

List of References:

Handbook of Construction Tolerances 2 ed

by David Kent Ballast, AIA, CSI

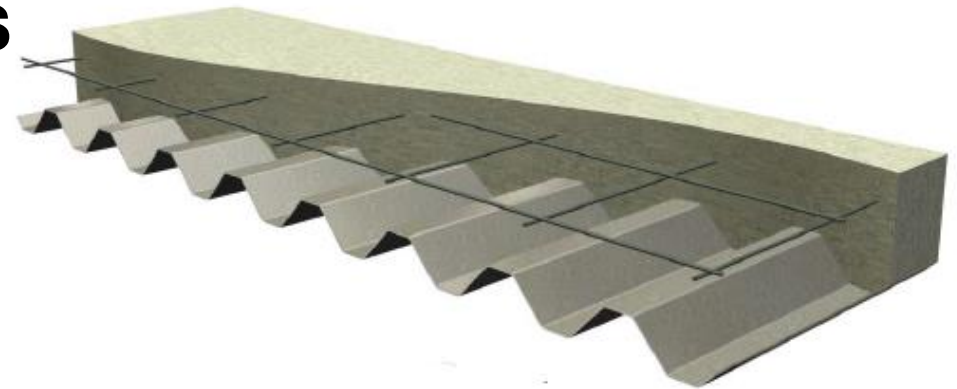
ASTM A6, Standard Specification for General Requirements for Rolled Structural Steel, Bars, Plates, Shapes, & Sheet Piling

AISC 303, Code of Standard Practice for Steel Buildings & Bridges



Steel Deck Manufacture & Installation Tolerances

Minimum Edge Distance for installation:



Steel deck could be butted/end ° lapped at supports.

Steel deck overlap shall be 2" with a $\pm 1/2$ " tolerance (minimum overlap is $1 1/2$ " to $2 1/2$ "...However, overlaps greater than $2 1/2$ " are acceptable.

Minimum edge distance of a fastener for the deck is $1/2$ ".

ASC Steel Deck Fabrication Tolerances

Length of Panel:	$\pm 1/2$ "
Coverage Width:	$-3/8$ ", $+3/4$ "
Sweep of Panel:	$1/4$ " in 10'
Square of Panel:	$1/8$ " per foot width
Height of Panel:	$\pm 1/16$ "

Steel Angle Manufacture Tolerances

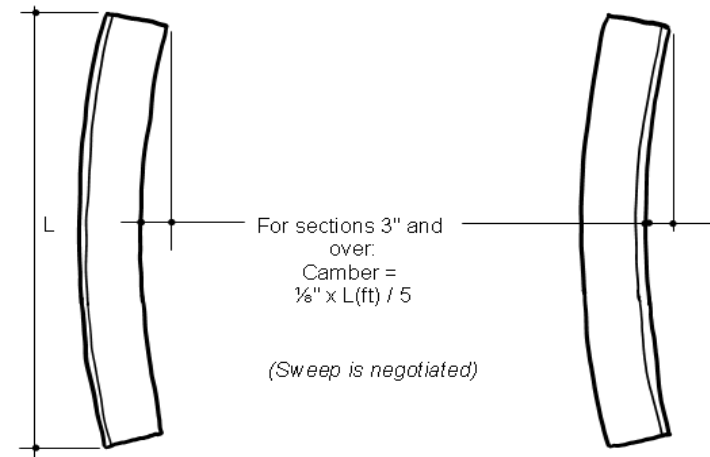
Variation in sizes (length) for Angle

	Over, B	Under, B
2" < 3"	1/16"	1/16"
3" < 4"	1/8"	3/32"
4" < 6"	1/8"	1/8"
> 6"	3/16"	1/8"

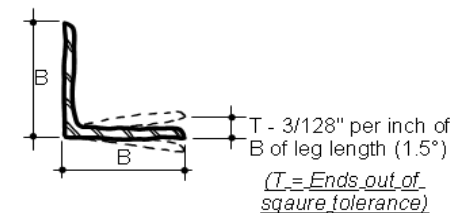
Unequal Legs, longer leg determines classification

Variation in Length of Angle

	5' to 10'		10' to 20'		20' to 30'		30' to 40'	
	Over	Under	Over	Under	Over	Under	Over	Under
Under 3"	5/8"	0	1"	0	1½"	0	2"	0
3" & Over	1"	0	1½"	0	1¾"	0	2¼"	0

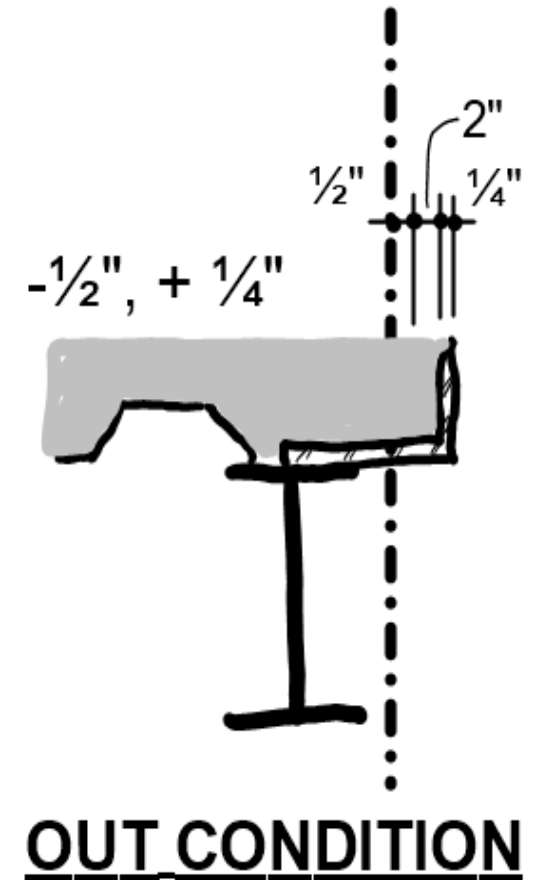
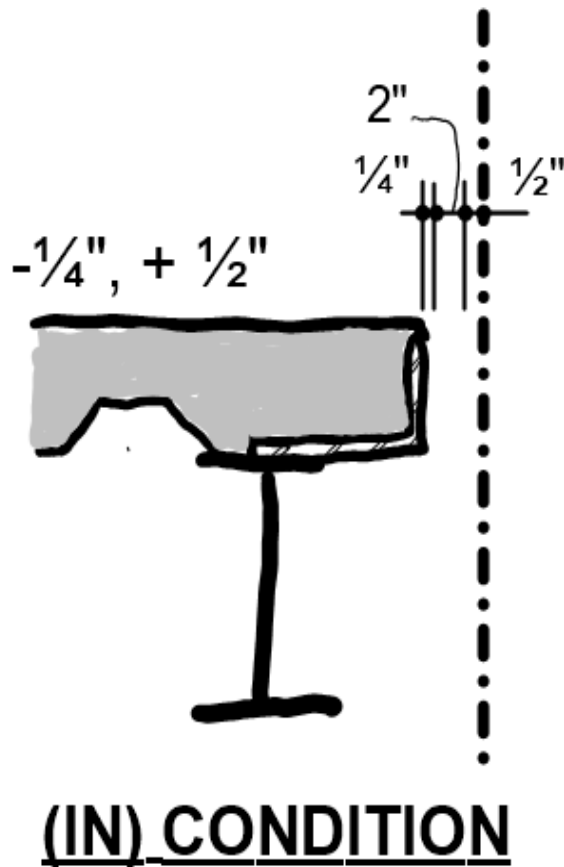


SWEEP AND CAMBER TOLERANCES

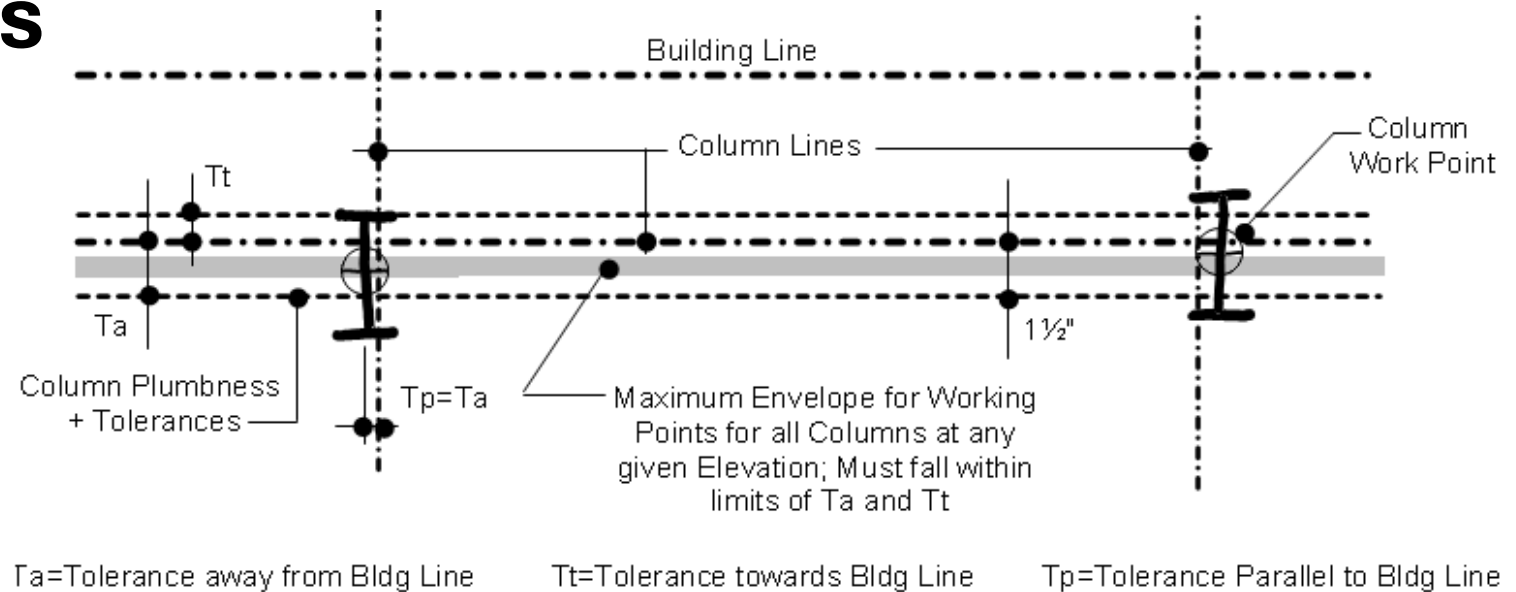
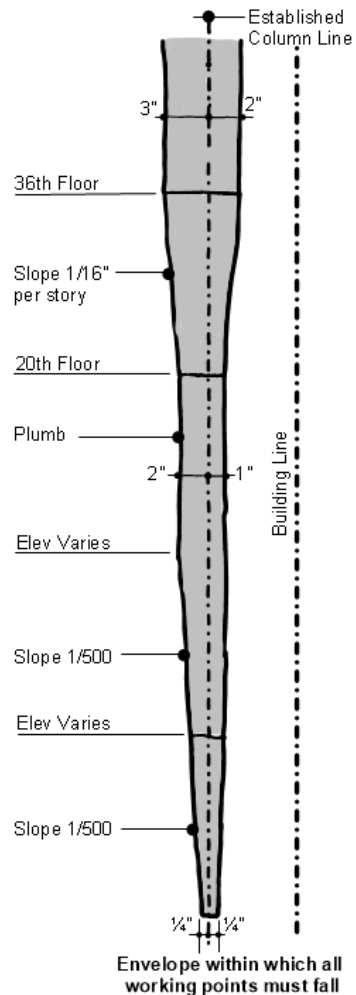


CROSS SECTIONAL TOLERANCE

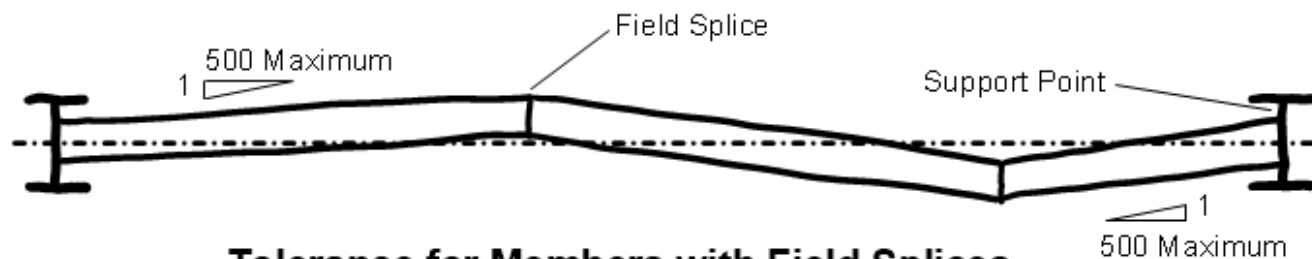
Steel Angle Installation @ Slab Edge Tolerance



Exterior Steel Column Installation Tolerances



Tolerance for Columns with Continuous Intermediate Beams



Tolerance for Members with Field Splices