

## Allowable Live Loads (psf) - 20" Open Joist 2000 Live Load Deflection L/ 480

| Joist Depth  |                 |             | Dead Load (psf) |     |      |     | Dead Load (psf) |     |      |     | Dead Load (psf) |     |      |     | Dead Load (psf) |     |      |     |
|--------------|-----------------|-------------|-----------------|-----|------|-----|-----------------|-----|------|-----|-----------------|-----|------|-----|-----------------|-----|------|-----|
| 20 in        |                 |             | 15              | 15  | 15   | 15  | 20              | 20  | 20   | 20  | 25              | 25  | 25   | 25  | 30              | 30  | 30   | 30  |
| Chord<br>DIM | Lumber<br>Grade | Length (ft) | Spacing (in)    |     |      |     | Spacing (in)    |     |      |     | Spacing (in)    |     |      |     | Spacing (in)    |     |      |     |
|              |                 |             | 12              | 16  | 19.2 | 24  | 12              | 16  | 19.2 | 24  | 12              | 16  | 19.2 | 24  | 12              | 16  | 19.2 | 24  |
| 4x2          | #2 SPF          | 10          | 273             | 205 | 171  | 137 | 273             | 205 | 171  | 137 | 273             | 205 | 171  | 137 | 273             | 205 | 171  | 137 |
| 4x2          | #2 SPF          | 11          | 249             | 186 | 155  | 124 | 249             | 186 | 155  | 124 | 249             | 186 | 155  | 124 | 249             | 186 | 155  | 124 |
| 4x2          | #2 SPF          | 12          | 228             | 171 | 142  | 114 | 228             | 171 | 142  | 114 | 228             | 171 | 142  | 114 | 228             | 171 | 142  | 114 |
| 4x2          | #2 SPF          | 13          | 210             | 158 | 131  | 105 | 210             | 158 | 131  | 105 | 210             | 158 | 131  | 105 | 210             | 158 | 131  | 105 |
| 4x2          | #2 SPF          | 14          | 195             | 146 | 122  | 98  | 195             | 146 | 122  | 98  | 195             | 146 | 122  | 98  | 195             | 146 | 122  | 98  |
| 4x2          | #2 SPF          | 15          | 182             | 137 | 114  | 91  | 182             | 137 | 114  | 91  | 182             | 137 | 114  | 91  | 182             | 137 | 114  | 91  |
| 4x2          | #2 SPF          | 16          | 171             | 128 | 107  | 85  | 171             | 128 | 107  | 85  | 171             | 128 | 107  | 85  | 171             | 128 | 107  | 85  |
| 4x2          | #2 SPF          | 17          | 161             | 121 | 101  | 80  | 161             | 121 | 101  | 80  | 161             | 121 | 101  | 80  | 161             | 121 | 101  | 80  |
| 4x2          | #2 SPF          | 18          | 152             | 114 | 95   | 76  | 152             | 114 | 95   | 76  | 152             | 114 | 95   | 76  | 152             | 114 | 95   | 76  |
| 4x2          | #2 SPF          | 19          | 144             | 108 | 90   | 72  | 144             | 108 | 90   | 72  | 144             | 108 | 90   | 72  | 144             | 108 | 90   | 72  |
| 4x2          | #2 SPF          | 20          | 137             | 103 | 85   | 68  | 137             | 103 | 85   | 68  | 137             | 103 | 85   | 68  | 137             | 103 | 85   | 68  |
| 4x2          | #2 SPF          | 21          | 130             | 98  | 81   | 65  | 130             | 98  | 81   | 65  | 130             | 98  | 81   | 65  | 130             | 98  | 81   | 65  |
| 4x2          | #2 SPF          | 22          | 124             | 93  | 78   | 62  | 124             | 93  | 78   | 62  | 124             | 93  | 78   | 62  | 124             | 93  | 78   | 62  |
| 4x2          | 2100 SPF        | 23          | 110             | 82  | 69   | 55  | 110             | 82  | 69   | 55  | 110             | 82  | 69   | 55  | 110             | 82  | 69   | 55  |
| 4x2          | 2100 SPF        | 24          | 105             | 79  | 66   | 53  | 105             | 79  | 66   | 53  | 105             | 79  | 66   | 53  | 105             | 79  | 66   | 53  |
| 4x2          | 2100 SPF        | 25          | 101             | 76  | 63   | 51  | 101             | 76  | 63   | 51  | 101             | 76  | 63   | 51  | 101             | 76  | 63   | 51  |
| 4x2          | 2100 SPF        | 26          | 97              | 73  | 61   | 49  | 97              | 73  | 61   | 49  | 97              | 73  | 61   | 49  | 97              | 73  | 61   | 49  |
| 4x2          | 2100 SPF        | 27          | 88              | 66  | 55   | 44  | 88              | 66  | 55   | 44  | 88              | 66  | 55   | 44  | 88              | 66  | 55   | 44  |
| 4x2          | 2100 SPF        | 28          | 85              | 64  | 53   | 42  | 85              | 64  | 53   | 42  | 85              | 64  | 53   | 42  | 85              | 64  | 53   | 42  |
| 4x2          | 2400 SPF        | 29          | 79              | 60  | 50   | 40  | 79              | 60  | 50   | 40  | 79              | 60  | 50   | 40  | 79              | 60  | 50   | 40  |
| 4x2          | 2400 SPF        | 30          | 77              | 58  | 48   | 38  | 77              | 58  | 48   | 38  | 77              | 58  | 48   | 38  | 77              | 58  | 48   | 38  |
| 4x2          | 2400 SPF        | 31          | 62              | 46  | 39   | 31  | 62              | 46  | 39   | 31  | 62              | 46  | 39   | 29  | 62              | 46  | 37   | 28  |
| 4x2          | 2400 SPF        | 32          | 60              | 45  | 37   | 30  | 60              | 45  | 37   | 30  | 60              | 45  | 37   | 28  | 60              | 45  | 36   | 26  |

- 1) Table is based on repetitive member use installed in a floor or roof system with minimum 5/8"-inch sheathing attached to the top flanges.
- 2) No increase allowable for repetitive member use or duration of load allowed.
- 3) Allowable load values in the table must be reduced if repetitive member conditions are not met (20 percent for 3x2 and 13 percent for 4x2).
- 3) Loads noted in the table are limited by live load deflection and total load deflection noted.
- 4) Manufactured length refers to overall length which includes the possibility of a 5 1/2-inch bearing on both ends. To calculate the allowable "clear span" subtract 11 inches from the tabulated manufactured length.