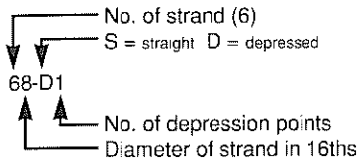


**Strand Pattern Designation**



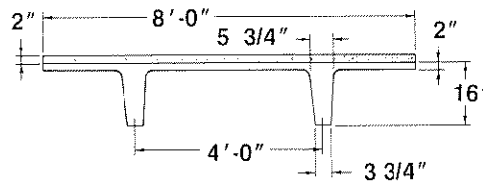
Safe loads shown include dead load of 10 psf for untopped members and 15 psf for topped members. Remainder is live load. Long-time cambers include superimposed dead load but do not include live load.

**Key**

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

**DOUBLE TEE**

**8'-0" x 16"**  
Normal Weight Concrete



**Section Properties**

|                | Untopped                 | Topped                 |
|----------------|--------------------------|------------------------|
| A              | = 325 in. <sup>2</sup>   | —                      |
| I              | = 6,634 in. <sup>4</sup> | 9,306 in. <sup>4</sup> |
| y <sub>b</sub> | = 11.93 in.              | 13.52 in.              |
| y <sub>t</sub> | = 4.07 in.               | 4.48 in.               |
| Z <sub>b</sub> | = 556 in. <sup>3</sup>   | 688 in. <sup>3</sup>   |
| Z <sub>t</sub> | = 1,630 in. <sup>3</sup> | 2,077 in. <sup>3</sup> |
| wt             | = 339 plf                | 539 plf                |
|                | 42 psf                   | 67 psf                 |
| V/S            | = 1.29 in.               |                        |

**8DT16**

**Table of safe superimposed service load (psf) and cambers**

**No Topping**

| Strand Pattern | e <sub>e</sub><br>e <sub>c</sub> | Span, ft. |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|----------------|----------------------------------|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
|                |                                  | 14        | 16  | 18  | 20  | 22  | 24  | 26  | 28  | 30  | 32  | 34  | 36  | 38  | 40  | 42  | 44  | 46  | 48  | 50  | 52  | 54  | 56  |  |
| 28-S           | 9.93                             | 200       | 160 | 123 | 93  | 71  | 55  | 42  | 31  |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|                | 9.93                             | 0.1       | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
| 48-S           | 8.93                             |           |     | 200 | 159 | 129 | 105 | 86  | 70  | 58  | 47  | 39  | 31  |     |     |     |     |     |     |     |     |     |     |  |
|                | 8.93                             |           |     | 0.4 | 0.5 | 0.6 | 0.7 | 0.7 | 0.8 | 0.8 | 0.8 | 0.8 | 0.7 |     |     |     |     |     |     |     |     |     |     |  |
| 68-S           | 5.93                             |           |     |     | 185 | 150 | 123 | 102 | 84  | 70  | 58  | 48  | 40  | 33  |     |     |     |     |     |     |     |     |     |  |
|                | 5.93                             |           |     |     | 0.5 | 0.6 | 0.6 | 0.7 | 0.7 | 0.8 | 0.8 | 0.8 | 0.7 | 0.7 |     |     |     |     |     |     |     |     |     |  |
| 68-D1          | 5.93                             |           |     |     |     |     | 177 | 148 | 125 | 105 | 90  | 76  | 65  | 56  | 47  | 40  | 34  |     |     |     |     |     |     |  |
|                | 9.43                             |           |     |     |     |     | 0.9 | 1.0 | 1.1 | 1.3 | 1.3 | 1.4 | 1.5 | 1.5 | 1.5 | 1.5 | 1.4 |     |     |     |     |     |     |  |
| 88-D1          | 3.93                             |           |     |     |     |     |     |     |     |     |     |     |     |     | 78  | 68  | 59  | 51  | 44  | 38  | 33  |     |     |  |
|                | 9.18                             |           |     |     |     |     |     |     |     |     |     |     |     |     | 1.9 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 1.8 |     |     |  |
| 108-D1         | 1.93                             |           |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | 44  | 39  | 34  |  |
|                | 8.93                             |           |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | 1.5 | 1.2 | 0.7 |  |

**8DT16 + 2**

**Table of safe superimposed service load (psf) and cambers**

**2" Normal Weight Topping**

| Strand Pattern | e <sub>e</sub><br>e <sub>c</sub> | Span, ft. |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|----------------|----------------------------------|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
|                |                                  | 16        | 18  | 20  | 22  | 24  | 26  | 28  | 30  | 32  | 34  | 36  | 38  | 40  | 42  | 44  |  |
| 28-S           | 9.93                             | 167       | 125 | 91  | 66  | 47  | 32  |     |     |     |     |     |     |     |     |     |  |
|                | 9.93                             | 0.2       | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |     |     |     |     |     |     |     |     |     |  |
| 48-S           | 8.93                             |           |     | 167 | 132 | 105 | 83  | 66  | 51  | 39  |     |     |     |     |     |     |  |
|                | 8.93                             |           |     | 0.5 | 0.6 | 0.7 | 0.7 | 0.8 | 0.8 | 0.8 |     |     |     |     |     |     |  |
| 68-S           | 5.93                             |           |     |     | 164 | 132 | 107 | 86  | 69  | 55  | 44  |     |     |     |     |     |  |
|                | 5.93                             |           |     |     | 0.6 | 0.6 | 0.7 | 0.7 | 0.8 | 0.8 | 0.8 |     |     |     |     |     |  |
| 68-D1          | 5.93                             |           |     |     |     |     | 187 | 154 | 127 | 106 | 87  | 72  | 59  | 49  | 39  |     |  |
|                | 9.43                             |           |     |     |     |     | 0.9 | 1.0 | 1.1 | 1.3 | 1.3 | 1.4 | 1.5 | 1.5 | 1.5 |     |  |
| 88-D1          | 3.93                             |           |     |     |     |     |     |     |     |     |     |     |     | 75  | 63  | 51  |  |
|                | 9.18                             |           |     |     |     |     |     |     |     |     |     |     |     | 0.9 | 0.7 | 0.3 |  |

Strength based on strain compatibility; bottom tension limited to  $12\sqrt{f'_c}$ ; see pages 2-3-2-6 for explanation. Shaded values require release strengths higher than 3500 psi.