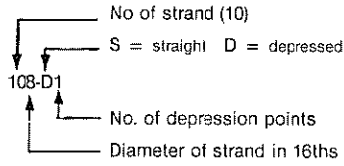


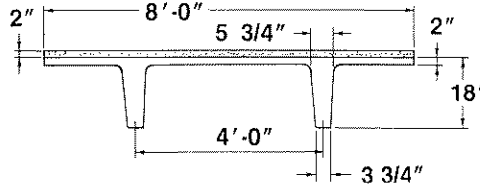
DOUBLE TEE

Strand Pattern Designation



Safe loads shown include dead load of 10 psf for untopped members and 15 psf for topped members. Remainder is live load. Long-time cambers include superimposed dead load but do not include live load.

8'-0" x 18"
Normal Weight Concrete



Section Properties

| | Untopped | Topped |
|------------------|-----------------------|-------------------------|
| A = | 344 in. ² | — |
| I = | 9300 in. ⁴ | 12,749 in. ⁴ |
| Y _b = | 13.27 in. | 15.00 in. |
| Y _t = | 4.73 in. | 5.00 in. |
| Z _b = | 701 in. ³ | 850 in. ³ |
| Z _t = | 1966 in. ³ | 2550 in. ³ |
| wt = | 358 plf | 558 plf |
| | 45 psf | 70 psf |
| V/S = | 1.32 in. | |

$f'_c = 5000$ psi
 $f_{pu} = 270,000$ psi
Low-relaxation strand

Key

- 186 — Safe superimposed service load, psf
- 0.1 — Estimated camber at erection, in.
- 0.1 — Estimated long-time camber, in.

8DT18

Table of safe superimposed service load (psf) and cambers

No Topping

| Strand Pattern | e _e e _c | Span, ft. | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|----------------------------------|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|--|
| | | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 30 | 32 | 34 | 36 | 38 | 40 | 42 | 44 | 46 | 48 | 50 | 52 | 54 | 56 | 58 | 60 | |
| 28-S | 11.27 | 186 | 143 | 109 | 84 | 65 | 50 | 38 | | | | | | | | | | | | | | | | | |
| | 11.27 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | | | | | | | | | | | | | | | | | |
| 48-S | 10.27 | | | | 185 | 150 | 123 | 101 | 83 | 69 | 57 | 47 | 39 | 31 | | | | | | | | | | | |
| | 10.27 | | | | 0.5 | 0.5 | 0.6 | 0.6 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | | | | | | | | | | | |
| 68-S | 7.27 | | | | 183 | 150 | 125 | 104 | 87 | 73 | 62 | 52 | 43 | 36 | 30 | | | | | | | | | | |
| | 7.27 | | | | 0.5 | 0.6 | 0.7 | 0.7 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.7 | 0.7 | | | | | | | | | |
| 68-D1 | 7.27 | | | | | | 172 | 145 | 123 | 105 | 90 | 77 | 66 | 57 | 49 | 41 | 35 | 30 | | | | | | | |
| | 10.77 | | | | | | 0.9 | 1.0 | 1.1 | 1.2 | 1.3 | 1.3 | 1.4 | 1.4 | 1.4 | 1.4 | 1.3 | 1.2 | | | | | | | |
| 88-D1 | 5.27 | | | | | | | | | | 107 | 93 | 81 | 71 | 62 | 54 | 47 | 41 | 35 | 30 | | | | | |
| | 10.52 | | | | | | | | | | 1.7 | 1.8 | 1.8 | 1.9 | 1.9 | 2.0 | 2.0 | 1.9 | 1.8 | 1.6 | | | | | |
| 108-D1 | 3.27 | | | | | | | | | | | | | | | | 62 | 55 | 48 | 43 | 37 | 33 | | | |
| | 10.27 | | | | | | | | | | | | | | | | 2.3 | 2.3 | 2.3 | 2.2 | 2.1 | 2.0 | | | |

8DT18 + 2

Table of safe superimposed service load (psf) and cambers

2" Normal Weight Topping

| Strand Pattern | e _e e _c | Span, ft. | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|----------------------------------|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|--|--|--|--|--|--|--|
| | | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 30 | 32 | 34 | 36 | 38 | 40 | 42 | 44 | 46 | 48 | | | | | | | |
| 28-S | 11.27 | 193 | 144 | 106 | 78 | 57 | 41 | | | | | | | | | | | | | | | | | | |
| | 11.27 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | | | | | | | | | | | | | | | | | | |
| 48-S | 10.27 | | | | 192 | 153 | 122 | 98 | 78 | 62 | 49 | 37 | | | | | | | | | | | | | |
| | 10.27 | | | | 0.5 | 0.5 | 0.6 | 0.6 | 0.7 | 0.7 | 0.7 | 0.7 | | | | | | | | | | | | | |
| 68-S | 7.27 | | | | 196 | 159 | 130 | 106 | 86 | 70 | 57 | 45 | | | | | | | | | | | | | |
| | 7.27 | | | | 0.5 | 0.6 | 0.7 | 0.7 | 0.8 | 0.8 | 0.8 | 0.8 | | | | | | | | | | | | | |
| 68-D1 | 7.27 | | | | | | 177 | 147 | 123 | 103 | 86 | 71 | 59 | 48 | 39 | | | | | | | | | | |
| | 10.77 | | | | | | 0.9 | 0.9 | 1.0 | 1.1 | 1.2 | 1.3 | 1.3 | 1.4 | 1.4 | 1.4 | | | | | | | | | |
| 88-D1 | 5.27 | | | | | | | | | | 105 | 90 | 76 | 65 | 54 | 46 | | | | | | | | | |
| | 10.52 | | | | | | | | | | 1.2 | 1.1 | 1.0 | 0.8 | 0.5 | 0.2 | | | | | | | | | |

Strength based on strain compatibility; bottom tension limited to $12\sqrt{f'_c}$; see pages 2-3-2-5 for explanation
Values below heavy line require release strengths higher than 3500 psi.