

**PRESTRESSED CONCRETE TOLERANCES**

**I. Fabrication tolerances in linear elements except piles (Beams, girders, columns, joists and similar members)**

- A. Length of member**  
 Per 10 foot of length ..... 1/8 in  
 Total not more than ..... 3/4 in
- B. Cross-sectional dimensions**  
 6 in. or less ..... 1/8 in  
 Over 6 in. but not over 18 in ..... 3/16 in  
 Over 18 in. but not over 36 in ..... 1/4 in  
 Over 36 in ..... 3/8 in
- C. Lateral alignment (Sweep) of noncambered member of surfaces as measured relative to the centerline of member**  
 Member length  
 40 ft. and less ..... 1/4 in  
 Over 40 ft. but not over 60 ft ..... 3/8 in  
 Over 60 ft ..... 1/2 in
- D. Camber variation from design chamber, at time of erection**  
 1/4 in. per 10 foot of length but not more than ..... 1 in
- E. Surface irregularities, deviation from a 10 ft straightedge...**  
 For elements which will not receive topping ..... 1/4 in  
 For elements to receive topping ..... 1/2 in  
 For elements to be used as concrete guideways support and steering surfaces ..... 1/8 in

**II. Fabrication tolerances for piles**

- A. Length** ..... ± 5 in  
 ..... ± 2 in
- B. Cross-sectional dimensions**  
 Overall ..... 3/8 in  
 Wall thickness of hollow sections ..... ± 1/2 in  
 ..... 0 in
- C. Lateral alignment of pile surfaces relative to pile centerline**  
 in length of pile, per 10 foot ..... 1/8 in
- D. Location of internal void** ..... 3/8 in
- E. Pile head**  
 From the plane perpendicular to the longitudinal axis of pile, 1/8 in. in 12 in. but not more than ..... 1/2 in
- F. Surface irregularities**  
 Pile head ..... 1/8 in  
 Other surfaces, deviation from a 10 foot straightedge ..... 1/4 in

**III. Fabrication tolerances in planar elements (Wall and floor panels, tees and similar members)**

- A. Length and width**  
 10 foot or less ..... 1/8 in  
 Over 10 ft but no over 20 foot ..... ± 1/8 in  
 ..... 3/16 in  
 Over 20 ft but not over 40 foot ..... 1/4 in  
 Each additional 10 foot increment in excess of 40 foot, 1/16 in  
 Difference in length of the two diagonals, of a rectangular member the greater of 1/8 in. per 6 foot or diagonal or ..... 1/2 in
- B. Cross-sectional dimensions**  
 Thickness ..... ± 1/4 in  
 ..... ± 1/8 in
- C. Openings in panels**  
 Size of opening ..... 1/4 in  
 Location referenced to centerline of opening ..... 1/4 in
- D. Lateral alignment of embedded items**  
 Reglets for glazing gaskets ..... 1/8 in  
 Bolts ..... 1/4 in  
 Flashing reglets ..... 1/4 in  
 Flashing reglets at panel edge ..... 1/8 in  
 Electrical penetrations and pipe sleeves ..... 1/2 in  
 Weld plates ..... 1 in  
 Inserts ..... 1/2 in
- E. Bowing and warping at time of erection**  
 Bowing  
 1/200 times the panel diagonal dimension (in inches) but not more than ..... 1 in.  
 Warping  
 1/16 in. per foot of distance from the nearest adjacent corner but not more than ..... 1 in.

Reprinted with permission from the American Concrete Institute (ACI) [www.concrete.org](http://www.concrete.org)



Vermont Agency of Transportation

**RECEIVED**

ON: **May 9, 2013**

and Checked for

**CONFORMANCE**

BY: **Rob Young** DATE: **05/13/13**

<b>COLD RIVER BRIDGES, LLC</b>	
10 LANBRO LANE WALPOLE, NH	
TEL 603-756-9300	FAX 603-756-9303
PLYMOUTH ER BRS 0149 (5)	
NPCA TOLLERANCES	
DATE: 4-16-13	Scale:
SHEET NUMBER <b>10</b> REV 1 5-7-13	