
- c₁ = Top flange depth:
Top flange area defined by the actual measured values of average "c₁" x "b" shall not be less than 85 percent of the nominal area calculated by "c_{1, nominal}" x "b nominal"
- c₂ = Bottom flange depth:
Bottom flange area defined by the actual measured values of average "c₂" x "b" shall not be less than 85 percent of the nominal area calculated by "c_{2, nominal}" x "b nominal"
- d = Variation from specified plan end squareness or skew ± 1/2 in. [±13 mm]
- e = Variation from specified elevation end squareness or skew ± 1/8 in. per 12 in., ± 1/2 in. maximum [±3 mm per 300 mm, ±13 mm maximum]
- f = Sweep ± 3/8 in. [±10 mm]
- g = Applications requiring close control of differential camber between adjacent members should be discussed with the producer to determine applicable tolerances.
- h = Local smoothness of any surface 1/4 in. in 10 ft. [6 mm in 3 m]
- k = Center of gravity (CG) of strand group ± 1/4 in. [±6 mm]
- k₁ = Location of strand perpendicular to plane of panel ± 1/2 in. [±13 mm]
Minimum cover 1/4 in. [19 mm]
- k₂ = Location of strand parallel to plane of panel ± 3/4 in. [±19 mm]
Minimum cover 1/4 in. [19 mm]
- l₁ = Location of embedment* ± 2 in. [±50 mm]
- l₂ = Tipping and flushness of embedment ± 1/4 in. [±6 mm]
- n₁ = Location of blockout ± 2 in. [±50 mm]
- n₂ = Size of blockouts ± 1/2 in. [±13 mm]
- x = Weight:
Actual measured value shall not exceed 110 percent of the nominal published unit weight used in the design.

* Some hollow-core production systems do not permit the incorporation of embedments. Contact local producers for suitable alternate details if embedments are not practical.

E8" x 48" SECTION

1.125" Minimum Strand Cover

IBC Fire Ratings	No Structural Topping				
	Unrestrained 1 hour Restrained 1.5 hours				
Section Properties					
A = 196 in ²		Y _t = 3.92 in		b _w = 9.44 in	
I = 1587 in ⁴		Y _b = 4.08 in		wt = 51 psf	
ϕM_n k-ft/ft	19.26	23.83	28.30	32.63	
Series	1.125E8-84	1.125E8-85	1.125E8-86	1.125E8-87	
Span (ft)	Allowable Superimposed Load in lbs/ft ²				
10					
15	339	349	358	368	
20	203	241	255	262	
25	116	152	172	189	
30	69	94	119	130	
33		71	92	107	

Strands: 1/2" ϕ 270 ksi Low-Lax Stress to 65% (26.9 kip)
Concrete Strength: f_c = 8,000 psi at 28 days
Topping Strength: f_c = 3,000 psi at 28 days

E8" x 48" SECTION

1.125" Minimum Strand Cover

IBC Fire Ratings	2" Bonded Structural Topping				
	Unrestrained 1 hour Restrained 3 hours				
Section Properties					
A = 251 in ²		Y _t = 4.83 in		b _w = 9.44 in	
I = 2655 in ⁴		Y _b = 5.17 in		wt = 76 psf	
ϕM_n k-ft/ft	24.14	29.53	34.53	39.23	
Series	1.125E8-84T	1.125E8-85T	1.125E8-86T	1.125E8-87T	
Span (ft)	Allowable Superimposed Load in lbs/ft ²				
10					
15	424	434	444	454	
20	245	302	313	321	
25	136	179	213	234	
30	77	107	135	159	
33		79	102	123	

Strands: 1/2" ϕ 270 ksi Low-Lax Stress to 65% (26.9 kip)
Concrete Strength: f_c = 8,000 psi at 28 days
Topping Strength: f_c = 3,000 psi at 28 days



DESCRIPTION:
8" HC - 4' Standard Width - Spans up to 33'
DATE: 1/1/2021

PART:
56-E8