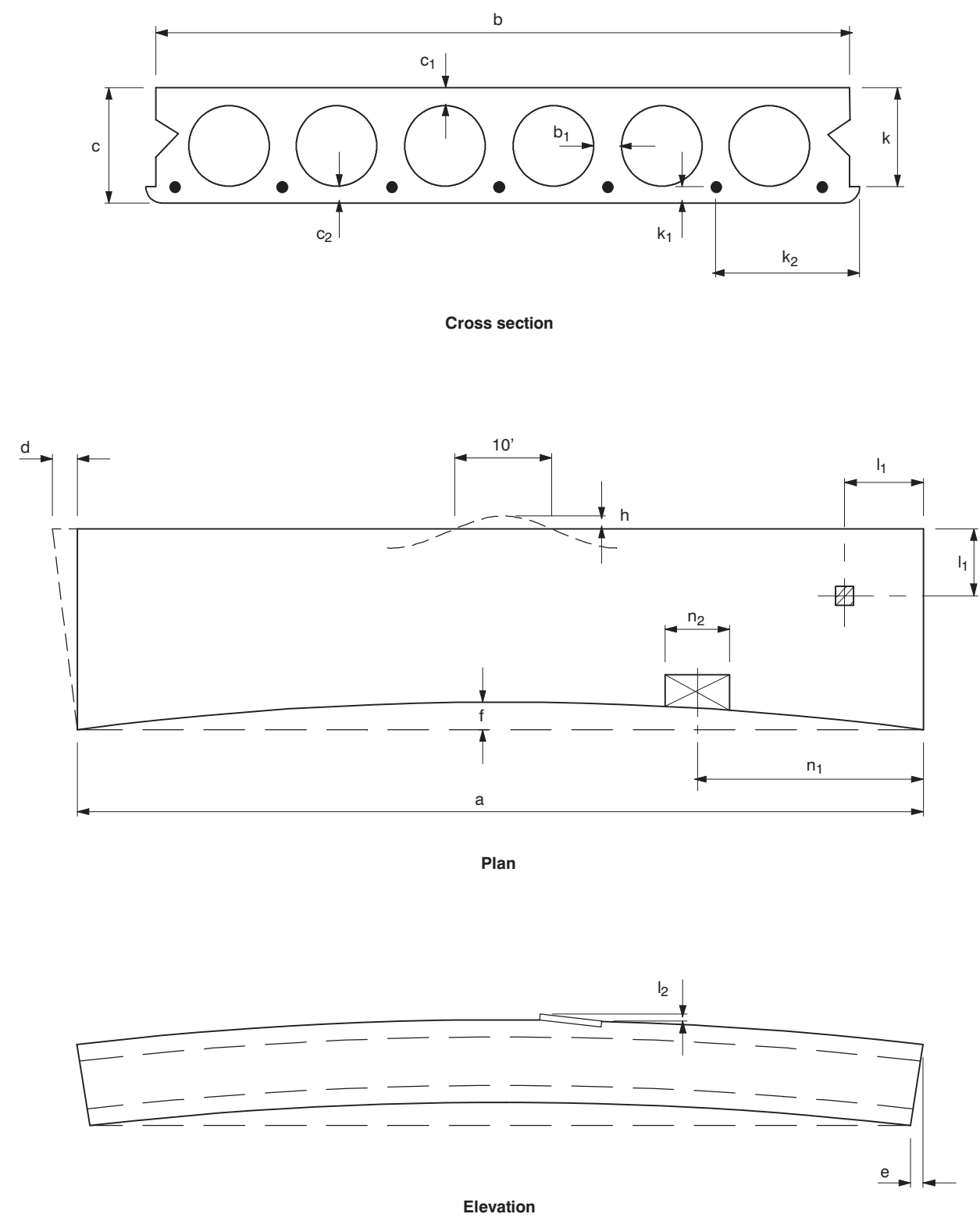


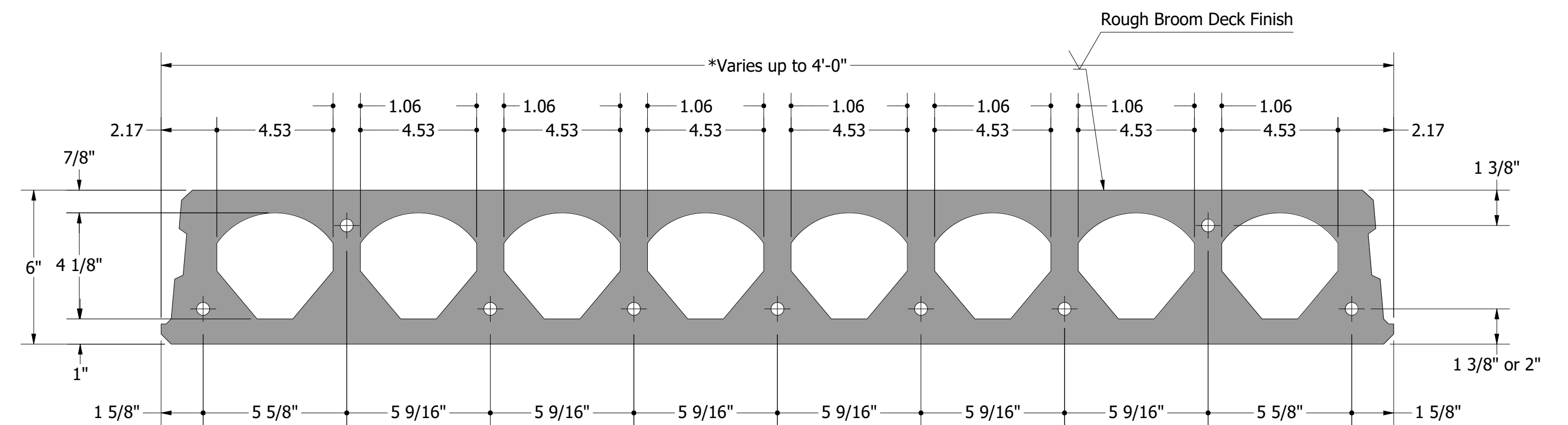
Fig. 10.13.1 Hollow-core Slabs



10.13 Hollow-core Slabs

- a = Length .....  $\pm 1/2$  in. [ $\pm 13$  mm]
- b = Width (overall) .....  $\pm 1/4$  in. [ $\pm 6$  mm]
- b<sub>1</sub> = Web width:  
The total web width defined by the sum of the actual measured values of "b<sub>1</sub>" shall not be less than 85 percent of the sum of the nominal web widths "b<sub>1, nominal</sub>"
- c = Depth (overall) .....  $\pm 1/4$  in. [ $\pm 6$  mm]
- c<sub>1</sub> = Top flange depth:  
Top flange area defined by the actual measured values of average "c<sub>1</sub>" x "b" shall not be less than 85 percent of the nominal area calculated by "c<sub>1, nominal</sub>" x "b nominal"
- c<sub>2</sub> = Bottom flange depth:  
Bottom flange area defined by the actual measured values of average "c<sub>2</sub>" x "b" shall not be less than 85 percent of the nominal area calculated by "c<sub>2, nominal</sub>" x "b nominal"
- d = Variation from specified plan end squareness or skew .....  $\pm 1/8$  in. per 12 in.,  $\pm 1/2$  in. maximum [ $\pm 3$  mm per 300 mm,  $\pm 13$  mm maximum]
- e = Variation from specified elevation end squareness or skew .....  $\pm 3/8$  in. [ $\pm 10$  mm]
- f = Sweep .....  $\pm 3/8$  in. [ $\pm 10$  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 .....  $\pm 1/4$  in. [ $\pm 6$  mm]
- k<sub>1</sub> = Location of strand perpendicular to plane of panel .....  $\pm 1/2$  in. [ $\pm 13$  mm]  
Minimum cover .....  $3/4$  in. [19 mm]
- k<sub>2</sub> = Location of strand parallel to plane of panel .....  $\pm 3/4$  in. [ $\pm 19$  mm]  
Minimum cover .....  $3/4$  in. [19 mm]
- i<sub>1</sub> = Location of embedment\* .....  $\pm 2$  in. [ $\pm 50$  mm]
- i<sub>2</sub> = Tipping and flushness of embedment .....  $\pm 1/4$  in. [ $\pm 6$  mm]
- n<sub>1</sub> = Location of blockout .....  $\pm 2$  in. [ $\pm 50$  mm]
- n<sub>2</sub> = Size of blockouts .....  $\pm 1/2$  in. [ $\pm 13$  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.



E6" x 48" SECTION

1.125" Minimum Strand Cover

IBC Fire Ratings		No Structural Topping			
		Unrestrained 1 hour Restrained 1 hours			
<b>Section Properties</b>					
A = 167 in <sup>2</sup> I = 719 in <sup>4</sup>		Y <sub>t</sub> = 3.14 in Y <sub>b</sub> = 2.86 in		b <sub>w</sub> = 9.8 in wt = 44 psf	
$\phi M_n$ k-ft/ft	13.23	16.28	19.24	22.04	
Series	1.125E6-84	1.125E6-85	1.125E6-86	1.125E6-87	
Span (ft)	Allowable Superimposed Load in lbs/ft <sup>2</sup>				
10	401	413	424	435	
15	246	255	263	270	
20	132	158	174	190	
25	73	97	111	122	
30			74	83	
33				68	

Strands: 1/2"  $\phi$  270 ksi Low-Lax Stress to 65% (26.9 kip)  
Concrete Strength: f<sub>c</sub> = 8,000 psi at 28 days  
Topping Strength: f<sub>c</sub> = 3,000 psi at 28 days

E6" x 48" SECTION

1.125" Minimum Strand Cover

IBC Fire Ratings		2" Bonded Structural Topping			
		Unrestrained 1 hour Restrained 2 hours			
<b>Section Properties</b>					
A = 223 in <sup>2</sup> I = 1453 in <sup>4</sup>		Y <sub>t</sub> = 4.1 in Y <sub>b</sub> = 3.9 in		b <sub>w</sub> = 9.8 in wt = 69 psf	
$\phi M_n$ k-ft/ft	18.06	21.80	25.13	27.80	
Series	1.125E6-84T	1.125E6-85T	1.125E6-86T	1.125E6-87T	
Span (ft)	Allowable Superimposed Load in lbs/ft <sup>2</sup>				
10					
15	327	335	342	350	
20	174	217	241	245	
25	93	123	149	166	
30		69	88	103	
33			64	76	

Strands: 1/2"  $\phi$  270 ksi Low-Lax Stress to 65% (26.9 kip)  
Concrete Strength: f<sub>c</sub> = 8,000 psi at 28 days  
Topping Strength: f<sub>c</sub> = 3,000 psi at 28 days



DESCRIPTION:

6" HC - 4' Standard Width - Spans up to 25'

DATE: 1/1/2021

PART:

56-E6