

Work Field Fashion Wears

Bawpara, Kaultia, Gazipur Sadar , Gazipur

(24.070403, 90.374859)

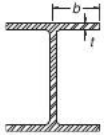
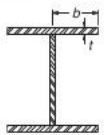
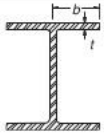
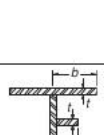
18 March 2015



Observations

Slender classification sections appear to have been used for some beams and columns

TABLE B4.1
Limiting Width-Thickness Ratios for
Compression Elements

Case	Description of Element	Width Thickness Ratio	Limiting Width-Thickness Ratios		Example
			λ_p (compact)	λ_r (noncompact)	
Unstiffened Elements	1 Flexure in flanges of rolled I-shaped sections and channels	b/t	$0.38\sqrt{E/F_y}$	$1.0\sqrt{E/F_y}$	
	2 Flexure in flanges of doubly and singly symmetric I-shaped built-up sections	b/t	$0.38\sqrt{E/F_y}$	$0.95\sqrt{k_c E/F_L^{[a],[b]}}$	
	3 Uniform compression in flanges of rolled I-shaped sections, plates projecting from rolled I-shaped sections; outstanding legs of pairs of angles in continuous contact and flanges of channels	b/t	NA	$0.56\sqrt{E/F_y}$	
	4 Uniform compression in flanges of built-up I-shaped sections and plates or angle legs projecting from built-up I-shaped sections	b/t	NA	$0.64\sqrt{k_c E/F_y^{[a]}}$	



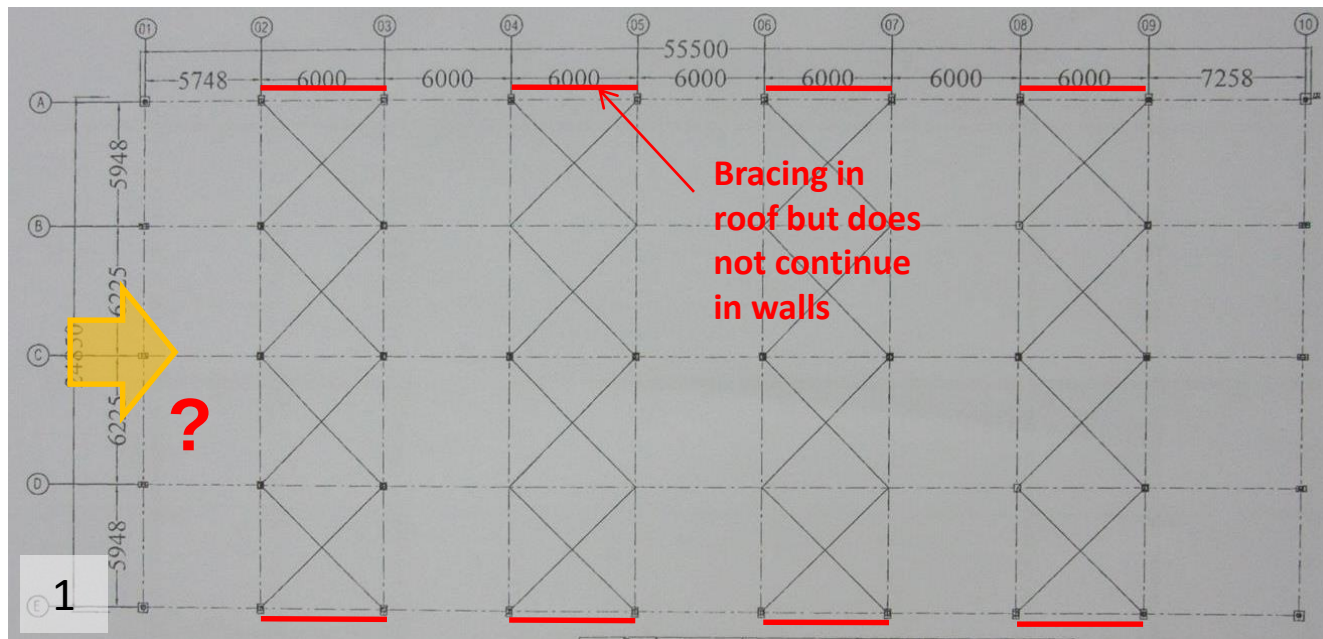
A number of elements are constructed with slender sections and may be susceptible to local section buckling. In addition flange straightness appears to be out of specification.

- 1 Standard AISC section classification limits
- 2 Section sizes
- 3 Column with wavy flange
- 4 Column with wavy flange

Item Name	Web (W)	Web Thickness (wt)	Flange (F)	Flange Thickness (ft)
C-06	200-300	4	180	6
C-07	220	4	180	5
C-08	200	4	180	5
R-07	300-250	4	200	6
R-08	250-200	4	200	6
R-09	200-250-200	4	200	8
M-10 & 12	370	6	195	10

Observations

**Stability system not fully apparent in
east-west direction**



Stability system is not completely apparent in the east-west direction

- 1&2 Cross bracing in roof plane but how do these forces get to ground?
- 3 Void between steel column and masonry wall, i.e. masonry wall not participating in stability.

Observations

Problems Observed

- Item 1 - Slender classification sections appear to have been used for some beam and columns
- Item 2 - Stability system not fully apparent in east-west direction

Item No.	Observation	Recommended Action Plan	Recommended Timeline
1	Slender classification sections appear to have been used for some beam and columns	Building engineer to confirm that building calculations include necessary reductions for use of any slender sections.	6-weeks
2	Slender classification sections appear to have been used for some beam and columns	Building engineer to review whether straightness of column flanges meets building specification	6-weeks
3	Slender classification sections appear to have been used for some beam and columns	Implement any remedial measures recommended by building engineer.	6-months
4	Stability system not fully apparent in east-west direction	Building engineer to review stability analysis and determine any additional stability structure required to meet building code, e.g. cross bracing in east-west walls.	6-weeks
5	Stability system not fully apparent in east-west direction	Implement any remedial measures recommended by building engineer.	6-months