

## APPENDIX B

### Results of Facing Connection Testing

Test Program:  
 SelecTech Plastic Timber Unit – Mirafi 3XT Geogrid Connection

Test Number	Normal Load (lb/ft)	Approximate Wall Height (ft)	Approximate Number of Timbers	Connection Capacity (lb/ft) at 0.75 Inches Displacement	Peak Connection Capacity (lb/ft)
5	41.5	4.6	10.0	508	991
11	13.8	1.5	3.3	255	1026

**Tests 5 and 11:** In these tests the geogrid was extended over the plastic timber and held down with two strips of plumber strap. The two plastic plumber straps were tacked down  $\frac{3}{4}$  of an inch from the front and back edges of the timber. The tacks consisted of  $1\frac{1}{4}$  inch galvanized roofing nails. The plumber’s strap is supplied with pre-drilled holes. The strap was attached to the timber using every third hole ( $2\frac{1}{4}$  inch spacing). The geogrid was then wrapped around the strap and placed across the interface and out the back of the timbers.

Test Number	Normal Load (lb/ft)	Approximate Wall Height (ft)	Approximate Number of Timbers	Connection Capacity (lb/ft) at 0.75 Inches Displacement	Peak Connection Capacity (lb/ft)
6	41.5	4.6	10.0	286	537

**Test 6:** In this test the geogrid was extended over the plastic timber and attached to the timber using only one piece of plumber’s strap. The strap was attached to the timber about  $\frac{3}{4}$  of an inch in from the back edge of the timber. The tacks consisted of  $1\frac{1}{4}$  inch galvanized roofing nails. As noted previously, the plumber’s strap is supplied with pre-drilled holes. Tacks were placed in every third hole ( $2\frac{1}{4}$  inch spacing). The geogrid was then wrapped around the back strap and placed across the interface and out the back of the timbers. A second piece of plumber’s strap was attached to the timber about  $\frac{3}{4}$  of an inch in from the front edge of the timber, to serve as a spacer. That strap was attached with tacks placed approximately every 18 to 24 inches.

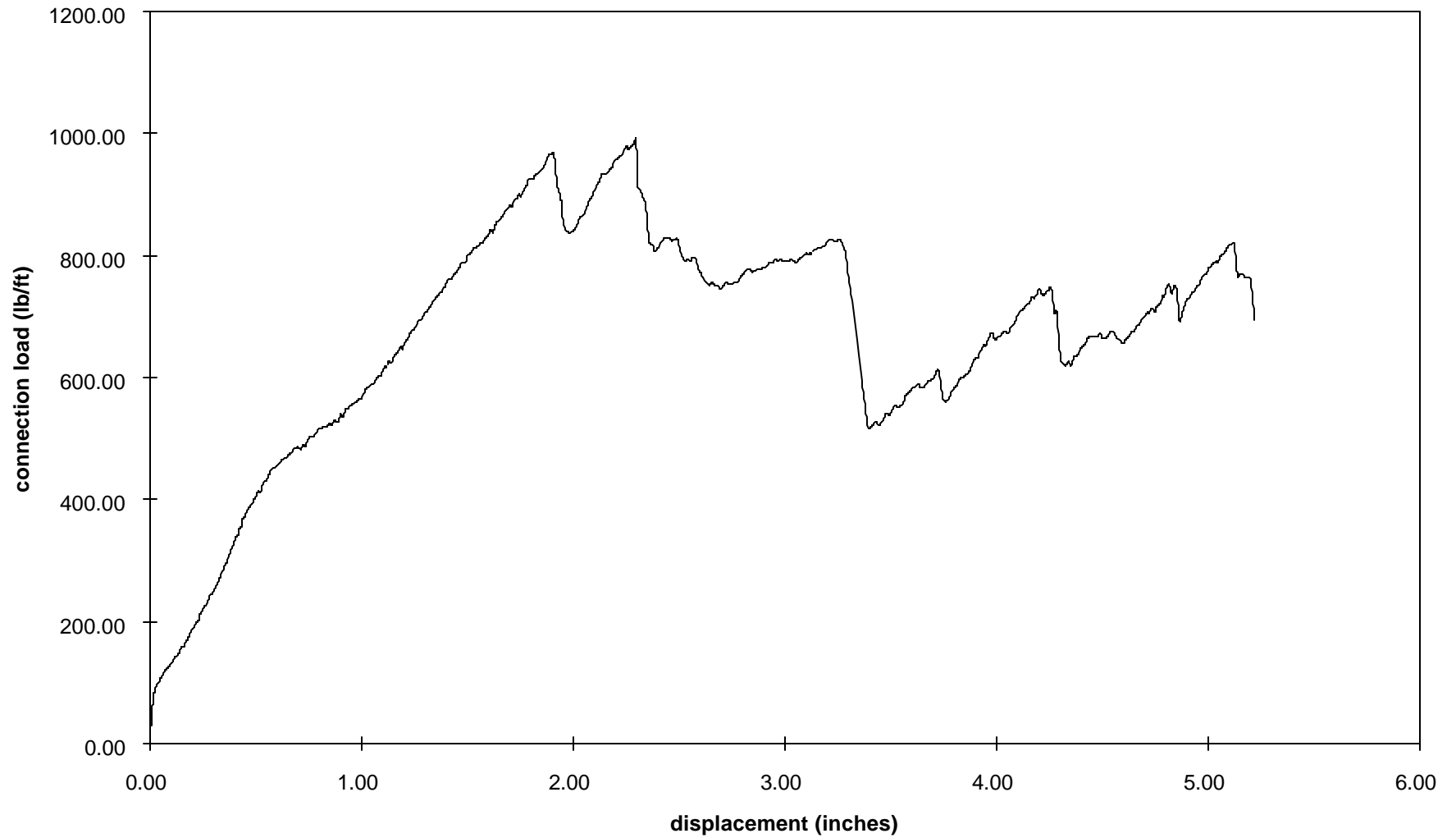
Test Program:  
 SelecTech Plastic Timber Unit – Mirafi HP370 Geotextile  
 Connection

Test Number	Normal Load (lb/ft)	Approximate Wall Height (ft)	Approximate Number of Timbers	Connection Capacity (lb/ft) at 0.75 Inches Displacement	Peak Connection Capacity (lb/ft)
7	41.5	4.6	10.0	762	949
8	41.5	4.6	10.0	752	1046
10	13.8	1.5	3.3	632	956

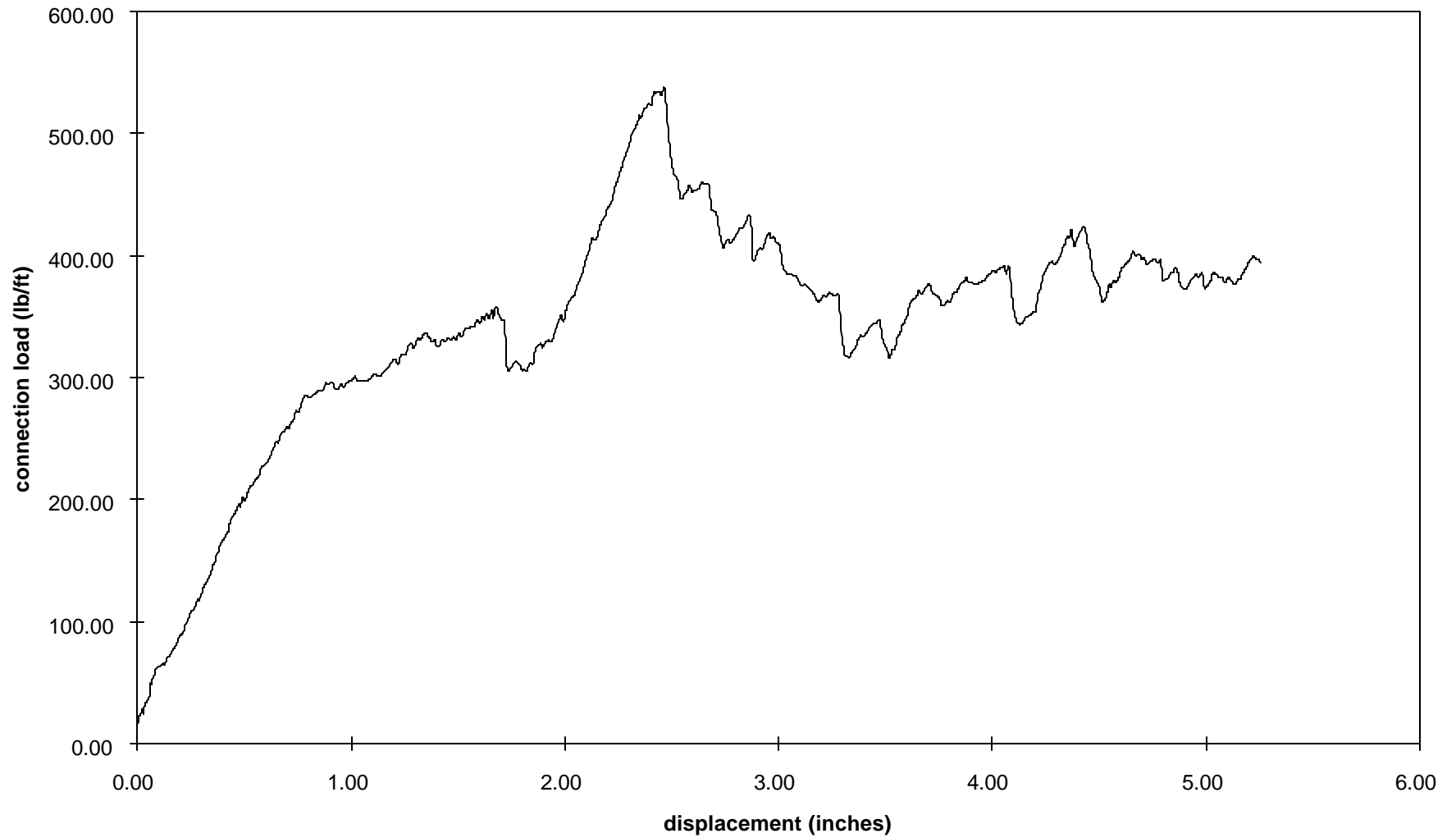
**Tests 7, 8 and 10:** In these tests the geotextile was extended over the plastic timber and attached to the timber using only one strap. The strap was attached to the timber about  $\frac{3}{4}$  of an inch in from the back edge of the timber. The tacks consisted of 1  $\frac{1}{4}$  inch galvanized roofing nails. As noted previously, the plumber’s strap is supplied with pre-drilled holes. Tacks were placed in every third hole (2  $\frac{1}{4}$  inch spacing). The geotextile was then wrapped around the back strap and placed across the interface and out the back of the timbers. A second piece of plumber’s strap was attached to the timber about  $\frac{3}{4}$  of an inch in from the front edge of the timber, to serve as a spacer. That strap was attached with tacks placed approximately every 18 to 24 inches.



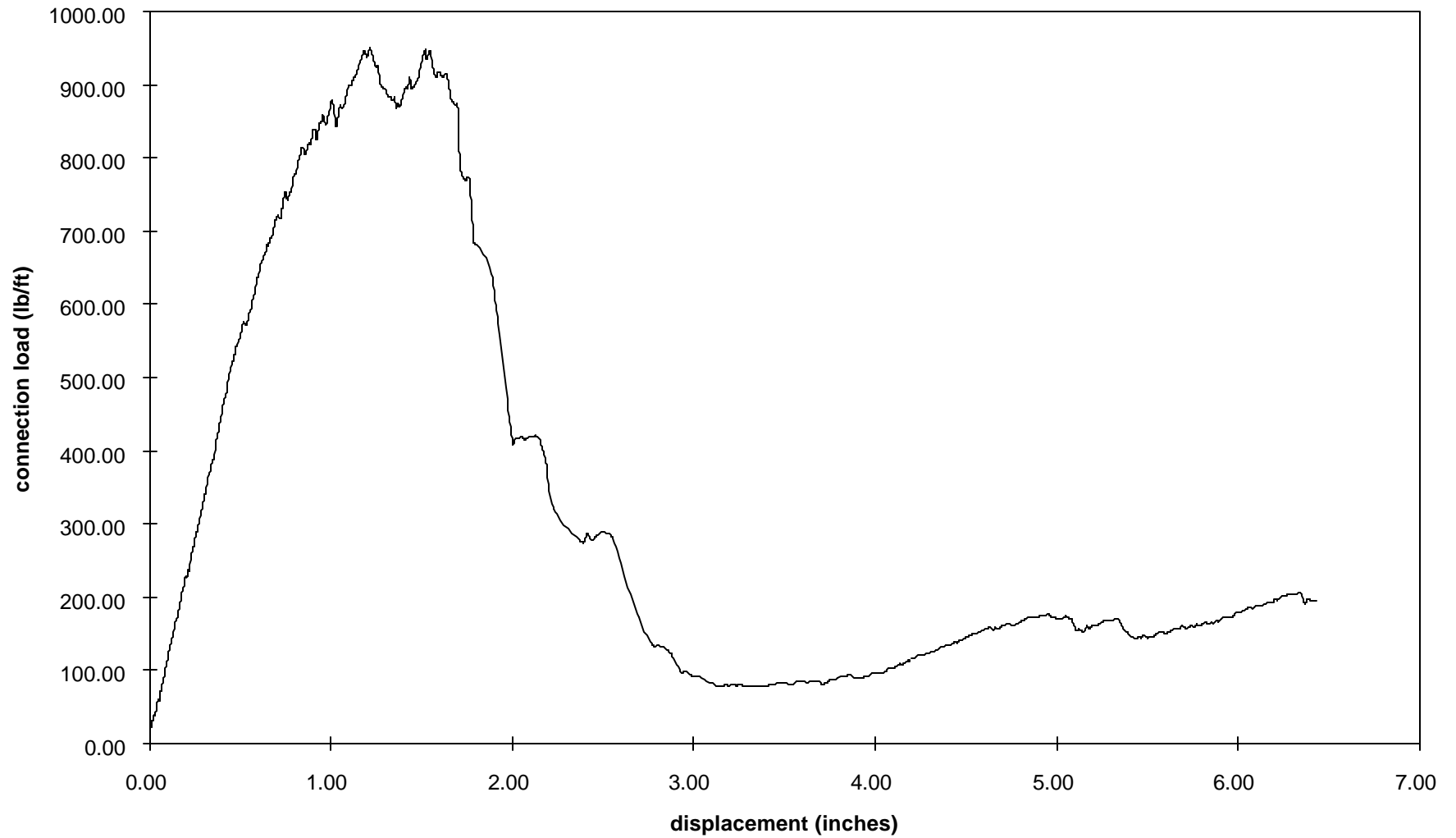
Selectech Plastic Timbers / Mirafi 3XT  
load-displacement curve  
Test 5 (normal load = 41.5 lb/ft)



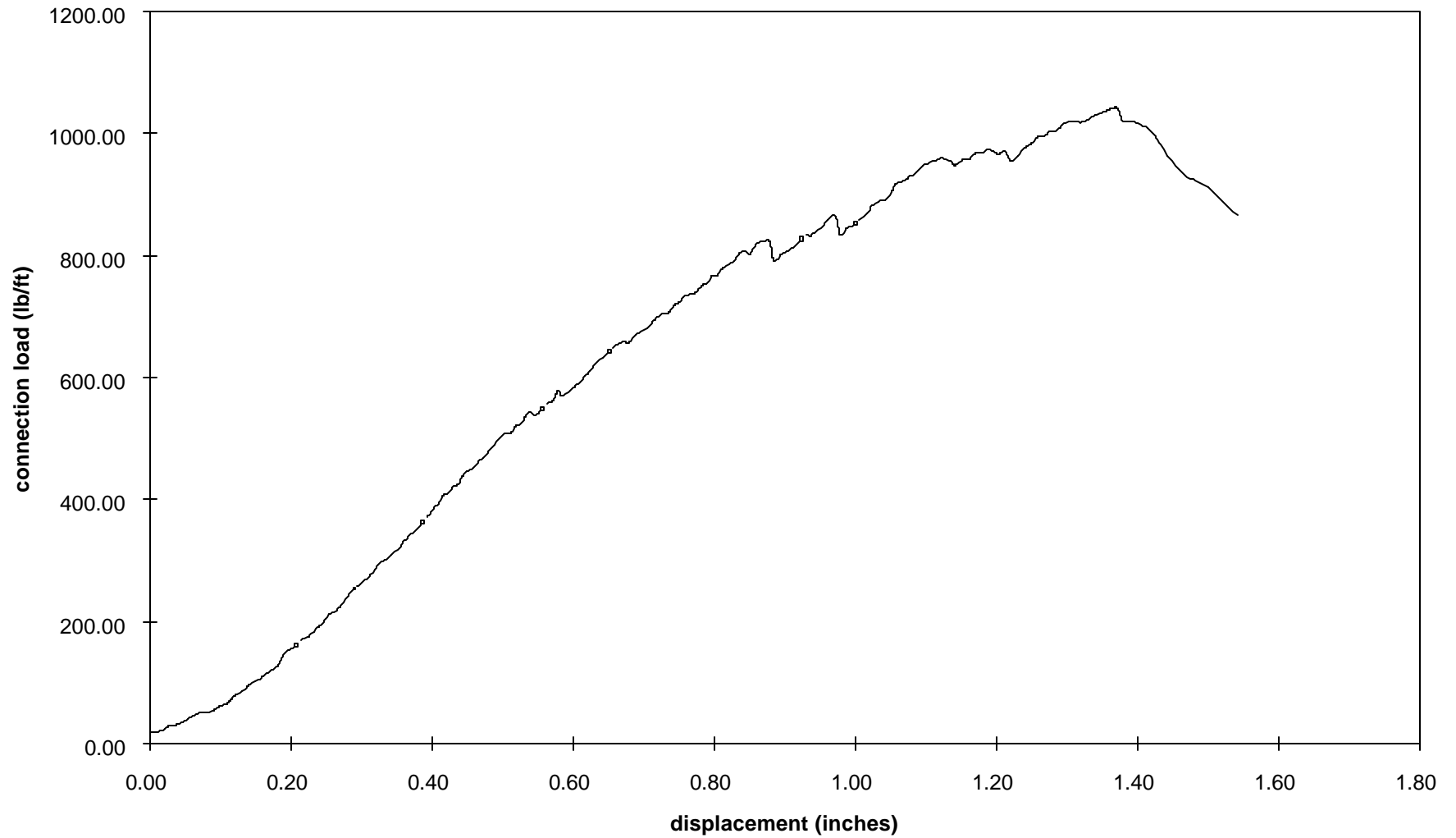
**Selectech Plastic Timbers / Mirafi 3XT  
load-displacement curve  
Test 6 (normal load = 41.5 lb/ft)**



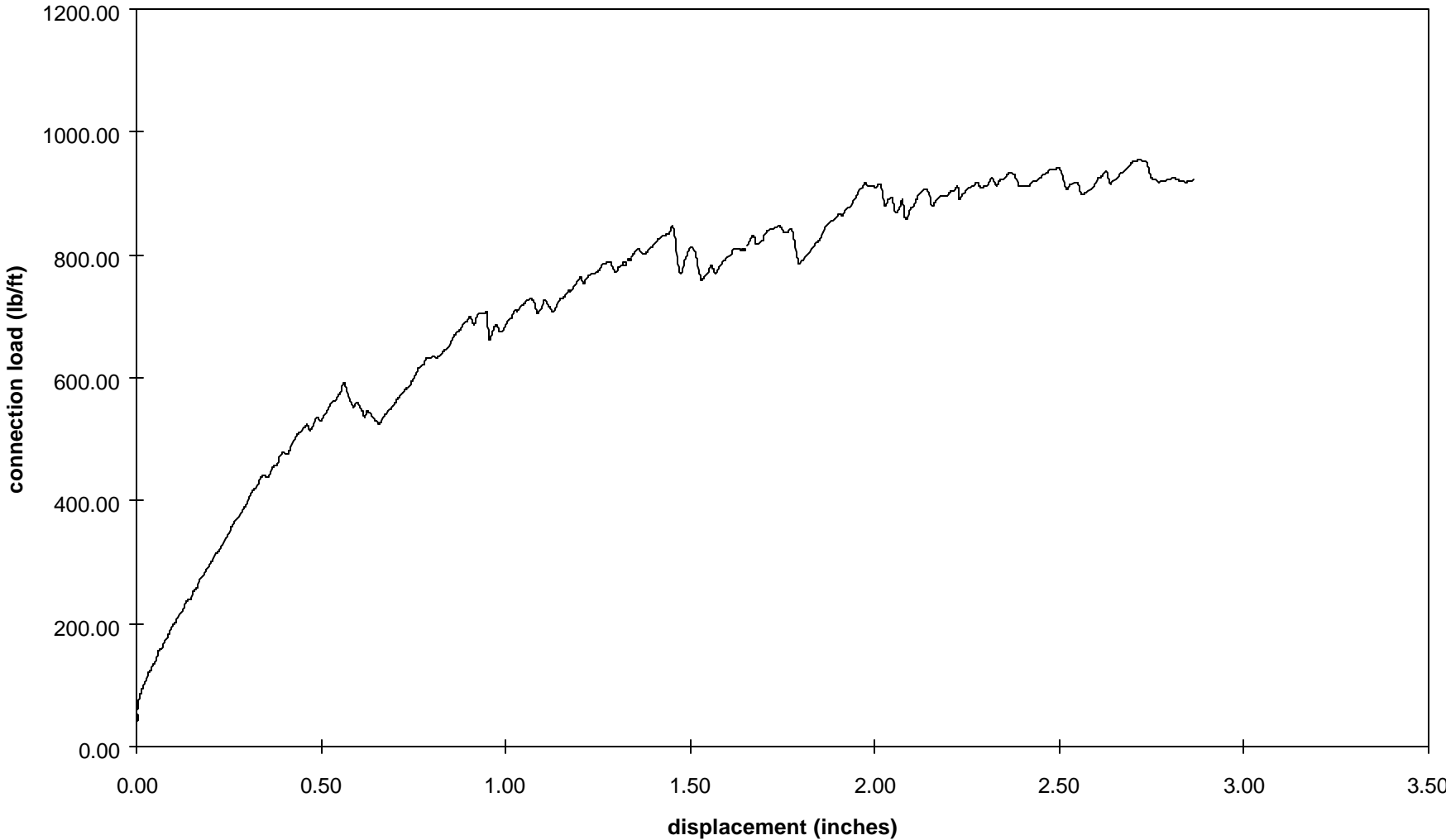
**Selectech Plastic Timbers / Mirafi HP370**  
**load-displacement curve**  
**Test 7 (normal load = 41.5 lb/ft)**



**Selectech Plastic Timbers / Mirafi HP370  
load-displacement curve  
Test 8 (normal load = 41.5 lb/ft)**



**Seltech Plastic Timbers / Mirafi HP370  
load-displacement curve  
Test 10 (normal load = 13.8 lb/ft)**



**Seltech Plastic Timbers / Mirafi 3XT  
load-displacement curve  
Test 11 (normal load = 13.8 lb/ft)**

