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June 9, 2022

page 1 of 65

Attn: Mr. Yoichi Shimokobe, CEO

## **Subject: Roof Tech RT-Mini Mount – Structural Analysis**

SML Job No.: 471-22

Dear Mr. Shimokobe:

We have analyzed the Roof Tech RT-Mini Mount photovoltaic (PV) panel roof mount system and determined that, for the configurations and criteria described below, it is in compliance with the applicable sections of the following Reference Documents:

- Codes: ASCE/SEI 7-16 Min. Design Loads for Buildings & Other Structures  
International Building Code 2018 Edition
- Other: Aluminum Design Manual, 2015 Edition

The Roof Tech RT-Mini Mount photovoltaic (PV) panel roof mount system is comprised of a 6000 series aluminum RT-Mini Mount base. An appropriately load rated 'L-Foot', by others, may be attached to the RT-Mini Mount base with a stainless steel SS304 8.0 mm or 5/16" diameter bolt, and flange nut. An appropriately load rated rail, by others, may be attached to the 'L-Foot' per the rail manufacturer's installation instructions. The installation of the RT-Mini Mount must be with the long direction parallel to the roof framing and in accordance with Roof Tech's Installation Manual. The system is attached to the roof wood substrate with SS304 5.0 mm x 60 mm wood screws.

Three wood substrates were tested with the fasteners also passing through two layers of composite asphalt roof shingles and 2 layers of building paper. The first tested wood substrate consisted of 7/16" thick sheathing over a 2x4 DF #2 rafter (2x truss top chord OK by inspection), the second tested wood substrate consisted of 7/16" thick OSB only, and the third tested wood substrate consisted of 15/32" thick plywood only. See Exhibit 'A' – attached. **Two wood screws are required at the rafter installations and five wood screws are required at the OSB and plywood only installations.**

The testing data provided by Institute of Building Technology (IBT) report no.: 2426-18005 project no.: 29702 dated March 21, 2018, shows that the critical failure occurs in one of three ways; pullout of the wood screws from the 2x rafter, yielding of the attached components in shear, or pullout of the nails attaching the OSB/Plywood to the 2x rafter. Maximum allowable values for these failure conditions were derived using a safety factor of 2.0 on the ultimate loads resulting in aluminum failure and a safety factor of 3.0 on the loads resulting in wood failure. The testing was performed in general accordance with IAPMO Uniform Evaluation Services *Evaluation Criteria for Joist Hangers and Miscellaneous Connectors*, EC002 adopted June 2007, revised January 2016 and ASTM D1761-2012, *Standard Test Methods for Mechanical Fasteners in Wood*.

Compression load capacity on the OSB and plywood installations were determined by testing conducted at Western Technologies Inc. (WT). The data is represented in job no. 2163XD260 event no. G260-3 (OSB) dated January 3, 2014 and job no. 2163XD260 event no. G260-6 (Plywood) dated May 30, 2014. The safety factor for downward compression on the sheathing is 2.0.

The results of the above testing are presented below:

The maximum allowable uplift and shear force for 7/16" thick sheathing over a 2x4 DF #2 rafter is 447 lb and 355 lb respectively. The maximum allowable uplift, down force, and shear force for 7/16" thick OSB only is 153 lb, 258 lb, and 192 lb respectively. The maximum allowable uplift, down force, and shear force for 15/32" thick plywood only is 180 lb, 556 lb, and 277 lb respectively.

The attached tables below show the maximum spacing of the RT Mini Mount for the combined loading criteria of wind speed, roof slope, and snow loads which produce reaction loads less than the allowable loads listed above. The effect of seismic loads (for all design categories A-F) have been determined to be less than the effect due to wind loads in all load conditions and combinations. The assumed topography is flat with a  $K_{zt} = 1.0$ . Therefore, the maximum allowable spacing for common load cases due to dead, wind and snow loads are the controlling load cases.

**‘Rail Option’:**

The maximum height for the ‘Rail Option’ is measured from the bottom of the RT Mini Mount base to the top of the rail. See Exhibit ‘A’ – attached, for the allowable ‘Rail Option’ PV panel layouts and ‘L-Foot’ and rail configuration. The maximum rail cantilever shall be limited to the smaller of 40% of the maximum rail span in the ‘Rail Option’ tables below and the rail manufacturer’s specified maximum cantilever. It is the responsibility of the contractor to verify that the ‘L-Foot’ and rails that are used have a span rating greater than that shown in the ‘Rail Option’ tables below. Provide thermal expansion splices along the rail at intervals not to exceed manufacturer’s recommendations or 14 feet o.c., and refer to the rail manufacturer’s thermal expansion splice detailing for proper installation.

The following conversion chart has been created to help clarify the ASCE 7-16 roof zones, which vary from gable to hip and from various roof pitches, while also keeping the spacing tables in as simple a form as possible.

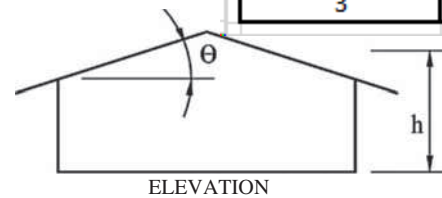
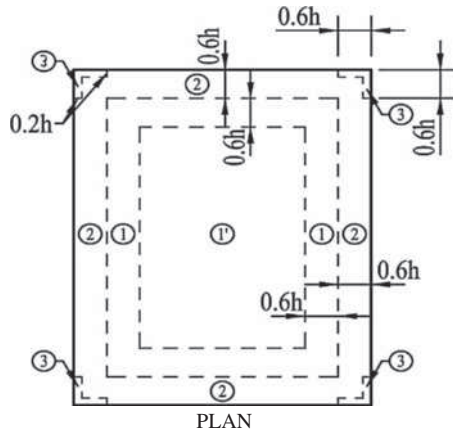
For each ASCE figure 30.3-2A to 30.3-2H (See pages 4 to 10, which each have up to six (6) roof zones, we have converted those to three (3) “Roof Areas” based on their GCp value.

| <b>Conversion Chart - SML Table Roof Areas to ASCE 7-16 Roof Zones</b> |                           |                                  |                            |                             |                    |                             |                     |
|--|---------------------------|----------------------------------|----------------------------|-----------------------------|--------------------|-----------------------------|---------------------|
| <b>Roof Type</b>   | <b>Roof Slopes, (deg)</b> | <b>Roof Areas Per SML Tables</b> | <b>Roof Zones Per ASCE</b> | <b>Effective Wind Area,</b> | <b>GCp Leeward</b> | <b>Effective Wind Area,</b> | <b>GCp Windward</b> |
| <b>Gable Roof</b>  | 0 to 7                    | 1                                | 1, 1                       | 10                          | -1.7               | 10                          | 0.3                 |
|  |                           | 2                                | 2                          | 10                          | -2.3               | 10                          | 0.3                 |
|  |                           | 3                                | 3                          | 10                          | -3.2               | 10                          | 0.3                 |
|  | 7 to 20                   | 1                                | 1, 2e                      | 10                          | -2                 | 2                           | 0.7                 |
|  |                           | 2                                | 2n, 2r, 3e                 | 10                          | -3                 | 2                           | 0.7                 |
|  |                           | 3                                | 3r                         | 10                          | -3.6               | 2                           | 0.7                 |
|  | 20 to 27                  | 1                                | 1, 2e                      | 10                          | -1.5               | 2                           | 0.7                 |
|  |                           | 2                                | 2n, 2r, 3e                 | 10                          | -2.5               | 2                           | 0.7                 |
|  |                           | 3                                | 3r                         | 4                           | -3.6               | 2                           | 0.7                 |
|  | 27 to 45                  | 1                                | 1, 2e, 2r                  | 10                          | -1.8               | 10                          | 0.9                 |
|  |                           | 2                                | 2n, 3r                     | 10                          | -2                 | 10                          | 0.9                 |
|  |                           | 3                                | 3e                         | 2                           | -3.2               | 10                          | 0.9                 |
| <b>Hip Roof</b>  | 0 to 7                    | NA                               | NA                         | NA                          | NA                 | NA                          | NA                  |
|  | 7 to 20                   | 1                                | 1                          | 10                          | -1.8               | 10                          | 0.7                 |
|  |                           | 2                                | 2r                         | 10                          | -2.4               | 10                          | 0.7                 |
|  |                           | 3                                | 2e, 3                      | 10                          | -2.6               | 10                          | 0.7                 |
|  | 20 to 27                  | 1                                | 1                          | 10                          | -1.4               | 10                          | 0.7                 |
|  |                           | 2                                | 2e, 2r, 3                  | 10                          | -2                 | 10                          | 0.7                 |
|  |                           | 3                                | NA                         | NA                          | NA                 | NA                          | NA                  |
|  | 27 to 45                  | 1                                | 1                          | 10                          | -1.5               | 3                           | 0.9                 |
|  |                           | 2                                | 2e, 2r                     | 3                           | -2.8               | 3                           | 0.9                 |
| 3  |                           | 3                                | 5                          | -3.6                        | 3                  | 0.9                         |                     |

**Combining Rafter and Deck-Only Mounts:**

It is permissible to combine rafter and deck-only mounting as shown in appendix B, at the end of this letter. In summary, the rafter-to-deck spacing shall be the average of the rafter spacing and deck-only (OSB or Plywood Only) spacing.

**Diagrams**

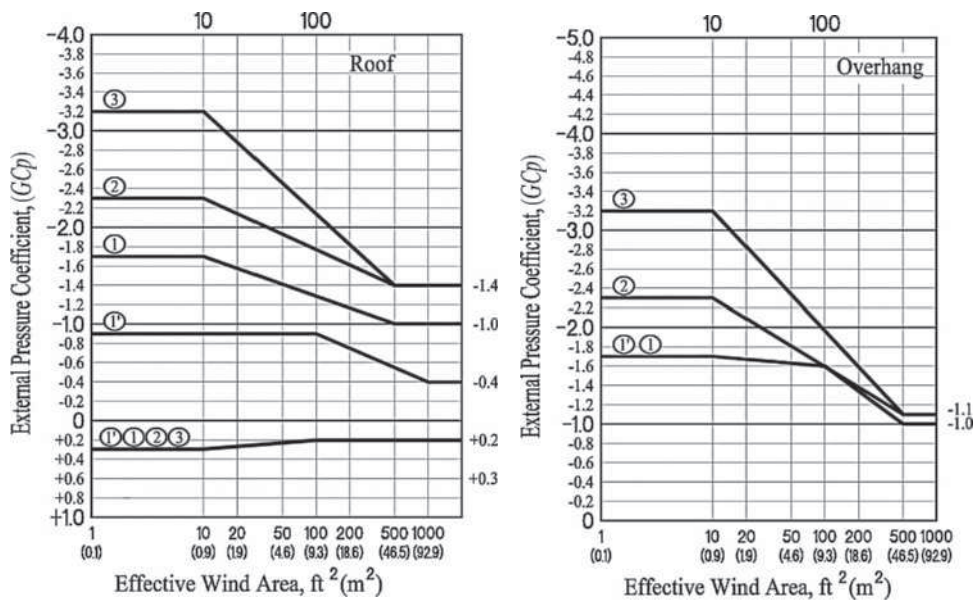


| Roof Areas Per SML Tables | Roof Zones Per ASCE 7-16 |
|---------------------------|--------------------------|
| 1                         | 1, 1                     |
| 2                         | 2                        |
| 3                         | 3                        |

**Notation**

$B$  = Horizontal dimension of building measured normal to wind direction, in ft (m).  
 $h$  = Eave height shall be used for  $\theta = 10^\circ$ .  
 $\theta$  = Angle of plane of roof from horizontal, in degrees.

**External Pressure Coefficients**

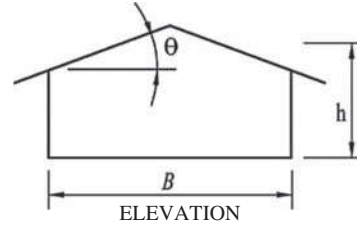
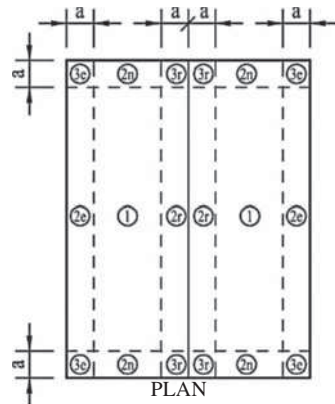


**Notes**

- Vertical scale denotes  $(GC_p)$  to be used with  $q_h$ .
- Horizontal scale denotes effective wind area, in  $ft^2$  ( $m^2$ ).
- Plus and minus signs signify pressures acting toward and away from the surfaces, respectively.
- Each component shall be designed for maximum positive and negative pressures.
- If a parapet equal to or higher than 3 ft (0.9 m) is provided around the perimeter of the roof with  $\theta \leq 7^\circ$ , the negative values of  $(GC_p)$  in Zone 3 shall be equal to those for Zone 2, and positive values of  $(GC_p)$  in Zones 2 and 3 shall be set equal to those for wall Zones 4 and 5, respectively, in Fig. 30.3-1.
- Values of  $(GC_p)$  for roof overhangs include pressure contributions from both upper and lower surfaces.
- If overhangs exist, the lesser horizontal dimension of the building shall not include any overhang dimension, but the edge distance,  $a$ , shall be measured from the outside edge of the overhang.

**FIGURE 30.3-2A Components and Cladding [ $h \leq 60$  ft ( $h \leq 18.3$  m)]: External Pressure Coefficients,  $(GC_p)$ , for Enclosed and Partially Enclosed Buildings—Gable Roofs,  $\theta \leq 7^\circ$**

**Diagrams**

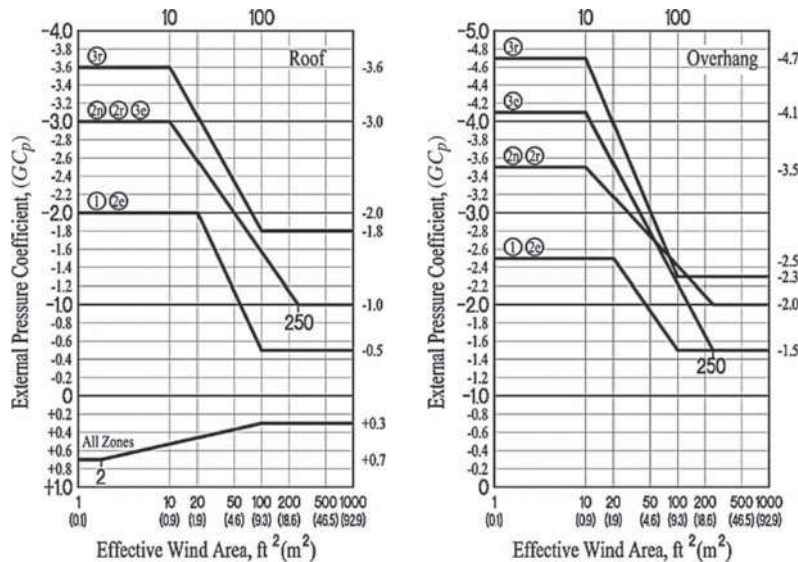


| Roof Areas Per SML Tables | Roof Zones Per ASCE 7-16 |
|---------------------------|--------------------------|
| 1                         | 1, 2e                    |
| 2                         | 2n, 2r, 3e               |
| 3                         | 3r                       |

**Notation**

$a$  = 10% of least horizontal dimension or  $0.4h$ , whichever is smaller, but not less than either 4% of least horizontal dimension or 3 ft (0.9 m). If an overhang exists, the edge distance shall be measured from the outside edge of the overhang. The horizontal dimensions used to compute the edge distance shall not include any overhang distances.  
 $B$  = Horizontal dimension of building measured normal to wind direction, in ft (m).  
 $h$  = Mean roof height, in ft (m), except that eave height shall be used for  $\theta \leq 10^\circ$ .  
 $\theta$  = Angle of plane of roof from horizontal, in degrees.

**External Pressure Coefficients**



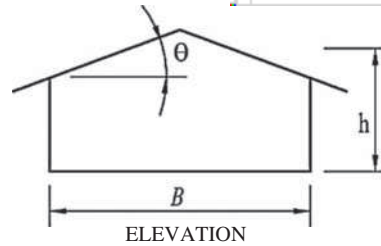
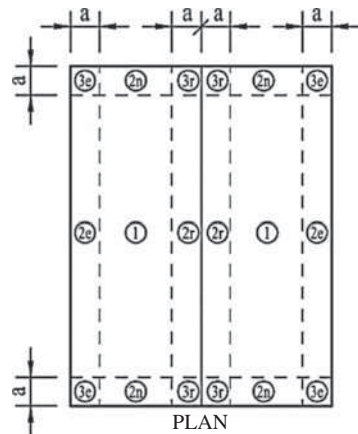
**Notes**

1. Vertical scale denotes  $(G_{Cp})$  to be used with  $q_h$ .
2. Horizontal scale denotes effective wind area, in  $ft^2 (m^2)$ .
3. Plus and minus signs signify pressures acting toward and away from the surfaces, respectively.
4. Each component shall be designed for maximum positive and negative pressures.
5. Values of  $(G_{Cp})$  for roof overhangs include pressure contributions from both upper and lower surfaces.
6. If overhangs exist, the lesser horizontal dimension of the building shall not include any overhang dimension, but the edge distance,  $a$ , shall be measured from the outside edge of the overhang.

**FIGURE 30.3-2B Components and Cladding [ $h \leq 60$  ft ( $h \leq 18.3$  m)]: External Pressure Coefficients,  $(G_{Cp})$ , for Enclosed and Partially Enclosed Buildings—Gable Roofs,  $7^\circ < \theta \leq 20^\circ$**



**Diagrams**



| Roof Areas Per SML Tables | Roof Zones Per ASCE 7-16 |
|---------------------------|--------------------------|
| 1                         | 1, 2e                    |
| 2                         | 2n, 2r, 3e               |
| 3                         | 3r                       |

**Notation**

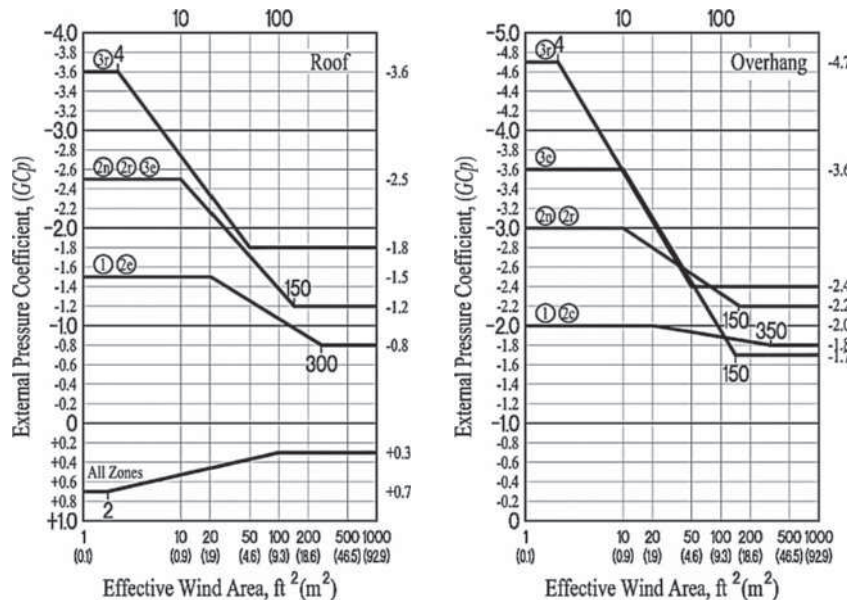
$a$  = 10% of least horizontal dimension or  $0.4h$ , whichever is smaller, but not less than either 4% of least horizontal dimension or 3 ft (0.9 m). If an overhang exists, the edge distance shall be measured from the outside edge of the overhang. The horizontal dimensions used to compute the edge distance shall not include any overhang distances.

$B$  = Horizontal dimension of building measured normal to wind direction, in ft (m).

$h$  = Mean roof height, in ft (m).

$\theta$  = Angle of plane of roof from horizontal, in degrees.

**External Pressure Coefficients**

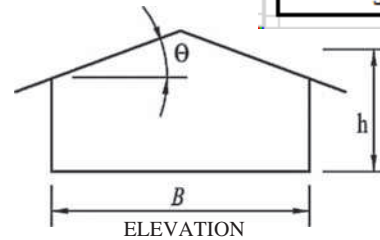
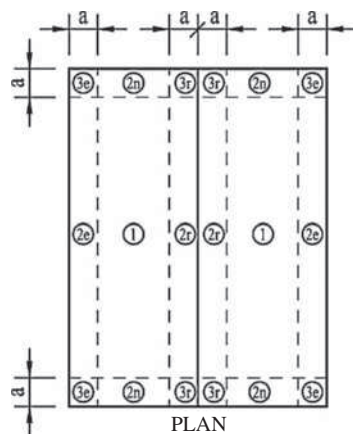


**Notes**

1. Vertical scale denotes  $(GC_p)$  to be used with  $q_h$ .
2. Horizontal scale denotes effective wind area, in  $ft^2 (m^2)$ .
3. Plus and minus signs signify pressures acting toward and away from the surfaces, respectively.
4. Each component shall be designed for maximum positive and negative pressures.
5. Values of  $(GC_p)$  for roof overhangs include pressure contributions from both upper and lower surfaces.
6. If overhangs exist, the lesser horizontal dimension of the building shall not include any overhang dimension, but the edge distance,  $a$ , shall be measured from the outside edge of the overhang.

**FIGURE 30.3-2C Components and Cladding [ $h \leq 60$  ft ( $h \leq 18.3$  m)]: External Pressure Coefficients,  $(GC_p)$ , for Enclosed and Partially Enclosed Buildings—Gable Roofs,  $20^\circ < \theta \leq 27^\circ$**

**Diagrams**

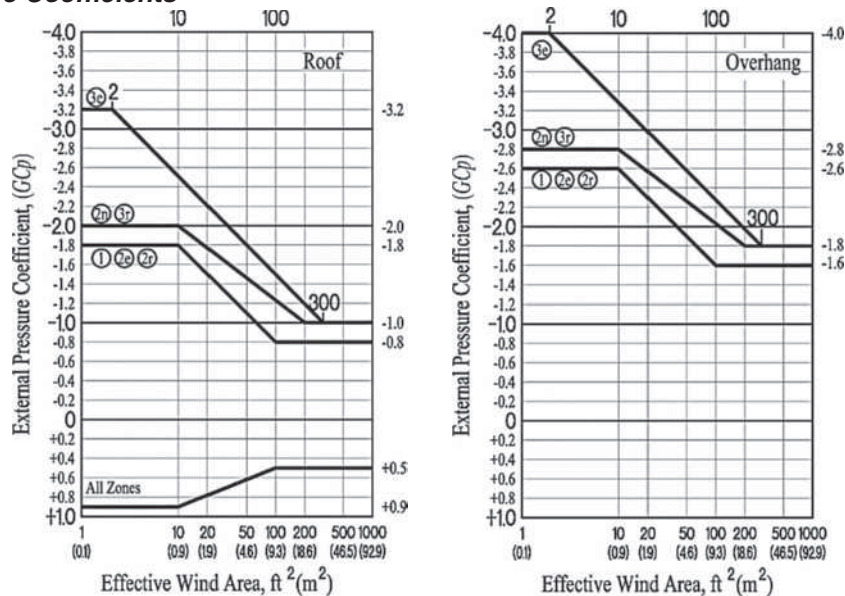


| Roof Areas Per SML Tables | Roof Zones Per ASCE 7-16 |
|---------------------------|--------------------------|
| 1                         | 1, 2e, 2r                |
| 2                         | 2n, 3r                   |
| 3                         | 3e                       |

**Notation**

$a$  = 10% of least horizontal dimension or  $0.4h$ , whichever is smaller, but not less than either 4% of least horizontal dimension or 3 ft (0.9 m). If an overhang exists, the edge distance shall be measured from the outside edge of the overhang. The horizontal dimensions used to compute the edge distance shall not include any overhang distances.  
 $B$  = Horizontal dimension of building measured normal to wind direction, in ft (m).  
 $h$  = Mean roof height, in ft (m).  
 $\theta$  = Angle of plane of roof from horizontal, in degrees.

**External Pressure Coefficients**

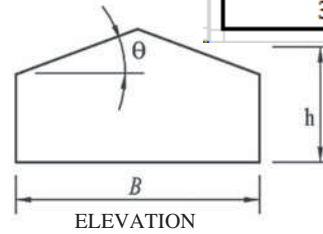
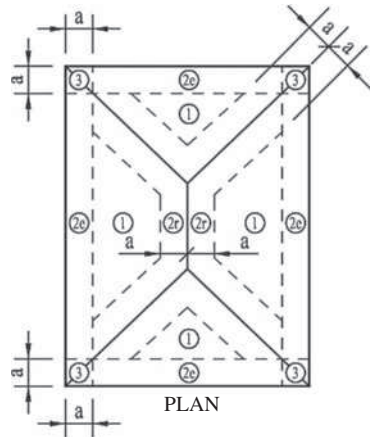


**Notes**

1. Vertical scale denotes ( $GC_p$ ) to be used with  $q_h$ .
2. Horizontal scale denotes effective wind area, in  $ft^2$  ( $m^2$ ).
3. Plus and minus signs signify pressures acting toward and away from the surfaces, respectively.
4. Each component shall be designed for maximum positive and negative pressures.
5. Values of ( $GC_p$ ) for roof overhangs include pressure contributions from both upper and lower surfaces.
6. If overhangs exist, the lesser horizontal dimension of the building shall not include any overhang dimension, but the edge distance,  $a$ , shall be measured from the outside edge of the overhang.

**FIGURE 30.3-2D Components and Cladding [ $h \leq 60$  ft ( $h \leq 18.3$  m)]: External Pressure Coefficients, ( $GC_p$ ), for Enclosed and Partially Enclosed Buildings—Gable Roofs,  $27^\circ < \theta \leq 45^\circ$**

**Diagrams**

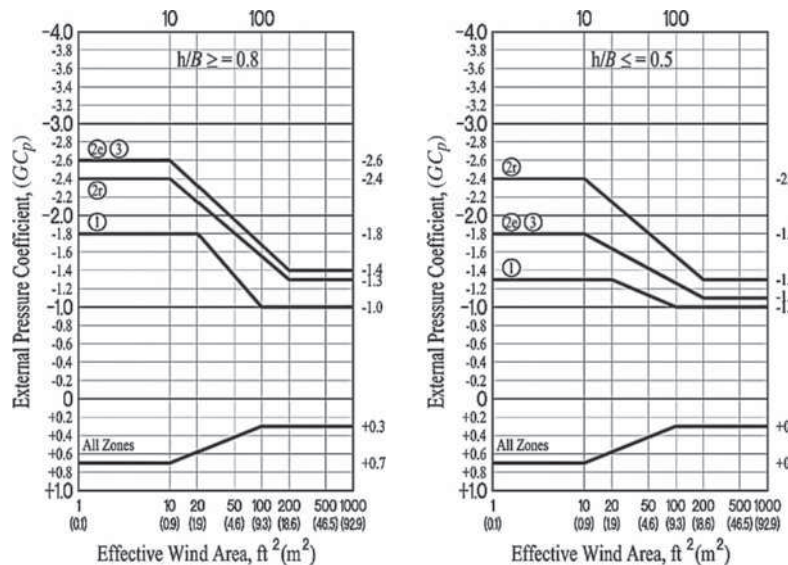


| Roof Areas Per SML Tables | Roof Zones Per ASCE 7-16 |
|---------------------------|--------------------------|
| 1                         | 1                        |
| 2                         | 2r                       |
| 3                         | 2e, 3                    |

**Notation**

$a$  = 10% of least horizontal dimension or  $0.4h$ , whichever is smaller, but not less than either 4% of least horizontal dimension or 3 ft (0.9 m). If an overhang exists, the edge distance shall be measured from the outside edge of the overhang. The horizontal dimensions used to compute the edge distance shall not include any overhang distances.  
 $h$  = Mean roof height, in ft (m), except that eave height shall be used for  $\theta \leq 10^\circ$ .  
 $B$  = Horizontal dimension of building measured normal to wind direction, in ft (m).  
 $\theta$  = Angle of plane of roof from horizontal, in degrees.

**External Pressure Coefficients**



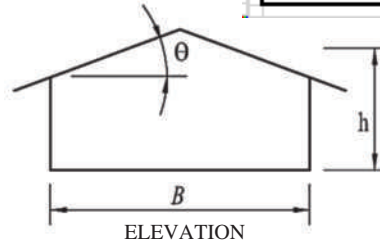
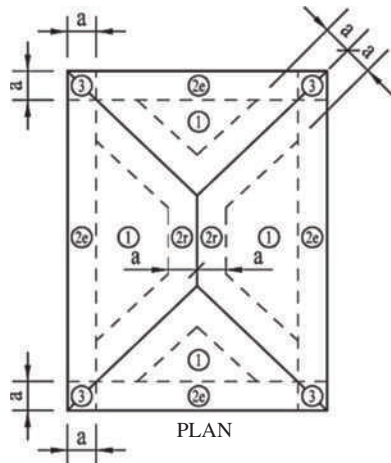
**Notes**

- Vertical scale denotes ( $G_{Cp}$ ) to be used with  $q_h$ .
- Horizontal scale denotes effective wind area, in  $ft^2$  ( $m^2$ ).
- Plus and minus signs signify pressures acting toward and away from the surfaces, respectively.
- Each component shall be designed for maximum positive and negative pressures.
- If overhangs exist, the lesser horizontal dimension of the building shall not include any overhang dimension, but the edge distance,  $a$ , shall be measured from the outside edge of the overhang.
- Interpolation of ( $G_{Cp}$ ) between the two different  $h/B$  values is required for  $0.5 < h/B < 0.8$ .
- $B$  for Zone 3 is the least horizontal dimension.  $B$  for Zones 1 and 2e is normal to the building width and normal to the eave defining Zone 2e.

**FIGURE 30.3-2E Components and Cladding [ $h \leq 60$  ft ( $h \leq 18.3$  m)]: External Pressure Coefficients, ( $G_{Cp}$ ), for Enclosed and Partially Enclosed Buildings—Hip Roofs,  $7^\circ < \theta \leq 20^\circ$  (Roof)**



**Diagrams**

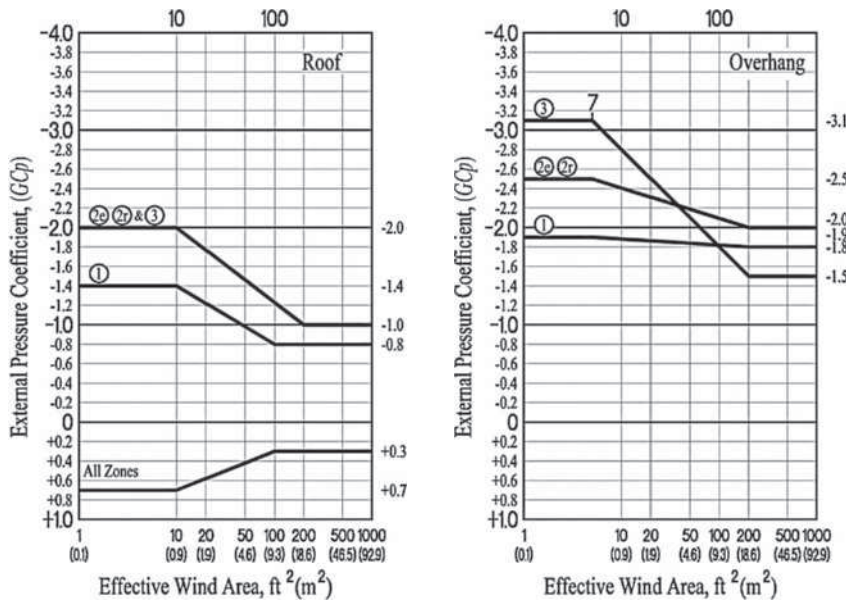


| Roof Areas Per SML Tables | Roof Zones Per ASCE 7-16 |
|---------------------------|--------------------------|
| 1                         | 1                        |
| 2                         | 2e, 2r, 3                |
| 3                         | NA                       |

**Notation**

$a$  = 10% of least horizontal dimension or  $0.4h$ , whichever is smaller, but not less than either 4% of least horizontal dimension or 3 ft (0.9 m). If an overhang exists, the edge distance shall be measured from the outside edge of the overhang. The horizontal dimensions used to compute the edge distance shall not include any overhang distances.  
 $B$  = Horizontal dimension of building measured normal to wind direction, in ft (m).  
 $h$  = Mean roof height, in ft (m).  
 $\theta$  = Angle of plane of roof from horizontal, in degrees.

**External Pressure Coefficients**

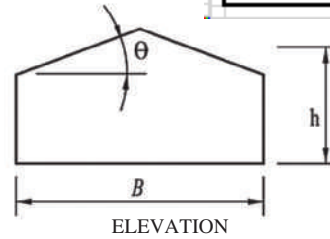
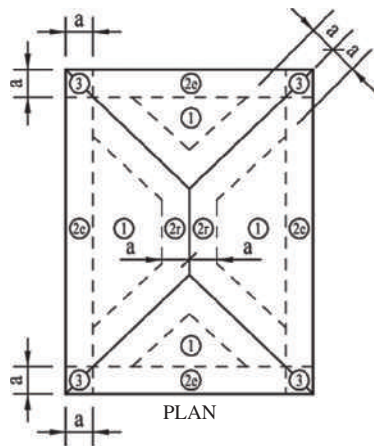


**Notes**

1. Vertical scale denotes  $(GC_p)$  to be used with  $q_h$ .
2. Horizontal scale denotes effective wind area, in  $ft^2 (m^2)$ .
3. Plus and minus signs signify pressures acting toward and away from the surfaces, respectively.
4. Each component shall be designed for maximum positive and negative pressures.
5. Values of  $(GC_p)$  for roof overhangs include pressure contributions from both upper and lower surfaces.
6. If overhangs exist, the lesser horizontal dimension of the building shall not include any overhang dimension, but the edge distance,  $a$ , shall be measured from the outside edge of the overhang.

**FIGURE 30.3-2G Components and Cladding [ $h \leq 60$  ft ( $h \leq 18.3$  m)]: External Pressure Coefficients,  $(GC_p)$ , for Enclosed and Partially Enclosed Buildings—Hip Roofs,  $20^\circ < \theta \leq 27^\circ$  (Roof and Overhang)**

**Diagrams**

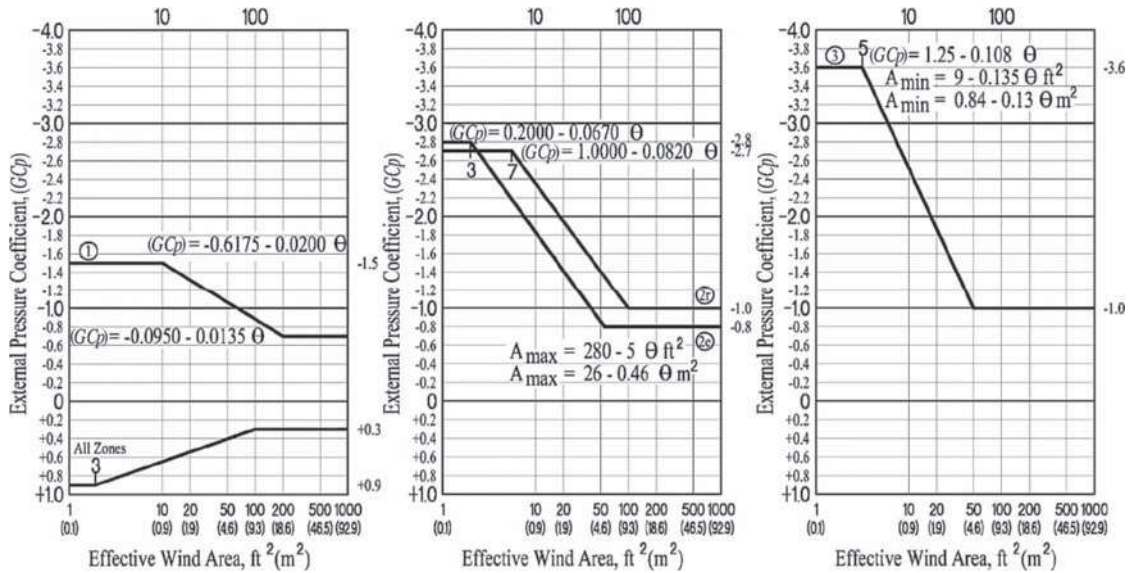


| Roof Areas Per SML Tables | Roof Zones Per ASCE 7-16 |
|---------------------------|--------------------------|
| 1                         | 1                        |
| 2                         | 2e, 2r                   |
| 3                         | 3                        |

**Notation**

$a$  = 10% of least horizontal dimension or  $0.4h$ , whichever is smaller, but not less than either 4% of least horizontal dimension or 3 ft (0.9 m). If an overhang exists, the edge distance shall be measured from the outside edge of the overhang. The horizontal dimensions used to compute the edge distance shall not include any overhang distances.  
 $B$  = Horizontal dimension of building measured normal to wind direction, in ft (m).  
 $h$  = Mean roof height, in ft (m).  
 $\theta$  = Angle of plane of roof from horizontal, in degrees.

**External Pressure Coefficients**



**Notes**

- Vertical scale denotes  $(GC_p)$  to be used with  $q_h$ .
- Horizontal scale denotes effective wind area, in  $\text{ft}^2$  ( $\text{m}^2$ ).
- Plus and minus signs signify pressures acting toward and away from the surfaces, respectively.
- Each component shall be designed for maximum positive and negative pressures.
- If overhangs exist, the lesser horizontal dimension of the building shall not include any overhang dimension, but the edge distance,  $a$ , shall be measured from the outside edge of the overhang.
- $A_{min}$  = the minimum tributary area (i.e., areas less than  $A_{min}$  are to use  $(GC_p)$  value for  $A_{min}$ ).
- $A_{max}$  = the maximum tributary area (i.e., areas greater than  $A_{max}$  are to use  $(GC_p)$  value for  $A_{max}$ ).
- $(GC_p)$  values given for roof slope,  $\theta = 45^\circ$ ; for other slopes use the equations.

**FIGURE 30.3-2H Components and Cladding [ $h \leq 60$  ft ( $h \leq 18.3$  m)]: External Pressure Coefficients,  $(GC_p)$ , for Enclosed and Partially Enclosed Buildings—Hip Roofs,  $27^\circ < \theta \leq 45^\circ$  (Roof)**

| Gable Roof RT1   | RT-[E] Mount Mini Rafter Installations<br>(60 Cell PV Panels)<br>Maximum Mount Spacing in Inches |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |
|------------------|--|------------------|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                  | Portrait Orientation - ASCE 7-16   |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |
| Snow Load        | Exposure Category  | Roof Angle       | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |
|                  |  |                  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |
| 0 PSF            | B  | 0 to 6 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 88  | 74  | 64  | 56  | 49  | 43  |
|                  |  |                  | 2         | 96                        | 96  | 96  | 91  | 82  | 75  | 63  | 54  | 46  | 40  | 36  | 32  |
|                  |  |                  | 3         | 87                        | 78  | 70  | 63  | 57  | 52  | 44  | 38  | 33  | 29  | 25  | 22  |
|                  |  | 7 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 92  | 84  | 71  | 61  | 53  | 46  | 40  | 36  |
|                  |  |                  | 2         | 90                        | 81  | 73  | 66  | 60  | 55  | 46  | 40  | 34  | 30  | 27  | 24  |
|                  |  |                  | 3         | 73                        | 65  | 59  | 54  | 49  | 45  | 38  | 33  | 28  | 25  | 22  | 19  |
|                  |  | 28 to 45 Degrees | 1         | 96                        | 96  | 96  | 96  | 94  | 87  | 74  | 64  | 56  | 49  | 43  | 39  |
|                  |  |                  | 2         | 96                        | 96  | 96  | 93  | 85  | 78  | 67  | 57  | 50  | 44  | 39  | 35  |
|                  |  |                  | 3         | 78                        | 70  | 64  | 58  | 53  | 49  | 42  | 36  | 31  | 27  | 24  | 22  |
|                  | C  | 0 to 6 Degrees   | 1         | 96                        | 96  | 96  | 87  | 79  | 72  | 61  | 52  | 45  | 39  | 34  | 30  |
|                  |  |                  | 2         | 86                        | 77  | 69  | 63  | 57  | 52  | 44  | 37  | 32  | 28  | 25  | 22  |
|                  |  |                  | 3         | 60                        | 54  | 49  | 44  | 40  | 37  | 31  | 26  | 23  | 20  | 18  | 16  |
|                  |  | 7 to 27 Degrees  | 1         | 96                        | 87  | 78  | 71  | 64  | 59  | 50  | 43  | 37  | 32  | 28  | 25  |
|                  |  |                  | 2         | 63                        | 56  | 51  | 46  | 42  | 39  | 33  | 28  | 24  | 21  | 19  | 17  |
|                  |  |                  | 3         | 51                        | 46  | 42  | 38  | 34  | 32  | 27  | 23  | 20  | 17  | 15  | 14  |
|                  |  | 28 to 45 Degrees | 1         | 96                        | 89  | 81  | 74  | 67  | 62  | 53  | 46  | 40  | 35  | 31  | 27  |
|                  |  |                  | 2         | 89                        | 80  | 73  | 66  | 61  | 56  | 48  | 41  | 36  | 31  | 28  | 25  |
|                  |  |                  | 3         | 56                        | 50  | 46  | 41  | 38  | 35  | 30  | 26  | 22  | 19  | 17  | 15  |
|                  | D  | 0 to 6 Degrees   | 1         | 96                        | 89  | 80  | 73  | 66  | 60  | 51  | 43  | 37  | 33  | 29  | 25  |
|                  |  |                  | 2         | 72                        | 64  | 58  | 52  | 48  | 43  | 37  | 31  | 27  | 24  | 21  | 19  |
|                  |  |                  | 3         | 50                        | 45  | 41  | 37  | 34  | 31  | 26  | 22  | 19  | 17  | 15  | 13  |
|                  |  | 7 to 27 Degrees  | 1         | 81                        | 72  | 65  | 59  | 54  | 49  | 42  | 36  | 31  | 27  | 24  | 21  |
|                  |  |                  | 2         | 53                        | 47  | 43  | 39  | 35  | 32  | 27  | 23  | 20  | 18  | 16  | 14  |
|                  |  |                  | 3         | 43                        | 39  | 35  | 32  | 29  | 27  | 23  | 19  | 17  | 15  | 13  | 11  |
| 28 to 45 Degrees |  | 1                | 83        | 75                        | 68  | 62  | 57  | 52  | 45  | 38  | 33  | 29  | 26  | 23  |     |
|                  |  | 2                | 75        | 68                        | 62  | 56  | 51  | 47  | 40  | 35  | 30  | 26  | 23  | 21  |     |
|                  |  | 3                | 47        | 42                        | 38  | 35  | 32  | 29  | 25  | 22  | 19  | 16  | 14  | 13  |     |
| 1-10 PSF         | B  | 0 to 6 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 88  | 74  | 64  | 56  | 49  | 43  |
|                  |  |                  | 2         | 96                        | 96  | 96  | 91  | 82  | 75  | 63  | 54  | 46  | 40  | 36  | 32  |
|                  |  |                  | 3         | 87                        | 78  | 70  | 63  | 57  | 52  | 44  | 38  | 33  | 29  | 25  | 22  |
|                  |  | 7 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 92  | 84  | 71  | 61  | 53  | 46  | 40  | 36  |
|                  |  |                  | 2         | 90                        | 81  | 73  | 66  | 60  | 55  | 46  | 40  | 34  | 30  | 27  | 24  |
|                  |  |                  | 3         | 73                        | 65  | 59  | 54  | 49  | 45  | 38  | 33  | 28  | 25  | 22  | 19  |
|                  |  | 28 to 45 Degrees | 1         | 96                        | 96  | 96  | 96  | 94  | 87  | 74  | 64  | 56  | 49  | 43  | 39  |
|                  |  |                  | 2         | 96                        | 96  | 96  | 93  | 85  | 78  | 67  | 57  | 50  | 44  | 39  | 35  |
|                  |  |                  | 3         | 78                        | 70  | 64  | 58  | 53  | 49  | 42  | 36  | 31  | 27  | 24  | 22  |
|                  | C  | 0 to 6 Degrees   | 1         | 96                        | 96  | 96  | 87  | 79  | 72  | 61  | 52  | 45  | 39  | 34  | 30  |
|                  |  |                  | 2         | 86                        | 77  | 69  | 63  | 57  | 52  | 44  | 37  | 32  | 28  | 25  | 22  |
|                  |  |                  | 3         | 60                        | 54  | 49  | 44  | 40  | 37  | 31  | 26  | 23  | 20  | 18  | 16  |
|                  |  | 7 to 27 Degrees  | 1         | 96                        | 87  | 78  | 71  | 64  | 59  | 50  | 43  | 37  | 32  | 28  | 25  |
|                  |  |                  | 2         | 63                        | 56  | 51  | 46  | 42  | 39  | 33  | 28  | 24  | 21  | 19  | 17  |
|                  |  |                  | 3         | 51                        | 46  | 42  | 38  | 34  | 32  | 27  | 23  | 20  | 17  | 15  | 14  |
|                  |  | 28 to 45 Degrees | 1         | 96                        | 89  | 81  | 74  | 67  | 62  | 53  | 46  | 40  | 35  | 31  | 27  |
|                  |  |                  | 2         | 89                        | 80  | 73  | 66  | 61  | 56  | 48  | 41  | 36  | 31  | 28  | 25  |
|                  |  |                  | 3         | 56                        | 50  | 46  | 41  | 38  | 35  | 30  | 26  | 22  | 19  | 17  | 15  |
|                  | D  | 0 to 6 Degrees   | 1         | 96                        | 89  | 80  | 73  | 66  | 60  | 51  | 43  | 37  | 33  | 29  | 25  |
|                  |  |                  | 2         | 72                        | 64  | 58  | 52  | 48  | 43  | 37  | 31  | 27  | 24  | 21  | 19  |
|                  |  |                  | 3         | 50                        | 45  | 41  | 37  | 34  | 31  | 26  | 22  | 19  | 17  | 15  | 13  |
|                  |  | 7 to 27 Degrees  | 1         | 81                        | 72  | 65  | 59  | 54  | 49  | 42  | 36  | 31  | 27  | 24  | 21  |
|                  |  |                  | 2         | 53                        | 47  | 43  | 39  | 35  | 32  | 27  | 23  | 20  | 18  | 16  | 14  |
|                  |  |                  | 3         | 43                        | 39  | 35  | 32  | 29  | 27  | 23  | 19  | 17  | 15  | 13  | 11  |
| 28 to 45 Degrees |  | 1                | 83        | 75                        | 68  | 62  | 57  | 52  | 45  | 38  | 33  | 29  | 26  | 23  |     |
|                  |  | 2                | 75        | 68                        | 62  | 56  | 51  | 47  | 40  | 35  | 30  | 26  | 23  | 21  |     |
|                  |  | 3                | 47        | 42                        | 38  | 35  | 32  | 29  | 25  | 22  | 19  | 16  | 14  | 13  |     |
| 1-1-20 PSF       | B  | 0 to 6 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 88  | 74  | 64  | 56  | 49  | 43  |
|                  |  |                  | 2         | 96                        | 96  | 96  | 91  | 82  | 75  | 63  | 54  | 46  | 40  | 36  | 32  |
|                  |  |                  | 3         | 87                        | 78  | 70  | 63  | 57  | 52  | 44  | 38  | 33  | 29  | 25  | 22  |
|                  |  | 7 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 92  | 84  | 71  | 61  | 53  | 46  | 40  | 36  |
|                  |  |                  | 2         | 90                        | 81  | 73  | 66  | 60  | 55  | 46  | 40  | 34  | 30  | 27  | 24  |
|                  |  |                  | 3         | 73                        | 65  | 59  | 54  | 49  | 45  | 38  | 33  | 28  | 25  | 22  | 19  |
|                  |  | 28 to 45 Degrees | 1         | 96                        | 96  | 96  | 96  | 94  | 87  | 74  | 64  | 56  | 49  | 43  | 39  |
|                  |  |                  | 2         | 96                        | 96  | 96  | 93  | 85  | 78  | 67  | 57  | 50  | 44  | 39  | 35  |
|                  |  |                  | 3         | 78                        | 70  | 64  | 58  | 53  | 49  | 42  | 36  | 31  | 27  | 24  | 22  |
|                  | C  | 0 to 6 Degrees   | 1         | 96                        | 96  | 96  | 87  | 79  | 72  | 61  | 52  | 45  | 39  | 34  | 30  |
|                  |  |                  | 2         | 86                        | 77  | 69  | 63  | 57  | 52  | 44  | 37  | 32  | 28  | 25  | 22  |
|                  |  |                  | 3         | 60                        | 54  | 49  | 44  | 40  | 37  | 31  | 26  | 23  | 20  | 18  | 16  |
|                  |  | 7 to 27 Degrees  | 1         | 96                        | 87  | 78  | 71  | 64  | 59  | 50  | 43  | 37  | 32  | 28  | 25  |
|                  |  |                  | 2         | 63                        | 56  | 51  | 46  | 42  | 39  | 33  | 28  | 24  | 21  | 19  | 17  |
|                  |  |                  | 3         | 51                        | 46  | 42  | 38  | 34  | 32  | 27  | 23  | 20  | 17  | 15  | 14  |
|                  |  | 28 to 45 Degrees | 1         | 96                        | 89  | 81  | 74  | 67  | 62  | 53  | 46  | 40  | 35  | 31  | 27  |
|                  |  |                  | 2         | 89                        | 80  | 73  | 66  | 61  | 56  | 48  | 41  | 36  | 31  | 28  | 25  |
|                  |  |                  | 3         | 56                        | 50  | 46  | 41  | 38  | 35  | 30  | 26  | 22  | 19  | 17  | 15  |
|                  | D  | 0 to 6 Degrees   | 1         | 96                        | 89  | 80  | 73  | 66  | 60  | 51  | 43  | 37  | 33  | 29  | 25  |
|                  |  |                  | 2         | 72                        | 64  | 58  | 52  | 48  | 43  | 37  | 31  | 27  | 24  | 21  | 19  |
|                  |  |                  | 3         | 50                        | 45  | 41  | 37  | 34  | 31  | 26  | 22  | 19  | 17  | 15  | 13  |
|                  |  | 7 to 27 Degrees  | 1         | 81                        | 72  | 65  | 59  | 54  | 49  | 42  | 36  | 31  | 27  | 24  | 21  |
|                  |  |                  | 2         | 53                        | 47  | 43  | 39  | 35  | 32  | 27  | 23  | 20  | 18  | 16  | 14  |
|                  |  |                  | 3         | 43                        | 39  | 35  | 32  | 29  | 27  | 23  | 19  | 17  | 15  | 13  | 11  |
| 28 to 45 Degrees |  | 1                | 83        | 75                        | 68  | 62  | 57  | 52  | 45  | 38  | 33  | 29  | 26  | 23  |     |
|                  |  | 2                | 75        | 68                        | 62  | 56  | 51  | 47  | 40  | 35  | 30  | 26  | 23  | 21  |     |
|                  |  | 3                | 47        | 42                        | 38  | 35  | 32  | 29  | 25  | 22  | 19  | 16  | 14  | 13  |     |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Gable Roof RT1   | RT-[E] Mount Mini Rafter Installations<br>(60 Cell PV Panels)<br>Maximum Mount Spacing in Inches |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |
|------------------|--|------------------|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
|                  | Portrait Orientation - ASCE 7-16   |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |
| Snow Load        | Exposure Category  | Roof Angle       | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |    |
|                  |  |                  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |    |
| 21-30 PSF        | B  | 0 to 6 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 88  | 74  | 64  | 56  | 49  | 43 |
|                  |  |                  | 2         | 96                        | 96  | 96  | 91  | 82  | 75  | 63  | 54  | 46  | 40  | 36  | 32  |    |
|                  |  |                  | 3         | 87                        | 78  | 70  | 63  | 57  | 52  | 44  | 38  | 33  | 29  | 25  | 22  |    |
|                  |  | 7 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 92  | 84  | 71  | 61  | 53  | 46  | 40  | 36  |    |
|                  |  |                  | 2         | 90                        | 81  | 73  | 66  | 60  | 55  | 46  | 40  | 34  | 30  | 27  | 24  |    |
|                  |  |                  | 3         | 73                        | 65  | 59  | 54  | 49  | 45  | 38  | 33  | 28  | 25  | 22  | 19  |    |
|                  |  | 28 to 45 Degrees | 1         | 96                        | 96  | 96  | 96  | 94  | 87  | 74  | 64  | 56  | 49  | 43  | 39  |    |
|                  |  |                  | 2         | 96                        | 96  | 96  | 93  | 85  | 78  | 67  | 57  | 50  | 44  | 39  | 35  |    |
|                  |  |                  | 3         | 78                        | 70  | 64  | 58  | 53  | 49  | 42  | 36  | 31  | 27  | 24  | 22  |    |
|                  | C  | 0 to 6 Degrees   | 1         | 96                        | 96  | 96  | 87  | 79  | 72  | 61  | 52  | 45  | 39  | 34  | 30  |    |
|                  |  |                  | 2         | 86                        | 77  | 69  | 63  | 57  | 52  | 44  | 37  | 32  | 28  | 25  | 22  |    |
|                  |  |                  | 3         | 60                        | 54  | 49  | 44  | 40  | 37  | 31  | 26  | 23  | 20  | 18  | 16  |    |
|                  |  | 7 to 27 Degrees  | 1         | 96                        | 87  | 78  | 71  | 64  | 59  | 50  | 43  | 37  | 32  | 28  | 25  |    |
|                  |  |                  | 2         | 63                        | 56  | 51  | 46  | 42  | 39  | 33  | 28  | 24  | 21  | 19  | 17  |    |
|                  |  |                  | 3         | 51                        | 46  | 42  | 38  | 34  | 32  | 27  | 23  | 20  | 17  | 15  | 14  |    |
|                  |  | 28 to 45 Degrees | 1         | 96                        | 89  | 81  | 74  | 67  | 62  | 53  | 46  | 40  | 35  | 31  | 27  |    |
|                  |  |                  | 2         | 89                        | 80  | 73  | 66  | 61  | 56  | 48  | 41  | 36  | 31  | 28  | 25  |    |
|                  |  |                  | 3         | 56                        | 50  | 46  | 41  | 38  | 35  | 30  | 26  | 22  | 19  | 17  | 15  |    |
|                  | D  | 0 to 6 Degrees   | 1         | 96                        | 89  | 80  | 73  | 66  | 60  | 51  | 43  | 37  | 33  | 29  | 25  |    |
|                  |  |                  | 2         | 72                        | 64  | 58  | 52  | 48  | 43  | 37  | 31  | 27  | 24  | 21  | 19  |    |
|                  |  |                  | 3         | 50                        | 45  | 41  | 37  | 34  | 31  | 26  | 22  | 19  | 17  | 15  | 13  |    |
|                  |  | 7 to 27 Degrees  | 1         | 81                        | 72  | 65  | 59  | 54  | 49  | 42  | 36  | 31  | 27  | 24  | 21  |    |
|                  |  |                  | 2         | 53                        | 47  | 43  | 39  | 35  | 32  | 27  | 23  | 20  | 18  | 16  | 14  |    |
|                  |  |                  | 3         | 43                        | 39  | 35  | 32  | 29  | 27  | 23  | 19  | 17  | 15  | 13  | 11  |    |
| 28 to 45 Degrees |  | 1                | 83        | 75                        | 68  | 62  | 57  | 52  | 45  | 38  | 33  | 29  | 26  | 23  |     |    |
|                  |  | 2                | 75        | 68                        | 62  | 56  | 51  | 47  | 40  | 35  | 30  | 26  | 23  | 21  |     |    |
|                  |  | 3                | 47        | 42                        | 38  | 35  | 32  | 29  | 25  | 22  | 19  | 16  | 14  | 13  |     |    |
| 31-40 PSF        | B  | 0 to 6 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 88  | 74  | 64  | 56  | 49  | 43  |    |
|                  |  |                  | 2         | 96                        | 96  | 96  | 91  | 82  | 75  | 63  | 54  | 46  | 40  | 36  | 32  |    |
|                  |  |                  | 3         | 87                        | 78  | 70  | 63  | 57  | 52  | 44  | 38  | 33  | 29  | 25  | 22  |    |
|                  |  | 7 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 92  | 84  | 71  | 61  | 53  | 46  | 40  | 36  |    |
|                  |  |                  | 2         | 90                        | 81  | 73  | 66  | 60  | 55  | 46  | 40  | 34  | 30  | 27  | 24  |    |
|                  |  |                  | 3         | 73                        | 65  | 59  | 54  | 49  | 45  | 38  | 33  | 28  | 25  | 22  | 19  |    |
|                  |  | 28 to 45 Degrees | 1         | 96                        | 96  | 96  | 96  | 94  | 87  | 74  | 64  | 56  | 49  | 43  | 39  |    |
|                  |  |                  | 2         | 96                        | 96  | 96  | 93  | 85  | 78  | 67  | 57  | 50  | 44  | 39  | 35  |    |
|                  |  |                  | 3         | 78                        | 70  | 64  | 58  | 53  | 49  | 42  | 36  | 31  | 27  | 24  | 22  |    |
|                  | C  | 0 to 6 Degrees   | 1         | 96                        | 96  | 96  | 87  | 79  | 72  | 61  | 52  | 45  | 39  | 34  | 30  |    |
|                  |  |                  | 2         | 86                        | 77  | 69  | 63  | 57  | 52  | 44  | 37  | 32  | 28  | 25  | 22  |    |
|                  |  |                  | 3         | 60                        | 54  | 49  | 44  | 40  | 37  | 31  | 26  | 23  | 20  | 18  | 16  |    |
|                  |  | 7 to 27 Degrees  | 1         | 96                        | 87  | 78  | 71  | 64  | 59  | 50  | 43  | 37  | 32  | 28  | 25  |    |
|                  |  |                  | 2         | 63                        | 56  | 51  | 46  | 42  | 39  | 33  | 28  | 24  | 21  | 19  | 17  |    |
|                  |  |                  | 3         | 51                        | 46  | 42  | 38  | 34  | 32  | 27  | 23  | 20  | 17  | 15  | 14  |    |
|                  |  | 28 to 45 Degrees | 1         | 96                        | 89  | 81  | 74  | 67  | 62  | 53  | 46  | 40  | 35  | 31  | 27  |    |
|                  |  |                  | 2         | 89                        | 80  | 73  | 66  | 61  | 56  | 48  | 41  | 36  | 31  | 28  | 25  |    |
|                  |  |                  | 3         | 56                        | 50  | 46  | 41  | 38  | 35  | 30  | 26  | 22  | 19  | 17  | 15  |    |
|                  | D  | 0 to 6 Degrees   | 1         | 96                        | 89  | 80  | 73  | 66  | 60  | 51  | 43  | 37  | 33  | 29  | 25  |    |
|                  |  |                  | 2         | 72                        | 64  | 58  | 52  | 48  | 43  | 37  | 31  | 27  | 24  | 21  | 19  |    |
|                  |  |                  | 3         | 50                        | 45  | 41  | 37  | 34  | 31  | 26  | 22  | 19  | 17  | 15  | 13  |    |
|                  |  | 7 to 27 Degrees  | 1         | 81                        | 72  | 65  | 59  | 54  | 49  | 42  | 36  | 31  | 27  | 24  | 21  |    |
|                  |  |                  | 2         | 53                        | 47  | 43  | 39  | 35  | 32  | 27  | 23  | 20  | 18  | 16  | 14  |    |
|                  |  |                  | 3         | 43                        | 39  | 35  | 32  | 29  | 27  | 23  | 19  | 17  | 15  | 13  | 11  |    |
| 28 to 45 Degrees |  | 1                | 83        | 75                        | 68  | 62  | 57  | 52  | 45  | 38  | 33  | 29  | 26  | 23  |     |    |
|                  |  | 2                | 75        | 68                        | 62  | 56  | 51  | 47  | 40  | 35  | 30  | 26  | 23  | 21  |     |    |
|                  |  | 3                | 47        | 42                        | 38  | 35  | 32  | 29  | 25  | 22  | 19  | 16  | 14  | 13  |     |    |
| 41-50 PSF        | B  | 0 to 6 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 88  | 74  | 64  | 56  | 49  | 43  |    |
|                  |  |                  | 2         | 96                        | 96  | 96  | 91  | 82  | 75  | 63  | 54  | 46  | 40  | 36  | 32  |    |
|                  |  |                  | 3         | 87                        | 78  | 70  | 63  | 57  | 52  | 44  | 38  | 33  | 29  | 25  | 22  |    |
|                  |  | 7 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 92  | 84  | 71  | 61  | 53  | 46  | 40  | 36  |    |
|                  |  |                  | 2         | 90                        | 81  | 73  | 66  | 60  | 55  | 46  | 40  | 34  | 30  | 27  | 24  |    |
|                  |  |                  | 3         | 73                        | 65  | 59  | 54  | 49  | 45  | 38  | 33  | 28  | 25  | 22  | 19  |    |
|                  |  | 28 to 45 Degrees | 1         | 96                        | 96  | 96  | 96  | 94  | 87  | 74  | 64  | 56  | 49  | 43  | 39  |    |
|                  |  |                  | 2         | 96                        | 96  | 96  | 93  | 85  | 78  | 67  | 57  | 50  | 44  | 39  | 35  |    |
|                  |  |                  | 3         | 78                        | 70  | 64  | 58  | 53  | 49  | 42  | 36  | 31  | 27  | 24  | 22  |    |
|                  | C  | 0 to 6 Degrees   | 1         | 96                        | 96  | 96  | 87  | 79  | 72  | 61  | 52  | 45  | 39  | 34  | 30  |    |
|                  |  |                  | 2         | 86                        | 77  | 69  | 63  | 57  | 52  | 44  | 37  | 32  | 28  | 25  | 22  |    |
|                  |  |                  | 3         | 60                        | 54  | 49  | 44  | 40  | 37  | 31  | 26  | 23  | 20  | 18  | 16  |    |
|                  |  | 7 to 27 Degrees  | 1         | 96                        | 87  | 78  | 71  | 64  | 59  | 50  | 43  | 37  | 32  | 28  | 25  |    |
|                  |  |                  | 2         | 63                        | 56  | 51  | 46  | 42  | 39  | 33  | 28  | 24  | 21  | 19  | 17  |    |
|                  |  |                  | 3         | 51                        | 46  | 42  | 38  | 34  | 32  | 27  | 23  | 20  | 17  | 15  | 14  |    |
|                  |  | 28 to 45 Degrees | 1         | 96                        | 89  | 81  | 74  | 67  | 62  | 53  | 46  | 40  | 35  | 31  | 27  |    |
|                  |  |                  | 2         | 89                        | 80  | 73  | 66  | 61  | 56  | 48  | 41  | 36  | 31  | 28  | 25  |    |
|                  |  |                  | 3         | 56                        | 50  | 46  | 41  | 38  | 35  | 30  | 26  | 22  | 19  | 17  | 15  |    |
|                  | D  | 0 to 6 Degrees   | 1         | 96                        | 89  | 80  | 73  | 66  | 60  | 51  | 43  | 37  | 33  | 29  | 25  |    |
|                  |  |                  | 2         | 72                        | 64  | 58  | 52  | 48  | 43  | 37  | 31  | 27  | 24  | 21  | 19  |    |
|                  |  |                  | 3         | 50                        | 45  | 41  | 37  | 34  | 31  | 26  | 22  | 19  | 17  | 15  | 13  |    |
|                  |  | 7 to 27 Degrees  | 1         | 81                        | 72  | 65  | 59  | 54  | 49  | 42  | 36  | 31  | 27  | 24  | 21  |    |
|                  |  |                  | 2         | 53                        | 47  | 43  | 39  | 35  | 32  | 27  | 23  | 20  | 18  | 16  | 14  |    |
|                  |  |                  | 3         | 43                        | 39  | 35  | 32  | 29  | 27  | 23  | 19  | 17  | 15  | 13  | 11  |    |
| 28 to 45 Degrees |  | 1                | 83        | 75                        | 68  | 62  | 57  | 52  | 45  | 38  | 33  | 29  | 26  | 23  |     |    |
|                  |  | 2                | 75        | 68                        | 62  | 56  | 51  | 47  | 40  | 35  | 30  | 26  | 23  | 21  |     |    |
|                  |  | 3                | 47        | 42                        | 38  | 35  | 32  | 29  | 25  | 22  | 19  | 16  | 14  | 13  |     |    |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Gable Roof<br>RT1 | RT-[E] Mount Mini Rafter Installations<br>(60 Cell PV Panels)<br>Maximum Mount Spacing in Inches |                  |           |    |     |     |     |     |     |     |     |     |     |     |     |    |
|-------------------|--|------------------|-----------|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
|                   | Portrait Orientation - ASCE 7-16   |                  |           |    |     |     |     |     |     |     |     |     |     |     |     |    |
| Snow Load         | Exposure Category  | Roof Angle       | Roof Area | 95 | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |    |
| 51-60 PSF         | B  | 0 to 6 Degrees   | 1         | 96 | 96  | 96  | 96  | 96  | 96  | 88  | 74  | 64  | 56  | 49  | 43  |    |
|                   |  |                  | 2         | 96 | 96  | 96  | 91  | 82  | 75  | 63  | 54  | 46  | 40  | 36  | 32  |    |
|                   |  |                  | 3         | 87 | 78  | 70  | 63  | 57  | 52  | 44  | 38  | 33  | 29  | 25  | 22  |    |
|                   |  | 7 to 27 Degrees  | 1         | 84 | 84  | 84  | 84  | 84  | 84  | 84  | 71  | 61  | 53  | 46  | 40  | 36 |
|                   |  |                  | 2         | 84 | 81  | 73  | 66  | 60  | 55  | 46  | 40  | 34  | 30  | 27  | 24  |    |
|                   |  |                  | 3         | 73 | 65  | 59  | 54  | 49  | 45  | 38  | 33  | 28  | 25  | 22  | 19  |    |
|                   |  | 28 to 45 Degrees | 1         | 85 | 85  | 85  | 85  | 85  | 85  | 74  | 64  | 56  | 49  | 43  | 39  |    |
|                   |  |                  | 2         | 85 | 85  | 85  | 85  | 85  | 78  | 67  | 57  | 50  | 44  | 39  | 35  |    |
|                   |  |                  | 3         | 78 | 70  | 64  | 58  | 53  | 49  | 42  | 36  | 31  | 27  | 24  | 22  |    |
|                   | C  | 0 to 6 Degrees   | 1         | 96 | 96  | 96  | 87  | 79  | 72  | 61  | 52  | 45  | 39  | 34  | 30  |    |
|                   |  |                  | 2         | 86 | 77  | 69  | 63  | 57  | 52  | 44  | 37  | 32  | 28  | 25  | 22  |    |
|                   |  |                  | 3         | 60 | 54  | 49  | 44  | 40  | 37  | 31  | 26  | 23  | 20  | 18  | 16  |    |
|                   |  | 7 to 27 Degrees  | 1         | 84 | 84  | 78  | 71  | 64  | 59  | 50  | 43  | 37  | 32  | 28  | 25  |    |
|                   |  |                  | 2         | 63 | 56  | 51  | 46  | 42  | 39  | 33  | 28  | 24  | 21  | 19  | 17  |    |
|                   |  |                  | 3         | 51 | 46  | 42  | 38  | 34  | 32  | 27  | 23  | 20  | 17  | 15  | 14  |    |
|                   |  | 28 to 45 Degrees | 1         | 85 | 85  | 81  | 74  | 67  | 62  | 53  | 46  | 40  | 35  | 31  | 27  |    |
|                   |  |                  | 2         | 85 | 80  | 73  | 66  | 61  | 56  | 48  | 41  | 36  | 31  | 28  | 25  |    |
|                   |  |                  | 3         | 56 | 50  | 46  | 41  | 38  | 35  | 30  | 26  | 22  | 19  | 17  | 15  |    |
|                   | D  | 0 to 6 Degrees   | 1         | 96 | 89  | 80  | 73  | 79  | 60  | 51  | 43  | 37  | 33  | 29  | 25  |    |
|                   |  |                  | 2         | 72 | 64  | 58  | 52  | 48  | 43  | 37  | 31  | 27  | 24  | 21  | 19  |    |
|                   |  |                  | 3         | 50 | 45  | 41  | 37  | 34  | 31  | 26  | 22  | 19  | 17  | 15  | 13  |    |
|                   |  | 7 to 27 Degrees  | 1         | 81 | 72  | 65  | 59  | 54  | 49  | 42  | 36  | 31  | 27  | 24  | 21  |    |
|                   |  |                  | 2         | 53 | 47  | 43  | 39  | 35  | 32  | 27  | 23  | 20  | 18  | 16  | 14  |    |
|                   |  |                  | 3         | 43 | 39  | 35  | 32  | 29  | 27  | 23  | 19  | 17  | 15  | 13  | 11  |    |
| 28 to 45 Degrees  |  | 1                | 83        | 75 | 68  | 62  | 57  | 52  | 45  | 38  | 33  | 29  | 26  | 23  |     |    |
|                   |  | 2                | 75        | 68 | 62  | 56  | 51  | 47  | 40  | 35  | 30  | 26  | 23  | 21  |     |    |
|                   |  | 3                | 47        | 42 | 38  | 35  | 32  | 29  | 25  | 22  | 19  | 16  | 14  | 13  |     |    |
| 61-70 PSF         | B  | 0 to 6 Degrees   | 1         | 96 | 96  | 96  | 96  | 96  | 96  | 88  | 74  | 64  | 56  | 49  | 43  |    |
|                   |  |                  | 2         | 96 | 96  | 96  | 91  | 82  | 75  | 63  | 54  | 46  | 40  | 36  | 32  |    |
|                   |  |                  | 3         | 87 | 78  | 70  | 63  | 57  | 52  | 44  | 38  | 33  | 29  | 25  | 22  |    |
|                   |  | 7 to 27 Degrees  | 1         | 73 | 73  | 73  | 73  | 73  | 73  | 71  | 61  | 53  | 46  | 40  | 36  |    |
|                   |  |                  | 2         | 73 | 73  | 73  | 66  | 60  | 55  | 46  | 40  | 34  | 30  | 27  | 24  |    |
|                   |  |                  | 3         | 73 | 65  | 59  | 54  | 49  | 45  | 38  | 33  | 28  | 25  | 22  | 19  |    |
|                   |  | 28 to 45 Degrees | 1         | 74 | 74  | 74  | 74  | 74  | 74  | 74  | 64  | 56  | 49  | 43  | 39  |    |
|                   |  |                  | 2         | 74 | 74  | 74  | 74  | 74  | 74  | 67  | 57  | 50  | 44  | 39  | 35  |    |
|                   |  |                  | 3         | 74 | 70  | 64  | 58  | 53  | 49  | 42  | 36  | 31  | 27  | 24  | 22  |    |
|                   | C  | 0 to 6 Degrees   | 1         | 96 | 96  | 96  | 87  | 79  | 72  | 61  | 52  | 45  | 39  | 34  | 30  |    |
|                   |  |                  | 2         | 86 | 77  | 69  | 63  | 57  | 52  | 44  | 37  | 32  | 28  | 25  | 22  |    |
|                   |  |                  | 3         | 60 | 54  | 49  | 44  | 40  | 37  | 31  | 26  | 23  | 20  | 18  | 16  |    |
|                   |  | 7 to 27 Degrees  | 1         | 73 | 73  | 73  | 71  | 64  | 59  | 50  | 43  | 37  | 32  | 28  | 25  |    |
|                   |  |                  | 2         | 63 | 56  | 51  | 46  | 42  | 39  | 33  | 28  | 24  | 21  | 19  | 17  |    |
|                   |  |                  | 3         | 51 | 46  | 42  | 38  | 34  | 32  | 27  | 23  | 20  | 17  | 15  | 14  |    |
|                   |  | 28 to 45 Degrees | 1         | 74 | 74  | 74  | 74  | 67  | 62  | 53  | 46  | 40  | 35  | 31  | 27  |    |
|                   |  |                  | 2         | 74 | 74  | 73  | 66  | 61  | 56  | 48  | 41  | 36  | 31  | 28  | 25  |    |
|                   |  |                  | 3         | 56 | 50  | 46  | 41  | 38  | 35  | 30  | 26  | 22  | 19  | 17  | 15  |    |
|                   | D  | 0 to 6 Degrees   | 1         | 96 | 89  | 80  | 73  | 66  | 60  | 51  | 43  | 37  | 33  | 29  | 25  |    |
|                   |  |                  | 2         | 72 | 64  | 58  | 52  | 48  | 43  | 37  | 31  | 27  | 24  | 21  | 19  |    |
|                   |  |                  | 3         | 50 | 45  | 41  | 37  | 34  | 31  | 26  | 22  | 19  | 17  | 15  | 13  |    |
|                   |  | 7 to 27 Degrees  | 1         | 73 | 72  | 65  | 59  | 54  | 49  | 42  | 36  | 31  | 27  | 24  | 21  |    |
|                   |  |                  | 2         | 53 | 47  | 43  | 39  | 35  | 32  | 27  | 23  | 20  | 18  | 16  | 14  |    |
|                   |  |                  | 3         | 43 | 39  | 35  | 32  | 29  | 27  | 23  | 19  | 17  | 15  | 13  | 11  |    |
| 28 to 45 Degrees  |  | 1                | 74        | 74 | 68  | 62  | 57  | 52  | 45  | 38  | 33  | 29  | 26  | 23  |     |    |
|                   |  | 2                | 74        | 68 | 62  | 56  | 51  | 47  | 40  | 35  | 30  | 26  | 23  | 21  |     |    |
|                   |  | 3                | 47        | 42 | 38  | 35  | 32  | 29  | 25  | 22  | 19  | 16  | 14  | 13  |     |    |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.



| Gable Roof RT2   | RT-[E] Mount Mini Rafter Installations<br>(72 Cell PV Panels)<br>Maximum Mount Spacing in Inches |                  |           |    |     |     |     |     |                           |     |     |     |     |     |     |
|------------------|--|------------------|-----------|----|-----|-----|-----|-----|---------------------------|-----|-----|-----|-----|-----|-----|
|                  | Portrait Orientation - ASCE 7-16   |                  |           |    |     |     |     |     |                           |     |     |     |     |     |     |
| Snow Load        | Exposure Category  | Roof Angle       | Roof Area | 95 | 100 | 105 | 110 | 115 | Basic Wind Speed, V (mph) |     |     |     |     |     |     |
|                  |  |                  |           |    |     |     |     |     | 120                       | 130 | 140 | 150 | 160 | 170 | 180 |
| 0 PSF            | B  | 0 to 6 Degrees   | 1         | 96 | 96  | 96  | 96  | 96  | 92                        | 77  | 65  | 56  | 49  | 43  | 38  |
|                  |  |                  | 2         | 96 | 96  | 88  | 80  | 72  | 66                        | 55  | 47  | 41  | 35  | 31  | 28  |
|                  |  |                  | 3         | 76 | 68  | 61  | 55  | 50  | 46                        | 39  | 33  | 29  | 25  | 22  | 19  |
|                  |  | 7 to 27 Degrees  | 1         | 96 | 96  | 96  | 89  | 81  | 74                        | 62  | 53  | 46  | 40  | 35  | 31  |
|                  |  |                  | 2         | 79 | 71  | 64  | 58  | 53  | 48                        | 41  | 35  | 30  | 26  | 23  | 21  |
|                  |  |                  | 3         | 64 | 57  | 52  | 47  | 43  | 39                        | 33  | 29  | 25  | 22  | 19  | 17  |
|                  |  | 28 to 45 Degrees | 1         | 96 | 96  | 96  | 90  | 82  | 76                        | 65  | 56  | 49  | 43  | 38  | 34  |
|                  |  |                  | 2         | 96 | 96  | 89  | 81  | 74  | 68                        | 58  | 50  | 44  | 39  | 34  | 30  |
|                  |  |                  | 3         | 68 | 62  | 56  | 51  | 47  | 43                        | 36  | 31  | 27  | 24  | 21  | 19  |
|                  | C  | 0 to 6 Degrees   | 1         | 96 | 95  | 85  | 76  | 69  | 63                        | 53  | 45  | 39  | 34  | 30  | 27  |
|                  |  |                  | 2         | 76 | 68  | 61  | 55  | 50  | 46                        | 38  | 33  | 28  | 25  | 22  | 19  |
|                  |  |                  | 3         | 53 | 47  | 43  | 39  | 35  | 32                        | 27  | 23  | 20  | 17  | 15  | 14  |
|                  |  | 7 to 27 Degrees  | 1         | 85 | 76  | 68  | 62  | 56  | 52                        | 44  | 37  | 32  | 28  | 25  | 22  |
|                  |  |                  | 2         | 55 | 49  | 45  | 40  | 37  | 34                        | 29  | 24  | 21  | 19  | 16  | 14  |
|                  |  |                  | 3         | 45 | 40  | 36  | 33  | 30  | 28                        | 23  | 20  | 17  | 15  | 13  | 12  |
|                  |  | 28 to 45 Degrees | 1         | 86 | 78  | 71  | 65  | 59  | 54                        | 46  | 40  | 35  | 31  | 27  | 24  |
|                  |  |                  | 2         | 78 | 70  | 64  | 58  | 53  | 49                        | 42  | 36  | 31  | 27  | 24  | 22  |
|                  |  |                  | 3         | 49 | 44  | 40  | 36  | 33  | 31                        | 26  | 22  | 19  | 17  | 15  | 13  |
|                  | D  | 0 to 6 Degrees   | 1         | 88 | 78  | 70  | 64  | 58  | 53                        | 44  | 38  | 33  | 29  | 25  | 22  |
|                  |  |                  | 2         | 63 | 56  | 51  | 46  | 42  | 38                        | 32  | 27  | 24  | 21  | 18  | 16  |
|                  |  |                  | 3         | 44 | 40  | 36  | 32  | 29  | 27                        | 23  | 19  | 17  | 15  | 13  | 11  |
|                  |  | 7 to 27 Degrees  | 1         | 71 | 63  | 57  | 52  | 47  | 43                        | 37  | 31  | 27  | 24  | 21  | 19  |
|                  |  |                  | 2         | 46 | 41  | 37  | 34  | 31  | 28                        | 24  | 21  | 18  | 16  | 14  | 12  |
|                  |  |                  | 3         | 38 | 34  | 31  | 28  | 25  | 23                        | 20  | 17  | 15  | 13  | 11  | 10  |
| 28 to 45 Degrees |  | 1                | 73        | 66 | 60  | 55  | 50  | 46  | 39                        | 34  | 29  | 26  | 23  | 20  |     |
|                  |  | 2                | 66        | 59 | 54  | 49  | 45  | 41  | 35                        | 30  | 26  | 23  | 20  | 18  |     |
|                  |  | 3                | 41        | 37 | 34  | 31  | 28  | 26  | 22                        | 19  | 16  | 14  | 13  | 11  |     |
| 1-10 PSF         | B  | 0 to 6 Degrees   | 1         | 96 | 96  | 96  | 96  | 96  | 92                        | 77  | 65  | 56  | 49  | 43  | 38  |
|                  |  |                  | 2         | 96 | 96  | 88  | 80  | 72  | 66                        | 55  | 47  | 41  | 35  | 31  | 28  |
|                  |  |                  | 3         | 76 | 68  | 61  | 55  | 50  | 46                        | 39  | 33  | 29  | 25  | 22  | 19  |
|                  |  | 7 to 27 Degrees  | 1         | 96 | 96  | 96  | 89  | 81  | 74                        | 62  | 53  | 46  | 40  | 35  | 31  |
|                  |  |                  | 2         | 79 | 71  | 64  | 58  | 53  | 48                        | 41  | 35  | 30  | 26  | 23  | 21  |
|                  |  |                  | 3         | 64 | 57  | 52  | 47  | 43  | 39                        | 33  | 29  | 25  | 22  | 19  | 17  |
|                  |  | 28 to 45 Degrees | 1         | 96 | 96  | 96  | 90  | 82  | 76                        | 65  | 56  | 49  | 43  | 38  | 34  |
|                  |  |                  | 2         | 96 | 96  | 89  | 81  | 74  | 68                        | 58  | 50  | 44  | 39  | 34  | 30  |
|                  |  |                  | 3         | 68 | 62  | 56  | 51  | 47  | 43                        | 36  | 31  | 27  | 24  | 21  | 19  |
|                  | C  | 0 to 6 Degrees   | 1         | 96 | 95  | 85  | 76  | 69  | 63                        | 53  | 45  | 39  | 34  | 30  | 27  |
|                  |  |                  | 2         | 76 | 68  | 61  | 55  | 50  | 46                        | 38  | 33  | 28  | 25  | 22  | 19  |
|                  |  |                  | 3         | 53 | 47  | 43  | 39  | 35  | 32                        | 27  | 23  | 20  | 17  | 15  | 14  |
|                  |  | 7 to 27 Degrees  | 1         | 85 | 76  | 68  | 62  | 56  | 52                        | 44  | 37  | 32  | 28  | 25  | 22  |
|                  |  |                  | 2         | 55 | 49  | 45  | 40  | 37  | 34                        | 29  | 24  | 21  | 19  | 16  | 14  |
|                  |  |                  | 3         | 45 | 40  | 36  | 33  | 30  | 28                        | 23  | 20  | 17  | 15  | 13  | 12  |
|                  |  | 28 to 45 Degrees | 1         | 86 | 78  | 71  | 65  | 59  | 54                        | 46  | 40  | 35  | 31  | 27  | 24  |
|                  |  |                  | 2         | 78 | 70  | 64  | 58  | 53  | 49                        | 42  | 36  | 31  | 27  | 24  | 22  |
|                  |  |                  | 3         | 49 | 44  | 40  | 36  | 33  | 31                        | 26  | 22  | 19  | 17  | 15  | 13  |
|                  | D  | 0 to 6 Degrees   | 1         | 88 | 78  | 70  | 64  | 58  | 53                        | 44  | 38  | 33  | 29  | 25  | 22  |
|                  |  |                  | 2         | 63 | 56  | 51  | 46  | 42  | 38                        | 32  | 27  | 24  | 21  | 18  | 16  |
|                  |  |                  | 3         | 44 | 40  | 36  | 32  | 29  | 27                        | 23  | 19  | 17  | 15  | 13  | 11  |
|                  |  | 7 to 27 Degrees  | 1         | 71 | 63  | 57  | 52  | 47  | 43                        | 37  | 31  | 27  | 24  | 21  | 19  |
|                  |  |                  | 2         | 46 | 41  | 37  | 34  | 31  | 28                        | 24  | 21  | 18  | 16  | 14  | 12  |
|                  |  |                  | 3         | 38 | 34  | 31  | 28  | 25  | 23                        | 20  | 17  | 15  | 13  | 11  | 10  |
| 28 to 45 Degrees |  | 1                | 73        | 66 | 60  | 55  | 50  | 46  | 39                        | 34  | 29  | 26  | 23  | 20  |     |
|                  |  | 2                | 66        | 59 | 54  | 49  | 45  | 41  | 35                        | 30  | 26  | 23  | 20  | 18  |     |
|                  |  | 3                | 41        | 37 | 34  | 31  | 28  | 26  | 22                        | 19  | 16  | 14  | 13  | 11  |     |
| 1-1-20 PSF       | B  | 0 to 6 Degrees   | 1         | 96 | 96  | 96  | 96  | 96  | 92                        | 77  | 65  | 56  | 49  | 43  | 38  |
|                  |  |                  | 2         | 96 | 96  | 88  | 80  | 72  | 66                        | 55  | 47  | 41  | 35  | 31  | 28  |
|                  |  |                  | 3         | 76 | 68  | 61  | 55  | 50  | 46                        | 39  | 33  | 29  | 25  | 22  | 19  |
|                  |  | 7 to 27 Degrees  | 1         | 96 | 96  | 96  | 89  | 81  | 74                        | 62  | 53  | 46  | 40  | 35  | 31  |
|                  |  |                  | 2         | 79 | 71  | 64  | 58  | 53  | 48                        | 41  | 35  | 30  | 26  | 23  | 21  |
|                  |  |                  | 3         | 64 | 57  | 52  | 47  | 43  | 39                        | 33  | 29  | 25  | 22  | 19  | 17  |
|                  |  | 28 to 45 Degrees | 1         | 96 | 96  | 96  | 90  | 82  | 76                        | 65  | 56  | 49  | 43  | 38  | 34  |
|                  |  |                  | 2         | 96 | 96  | 89  | 81  | 74  | 68                        | 58  | 50  | 44  | 39  | 34  | 30  |
|                  |  |                  | 3         | 68 | 62  | 56  | 51  | 47  | 43                        | 36  | 31  | 27  | 24  | 21  | 19  |
|                  | C  | 0 to 6 Degrees   | 1         | 96 | 95  | 85  | 76  | 69  | 63                        | 53  | 45  | 39  | 34  | 30  | 27  |
|                  |  |                  | 2         | 76 | 68  | 61  | 55  | 50  | 46                        | 38  | 33  | 28  | 25  | 22  | 19  |
|                  |  |                  | 3         | 53 | 47  | 43  | 39  | 35  | 32                        | 27  | 23  | 20  | 17  | 15  | 14  |
|                  |  | 7 to 27 Degrees  | 1         | 85 | 76  | 68  | 62  | 56  | 52                        | 44  | 37  | 32  | 28  | 25  | 22  |
|                  |  |                  | 2         | 55 | 49  | 45  | 40  | 37  | 34                        | 29  | 24  | 21  | 19  | 16  | 14  |
|                  |  |                  | 3         | 45 | 40  | 36  | 33  | 30  | 28                        | 23  | 20  | 17  | 15  | 13  | 12  |
|                  |  | 28 to 45 Degrees | 1         | 86 | 78  | 71  | 65  | 59  | 54                        | 46  | 40  | 35  | 31  | 27  | 24  |
|                  |  |                  | 2         | 78 | 70  | 64  | 58  | 53  | 49                        | 42  | 36  | 31  | 27  | 24  | 22  |
|                  |  |                  | 3         | 49 | 44  | 40  | 36  | 33  | 31                        | 26  | 22  | 19  | 17  | 15  | 13  |
|                  | D  | 0 to 6 Degrees   | 1         | 88 | 78  | 70  | 64  | 58  | 53                        | 44  | 38  | 33  | 29  | 25  | 22  |
|                  |  |                  | 2         | 63 | 56  | 51  | 46  | 42  | 38                        | 32  | 27  | 24  | 21  | 18  | 16  |
|                  |  |                  | 3         | 44 | 40  | 36  | 32  | 29  | 27                        | 23  | 19  | 17  | 15  | 13  | 11  |
|                  |  | 7 to 27 Degrees  | 1         | 71 | 63  | 57  | 52  | 47  | 43                        | 37  | 31  | 27  | 24  | 21  | 19  |
|                  |  |                  | 2         | 46 | 41  | 37  | 34  | 31  | 28                        | 24  | 21  | 18  | 16  | 14  | 12  |
|                  |  |                  | 3         | 38 | 34  | 31  | 28  | 25  | 23                        | 20  | 17  | 15  | 13  | 11  | 10  |
| 28 to 45 Degrees |  | 1                | 73        | 66 | 60  | 55  | 50  | 46  | 39                        | 34  | 29  | 26  | 23  | 20  |     |
|                  |  | 2                | 66        | 59 | 54  | 49  | 45  | 41  | 35                        | 30  | 26  | 23  | 20  | 18  |     |
|                  |  | 3                | 41        | 37 | 34  | 31  | 28  | 26  | 22                        | 19  | 16  | 14  | 13  | 11  |     |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Gable Roof RT2   | RT-[E] Mount Mini Rafter Installations<br>(72 Cell PV Panels)<br>Maximum Mount Spacing in Inches |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |
|------------------|--|------------------|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                  | Portrait Orientation - ASCE 7-16   |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |
| Snow Load        | Exposure Category  | Roof Angle       | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |
|                  |  |                  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |
| 21-30 PSF        | B  | 0 to 6 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 92  | 77  | 65  | 56  | 49  | 43  | 38  |
|                  |  |                  | 2         | 96                        | 96  | 88  | 80  | 72  | 66  | 55  | 47  | 41  | 35  | 31  | 28  |
|                  |  |                  | 3         | 76                        | 68  | 61  | 55  | 50  | 46  | 39  | 33  | 29  | 25  | 22  | 19  |
|                  |  | 7 to 27 Degrees  | 1         | 96                        | 96  | 96  | 89  | 81  | 74  | 62  | 53  | 46  | 40  | 35  | 31  |
|                  |  |                  | 2         | 79                        | 71  | 64  | 58  | 53  | 48  | 41  | 35  | 30  | 26  | 23  | 21  |
|                  |  |                  | 3         | 64                        | 57  | 52  | 47  | 43  | 39  | 33  | 29  | 25  | 22  | 19  | 17  |
|                  |  | 28 to 45 Degrees | 1         | 96                        | 96  | 96  | 90  | 82  | 76  | 65  | 56  | 49  | 43  | 38  | 34  |
|                  |  |                  | 2         | 96                        | 96  | 89  | 81  | 74  | 68  | 58  | 50  | 44  | 39  | 34  | 30  |
|                  |  |                  | 3         | 68                        | 62  | 56  | 51  | 47  | 43  | 36  | 31  | 27  | 24  | 21  | 19  |
|                  | C  | 0 to 6 Degrees   | 1         | 96                        | 95  | 85  | 76  | 69  | 63  | 53  | 45  | 39  | 34  | 30  | 27  |
|                  |  |                  | 2         | 76                        | 68  | 61  | 55  | 50  | 46  | 38  | 33  | 28  | 25  | 22  | 19  |
|                  |  |                  | 3         | 53                        | 47  | 43  | 39  | 35  | 32  | 27  | 23  | 20  | 17  | 15  | 14  |
|                  |  | 7 to 27 Degrees  | 1         | 85                        | 76  | 68  | 62  | 56  | 52  | 44  | 37  | 32  | 28  | 25  | 22  |
|                  |  |                  | 2         | 55                        | 49  | 45  | 40  | 37  | 34  | 29  | 24  | 21  | 19  | 16  | 14  |
|                  |  |                  | 3         | 45                        | 40  | 36  | 33  | 30  | 28  | 23  | 20  | 17  | 15  | 13  | 12  |
|                  |  | 28 to 45 Degrees | 1         | 86                        | 78  | 71  | 65  | 59  | 54  | 46  | 40  | 35  | 31  | 27  | 24  |
|                  |  |                  | 2         | 78                        | 70  | 64  | 58  | 53  | 49  | 42  | 36  | 31  | 27  | 24  | 22  |
|                  |  |                  | 3         | 49                        | 44  | 40  | 36  | 33  | 31  | 26  | 22  | 19  | 17  | 15  | 13  |
|                  | D  | 0 to 6 Degrees   | 1         | 88                        | 78  | 70  | 64  | 58  | 53  | 44  | 38  | 33  | 29  | 25  | 22  |
|                  |  |                  | 2         | 63                        | 56  | 51  | 46  | 42  | 38  | 32  | 27  | 24  | 21  | 18  | 16  |
|                  |  |                  | 3         | 44                        | 40  | 36  | 32  | 29  | 27  | 23  | 19  | 17  | 15  | 13  | 11  |
|                  |  | 7 to 27 Degrees  | 1         | 71                        | 63  | 57  | 52  | 47  | 43  | 37  | 31  | 27  | 24  | 21  | 19  |
|                  |  |                  | 2         | 46                        | 41  | 37  | 34  | 31  | 28  | 24  | 21  | 18  | 16  | 14  | 12  |
|                  |  |                  | 3         | 38                        | 34  | 31  | 28  | 25  | 23  | 20  | 17  | 15  | 13  | 11  | 10  |
| 28 to 45 Degrees |  | 1                | 73        | 66                        | 60  | 55  | 50  | 46  | 39  | 34  | 29  | 26  | 23  | 20  |     |
|                  |  | 2                | 66        | 59                        | 54  | 49  | 45  | 41  | 35  | 30  | 26  | 23  | 20  | 18  |     |
|                  |  | 3                | 41        | 37                        | 34  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 13  | 11  |     |
| 31-40 PSF        | B  | 0 to 6 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 92  | 77  | 65  | 56  | 49  | 43  | 38  |
|                  |  |                  | 2         | 96                        | 96  | 88  | 80  | 72  | 66  | 55  | 47  | 41  | 35  | 31  | 28  |
|                  |  |                  | 3         | 76                        | 68  | 61  | 55  | 50  | 46  | 39  | 33  | 29  | 25  | 22  | 19  |
|                  |  | 7 to 27 Degrees  | 1         | 96                        | 96  | 96  | 89  | 81  | 74  | 62  | 53  | 46  | 40  | 35  | 31  |
|                  |  |                  | 2         | 79                        | 71  | 64  | 58  | 53  | 48  | 41  | 35  | 30  | 26  | 23  | 21  |
|                  |  |                  | 3         | 64                        | 57  | 52  | 47  | 43  | 39  | 33  | 29  | 25  | 22  | 19  | 17  |
|                  |  | 28 to 45 Degrees | 1         | 96                        | 96  | 96  | 90  | 82  | 76  | 65  | 56  | 49  | 43  | 38  | 34  |
|                  |  |                  | 2         | 96                        | 96  | 89  | 81  | 74  | 68  | 58  | 50  | 44  | 39  | 34  | 30  |
|                  |  |                  | 3         | 68                        | 62  | 56  | 51  | 47  | 43  | 36  | 31  | 27  | 24  | 21  | 19  |
|                  | C  | 0 to 6 Degrees   | 1         | 96                        | 95  | 85  | 76  | 69  | 63  | 53  | 45  | 39  | 34  | 30  | 27  |
|                  |  |                  | 2         | 76                        | 68  | 61  | 55  | 50  | 46  | 38  | 33  | 28  | 25  | 22  | 19  |
|                  |  |                  | 3         | 53                        | 47  | 43  | 39  | 35  | 32  | 27  | 23  | 20  | 17  | 15  | 14  |
|                  |  | 7 to 27 Degrees  | 1         | 85                        | 76  | 68  | 62  | 56  | 52  | 44  | 37  | 32  | 28  | 25  | 22  |
|                  |  |                  | 2         | 55                        | 49  | 45  | 40  | 37  | 34  | 29  | 24  | 21  | 19  | 16  | 14  |
|                  |  |                  | 3         | 45                        | 40  | 36  | 33  | 30  | 28  | 23  | 20  | 17  | 15  | 13  | 12  |
|                  |  | 28 to 45 Degrees | 1         | 86                        | 78  | 71  | 65  | 59  | 54  | 46  | 40  | 35  | 31  | 27  | 24  |
|                  |  |                  | 2         | 78                        | 70  | 64  | 58  | 53  | 49  | 42  | 36  | 31  | 27  | 24  | 22  |
|                  |  |                  | 3         | 49                        | 44  | 40  | 36  | 33  | 31  | 26  | 22  | 19  | 17  | 15  | 13  |
|                  | D  | 0 to 6 Degrees   | 1         | 88                        | 78  | 70  | 64  | 58  | 53  | 44  | 38  | 33  | 29  | 25  | 22  |
|                  |  |                  | 2         | 63                        | 56  | 51  | 46  | 42  | 38  | 32  | 27  | 24  | 21  | 18  | 16  |
|                  |  |                  | 3         | 44                        | 40  | 36  | 32  | 29  | 27  | 23  | 19  | 17  | 15  | 13  | 11  |
|                  |  | 7 to 27 Degrees  | 1         | 71                        | 63  | 57  | 52  | 47  | 43  | 37  | 31  | 27  | 24  | 21  | 19  |
|                  |  |                  | 2         | 46                        | 41  | 37  | 34  | 31  | 28  | 24  | 21  | 18  | 16  | 14  | 12  |
|                  |  |                  | 3         | 38                        | 34  | 31  | 28  | 25  | 23  | 20  | 17  | 15  | 13  | 11  | 10  |
| 28 to 45 Degrees |  | 1                | 73        | 66                        | 60  | 55  | 50  | 46  | 39  | 34  | 29  | 26  | 23  | 20  |     |
|                  |  | 2                | 66        | 59                        | 54  | 49  | 45  | 41  | 35  | 30  | 26  | 23  | 20  | 18  |     |
|                  |  | 3                | 41        | 37                        | 34  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 13  | 11  |     |
| 41-50 PSF        | B  | 0 to 6 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 92  | 77  | 65  | 56  | 49  | 43  | 38  |
|                  |  |                  | 2         | 96                        | 96  | 88  | 80  | 72  | 66  | 55  | 47  | 41  | 35  | 31  | 28  |
|                  |  |                  | 3         | 76                        | 68  | 61  | 55  | 50  | 46  | 39  | 33  | 29  | 25  | 22  | 19  |
|                  |  | 7 to 27 Degrees  | 1         | 87                        | 87  | 87  | 87  | 81  | 74  | 62  | 53  | 46  | 40  | 35  | 31  |
|                  |  |                  | 2         | 79                        | 71  | 64  | 58  | 53  | 48  | 41  | 35  | 30  | 26  | 23  | 21  |
|                  |  |                  | 3         | 64                        | 57  | 52  | 47  | 43  | 39  | 33  | 29  | 25  | 22  | 19  | 17  |
|                  |  | 28 to 45 Degrees | 1         | 87                        | 87  | 87  | 87  | 82  | 76  | 65  | 56  | 49  | 43  | 38  | 34  |
|                  |  |                  | 2         | 87                        | 87  | 87  | 81  | 74  | 68  | 58  | 50  | 44  | 39  | 34  | 30  |
|                  |  |                  | 3         | 68                        | 62  | 56  | 51  | 47  | 43  | 36  | 31  | 27  | 24  | 21  | 19  |
|                  | C  | 0 to 6 Degrees   | 1         | 96                        | 95  | 85  | 76  | 69  | 63  | 53  | 45  | 39  | 34  | 30  | 27  |
|                  |  |                  | 2         | 76                        | 68  | 61  | 55  | 50  | 46  | 38  | 33  | 28  | 25  | 22  | 19  |
|                  |  |                  | 3         | 53                        | 47  | 43  | 39  | 35  | 32  | 27  | 23  | 20  | 17  | 15  | 14  |
|                  |  | 7 to 27 Degrees  | 1         | 85                        | 76  | 68  | 62  | 56  | 52  | 44  | 37  | 32  | 28  | 25  | 22  |
|                  |  |                  | 2         | 55                        | 49  | 45  | 40  | 37  | 34  | 29  | 24  | 21  | 19  | 16  | 14  |
|                  |  |                  | 3         | 45                        | 40  | 36  | 33  | 30  | 28  | 23  | 20  | 17  | 15  | 13  | 12  |
|                  |  | 28 to 45 Degrees | 1         | 86                        | 78  | 71  | 65  | 59  | 54  | 46  | 40  | 35  | 31  | 27  | 24  |
|                  |  |                  | 2         | 78                        | 70  | 64  | 58  | 53  | 49  | 42  | 36  | 31  | 27  | 24  | 22  |
|                  |  |                  | 3         | 49                        | 44  | 40  | 36  | 33  | 31  | 26  | 22  | 19  | 17  | 15  | 13  |
|                  | D  | 0 to 6 Degrees   | 1         | 88                        | 78  | 70  | 64  | 58  | 53  | 44  | 38  | 33  | 29  | 25  | 22  |
|                  |  |                  | 2         | 63                        | 56  | 51  | 46  | 42  | 38  | 32  | 27  | 24  | 21  | 18  | 16  |
|                  |  |                  | 3         | 44                        | 40  | 36  | 32  | 29  | 27  | 23  | 19  | 17  | 15  | 13  | 11  |
|                  |  | 7 to 27 Degrees  | 1         | 71                        | 63  | 57  | 52  | 47  | 43  | 37  | 31  | 27  | 24  | 21  | 19  |
|                  |  |                  | 2         | 46                        | 41  | 37  | 34  | 31  | 28  | 24  | 21  | 18  | 16  | 14  | 12  |
|                  |  |                  | 3         | 38                        | 34  | 31  | 28  | 25  | 23  | 20  | 17  | 15  | 13  | 11  | 10  |
| 28 to 45 Degrees |  | 1                | 73        | 66                        | 60  | 55  | 50  | 46  | 39  | 34  | 29  | 26  | 23  | 20  |     |
|                  |  | 2                | 66        | 59                        | 54  | 49  | 45  | 41  | 35  | 30  | 26  | 23  | 20  | 18  |     |
|                  |  | 3                | 41        | 37                        | 34  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 13  | 11  |     |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Gable Roof RT2   | RT-[E] Mount Mini Rafter Installations<br>(72 Cell PV Panels)<br>Maximum Mount Spacing in Inches |                  |           |    |     |     |     |     |     |     |     |     |     |     |     |    |
|------------------|--|------------------|-----------|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
|                  | Portrait Orientation - ASCE 7-16   |                  |           |    |     |     |     |     |     |     |     |     |     |     |     |    |
| Snow Load        | Exposure Category  | Roof Angle       | Roof Area | 95 | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |    |
| 51-60 PSF        | B  | 0 to 6 Degrees   | 1         | 96 | 96  | 96  | 96  | 96  | 92  | 77  | 65  | 56  | 49  | 43  | 38  |    |
|                  |  |                  | 2         | 96 | 96  | 88  | 80  | 72  | 66  | 55  | 47  | 41  | 35  | 31  | 28  |    |
|                  |  |                  | 3         | 76 | 68  | 61  | 55  | 50  | 46  | 39  | 33  | 29  | 25  | 22  | 19  |    |
|                  |  | 7 to 27 Degrees  | 1         | 74 | 74  | 74  | 74  | 74  | 74  | 74  | 62  | 53  | 46  | 40  | 35  | 31 |
|                  |  |                  | 2         | 74 | 71  | 64  | 58  | 53  | 48  | 41  | 35  | 30  | 26  | 23  | 21  |    |
|                  |  |                  | 3         | 64 | 57  | 52  | 47  | 43  | 39  | 33  | 29  | 25  | 22  | 19  | 17  |    |
|                  |  | 28 to 45 Degrees | 1         | 75 | 75  | 75  | 75  | 75  | 75  | 65  | 56  | 49  | 43  | 38  | 34  |    |
|                  |  |                  | 2         | 75 | 75  | 75  | 75  | 74  | 68  | 58  | 50  | 44  | 39  | 34  | 30  |    |
|                  |  |                  | 3         | 68 | 62  | 56  | 51  | 47  | 43  | 36  | 31  | 27  | 24  | 21  | 19  |    |
|                  | C  | 0 to 6 Degrees   | 1         | 96 | 95  | 85  | 76  | 69  | 63  | 53  | 45  | 39  | 34  | 30  | 27  |    |
|                  |  |                  | 2         | 76 | 68  | 61  | 55  | 50  | 46  | 38  | 33  | 28  | 25  | 22  | 19  |    |
|                  |  |                  | 3         | 53 | 47  | 43  | 39  | 35  | 32  | 27  | 23  | 20  | 17  | 15  | 14  |    |
|                  |  | 7 to 27 Degrees  | 1         | 74 | 74  | 68  | 62  | 56  | 52  | 44  | 37  | 32  | 28  | 25  | 22  |    |
|                  |  |                  | 2         | 55 | 49  | 45  | 40  | 37  | 34  | 29  | 24  | 21  | 19  | 16  | 14  |    |
|                  |  |                  | 3         | 45 | 40  | 36  | 33  | 30  | 28  | 23  | 20  | 17  | 15  | 13  | 12  |    |
|                  |  | 28 to 45 Degrees | 1         | 75 | 75  | 71  | 65  | 59  | 54  | 46  | 40  | 35  | 31  | 27  | 24  |    |
|                  |  |                  | 2         | 75 | 70  | 64  | 58  | 53  | 49  | 42  | 36  | 31  | 27  | 24  | 22  |    |
|                  |  |                  | 3         | 49 | 44  | 40  | 36  | 33  | 31  | 26  | 22  | 19  | 17  | 15  | 13  |    |
|                  | D  | 0 to 6 Degrees   | 1         | 88 | 78  | 70  | 64  | 69  | 53  | 44  | 38  | 33  | 29  | 25  | 22  |    |
|                  |  |                  | 2         | 63 | 56  | 51  | 46  | 42  | 38  | 32  | 27  | 24  | 21  | 18  | 16  |    |
|                  |  |                  | 3         | 44 | 40  | 36  | 32  | 29  | 27  | 23  | 19  | 17  | 15  | 13  | 11  |    |
|                  |  | 7 to 27 Degrees  | 1         | 71 | 63  | 57  | 52  | 47  | 43  | 37  | 31  | 27  | 24  | 21  | 19  |    |
|                  |  |                  | 2         | 46 | 41  | 37  | 34  | 31  | 28  | 24  | 21  | 18  | 16  | 14  | 12  |    |
|                  |  |                  | 3         | 38 | 34  | 31  | 28  | 25  | 23  | 20  | 17  | 15  | 13  | 11  | 10  |    |
| 28 to 45 Degrees |  | 1                | 73        | 66 | 60  | 55  | 50  | 46  | 39  | 34  | 29  | 26  | 23  | 20  |     |    |
|                  |  | 2                | 66        | 59 | 54  | 49  | 45  | 41  | 35  | 30  | 26  | 23  | 20  | 18  |     |    |
|                  |  | 3                | 41        | 37 | 34  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 13  | 11  |     |    |
| 61-70 PSF        | B  | 0 to 6 Degrees   | 1         | 96 | 96  | 96  | 96  | 96  | 92  | 77  | 65  | 56  | 49  | 43  | 38  |    |
|                  |  |                  | 2         | 96 | 96  | 88  | 80  | 72  | 66  | 55  | 47  | 41  | 35  | 31  | 28  |    |
|                  |  |                  | 3         | 76 | 68  | 61  | 55  | 50  | 46  | 39  | 33  | 29  | 25  | 22  | 19  |    |
|                  |  | 7 to 27 Degrees  | 1         | 64 | 64  | 64  | 64  | 64  | 64  | 62  | 53  | 46  | 40  | 35  | 31  |    |
|                  |  |                  | 2         | 64 | 64  | 64  | 58  | 53  | 48  | 41  | 35  | 30  | 26  | 23  | 21  |    |
|                  |  |                  | 3         | 64 | 57  | 52  | 47  | 43  | 39  | 33  | 29  | 25  | 22  | 19  | 17  |    |
|                  |  | 28 to 45 Degrees | 1         | 65 | 65  | 65  | 65  | 65  | 65  | 65  | 56  | 49  | 43  | 38  | 34  |    |
|                  |  |                  | 2         | 65 | 65  | 65  | 65  | 65  | 65  | 58  | 50  | 44  | 39  | 34  | 30  |    |
|                  |  |                  | 3         | 65 | 62  | 56  | 51  | 47  | 43  | 36  | 31  | 27  | 24  | 21  | 19  |    |
|                  | C  | 0 to 6 Degrees   | 1         | 96 | 95  | 85  | 76  | 69  | 63  | 53  | 45  | 39  | 34  | 30  | 27  |    |
|                  |  |                  | 2         | 76 | 68  | 61  | 55  | 50  | 46  | 38  | 33  | 28  | 25  | 22  | 19  |    |
|                  |  |                  | 3         | 53 | 47  | 43  | 39  | 35  | 32  | 27  | 23  | 20  | 17  | 15  | 14  |    |
|                  |  | 7 to 27 Degrees  | 1         | 64 | 64  | 64  | 62  | 56  | 52  | 44  | 37  | 32  | 28  | 25  | 22  |    |
|                  |  |                  | 2         | 55 | 49  | 45  | 40  | 37  | 34  | 29  | 24  | 21  | 19  | 16  | 14  |    |
|                  |  |                  | 3         | 45 | 40  | 36  | 33  | 30  | 28  | 23  | 20  | 17  | 15  | 13  | 12  |    |
|                  |  | 28 to 45 Degrees | 1         | 65 | 65  | 65  | 65  | 59  | 54  | 46  | 40  | 35  | 31  | 27  | 24  |    |
|                  |  |                  | 2         | 65 | 65  | 64  | 58  | 53  | 49  | 42  | 36  | 31  | 27  | 24  | 22  |    |
|                  |  |                  | 3         | 49 | 44  | 40  | 36  | 33  | 31  | 26  | 22  | 19  | 17  | 15  | 13  |    |
|                  | D  | 0 to 6 Degrees   | 1         | 88 | 78  | 70  | 64  | 58  | 53  | 44  | 38  | 33  | 29  | 25  | 22  |    |
|                  |  |                  | 2         | 63 | 56  | 51  | 46  | 42  | 38  | 32  | 27  | 24  | 21  | 18  | 16  |    |
|                  |  |                  | 3         | 44 | 40  | 36  | 32  | 29  | 27  | 23  | 19  | 17  | 15  | 13  | 11  |    |
|                  |  | 7 to 27 Degrees  | 1         | 64 | 63  | 57  | 52  | 47  | 43  | 37  | 31  | 27  | 24  | 21  | 19  |    |
|                  |  |                  | 2         | 46 | 41  | 37  | 34  | 31  | 28  | 24  | 21  | 18  | 16  | 14  | 12  |    |
|                  |  |                  | 3         | 38 | 34  | 31  | 28  | 25  | 23  | 20  | 17  | 15  | 13  | 11  | 10  |    |
| 28 to 45 Degrees |  | 1                | 65        | 65 | 60  | 55  | 50  | 46  | 39  | 34  | 29  | 26  | 23  | 20  |     |    |
|                  |  | 2                | 65        | 59 | 54  | 49  | 45  | 41  | 35  | 30  | 26  | 23  | 20  | 18  |     |    |
|                  |  | 3                | 41        | 37 | 34  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 13  | 11  |     |    |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Gable Roof<br>RT3 | RT-[E] Mount Mini Plywood Only Installations<br>(60 Cell PV Panels)<br>Maximum Mount Spacing in Inches |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |
|-------------------|--|------------------|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                   | Portrait Orientation - ASCE 7-16   |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |
| Snow Load         | Exposure Category  | Roof Angle       | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |
|                   |  |                  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |
| 0 PSF             | B  | 0 to 6 Degrees   | 1         | 73                        | 65  | 58  | 52  | 47  | 42  | 35  | 30  | 26  | 22  | 20  | 17  |
|                   |  |                  | 2         | 51                        | 45  | 41  | 37  | 33  | 30  | 25  | 21  | 18  | 16  | 14  | 12  |
|                   |  |                  | 3         | 35                        | 31  | 28  | 25  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |
|                   |  | 7 to 27 Degrees  | 1         | 58                        | 52  | 46  | 42  | 38  | 34  | 29  | 25  | 21  | 18  | 16  | 14  |
|                   |  |                  | 2         | 37                        | 33  | 30  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 10  | 9   |
|                   |  |                  | 3         | 30                        | 27  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |
|                   |  | 28 to 45 Degrees | 1         | 59                        | 53  | 48  | 44  | 40  | 36  | 31  | 26  | 23  | 20  | 18  | 16  |
|                   |  |                  | 2         | 53                        | 48  | 43  | 39  | 36  | 33  | 28  | 24  | 20  | 18  | 16  | 14  |
|                   |  |                  | 3         | 32                        | 29  | 26  | 24  | 22  | 20  | 17  | 14  | 13  | 11  | 10  | 9   |
|                   | C  | 0 to 6 Degrees   | 1         | 49                        | 44  | 39  | 35  | 32  | 29  | 24  | 21  | 18  | 15  | 14  | 12  |
|                   |  |                  | 2         | 35                        | 31  | 28  | 25  | 23  | 21  | 17  | 15  | 13  | 11  | 10  | 9   |
|                   |  |                  | 3         | 24                        | 22  | 19  | 18  | 16  | 15  | 12  | 10  | 9   | 8   | 7   | 6   |
|                   |  | 7 to 27 Degrees  | 1         | 40                        | 35  | 32  | 29  | 26  | 24  | 20  | 17  | 15  | 13  | 11  | 10  |
|                   |  |                  | 2         | 25                        | 23  | 21  | 19  | 17  | 15  | 13  | 11  | 10  | 8   | 7   | 6   |
|                   |  |                  | 3         | 21                        | 19  | 17  | 15  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|                   |  | 28 to 45 Degrees | 1         | 42                        | 37  | 34  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |
|                   |  |                  | 2         | 37                        | 33  | 30  | 27  | 25  | 23  | 19  | 17  | 14  | 13  | 11  | 10  |
|                   |  |                  | 3         | 23                        | 21  | 19  | 17  | 15  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |
|                   | D  | 0 to 6 Degrees   | 1         | 40                        | 36  | 32  | 29  | 26  | 24  | 20  | 17  | 15  | 13  | 11  | 10  |
|                   |  |                  | 2         | 29                        | 26  | 23  | 21  | 19  | 17  | 15  | 12  | 11  | 9   | 8   | 7   |
|                   |  |                  | 3         | 20                        | 18  | 16  | 15  | 13  | 12  | 10  | 9   | 7   | 6   | 6   | 5   |
|                   |  | 7 to 27 Degrees  | 1         | 33                        | 29  | 26  | 24  | 22  | 20  | 17  | 14  | 12  | 11  | 9   | 8   |
|                   |  |                  | 2         | 21                        | 19  | 17  | 15  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|                   |  |                  | 3         | 17                        | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 4   |
| 28 to 45 Degrees  |  | 1                | 35        | 31                        | 28  | 26  | 23  | 21  | 18  | 16  | 13  | 12  | 10  | 9   |     |
|                   |  | 2                | 31        | 28                        | 25  | 23  | 21  | 19  | 16  | 14  | 12  | 11  | 9   | 8   |     |
|                   |  | 3                | 19        | 17                        | 16  | 14  | 13  | 12  | 10  | 8   | 7   | 6   | 6   | 5   |     |
| 1-10 PSF          | B  | 0 to 6 Degrees   | 1         | 73                        | 65  | 58  | 52  | 47  | 42  | 35  | 30  | 26  | 22  | 20  | 17  |
|                   |  |                  | 2         | 51                        | 45  | 41  | 37  | 33  | 30  | 25  | 21  | 18  | 16  | 14  | 12  |
|                   |  |                  | 3         | 35                        | 31  | 28  | 25  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |
|                   |  | 7 to 27 Degrees  | 1         | 58                        | 52  | 46  | 42  | 38  | 34  | 29  | 25  | 21  | 18  | 16  | 14  |
|                   |  |                  | 2         | 37                        | 33  | 30  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 10  | 9   |
|                   |  |                  | 3         | 30                        | 27  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |
|                   |  | 28 to 45 Degrees | 1         | 59                        | 53  | 48  | 44  | 40  | 36  | 31  | 26  | 23  | 20  | 18  | 16  |
|                   |  |                  | 2         | 53                        | 48  | 43  | 39  | 36  | 33  | 28  | 24  | 20  | 18  | 16  | 14  |
|                   |  |                  | 3         | 32                        | 29  | 26  | 24  | 22  | 20  | 17  | 14  | 13  | 11  | 10  | 9   |
|                   | C  | 0 to 6 Degrees   | 1         | 49                        | 44  | 39  | 35  | 32  | 29  | 24  | 21  | 18  | 15  | 14  | 12  |
|                   |  |                  | 2         | 35                        | 31  | 28  | 25  | 23  | 21  | 17  | 15  | 13  | 11  | 10  | 9   |
|                   |  |                  | 3         | 24                        | 22  | 19  | 18  | 16  | 15  | 12  | 10  | 9   | 8   | 7   | 6   |
|                   |  | 7 to 27 Degrees  | 1         | 40                        | 35  | 32  | 29  | 26  | 24  | 20  | 17  | 15  | 13  | 11  | 10  |
|                   |  |                  | 2         | 25                        | 23  | 21  | 19  | 17  | 15  | 13  | 11  | 10  | 8   | 7   | 6   |
|                   |  |                  | 3         | 21                        | 19  | 17  | 15  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|                   |  | 28 to 45 Degrees | 1         | 42                        | 37  | 34  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |
|                   |  |                  | 2         | 37                        | 33  | 30  | 27  | 25  | 23  | 19  | 17  | 14  | 13  | 11  | 10  |
|                   |  |                  | 3         | 23                        | 21  | 19  | 17  | 15  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |
|                   | D  | 0 to 6 Degrees   | 1         | 40                        | 36  | 32  | 29  | 26  | 24  | 20  | 17  | 15  | 13  | 11  | 10  |
|                   |  |                  | 2         | 29                        | 26  | 23  | 21  | 19  | 17  | 15  | 12  | 11  | 9   | 8   | 7   |
|                   |  |                  | 3         | 20                        | 18  | 16  | 15  | 13  | 12  | 10  | 9   | 7   | 6   | 6   | 5   |
|                   |  | 7 to 27 Degrees  | 1         | 33                        | 29  | 26  | 24  | 22  | 20  | 17  | 14  | 12  | 11  | 9   | 8   |
|                   |  |                  | 2         | 21                        | 19  | 17  | 15  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|                   |  |                  | 3         | 17                        | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 4   |
| 28 to 45 Degrees  |  | 1                | 35        | 31                        | 28  | 26  | 23  | 21  | 18  | 16  | 13  | 12  | 10  | 9   |     |
|                   |  | 2                | 31        | 28                        | 25  | 23  | 21  | 19  | 16  | 14  | 12  | 11  | 9   | 8   |     |
|                   |  | 3                | 19        | 17                        | 16  | 14  | 13  | 12  | 10  | 8   | 7   | 6   | 6   | 5   |     |
| 11-20 PSF         | B  | 0 to 6 Degrees   | 1         | 73                        | 65  | 58  | 52  | 47  | 42  | 35  | 30  | 26  | 22  | 20  | 17  |
|                   |  |                  | 2         | 51                        | 45  | 41  | 37  | 33  | 30  | 25  | 21  | 18  | 16  | 14  | 12  |
|                   |  |                  | 3         | 35                        | 31  | 28  | 25  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |
|                   |  | 7 to 27 Degrees  | 1         | 58                        | 52  | 46  | 42  | 38  | 34  | 29  | 25  | 21  | 18  | 16  | 14  |
|                   |  |                  | 2         | 37                        | 33  | 30  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 10  | 9   |
|                   |  |                  | 3         | 30                        | 27  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |
|                   |  | 28 to 45 Degrees | 1         | 59                        | 53  | 48  | 44  | 40  | 36  | 31  | 26  | 23  | 20  | 18  | 16  |
|                   |  |                  | 2         | 53                        | 48  | 43  | 39  | 36  | 33  | 28  | 24  | 20  | 18  | 16  | 14  |
|                   |  |                  | 3         | 32                        | 29  | 26  | 24  | 22  | 20  | 17  | 14  | 13  | 11  | 10  | 9   |
|                   | C  | 0 to 6 Degrees   | 1         | 49                        | 44  | 39  | 35  | 32  | 29  | 24  | 21  | 18  | 15  | 14  | 12  |
|                   |  |                  | 2         | 35                        | 31  | 28  | 25  | 23  | 21  | 17  | 15  | 13  | 11  | 10  | 9   |
|                   |  |                  | 3         | 24                        | 22  | 19  | 18  | 16  | 15  | 12  | 10  | 9   | 8   | 7   | 6   |
|                   |  | 7 to 27 Degrees  | 1         | 40                        | 35  | 32  | 29  | 26  | 24  | 20  | 17  | 15  | 13  | 11  | 10  |
|                   |  |                  | 2         | 25                        | 23  | 21  | 19  | 17  | 15  | 13  | 11  | 10  | 8   | 7   | 6   |
|                   |  |                  | 3         | 21                        | 19  | 17  | 15  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|                   |  | 28 to 45 Degrees | 1         | 42                        | 37  | 34  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |
|                   |  |                  | 2         | 37                        | 33  | 30  | 27  | 25  | 23  | 19  | 17  | 14  | 13  | 11  | 10  |
|                   |  |                  | 3         | 23                        | 21  | 19  | 17  | 15  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |
|                   | D  | 0 to 6 Degrees   | 1         | 40                        | 36  | 32  | 29  | 26  | 24  | 20  | 17  | 15  | 13  | 11  | 10  |
|                   |  |                  | 2         | 29                        | 26  | 23  | 21  | 19  | 17  | 15  | 12  | 11  | 9   | 8   | 7   |
|                   |  |                  | 3         | 20                        | 18  | 16  | 15  | 13  | 12  | 10  | 9   | 7   | 6   | 6   | 5   |
|                   |  | 7 to 27 Degrees  | 1         | 33                        | 29  | 26  | 24  | 22  | 20  | 17  | 14  | 12  | 11  | 9   | 8   |
|                   |  |                  | 2         | 21                        | 19  | 17  | 15  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|                   |  |                  | 3         | 17                        | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 4   |
| 28 to 45 Degrees  |  | 1                | 35        | 31                        | 28  | 26  | 23  | 21  | 18  | 16  | 13  | 12  | 10  | 9   |     |
|                   |  | 2                | 31        | 28                        | 25  | 23  | 21  | 19  | 16  | 14  | 12  | 11  | 9   | 8   |     |
|                   |  | 3                | 19        | 17                        | 16  | 14  | 13  | 12  | 10  | 8   | 7   | 6   | 6   | 5   |     |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Gable Roof<br>RT3 | RT-[E] Mount Mini Plywood Only Installations<br>(60 Cell PV Panels)<br>Maximum Mount Spacing in Inches |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |
|-------------------|--|------------------|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                   | Portrait Orientation - ASCE 7-16   |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |
| Snow Load         | Exposure Category  | Roof Angle       | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |
|                   |  |                  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |
| 21-30 PSF         | B  | 0 to 6 Degrees   | 1         | 69                        | 65  | 58  | 52  | 47  | 42  | 35  | 30  | 26  | 22  | 20  | 17  |
|                   |  |                  | 2         | 51                        | 45  | 41  | 37  | 33  | 30  | 25  | 21  | 18  | 16  | 14  | 12  |
|                   |  |                  | 3         | 35                        | 31  | 28  | 25  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |
|                   |  | 7 to 27 Degrees  | 1         | 56                        | 52  | 46  | 42  | 38  | 34  | 29  | 25  | 21  | 18  | 16  | 14  |
|                   |  |                  | 2         | 37                        | 33  | 30  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 10  | 9   |
|                   |  |                  | 3         | 30                        | 27  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |
|                   |  | 28 to 45 Degrees | 1         | 59                        | 53  | 48  | 44  | 40  | 36  | 31  | 26  | 23  | 20  | 18  | 16  |
|                   |  |                  | 2         | 53                        | 48  | 43  | 39  | 36  | 33  | 28  | 24  | 20  | 18  | 16  | 14  |
|                   |  |                  | 3         | 32                        | 29  | 26  | 24  | 22  | 20  | 17  | 14  | 13  | 11  | 10  | 9   |
|                   | C  | 0 to 6 Degrees   | 1         | 49                        | 44  | 39  | 35  | 32  | 29  | 24  | 21  | 18  | 15  | 14  | 12  |
|                   |  |                  | 2         | 35                        | 31  | 28  | 25  | 23  | 21  | 17  | 15  | 13  | 11  | 10  | 9   |
|                   |  |                  | 3         | 24                        | 22  | 19  | 18  | 16  | 15  | 12  | 10  | 9   | 8   | 7   | 6   |
|                   |  | 7 to 27 Degrees  | 1         | 40                        | 35  | 32  | 29  | 26  | 24  | 20  | 17  | 15  | 13  | 11  | 10  |
|                   |  |                  | 2         | 25                        | 23  | 21  | 19  | 17  | 15  | 13  | 11  | 10  | 8   | 7   | 6   |
|                   |  |                  | 3         | 21                        | 19  | 17  | 15  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|                   |  | 28 to 45 Degrees | 1         | 42                        | 37  | 34  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |
|                   |  |                  | 2         | 37                        | 33  | 30  | 27  | 25  | 23  | 19  | 17  | 14  | 13  | 11  | 10  |
|                   |  |                  | 3         | 23                        | 21  | 19  | 17  | 15  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |
|                   | D  | 0 to 6 Degrees   | 1         | 40                        | 36  | 32  | 29  | 26  | 24  | 20  | 17  | 15  | 13  | 11  | 10  |
|                   |  |                  | 2         | 29                        | 26  | 23  | 21  | 19  | 17  | 15  | 12  | 11  | 9   | 8   | 7   |
|                   |  |                  | 3         | 20                        | 18  | 16  | 15  | 13  | 12  | 10  | 9   | 7   | 6   | 5   | 4   |
|                   |  | 7 to 27 Degrees  | 1         | 33                        | 29  | 26  | 24  | 22  | 20  | 17  | 14  | 12  | 11  | 9   | 8   |
|                   |  |                  | 2         | 21                        | 19  | 17  | 15  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|                   |  |                  | 3         | 17                        | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 4   |
| 28 to 45 Degrees  |  | 1                | 35        | 31                        | 28  | 26  | 23  | 21  | 18  | 16  | 13  | 12  | 10  | 9   |     |
|                   |  | 2                | 31        | 28                        | 25  | 23  | 21  | 19  | 16  | 14  | 12  | 11  | 9   | 8   |     |
|                   |  | 3                | 19        | 17                        | 16  | 14  | 13  | 12  | 10  | 8   | 7   | 6   | 5   | 4   |     |
| 31-40 PSF         | B  | 0 to 6 Degrees   | 1         | 54                        | 54  | 54  | 52  | 47  | 42  | 35  | 30  | 26  | 22  | 20  | 17  |
|                   |  |                  | 2         | 51                        | 45  | 41  | 37  | 33  | 30  | 25  | 21  | 18  | 16  | 14  | 12  |
|                   |  |                  | 3         | 35                        | 31  | 28  | 25  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |
|                   |  | 7 to 27 Degrees  | 1         | 43                        | 43  | 43  | 42  | 38  | 34  | 29  | 25  | 21  | 18  | 16  | 14  |
|                   |  |                  | 2         | 37                        | 33  | 30  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 10  | 9   |
|                   |  |                  | 3         | 30                        | 27  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |
|                   |  | 28 to 45 Degrees | 1         | 53                        | 53  | 48  | 44  | 40  | 36  | 31  | 26  | 23  | 20  | 18  | 16  |
|                   |  |                  | 2         | 53                        | 48  | 43  | 39  | 36  | 33  | 28  | 24  | 20  | 18  | 16  | 14  |
|                   |  |                  | 3         | 32                        | 29  | 26  | 24  | 22  | 20  | 17  | 14  | 13  | 11  | 10  | 9   |
|                   | C  | 0 to 6 Degrees   | 1         | 49                        | 44  | 39  | 35  | 32  | 29  | 24  | 21  | 18  | 15  | 14  | 12  |
|                   |  |                  | 2         | 35                        | 31  | 28  | 25  | 23  | 21  | 17  | 15  | 13  | 11  | 10  | 9   |
|                   |  |                  | 3         | 24                        | 22  | 19  | 18  | 16  | 15  | 12  | 10  | 9   | 8   | 7   | 6   |
|                   |  | 7 to 27 Degrees  | 1         | 40                        | 35  | 32  | 29  | 26  | 24  | 20  | 17  | 15  | 13  | 11  | 10  |
|                   |  |                  | 2         | 25                        | 23  | 21  | 19  | 17  | 15  | 13  | 11  | 10  | 8   | 7   | 6   |
|                   |  |                  | 3         | 21                        | 19  | 17  | 15  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|                   |  | 28 to 45 Degrees | 1         | 42                        | 37  | 34  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |
|                   |  |                  | 2         | 37                        | 33  | 30  | 27  | 25  | 23  | 19  | 17  | 14  | 13  | 11  | 10  |
|                   |  |                  | 3         | 23                        | 21  | 19  | 17  | 15  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |
|                   | D  | 0 to 6 Degrees   | 1         | 40                        | 36  | 32  | 29  | 26  | 24  | 20  | 17  | 15  | 13  | 11  | 10  |
|                   |  |                  | 2         | 29                        | 26  | 23  | 21  | 19  | 17  | 15  | 12  | 11  | 9   | 8   | 7   |
|                   |  |                  | 3         | 20                        | 18  | 16  | 15  | 13  | 12  | 10  | 9   | 7   | 6   | 5   | 4   |
|                   |  | 7 to 27 Degrees  | 1         | 33                        | 29  | 26  | 24  | 22  | 20  | 17  | 14  | 12  | 11  | 9   | 8   |
|                   |  |                  | 2         | 21                        | 19  | 17  | 15  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|                   |  |                  | 3         | 17                        | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 4   |
| 28 to 45 Degrees  |  | 1                | 35        | 31                        | 28  | 26  | 23  | 21  | 18  | 16  | 13  | 12  | 10  | 9   |     |
|                   |  | 2                | 31        | 28                        | 25  | 23  | 21  | 19  | 16  | 14  | 12  | 11  | 9   | 8   |     |
|                   |  | 3                | 19        | 17                        | 16  | 14  | 13  | 12  | 10  | 8   | 7   | 6   | 5   | 4   |     |
| 41-50 PSF         | B  | 0 to 6 Degrees   | 1         | 44                        | 44  | 44  | 44  | 44  | 42  | 35  | 30  | 26  | 22  | 20  | 17  |
|                   |  |                  | 2         | 44                        | 44  | 41  | 37  | 33  | 30  | 25  | 21  | 18  | 16  | 14  | 12  |
|                   |  |                  | 3         | 35                        | 31  | 28  | 25  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |
|                   |  | 7 to 27 Degrees  | 1         | 35                        | 35  | 35  | 35  | 35  | 34  | 29  | 25  | 21  | 18  | 16  | 14  |
|                   |  |                  | 2         | 35                        | 33  | 30  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 10  | 9   |
|                   |  |                  | 3         | 30                        | 27  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |
|                   |  | 28 to 45 Degrees | 1         | 44                        | 44  | 44  | 44  | 40  | 36  | 31  | 26  | 23  | 20  | 18  | 16  |
|                   |  |                  | 2         | 44                        | 44  | 43  | 39  | 36  | 33  | 28  | 24  | 20  | 18  | 16  | 14  |
|                   |  |                  | 3         | 32                        | 29  | 26  | 24  | 22  | 20  | 17  | 14  | 13  | 11  | 10  | 9   |
|                   | C  | 0 to 6 Degrees   | 1         | 44                        | 44  | 39  | 35  | 32  | 29  | 24  | 21  | 18  | 15  | 14  | 12  |
|                   |  |                  | 2         | 35                        | 31  | 28  | 25  | 23  | 21  | 17  | 15  | 13  | 11  | 10  | 9   |
|                   |  |                  | 3         | 24                        | 22  | 19  | 18  | 16  | 15  | 12  | 10  | 9   | 8   | 7   | 6   |
|                   |  | 7 to 27 Degrees  | 1         | 35                        | 35  | 32  | 29  | 26  | 24  | 20  | 17  | 15  | 13  | 11  | 10  |
|                   |  |                  | 2         | 25                        | 23  | 21  | 19  | 17  | 15  | 13  | 11  | 10  | 8   | 7   | 6   |
|                   |  |                  | 3         | 21                        | 19  | 17  | 15  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|                   |  | 28 to 45 Degrees | 1         | 42                        | 37  | 34  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |
|                   |  |                  | 2         | 37                        | 33  | 30  | 27  | 25  | 23  | 19  | 17  | 14  | 13  | 11  | 10  |
|                   |  |                  | 3         | 23                        | 21  | 19  | 17  | 15  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |
|                   | D  | 0 to 6 Degrees   | 1         | 40                        | 36  | 32  | 29  | 26  | 24  | 20  | 17  | 15  | 13  | 11  | 10  |
|                   |  |                  | 2         | 29                        | 26  | 23  | 21  | 19  | 17  | 15  | 12  | 11  | 9   | 8   | 7   |
|                   |  |                  | 3         | 20                        | 18  | 16  | 15  | 13  | 12  | 10  | 9   | 7   | 6   | 5   | 4   |
|                   |  | 7 to 27 Degrees  | 1         | 33                        | 29  | 26  | 24  | 22  | 20  | 17  | 14  | 12  | 11  | 9   | 8   |
|                   |  |                  | 2         | 21                        | 19  | 17  | 15  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|                   |  |                  | 3         | 17                        | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 4   |
| 28 to 45 Degrees  |  | 1                | 35        | 31                        | 28  | 26  | 23  | 21  | 18  | 16  | 13  | 12  | 10  | 9   |     |
|                   |  | 2                | 31        | 28                        | 25  | 23  | 21  | 19  | 16  | 14  | 12  | 11  | 9   | 8   |     |
|                   |  | 3                | 19        | 17                        | 16  | 14  | 13  | 12  | 10  | 8   | 7   | 6   | 5   | 4   |     |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.



| Snow Load                               | Exposure Category | Roof Angle       | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |
|---|-------------------|------------------|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|   |                   |                  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |
| <b>Portrait Orientation - ASCE 7-16</b> |                   |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |
| 51.60 PSF                               | B                 | 0 to 6 Degrees   | 1         | 37                        | 37  | 37  | 37  | 37  | 37  | 35  | 30  | 26  | 22  | 20  | 17  |
|   |                   |                  | 2         | 37                        | 37  | 37  | 37  | 33  | 30  | 25  | 21  | 18  | 16  | 14  | 12  |
|   |                   |                  | 3         | 35                        | 31  | 28  | 25  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |
|   |                   | 7 to 27 Degrees  | 1         | 30                        | 30  | 30  | 30  | 30  | 29  | 25  | 21  | 18  | 16  | 14  | 12  |
|   |                   |                  | 2         | 30                        | 30  | 30  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 10  | 9   |
|   |                   |                  | 3         | 30                        | 27  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |
|   |                   | 28 to 45 Degrees | 1         | 38                        | 38  | 38  | 38  | 38  | 36  | 31  | 26  | 23  | 20  | 18  | 16  |
|   |                   |                  | 2         | 38                        | 38  | 38  | 38  | 36  | 33  | 28  | 24  | 20  | 18  | 16  | 14  |
|   |                   |                  | 3         | 32                        | 29  | 26  | 24  | 22  | 20  | 17  | 14  | 13  | 11  | 10  | 9   |
|   | C                 | 0 to 6 Degrees   | 1         | 37                        | 37  | 37  | 35  | 32  | 29  | 24  | 21  | 18  | 15  | 14  | 12  |
|   |                   |                  | 2         | 35                        | 31  | 28  | 25  | 23  | 21  | 17  | 15  | 13  | 11  | 10  | 9   |
|   |                   |                  | 3         | 24                        | 22  | 19  | 18  | 16  | 15  | 12  | 10  | 9   | 8   | 7   | 6   |
|   |                   | 7 to 27 Degrees  | 1         | 30                        | 30  | 30  | 29  | 26  | 24  | 20  | 17  | 15  | 13  | 11  | 10  |
|   |                   |                  | 2         | 25                        | 23  | 21  | 19  | 17  | 15  | 13  | 11  | 10  | 8   | 7   | 6   |
|   |                   |                  | 3         | 21                        | 19  | 17  | 15  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|   |                   | 28 to 45 Degrees | 1         | 38                        | 37  | 34  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |
|   |                   |                  | 2         | 37                        | 33  | 30  | 27  | 25  | 23  | 19  | 17  | 14  | 13  | 11  | 10  |
|   |                   |                  | 3         | 23                        | 21  | 19  | 17  | 15  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |
|   | D                 | 0 to 6 Degrees   | 1         | 37                        | 36  | 32  | 29  | 32  | 24  | 20  | 17  | 15  | 13  | 11  | 10  |
|   |                   |                  | 2         | 29                        | 26  | 23  | 21  | 19  | 17  | 15  | 12  | 11  | 9   | 8   | 7   |
|   |                   |                  | 3         | 20                        | 18  | 16  | 15  | 13  | 12  | 10  | 9   | 7   | 6   | 6   | 5   |
|   |                   | 7 to 27 Degrees  | 1         | 30                        | 29  | 26  | 24  | 22  | 20  | 17  | 14  | 12  | 11  | 9   | 8   |
|   |                   |                  | 2         | 21                        | 19  | 17  | 15  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|   |                   |                  | 3         | 17                        | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 4   |
| 28 to 45 Degrees                        |                   | 1                | 35        | 31                        | 28  | 26  | 23  | 21  | 18  | 16  | 13  | 12  | 10  | 9   |     |
|   |                   | 2                | 31        | 28                        | 25  | 23  | 21  | 19  | 16  | 14  | 12  | 11  | 9   | 8   |     |
|   |                   | 3                | 19        | 17                        | 16  | 14  | 13  | 12  | 10  | 8   | 7   | 6   | 6   | 5   |     |
| 61.70 PSF                               | B                 | 0 to 6 Degrees   | 1         | 32                        | 32  | 32  | 32  | 32  | 32  | 32  | 30  | 26  | 22  | 20  | 17  |
|   |                   |                  | 2         | 32                        | 32  | 32  | 32  | 32  | 30  | 25  | 21  | 18  | 16  | 14  | 12  |
|   |                   |                  | 3         | 32                        | 31  | 28  | 25  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |
|   |                   | 7 to 27 Degrees  | 1         | 26                        | 26  | 26  | 26  | 26  | 26  | 26  | 25  | 21  | 18  | 16  | 14  |
|   |                   |                  | 2         | 26                        | 26  | 26  | 26  | 24  | 22  | 19  | 16  | 14  | 12  | 10  | 9   |
|   |                   |                  | 3         | 26                        | 26  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |
|   |                   | 28 to 45 Degrees | 1         | 33                        | 33  | 33  | 33  | 33  | 33  | 31  | 26  | 23  | 20  | 18  | 16  |
|   |                   |                  | 2         | 33                        | 33  | 33  | 33  | 33  | 33  | 28  | 24  | 20  | 18  | 16  | 14  |
|   |                   |                  | 3         | 32                        | 29  | 26  | 24  | 22  | 20  | 17  | 14  | 13  | 11  | 10  | 9   |
|   | C                 | 0 to 6 Degrees   | 1         | 32                        | 32  | 32  | 32  | 32  | 29  | 24  | 21  | 18  | 15  | 14  | 12  |
|   |                   |                  | 2         | 32                        | 31  | 28  | 25  | 23  | 21  | 17  | 15  | 13  | 11  | 10  | 9   |
|   |                   |                  | 3         | 24                        | 22  | 19  | 18  | 16  | 15  | 12  | 10  | 9   | 8   | 7   | 6   |
|   |                   | 7 to 27 Degrees  | 1         | 26                        | 26  | 26  | 26  | 26  | 24  | 20  | 17  | 15  | 13  | 11  | 10  |
|   |                   |                  | 2         | 25                        | 23  | 21  | 19  | 17  | 15  | 13  | 11  | 10  | 8   | 7   | 6   |
|   |                   |                  | 3         | 21                        | 19  | 17  | 15  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|   |                   | 28 to 45 Degrees | 1         | 33                        | 33  | 33  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |
|   |                   |                  | 2         | 33                        | 33  | 30  | 27  | 25  | 23  | 19  | 17  | 14  | 13  | 11  | 10  |
|   |                   |                  | 3         | 23                        | 21  | 19  | 17  | 15  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |
|   | D                 | 0 to 6 Degrees   | 1         | 32                        | 32  | 32  | 29  | 26  | 24  | 20  | 17  | 15  | 13  | 11  | 10  |
|   |                   |                  | 2         | 29                        | 26  | 23  | 21  | 19  | 17  | 15  | 12  | 11  | 9   | 8   | 7   |
|   |                   |                  | 3         | 20                        | 18  | 16  | 15  | 13  | 12  | 10  | 9   | 7   | 6   | 6   | 5   |
|   |                   | 7 to 27 Degrees  | 1         | 26                        | 26  | 26  | 24  | 22  | 20  | 17  | 14  | 12  | 11  | 9   | 8   |
|   |                   |                  | 2         | 21                        | 19  | 17  | 15  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|   |                   |                  | 3         | 17                        | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 4   |
| 28 to 45 Degrees                        |                   | 1                | 33        | 31                        | 28  | 26  | 23  | 21  | 18  | 16  | 13  | 12  | 10  | 9   |     |
|   |                   | 2                | 31        | 28                        | 25  | 23  | 21  | 19  | 16  | 14  | 12  | 11  | 9   | 8   |     |
|   |                   | 3                | 19        | 17                        | 16  | 14  | 13  | 12  | 10  | 8   | 7   | 6   | 6   | 5   |     |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Gable Roof RT4   | RT-[E] Mount Mini Plywood Only Installations<br>(72 Cell PV Panels)<br>Maximum Mount Spacing in Inches |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |
|------------------|--|------------------|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                  | Portrait Orientation - ASCE 7-16   |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |
| Snow Load        | Exposure Category  | Roof Angle       | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |
|                  |  |                  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |
| 0 PSF            | B  | 0 to 6 Degrees   | 1         | 64                        | 57  | 50  | 45  | 41  | 37  | 31  | 26  | 22  | 19  | 17  | 15  |
|                  |  |                  | 2         | 45                        | 40  | 36  | 32  | 29  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |
|                  |  |                  | 3         | 31                        | 27  | 25  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |
|                  |  | 7 to 27 Degrees  | 1         | 51                        | 45  | 40  | 36  | 33  | 30  | 25  | 22  | 19  | 16  | 14  | 13  |
|                  |  |                  | 2         | 32                        | 29  | 26  | 23  | 21  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |
|                  |  |                  | 3         | 26                        | 23  | 21  | 19  | 17  | 16  | 13  | 11  | 10  | 9   | 7   | 7   |
|                  |  | 28 to 45 Degrees | 1         | 52                        | 47  | 42  | 38  | 35  | 32  | 27  | 23  | 20  | 17  | 15  | 14  |
|                  |  |                  | 2         | 47                        | 42  | 38  | 34  | 31  | 29  | 24  | 21  | 18  | 16  | 14  | 12  |
|                  |  |                  | 3         | 28                        | 26  | 23  | 21  | 19  | 17  | 15  | 13  | 11  | 10  | 8   | 7   |
|                  | C  | 0 to 6 Degrees   | 1         | 43                        | 38  | 34  | 31  | 28  | 25  | 21  | 18  | 16  | 13  | 12  | 10  |
|                  |  |                  | 2         | 30                        | 27  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |
|                  |  |                  | 3         | 21                        | 19  | 17  | 15  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|                  |  | 7 to 27 Degrees  | 1         | 35                        | 31  | 28  | 25  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |
|                  |  |                  | 2         | 22                        | 20  | 18  | 16  | 15  | 13  | 11  | 10  | 8   | 7   | 6   | 6   |
|                  |  |                  | 3         | 18                        | 16  | 15  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 5   |
|                  |  | 28 to 45 Degrees | 1         | 36                        | 33  | 30  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 11  | 10  |
|                  |  |                  | 2         | 33                        | 29  | 26  | 24  | 22  | 20  | 17  | 15  | 13  | 11  | 10  | 9   |
|                  |  |                  | 3         | 20                        | 18  | 16  | 15  | 13  | 12  | 10  | 9   | 8   | 7   | 6   | 5   |
|                  | D  | 0 to 6 Degrees   | 1         | 35                        | 32  | 28  | 25  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |
|                  |  |                  | 2         | 25                        | 23  | 20  | 18  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |
|                  |  |                  | 3         | 18                        | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 6   | 6   | 5   | 4   |
|                  |  | 7 to 27 Degrees  | 1         | 29                        | 26  | 23  | 21  | 19  | 17  | 15  | 12  | 11  | 9   | 8   | 7   |
|                  |  |                  | 2         | 19                        | 17  | 15  | 14  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 5   |
|                  |  |                  | 3         | 15                        | 14  | 12  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 4   |
| 28 to 45 Degrees |  | 1                | 31        | 27                        | 25  | 23  | 21  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |     |
|                  |  | 2                | 27        | 25                        | 22  | 20  | 18  | 17  | 14  | 12  | 11  | 9   | 8   | 7   |     |
|                  |  | 3                | 17        | 15                        | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 6   | 5   | 4   |     |
| 1-10 PSF         | B  | 0 to 6 Degrees   | 1         | 64                        | 57  | 50  | 45  | 41  | 37  | 31  | 26  | 22  | 19  | 17  | 15  |
|                  |  |                  | 2         | 45                        | 40  | 36  | 32  | 29  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |
|                  |  |                  | 3         | 31                        | 27  | 25  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |
|                  |  | 7 to 27 Degrees  | 1         | 51                        | 45  | 40  | 36  | 33  | 30  | 25  | 22  | 19  | 16  | 14  | 13  |
|                  |  |                  | 2         | 32                        | 29  | 26  | 23  | 21  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |
|                  |  |                  | 3         | 26                        | 23  | 21  | 19  | 17  | 16  | 13  | 11  | 10  | 9   | 7   | 7   |
|                  |  | 28 to 45 Degrees | 1         | 52                        | 47  | 42  | 38  | 35  | 32  | 27  | 23  | 20  | 17  | 15  | 14  |
|                  |  |                  | 2         | 47                        | 42  | 38  | 34  | 31  | 29  | 24  | 21  | 18  | 16  | 14  | 12  |
|                  |  |                  | 3         | 28                        | 26  | 23  | 21  | 19  | 17  | 15  | 13  | 11  | 10  | 8   | 7   |
|                  | C  | 0 to 6 Degrees   | 1         | 43                        | 38  | 34  | 31  | 28  | 25  | 21  | 18  | 16  | 13  | 12  | 10  |
|                  |  |                  | 2         | 30                        | 27  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |
|                  |  |                  | 3         | 21                        | 19  | 17  | 15  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|                  |  | 7 to 27 Degrees  | 1         | 35                        | 31  | 28  | 25  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |
|                  |  |                  | 2         | 22                        | 20  | 18  | 16  | 15  | 13  | 11  | 10  | 8   | 7   | 6   | 6   |
|                  |  |                  | 3         | 18                        | 16  | 15  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 5   |
|                  |  | 28 to 45 Degrees | 1         | 36                        | 33  | 30  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 11  | 10  |
|                  |  |                  | 2         | 33                        | 29  | 26  | 24  | 22  | 20  | 17  | 15  | 13  | 11  | 10  | 9   |
|                  |  |                  | 3         | 20                        | 18  | 16  | 15  | 13  | 12  | 10  | 9   | 8   | 7   | 6   | 5   |
|                  | D  | 0 to 6 Degrees   | 1         | 35                        | 32  | 28  | 25  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |
|                  |  |                  | 2         | 25                        | 23  | 20  | 18  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |
|                  |  |                  | 3         | 18                        | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 6   | 6   | 5   | 4   |
|                  |  | 7 to 27 Degrees  | 1         | 29                        | 26  | 23  | 21  | 19  | 17  | 15  | 12  | 11  | 9   | 8   | 7   |
|                  |  |                  | 2         | 19                        | 17  | 15  | 14  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 5   |
|                  |  |                  | 3         | 15                        | 14  | 12  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 4   |
| 28 to 45 Degrees |  | 1                | 31        | 27                        | 25  | 23  | 21  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |     |
|                  |  | 2                | 27        | 25                        | 22  | 20  | 18  | 17  | 14  | 12  | 11  | 9   | 8   | 7   |     |
|                  |  | 3                | 17        | 15                        | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 6   | 5   | 4   |     |
| 1-1-20 PSF       | B  | 0 to 6 Degrees   | 1         | 64                        | 57  | 50  | 45  | 41  | 37  | 31  | 26  | 22  | 19  | 17  | 15  |
|                  |  |                  | 2         | 45                        | 40  | 36  | 32  | 29  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |
|                  |  |                  | 3         | 31                        | 27  | 25  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |
|                  |  | 7 to 27 Degrees  | 1         | 51                        | 45  | 40  | 36  | 33  | 30  | 25  | 22  | 19  | 16  | 14  | 13  |
|                  |  |                  | 2         | 32                        | 29  | 26  | 23  | 21  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |
|                  |  |                  | 3         | 26                        | 23  | 21  | 19  | 17  | 16  | 13  | 11  | 10  | 9   | 7   | 7   |
|                  |  | 28 to 45 Degrees | 1         | 52                        | 47  | 42  | 38  | 35  | 32  | 27  | 23  | 20  | 17  | 15  | 14  |
|                  |  |                  | 2         | 47                        | 42  | 38  | 34  | 31  | 29  | 24  | 21  | 18  | 16  | 14  | 12  |
|                  |  |                  | 3         | 28                        | 26  | 23  | 21  | 19  | 17  | 15  | 13  | 11  | 10  | 8   | 7   |
|                  | C  | 0 to 6 Degrees   | 1         | 43                        | 38  | 34  | 31  | 28  | 25  | 21  | 18  | 16  | 13  | 12  | 10  |
|                  |  |                  | 2         | 30                        | 27  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |
|                  |  |                  | 3         | 21                        | 19  | 17  | 15  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|                  |  | 7 to 27 Degrees  | 1         | 35                        | 31  | 28  | 25  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |
|                  |  |                  | 2         | 22                        | 20  | 18  | 16  | 15  | 13  | 11  | 10  | 8   | 7   | 6   | 6   |
|                  |  |                  | 3         | 18                        | 16  | 15  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 5   |
|                  |  | 28 to 45 Degrees | 1         | 36                        | 33  | 30  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 11  | 10  |
|                  |  |                  | 2         | 33                        | 29  | 26  | 24  | 22  | 20  | 17  | 15  | 13  | 11  | 10  | 9   |
|                  |  |                  | 3         | 20                        | 18  | 16  | 15  | 13  | 12  | 10  | 9   | 8   | 7   | 6   | 5   |
|                  | D  | 0 to 6 Degrees   | 1         | 35                        | 32  | 28  | 25  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |
|                  |  |                  | 2         | 25                        | 23  | 20  | 18  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |
|                  |  |                  | 3         | 18                        | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 6   | 6   | 5   | 4   |
|                  |  | 7 to 27 Degrees  | 1         | 29                        | 26  | 23  | 21  | 19  | 17  | 15  | 12  | 11  | 9   | 8   | 7   |
|                  |  |                  | 2         | 19                        | 17  | 15  | 14  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 5   |
|                  |  |                  | 3         | 15                        | 14  | 12  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 4   |
| 28 to 45 Degrees |  | 1                | 31        | 27                        | 25  | 23  | 21  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |     |
|                  |  | 2                | 27        | 25                        | 22  | 20  | 18  | 17  | 14  | 12  | 11  | 9   | 8   | 7   |     |
|                  |  | 3                | 17        | 15                        | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 6   | 5   | 4   |     |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Gable Roof<br>RT4 | RT-[E] Mount Mini Plywood Only Installations<br>(72 Cell PV Panels)<br>Maximum Mount Spacing in Inches |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |
|-------------------|--|------------------|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                   | Portrait Orientation - ASCE 7-16   |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |
| Snow Load         | Exposure Category  | Roof Angle       | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |
|                   |  |                  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |
| 21-30 PSF         | B  | 0 to 6 Degrees   | 1         | 61                        | 57  | 50  | 45  | 41  | 37  | 31  | 26  | 22  | 19  | 17  | 15  |
|                   |  |                  | 2         | 45                        | 40  | 36  | 32  | 29  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |
|                   |  |                  | 3         | 31                        | 27  | 25  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |
|                   |  | 7 to 27 Degrees  | 1         | 49                        | 45  | 40  | 36  | 33  | 30  | 25  | 22  | 19  | 16  | 14  | 13  |
|                   |  |                  | 2         | 32                        | 29  | 26  | 23  | 21  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |
|                   |  |                  | 3         | 26                        | 23  | 21  | 19  | 17  | 16  | 13  | 11  | 10  | 9   | 7   | 7   |
|                   |  | 28 to 45 Degrees | 1         | 52                        | 47  | 42  | 38  | 35  | 32  | 27  | 23  | 20  | 17  | 15  | 14  |
|                   |  |                  | 2         | 47                        | 42  | 38  | 34  | 31  | 29  | 24  | 21  | 18  | 16  | 14  | 12  |
|                   |  |                  | 3         | 28                        | 26  | 23  | 21  | 19  | 17  | 15  | 13  | 11  | 10  | 8   | 7   |
|                   | C  | 0 to 6 Degrees   | 1         | 43                        | 38  | 34  | 31  | 28  | 25  | 21  | 18  | 16  | 13  | 12  | 10  |
|                   |  |                  | 2         | 30                        | 27  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |
|                   |  |                  | 3         | 21                        | 19  | 17  | 15  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|                   |  | 7 to 27 Degrees  | 1         | 35                        | 31  | 28  | 25  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |
|                   |  |                  | 2         | 22                        | 20  | 18  | 16  | 15  | 13  | 11  | 10  | 8   | 7   | 6   | 6   |
|                   |  |                  | 3         | 18                        | 16  | 15  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 5   |
|                   |  | 28 to 45 Degrees | 1         | 36                        | 33  | 30  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 11  | 10  |
|                   |  |                  | 2         | 33                        | 29  | 26  | 24  | 22  | 20  | 17  | 15  | 13  | 11  | 10  | 9   |
|                   |  |                  | 3         | 20                        | 18  | 16  | 15  | 13  | 12  | 10  | 9   | 8   | 7   | 6   | 5   |
|                   | D  | 0 to 6 Degrees   | 1         | 35                        | 32  | 28  | 25  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |
|                   |  |                  | 2         | 25                        | 23  | 20  | 18  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |
|                   |  |                  | 3         | 18                        | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 6   | 6   | 5   | 4   |
|                   |  | 7 to 27 Degrees  | 1         | 29                        | 26  | 23  | 21  | 19  | 17  | 15  | 12  | 11  | 9   | 8   | 7   |
|                   |  |                  | 2         | 19                        | 17  | 15  | 14  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 5   |
|                   |  |                  | 3         | 15                        | 14  | 12  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 4   |
| 28 to 45 Degrees  |  | 1                | 31        | 27                        | 25  | 23  | 21  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |     |
|                   |  | 2                | 27        | 25                        | 22  | 20  | 18  | 17  | 14  | 12  | 11  | 9   | 8   | 7   |     |
|                   |  | 3                | 17        | 15                        | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 6   | 5   | 4   |     |
| 31-40 PSF         | B  | 0 to 6 Degrees   | 1         | 47                        | 47  | 47  | 45  | 41  | 37  | 31  | 26  | 22  | 19  | 17  | 15  |
|                   |  |                  | 2         | 45                        | 40  | 36  | 32  | 29  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |
|                   |  |                  | 3         | 31                        | 27  | 25  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |
|                   |  | 7 to 27 Degrees  | 1         | 38                        | 38  | 38  | 36  | 33  | 30  | 25  | 22  | 19  | 16  | 14  | 13  |
|                   |  |                  | 2         | 32                        | 29  | 26  | 23  | 21  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |
|                   |  |                  | 3         | 26                        | 23  | 21  | 19  | 17  | 16  | 13  | 11  | 10  | 9   | 7   | 7   |
|                   |  | 28 to 45 Degrees | 1         | 47                        | 47  | 42  | 38  | 35  | 32  | 27  | 23  | 20  | 17  | 15  | 14  |
|                   |  |                  | 2         | 47                        | 42  | 38  | 34  | 31  | 29  | 24  | 21  | 18  | 16  | 14  | 12  |
|                   |  |                  | 3         | 28                        | 26  | 23  | 21  | 19  | 17  | 15  | 13  | 11  | 10  | 8   | 7   |
|                   | C  | 0 to 6 Degrees   | 1         | 43                        | 38  | 34  | 31  | 28  | 25  | 21  | 18  | 16  | 13  | 12  | 10  |
|                   |  |                  | 2         | 30                        | 27  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |
|                   |  |                  | 3         | 21                        | 19  | 17  | 15  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|                   |  | 7 to 27 Degrees  | 1         | 35                        | 31  | 28  | 25  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |
|                   |  |                  | 2         | 22                        | 20  | 18  | 16  | 15  | 13  | 11  | 10  | 8   | 7   | 6   | 6   |
|                   |  |                  | 3         | 18                        | 16  | 15  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 5   |
|                   |  | 28 to 45 Degrees | 1         | 36                        | 33  | 30  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 11  | 10  |
|                   |  |                  | 2         | 33                        | 29  | 26  | 24  | 22  | 20  | 17  | 15  | 13  | 11  | 10  | 9   |
|                   |  |                  | 3         | 20                        | 18  | 16  | 15  | 13  | 12  | 10  | 9   | 8   | 7   | 6   | 5   |
|                   | D  | 0 to 6 Degrees   | 1         | 35                        | 32  | 28  | 25  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |
|                   |  |                  | 2         | 25                        | 23  | 20  | 18  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |
|                   |  |                  | 3         | 18                        | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 6   | 6   | 5   | 4   |
|                   |  | 7 to 27 Degrees  | 1         | 29                        | 26  | 23  | 21  | 19  | 17  | 15  | 12  | 11  | 9   | 8   | 7   |
|                   |  |                  | 2         | 19                        | 17  | 15  | 14  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 5   |
|                   |  |                  | 3         | 15                        | 14  | 12  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 4   |
| 28 to 45 Degrees  |  | 1                | 31        | 27                        | 25  | 23  | 21  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |     |
|                   |  | 2                | 27        | 25                        | 22  | 20  | 18  | 17  | 14  | 12  | 11  | 9   | 8   | 7   |     |
|                   |  | 3                | 17        | 15                        | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 6   | 5   | 4   |     |
| 41-50 PSF         | B  | 0 to 6 Degrees   | 1         | 38                        | 38  | 38  | 38  | 38  | 37  | 31  | 26  | 22  | 19  | 17  | 15  |
|                   |  |                  | 2         | 38                        | 38  | 36  | 32  | 29  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |
|                   |  |                  | 3         | 31                        | 27  | 25  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |
|                   |  | 7 to 27 Degrees  | 1         | 31                        | 31  | 31  | 31  | 31  | 30  | 25  | 22  | 19  | 16  | 14  | 13  |
|                   |  |                  | 2         | 31                        | 29  | 26  | 23  | 21  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |
|                   |  |                  | 3         | 26                        | 23  | 21  | 19  | 17  | 16  | 13  | 11  | 10  | 9   | 7   | 7   |
|                   |  | 28 to 45 Degrees | 1         | 39                        | 39  | 39  | 38  | 35  | 32  | 27  | 23  | 20  | 17  | 15  | 14  |
|                   |  |                  | 2         | 39                        | 39  | 38  | 34  | 31  | 29  | 24  | 21  | 18  | 16  | 14  | 12  |
|                   |  |                  | 3         | 28                        | 26  | 23  | 21  | 19  | 17  | 15  | 13  | 11  | 10  | 8   | 7   |
|                   | C  | 0 to 6 Degrees   | 1         | 38                        | 38  | 34  | 31  | 28  | 25  | 21  | 18  | 16  | 13  | 12  | 10  |
|                   |  |                  | 2         | 30                        | 27  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |
|                   |  |                  | 3         | 21                        | 19  | 17  | 15  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|                   |  | 7 to 27 Degrees  | 1         | 31                        | 31  | 28  | 25  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |
|                   |  |                  | 2         | 22                        | 20  | 18  | 16  | 15  | 13  | 11  | 10  | 8   | 7   | 6   | 6   |
|                   |  |                  | 3         | 18                        | 16  | 15  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 5   |
|                   |  | 28 to 45 Degrees | 1         | 36                        | 33  | 30  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 11  | 10  |
|                   |  |                  | 2         | 33                        | 29  | 26  | 24  | 22  | 20  | 17  | 15  | 13  | 11  | 10  | 9   |
|                   |  |                  | 3         | 20                        | 18  | 16  | 15  | 13  | 12  | 10  | 9   | 8   | 7   | 6   | 5   |
|                   | D  | 0 to 6 Degrees   | 1         | 35                        | 32  | 28  | 25  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |
|                   |  |                  | 2         | 25                        | 23  | 20  | 18  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |
|                   |  |                  | 3         | 18                        | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 6   | 6   | 5   | 4   |
|                   |  | 7 to 27 Degrees  | 1         | 29                        | 26  | 23  | 21  | 19  | 17  | 15  | 12  | 11  | 9   | 8   | 7   |
|                   |  |                  | 2         | 19                        | 17  | 15  | 14  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 5   |
|                   |  |                  | 3         | 15                        | 14  | 12  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 4   |
| 28 to 45 Degrees  |  | 1                | 31        | 27                        | 25  | 23  | 21  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |     |
|                   |  | 2                | 27        | 25                        | 22  | 20  | 18  | 17  | 14  | 12  | 11  | 9   | 8   | 7   |     |
|                   |  | 3                | 17        | 15                        | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 6   | 5   | 4   |     |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Gable Roof RT4   | RT-[E] Mount Mini Plywood Only Installations<br>(72 Cell PV Panels)<br>Maximum Mount Spacing in Inches |                  |           |    |     |     |     |     |     |     |     |     |     |     |     |
|------------------|--|------------------|-----------|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                  | Portrait Orientation - ASCE 7-16   |                  |           |    |     |     |     |     |     |     |     |     |     |     |     |
| Snow Load        | Exposure Category  | Roof Angle       | Roof Area | 95 | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |
| 51-60 PSF        | B  | 0 to 6 Degrees   | 1         | 32 | 32  | 32  | 32  | 32  | 32  | 31  | 26  | 22  | 19  | 17  | 15  |
|                  |  |                  | 2         | 32 | 32  | 32  | 32  | 29  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |
|                  |  |                  | 3         | 31 | 27  | 25  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |
|                  |  | 7 to 27 Degrees  | 1         | 26 | 26  | 26  | 26  | 26  | 25  | 22  | 19  | 16  | 14  | 12  | 11  |
|                  |  |                  | 2         | 26 | 26  | 26  | 23  | 21  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |
|                  |  |                  | 3         | 26 | 23  | 21  | 19  | 17  | 16  | 13  | 11  | 10  | 9   | 7   | 7   |
|                  |  | 28 to 45 Degrees | 1         | 33 | 33  | 33  | 33  | 33  | 32  | 27  | 23  | 20  | 17  | 15  | 14  |
|                  |  |                  | 2         | 33 | 33  | 33  | 33  | 31  | 29  | 24  | 21  | 18  | 16  | 14  | 12  |
|                  |  |                  | 3         | 28 | 26  | 23  | 21  | 19  | 17  | 15  | 13  | 11  | 10  | 8   | 7   |
|                  | C  | 0 to 6 Degrees   | 1         | 32 | 32  | 32  | 31  | 28  | 25  | 21  | 18  | 16  | 13  | 12  | 10  |
|                  |  |                  | 2         | 30 | 27  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |
|                  |  |                  | 3         | 21 | 19  | 17  | 15  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|                  |  | 7 to 27 Degrees  | 1         | 26 | 26  | 26  | 25  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |
|                  |  |                  | 2         | 22 | 20  | 18  | 16  | 15  | 13  | 11  | 10  | 8   | 7   | 6   | 6   |
|                  |  |                  | 3         | 18 | 16  | 15  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 5   |
|                  |  | 28 to 45 Degrees | 1         | 33 | 33  | 30  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 11  | 10  |
|                  |  |                  | 2         | 33 | 29  | 26  | 24  | 22  | 20  | 17  | 15  | 13  | 11  | 10  | 9   |
|                  |  |                  | 3         | 20 | 18  | 16  | 15  | 13  | 12  | 10  | 9   | 8   | 7   | 6   | 5   |
|                  | D  | 0 to 6 Degrees   | 1         | 32 | 32  | 28  | 25  | 28  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |
|                  |  |                  | 2         | 25 | 23  | 20  | 18  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |
|                  |  |                  | 3         | 18 | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 6   | 6   | 5   | 4   |
|                  |  | 7 to 27 Degrees  | 1         | 26 | 26  | 23  | 21  | 19  | 17  | 15  | 12  | 11  | 9   | 8   | 7   |
|                  |  |                  | 2         | 19 | 17  | 15  | 14  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 5   |
|                  |  |                  | 3         | 15 | 14  | 12  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 4   |
| 28 to 45 Degrees |  | 1                | 31        | 27 | 25  | 23  | 21  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |     |
|                  |  | 2                | 27        | 25 | 22  | 20  | 18  | 17  | 14  | 12  | 11  | 9   | 8   | 7   |     |
|                  |  | 3                | 17        | 15 | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 6   | 5   | 4   |     |
| 61-70 PSF        | B  | 0 to 6 Degrees   | 1         | 28 | 28  | 28  | 28  | 28  | 28  | 28  | 26  | 22  | 19  | 17  | 15  |
|                  |  |                  | 2         | 28 | 28  | 28  | 28  | 28  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |
|                  |  |                  | 3         | 28 | 27  | 25  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |
|                  |  | 7 to 27 Degrees  | 1         | 23 | 23  | 23  | 23  | 23  | 23  | 23  | 22  | 19  | 16  | 14  | 13  |
|                  |  |                  | 2         | 23 | 23  | 23  | 23  | 21  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |
|                  |  |                  | 3         | 23 | 23  | 21  | 19  | 17  | 16  | 13  | 11  | 10  | 9   | 7   | 7   |
|                  |  | 28 to 45 Degrees | 1         | 29 | 29  | 29  | 29  | 29  | 29  | 27  | 23  | 20  | 17  | 15  | 14  |
|                  |  |                  | 2         | 29 | 29  | 29  | 29  | 29  | 29  | 24  | 21  | 18  | 16  | 14  | 12  |
|                  |  |                  | 3         | 28 | 26  | 23  | 21  | 19  | 17  | 15  | 13  | 11  | 10  | 8   | 7   |
|                  | C  | 0 to 6 Degrees   | 1         | 28 | 28  | 28  | 28  | 28  | 25  | 21  | 18  | 16  | 13  | 12  | 10  |
|                  |  |                  | 2         | 28 | 27  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |
|                  |  |                  | 3         | 21 | 19  | 17  | 15  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|                  |  | 7 to 27 Degrees  | 1         | 23 | 23  | 23  | 23  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |
|                  |  |                  | 2         | 22 | 20  | 18  | 16  | 15  | 13  | 11  | 10  | 8   | 7   | 6   | 6   |
|                  |  |                  | 3         | 18 | 16  | 15  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 5   |
|                  |  | 28 to 45 Degrees | 1         | 29 | 29  | 29  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 11  | 10  |
|                  |  |                  | 2         | 29 | 29  | 26  | 24  | 22  | 20  | 17  | 15  | 13  | 11  | 10  | 9   |
|                  |  |                  | 3         | 20 | 18  | 16  | 15  | 13  | 12  | 10  | 9   | 8   | 7   | 6   | 5   |
|                  | D  | 0 to 6 Degrees   | 1         | 28 | 28  | 28  | 25  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |
|                  |  |                  | 2         | 25 | 23  | 20  | 18  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |
|                  |  |                  | 3         | 18 | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 6   | 6   | 5   | 4   |
|                  |  | 7 to 27 Degrees  | 1         | 23 | 23  | 23  | 21  | 19  | 17  | 15  | 12  | 11  | 9   | 8   | 7   |
|                  |  |                  | 2         | 19 | 17  | 15  | 14  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 5   |
|                  |  |                  | 3         | 15 | 14  | 12  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 4   |
| 28 to 45 Degrees |  | 1                | 29        | 27 | 25  | 23  | 21  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |     |
|                  |  | 2                | 27        | 25 | 22  | 20  | 18  | 17  | 14  | 12  | 11  | 9   | 8   | 7   |     |
|                  |  | 3                | 17        | 15 | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 6   | 5   | 4   |     |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Gable Roof RT5   | RT-[E] Mount Mini OSB Only Installations<br>(60 Cell PV Panels)<br>Maximum Mount Spacing in Inches |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |
|------------------|--|------------------|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                  | Portrait Orientation - ASCE 7-16   |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |
| Snow Load        | Exposure Category  | Roof Angle       | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |
|                  |  |                  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |
| 0 PSF            | B  | 0 to 6 Degrees   | 1         | 62                        | 55  | 49  | 44  | 39  | 36  | 30  | 25  | 22  | 19  | 16  | 15  |
|                  |  |                  | 2         | 43                        | 38  | 34  | 31  | 28  | 25  | 21  | 18  | 16  | 14  | 12  | 10  |
|                  |  |                  | 3         | 30                        | 26  | 24  | 21  | 19  | 18  | 15  | 13  | 11  | 9   | 8   | 7   |
|                  |  | 7 to 27 Degrees  | 1         | 49                        | 43  | 39  | 35  | 32  | 29  | 24  | 21  | 18  | 16  | 14  | 12  |
|                  |  |                  | 2         | 31                        | 28  | 25  | 22  | 20  | 19  | 16  | 13  | 12  | 10  | 9   | 8   |
|                  |  |                  | 3         | 25                        | 22  | 20  | 18  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |
|                  |  | 28 to 45 Degrees | 1         | 49                        | 44  | 40  | 36  | 33  | 30  | 26  | 22  | 19  | 17  | 15  | 13  |
|                  |  |                  | 2         | 44                        | 40  | 36  | 33  | 30  | 27  | 23  | 20  | 17  | 15  | 13  | 12  |
|                  |  |                  | 3         | 27                        | 24  | 22  | 20  | 18  | 17  | 14  | 12  | 11  | 9   | 8   | 7   |
|                  | C  | 0 to 6 Degrees   | 1         | 41                        | 37  | 33  | 30  | 27  | 24  | 20  | 17  | 15  | 13  | 11  | 10  |
|                  |  |                  | 2         | 29                        | 26  | 23  | 21  | 19  | 18  | 15  | 13  | 11  | 9   | 8   | 7   |
|                  |  |                  | 3         | 20                        | 18  | 16  | 15  | 13  | 12  | 10  | 9   | 8   | 7   | 6   | 5   |
|                  |  | 7 to 27 Degrees  | 1         | 33                        | 30  | 27  | 24  | 22  | 20  | 17  | 14  | 12  | 11  | 9   | 8   |
|                  |  |                  | 2         | 21                        | 19  | 17  | 16  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|                  |  |                  | 3         | 17                        | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 4   |
|                  |  | 28 to 45 Degrees | 1         | 35                        | 31  | 28  | 26  | 23  | 21  | 18  | 16  | 13  | 12  | 10  | 9   |
|                  |  |                  | 2         | 31                        | 28  | 25  | 23  | 21  | 19  | 16  | 14  | 12  | 11  | 9   | 8   |
|                  |  |                  | 3         | 19                        | 17  | 16  | 14  | 13  | 12  | 10  | 9   | 7   | 6   | 5   | 4   |
|                  | D  | 0 to 6 Degrees   | 1         | 34                        | 30  | 27  | 25  | 22  | 20  | 17  | 14  | 12  | 11  | 9   | 8   |
|                  |  |                  | 2         | 24                        | 22  | 20  | 18  | 16  | 15  | 12  | 10  | 9   | 8   | 7   | 6   |
|                  |  |                  | 3         | 17                        | 15  | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 5   | 4   | 4   |
|                  |  | 7 to 27 Degrees  | 1         | 28                        | 25  | 22  | 20  | 18  | 17  | 14  | 12  | 10  | 9   | 8   | 7   |
|                  |  |                  | 2         | 18                        | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 4   |
|                  |  |                  | 3         | 15                        | 13  | 12  | 11  | 10  | 9   | 7   | 6   | 5   | 4   | 4   | 4   |
| 28 to 45 Degrees |  | 1                | 29        | 26                        | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |     |
|                  |  | 2                | 26        | 24                        | 21  | 19  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |     |
|                  |  | 3                | 16        | 14                        | 13  | 12  | 11  | 10  | 8   | 7   | 6   | 5   | 4   | 4   |     |
| 1-10 PSF         | B  | 0 to 6 Degrees   | 1         | 54                        | 54  | 49  | 44  | 39  | 36  | 30  | 25  | 22  | 19  | 16  | 15  |
|                  |  |                  | 2         | 43                        | 38  | 34  | 31  | 28  | 25  | 21  | 18  | 16  | 14  | 12  | 10  |
|                  |  |                  | 3         | 30                        | 26  | 24  | 21  | 19  | 18  | 15  | 13  | 11  | 9   | 8   | 7   |
|                  |  | 7 to 27 Degrees  | 1         | 49                        | 43  | 39  | 35  | 32  | 29  | 24  | 21  | 18  | 16  | 14  | 12  |
|                  |  |                  | 2         | 31                        | 28  | 25  | 22  | 20  | 19  | 16  | 13  | 12  | 10  | 9   | 8   |
|                  |  |                  | 3         | 25                        | 22  | 20  | 18  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |
|                  |  | 28 to 45 Degrees | 1         | 49                        | 44  | 40  | 36  | 33  | 30  | 26  | 22  | 19  | 17  | 15  | 13  |
|                  |  |                  | 2         | 44                        | 40  | 36  | 33  | 30  | 27  | 23  | 20  | 17  | 15  | 13  | 12  |
|                  |  |                  | 3         | 27                        | 24  | 22  | 20  | 18  | 17  | 14  | 12  | 11  | 9   | 8   | 7   |
|                  | C  | 0 to 6 Degrees   | 1         | 41                        | 37  | 33  | 30  | 27  | 24  | 20  | 17  | 15  | 13  | 11  | 10  |
|                  |  |                  | 2         | 29                        | 26  | 23  | 21  | 19  | 18  | 15  | 13  | 11  | 9   | 8   | 7   |
|                  |  |                  | 3         | 20                        | 18  | 16  | 15  | 13  | 12  | 10  | 9   | 8   | 7   | 6   | 5   |
|                  |  | 7 to 27 Degrees  | 1         | 33                        | 30  | 27  | 24  | 22  | 20  | 17  | 14  | 12  | 11  | 9   | 8   |
|                  |  |                  | 2         | 21                        | 19  | 17  | 16  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|                  |  |                  | 3         | 17                        | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 4   |
|                  |  | 28 to 45 Degrees | 1         | 35                        | 31  | 28  | 26  | 23  | 21  | 18  | 16  | 13  | 12  | 10  | 9   |
|                  |  |                  | 2         | 31                        | 28  | 25  | 23  | 21  | 19  | 16  | 14  | 12  | 11  | 9   | 8   |
|                  |  |                  | 3         | 19                        | 17  | 16  | 14  | 13  | 12  | 10  | 9   | 7   | 6   | 5   | 4   |
|                  | D  | 0 to 6 Degrees   | 1         | 34                        | 30  | 27  | 25  | 22  | 20  | 17  | 14  | 12  | 11  | 9   | 8   |
|                  |  |                  | 2         | 24                        | 22  | 20  | 18  | 16  | 15  | 12  | 10  | 9   | 8   | 7   | 6   |
|                  |  |                  | 3         | 17                        | 15  | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 5   | 4   | 4   |
|                  |  | 7 to 27 Degrees  | 1         | 28                        | 25  | 22  | 20  | 18  | 17  | 14  | 12  | 10  | 9   | 8   | 7   |
|                  |  |                  | 2         | 18                        | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 4   |
|                  |  |                  | 3         | 15                        | 13  | 12  | 11  | 10  | 9   | 7   | 6   | 5   | 4   | 4   | 4   |
| 28 to 45 Degrees |  | 1                | 29        | 26                        | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |     |
|                  |  | 2                | 26        | 24                        | 21  | 19  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |     |
|                  |  | 3                | 16        | 14                        | 13  | 12  | 11  | 10  | 8   | 7   | 6   | 5   | 4   | 4   |     |
| 11-20 PSF        | B  | 0 to 6 Degrees   | 1         | 38                        | 38  | 38  | 38  | 38  | 36  | 30  | 25  | 22  | 19  | 16  | 15  |
|                  |  |                  | 2         | 38                        | 38  | 34  | 31  | 28  | 25  | 21  | 18  | 16  | 14  | 12  | 10  |
|                  |  |                  | 3         | 30                        | 26  | 24  | 21  | 19  | 18  | 15  | 13  | 11  | 9   | 8   | 7   |
|                  |  | 7 to 27 Degrees  | 1         | 34                        | 34  | 34  | 34  | 32  | 29  | 24  | 21  | 18  | 16  | 14  | 12  |
|                  |  |                  | 2         | 31                        | 28  | 25  | 22  | 20  | 19  | 16  | 13  | 12  | 10  | 9   | 8   |
|                  |  |                  | 3         | 25                        | 22  | 20  | 18  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |
|                  |  | 28 to 45 Degrees | 1         | 41                        | 41  | 40  | 36  | 33  | 30  | 26  | 22  | 19  | 17  | 15  | 13  |
|                  |  |                  | 2         | 41                        | 40  | 36  | 33  | 30  | 27  | 23  | 20  | 17  | 15  | 13  | 12  |
|                  |  |                  | 3         | 27                        | 24  | 22  | 20  | 18  | 17  | 14  | 12  | 11  | 9   | 8   | 7   |
|                  | C  | 0 to 6 Degrees   | 1         | 38                        | 37  | 33  | 30  | 27  | 24  | 20  | 17  | 15  | 13  | 11  | 10  |
|                  |  |                  | 2         | 29                        | 26  | 23  | 21  | 19  | 18  | 15  | 13  | 11  | 9   | 8   | 7   |
|                  |  |                  | 3         | 20                        | 18  | 16  | 15  | 13  | 12  | 10  | 9   | 8   | 7   | 6   | 5   |
|                  |  | 7 to 27 Degrees  | 1         | 33                        | 30  | 27  | 24  | 22  | 20  | 17  | 14  | 12  | 11  | 9   | 8   |
|                  |  |                  | 2         | 21                        | 19  | 17  | 16  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|                  |  |                  | 3         | 17                        | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 4   |
|                  |  | 28 to 45 Degrees | 1         | 35                        | 31  | 28  | 26  | 23  | 21  | 18  | 16  | 13  | 12  | 10  | 9   |
|                  |  |                  | 2         | 31                        | 28  | 25  | 23  | 21  | 19  | 16  | 14  | 12  | 11  | 9   | 8   |
|                  |  |                  | 3         | 19                        | 17  | 16  | 14  | 13  | 12  | 10  | 9   | 7   | 6   | 5   | 4   |
|                  | D  | 0 to 6 Degrees   | 1         | 34                        | 30  | 27  | 25  | 22  | 20  | 17  | 14  | 12  | 11  | 9   | 8   |
|                  |  |                  | 2         | 24                        | 22  | 20  | 18  | 16  | 15  | 12  | 10  | 9   | 8   | 7   | 6   |
|                  |  |                  | 3         | 17                        | 15  | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 5   | 4   | 4   |
|                  |  | 7 to 27 Degrees  | 1         | 28                        | 25  | 22  | 20  | 18  | 17  | 14  | 12  | 10  | 9   | 8   | 7   |
|                  |  |                  | 2         | 18                        | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 4   |
|                  |  |                  | 3         | 15                        | 13  | 12  | 11  | 10  | 9   | 7   | 6   | 5   | 4   | 4   | 4   |
| 28 to 45 Degrees |  | 1                | 29        | 26                        | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |     |
|                  |  | 2                | 26        | 24                        | 21  | 19  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |     |
|                  |  | 3                | 16        | 14                        | 13  | 12  | 11  | 10  | 8   | 7   | 6   | 5   | 4   | 4   |     |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.



| Gable Roof RT5 | RT-[E] Mount Mini OSB Only Installations<br>(60 Cell PV Panels)<br>Maximum Mount Spacing in Inches |                  |                  |    |     |     |     |     |     |     |     |     |     |     |     |    |    |
|----------------|--|------------------|------------------|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|
|                | Portrait Orientation - ASCE 7-16   |                  |                  |    |     |     |     |     |     |     |     |     |     |     |     |    |    |
| Snow Load      | Exposure Category  | Roof Angle       | Roof Area        | 95 | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |    |    |
| 21-30 PSF      | B  | 0 to 6 Degrees   | 1                | 33 | 33  | 33  | 33  | 33  | 33  | 30  | 25  | 22  | 19  | 16  | 15  |    |    |
|                |  |                  | 2                | 33 | 33  | 33  | 31  | 28  | 25  | 21  | 18  | 16  | 14  | 12  | 10  |    |    |
|                |  |                  | 3                | 30 | 26  | 24  | 21  | 19  | 18  | 15  | 13  | 11  | 9   | 8   | 7   |    |    |
|                |  | 7 to 27 Degrees  | 1                | 29 | 29  | 29  | 29  | 29  | 24  | 21  | 18  | 16  | 14  | 12  | 10  |    |    |
|                |  |                  | 2                | 29 | 28  | 25  | 22  | 20  | 19  | 16  | 13  | 12  | 10  | 9   | 8   |    |    |
|                |  |                  | 3                | 25 | 22  | 20  | 18  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |    |    |
|                |  | 28 to 45 Degrees | 1                | 36 | 36  | 36  | 36  | 33  | 30  | 26  | 22  | 19  | 17  | 15  | 13  |    |    |
|                |  |                  | 2                | 36 | 36  | 36  | 33  | 30  | 27  | 23  | 20  | 17  | 15  | 13  | 12  |    |    |
|                |  |                  | 3                | 27 | 24  | 22  | 20  | 18  | 17  | 14  | 12  | 11  | 9   | 8   | 7   |    |    |
|                | C  | 0 to 6 Degrees   | 1                | 33 | 33  | 33  | 30  | 27  | 24  | 20  | 17  | 15  | 13  | 11  | 10  |    |    |
|                |  |                  | 2                | 29 | 26  | 23  | 21  | 19  | 18  | 15  | 13  | 11  | 9   | 8   | 7   |    |    |
|                |  |                  | 3                | 20 | 18  | 16  | 15  | 13  | 12  | 10  | 9   | 8   | 7   | 6   | 5   |    |    |
|                |  | 7 to 27 Degrees  | 1                | 29 | 29  | 27  | 24  | 22  | 20  | 17  | 14  | 12  | 11  | 9   | 8   |    |    |
|                |  |                  | 2                | 21 | 19  | 17  | 16  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |    |    |
|                |  |                  | 3                | 17 | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 4   |    |    |
|                |  | 28 to 45 Degrees | 1                | 35 | 31  | 28  | 26  | 23  | 21  | 18  | 16  | 13  | 12  | 10  | 9   |    |    |
|                |  |                  | 2                | 31 | 28  | 25  | 23  | 21  | 19  | 16  | 14  | 12  | 11  | 9   | 8   |    |    |
|                |  |                  | 3                | 19 | 17  | 16  | 14  | 13  | 12  | 10  | 9   | 7   | 6   | 6   | 5   |    |    |
|                | D  | 0 to 6 Degrees   | 1                | 33 | 30  | 27  | 25  | 22  | 20  | 17  | 14  | 12  | 11  | 9   | 8   |    |    |
|                |  |                  | 2                | 24 | 22  | 20  | 18  | 16  | 15  | 12  | 10  | 9   | 8   | 7   | 6   |    |    |
|                |  |                  | 3                | 17 | 15  | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 5   | 5   | 4   |    |    |
|                |  | 7 to 27 Degrees  | 1                | 28 | 25  | 22  | 20  | 18  | 17  | 14  | 12  | 10  | 9   | 8   | 7   |    |    |
|                |  |                  | 2                | 18 | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 4   |    |    |
|                |  |                  | 3                | 15 | 13  | 12  | 11  | 10  | 9   | 7   | 6   | 5   | 4   | 4   | 4   |    |    |
|                |  | 28 to 45 Degrees | 1                | 29 | 26  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |    |    |
|                |  |                  | 2                | 26 | 24  | 21  | 19  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |    |    |
|                |  |                  | 3                | 16 | 14  | 13  | 12  | 11  | 10  | 8   | 7   | 6   | 5   | 5   | 4   |    |    |
|                | 31-40 PSF  | B                | 0 to 6 Degrees   | 1  | 26  | 26  | 26  | 26  | 26  | 25  | 21  | 18  | 16  | 14  | 12  | 10 |    |
|                |  |                  |                  | 2  | 26  | 26  | 24  | 21  | 19  | 18  | 15  | 13  | 11  | 9   | 8   | 7  |    |
|                |  |                  |                  | 3  | 23  | 23  | 23  | 23  | 23  | 23  | 23  | 21  | 18  | 16  | 14  | 12 |    |
|                |  |                  | 7 to 27 Degrees  | 1  | 23  | 23  | 23  | 22  | 20  | 19  | 16  | 13  | 12  | 10  | 9   | 8  |    |
|                |  |                  |                  | 2  | 23  | 23  | 23  | 22  | 20  | 19  | 16  | 13  | 12  | 10  | 9   | 8  |    |
|                |  |                  |                  | 3  | 23  | 22  | 20  | 18  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6  |    |
|                |  |                  | 28 to 45 Degrees | 1  | 30  | 30  | 30  | 30  | 30  | 30  | 26  | 22  | 19  | 17  | 15  | 13 |    |
|                |  |                  |                  | 2  | 30  | 30  | 30  | 30  | 30  | 27  | 23  | 20  | 17  | 15  | 13  | 12 |    |
|                |  |                  |                  | 3  | 27  | 24  | 22  | 20  | 18  | 17  | 14  | 12  | 11  | 9   | 8   | 7  |    |
| C              |  | 0 to 6 Degrees   | 1                | 26 | 26  | 26  | 26  | 26  | 24  | 20  | 17  | 15  | 13  | 11  | 10  |    |    |
|                |  |                  | 2                | 26 | 26  | 23  | 21  | 19  | 18  | 15  | 13  | 11  | 9   | 8   | 7   |    |    |
|                |  |                  | 3                | 20 | 18  | 16  | 15  | 13  | 12  | 10  | 9   | 8   | 7   | 6   | 5   |    |    |
|                |  | 7 to 27 Degrees  | 1                | 23 | 23  | 23  | 23  | 22  | 20  | 17  | 14  | 12  | 11  | 9   | 8   |    |    |
|                |  |                  | 2                | 21 | 19  | 17  | 16  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |    |    |
|                |  |                  | 3                | 17 | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 4   |    |    |
|                |  | 28 to 45 Degrees | 1                | 30 | 30  | 28  | 26  | 23  | 21  | 18  | 16  | 13  | 12  | 10  | 9   |    |    |
|                |  |                  | 2                | 30 | 28  | 25  | 23  | 21  | 19  | 16  | 14  | 12  | 11  | 9   | 8   |    |    |
|                |  |                  | 3                | 19 | 17  | 16  | 14  | 13  | 12  | 10  | 9   | 7   | 6   | 6   | 5   |    |    |
| D              |  | 0 to 6 Degrees   | 1                | 26 | 26  | 26  | 25  | 22  | 20  | 17  | 14  | 12  | 11  | 9   | 8   |    |    |
|                |  |                  | 2                | 24 | 22  | 20  | 18  | 16  | 15  | 12  | 10  | 9   | 8   | 7   | 6   |    |    |
|                |  |                  | 3                | 17 | 15  | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 5   | 5   | 4   |    |    |
|                |  | 7 to 27 Degrees  | 1                | 23 | 23  | 22  | 20  | 18  | 17  | 14  | 12  | 10  | 9   | 8   | 7   |    |    |
|                |  |                  | 2                | 18 | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 4   |    |    |
|                |  |                  | 3                | 15 | 13  | 12  | 11  | 10  | 9   | 7   | 6   | 5   | 5   | 4   | 4   |    |    |
|                |  | 28 to 45 Degrees | 1                | 29 | 26  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |    |    |
|                |  |                  | 2                | 26 | 24  | 21  | 19  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |    |    |
|                |  |                  | 3                | 16 | 14  | 13  | 12  | 11  | 10  | 8   | 7   | 6   | 5   | 5   | 4   |    |    |
| 41-50 PSF      |  | B                | 0 to 6 Degrees   | 1  | 21  | 21  | 21  | 21  | 21  | 21  | 21  | 21  | 21  | 19  | 16  | 15 |    |
|                |  |                  |                  | 2  | 21  | 21  | 21  | 21  | 21  | 21  | 21  | 18  | 16  | 14  | 12  | 10 |    |
|                |  |                  |                  | 3  | 21  | 21  | 21  | 21  | 19  | 18  | 15  | 13  | 11  | 9   | 8   | 7  |    |
|                |  |                  | 7 to 27 Degrees  | 1  | 18  | 18  | 18  | 18  | 18  | 18  | 18  | 18  | 18  | 16  | 14  | 12 |    |
|                |  |                  |                  | 2  | 18  | 18  | 18  | 18  | 18  | 18  | 16  | 13  | 12  | 10  | 9   | 8  |    |
|                |  |                  |                  | 3  | 18  | 18  | 18  | 18  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6  |    |
|                |  |                  | 28 to 45 Degrees | 1  | 25  | 25  | 25  | 25  | 25  | 25  | 25  | 25  | 22  | 19  | 17  | 15 | 13 |
|                |  |                  |                  | 2  | 25  | 25  | 25  | 25  | 25  | 25  | 23  | 20  | 17  | 15  | 13  | 12 |    |
|                |  |                  |                  | 3  | 25  | 24  | 22  | 20  | 18  | 17  | 14  | 12  | 11  | 9   | 8   | 7  |    |
|                | C  | 0 to 6 Degrees   | 1                | 21 | 21  | 21  | 21  | 21  | 21  | 20  | 17  | 15  | 13  | 11  | 10  |    |    |
|                |  |                  | 2                | 21 | 21  | 21  | 21  | 19  | 18  | 15  | 13  | 11  | 9   | 8   | 7   |    |    |
|                |  |                  | 3                | 20 | 18  | 16  | 15  | 13  | 12  | 10  | 9   | 8   | 7   | 6   | 5   |    |    |
|                |  | 7 to 27 Degrees  | 1                | 18 | 18  | 18  | 18  | 18  | 18  | 17  | 14  | 12  | 11  | 9   | 8   |    |    |
|                |  |                  | 2                | 18 | 18  | 17  | 16  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |    |    |
|                |  |                  | 3                | 17 | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 4   |    |    |
|                |  | 28 to 45 Degrees | 1                | 25 | 25  | 25  | 25  | 23  | 21  | 18  | 16  | 13  | 12  | 10  | 9   |    |    |
|                |  |                  | 2                | 25 | 25  | 25  | 23  | 21  | 19  | 16  | 14  | 12  | 11  | 9   | 8   |    |    |
|                |  |                  | 3                | 19 | 17  | 16  | 14  | 13  | 12  | 10  | 9   | 7   | 6   | 6   | 5   |    |    |
|                | D  | 0 to 6 Degrees   | 1                | 21 | 21  | 21  | 21  | 21  | 20  | 17  | 14  | 12  | 11  | 9   | 8   |    |    |
|                |  |                  | 2                | 21 | 21  | 20  | 18  | 16  | 15  | 12  | 10  | 9   | 8   | 7   | 6   |    |    |
|                |  |                  | 3                | 17 | 15  | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 5   | 5   | 4   |    |    |
|                |  | 7 to 27 Degrees  | 1                | 18 | 18  | 18  | 18  | 18  | 17  | 14  | 12  | 10  | 9   | 8   | 7   |    |    |
|                |  |                  | 2                | 18 | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 4   |    |    |
|                |  |                  | 3                | 15 | 13  | 12  | 11  | 10  | 9   | 7   | 6   | 5   | 5   | 4   | 4   |    |    |
|                |  | 28 to 45 Degrees | 1                | 25 | 25  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |    |    |
|                |  |                  | 2                | 25 | 24  | 21  | 19  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |    |    |
|                |  |                  | 3                | 16 | 14  | 13  | 12  | 11  | 10  | 8   | 7   | 6   | 5   | 5   | 4   |    |    |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Gable Roof RT5   | RT-[E] Mount Mini OSB Only Installations<br>(60 Cell PV Panels)<br>Maximum Mount Spacing in Inches |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |   |
|------------------|--|------------------|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|---|
|                  | Portrait Orientation - ASCE 7-16   |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |   |
| Snow Load        | Exposure Category  | Roof Angle       | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |   |
|                  |  |                  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |    |    |    |    |   |
| 51-60 PSF        | B  | 0 to 6 Degrees   | 1         | 18                        | 18  | 18  | 18  | 18  | 18  | 18  | 18  | 18  | 18  | 18  | 16  | 14 | 12 | 10 |    |   |
|                  |  |                  | 2         | 18                        | 18  | 18  | 18  | 18  | 18  | 18  | 18  | 18  | 18  | 18  | 18  | 16 | 14 | 12 | 10 |   |
|                  |  |                  | 3         | 18                        | 18  | 18  | 18  | 18  | 18  | 18  | 18  | 15  | 13  | 11  | 9   | 8  | 7  | 6  | 5  |   |
|                  |  | 7 to 27 Degrees  | 1         | 15                        | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 14 | 12 | 10 | 8  |   |
|                  |  |                  | 2         | 15                        | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 13  | 12  | 10  | 9  | 8  | 7  | 6  |   |
|                  |  |                  | 3         | 15                        | 15  | 15  | 15  | 15  | 15  | 15  | 13  | 11  | 9   | 8   | 7   | 6  | 5  | 4  | 3  |   |
|                  |  | 28 to 45 Degrees | 1         | 21                        | 21  | 21  | 21  | 21  | 21  | 21  | 21  | 21  | 21  | 21  | 19  | 17 | 15 | 13 | 11 |   |
|                  |  |                  | 2         | 21                        | 21  | 21  | 21  | 21  | 21  | 21  | 21  | 21  | 21  | 20  | 17  | 15 | 13 | 12 | 10 |   |
|                  |  |                  | 3         | 21                        | 21  | 21  | 21  | 20  | 18  | 17  | 14  | 12  | 11  | 9   | 8   | 7  | 6  | 5  | 4  |   |
|                  | C  | 0 to 6 Degrees   | 1         | 18                        | 18  | 18  | 18  | 18  | 18  | 18  | 18  | 18  | 17  | 15  | 13  | 11 | 10 | 9  | 8  |   |
|                  |  |                  | 2         | 18                        | 18  | 18  | 18  | 18  | 18  | 18  | 18  | 15  | 13  | 11  | 9   | 8  | 7  | 6  | 5  |   |
|                  |  |                  | 3         | 18                        | 18  | 16  | 15  | 13  | 12  | 10  | 9   | 8   | 7   | 6   | 5   | 4  | 3  | 2  | 1  |   |
|                  |  | 7 to 27 Degrees  | 1         | 15                        | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 14  | 12  | 11  | 9  | 8  | 7  | 6  |   |
|                  |  |                  | 2         | 15                        | 15  | 15  | 15  | 15  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5  | 4  | 3  | 2  |   |
|                  |  |                  | 3         | 15                        | 15  | 14  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 4   | 3  | 2  | 1  | 0  |   |
|                  |  | 28 to 45 Degrees | 1         | 21                        | 21  | 21  | 21  | 21  | 21  | 21  | 18  | 16  | 13  | 12  | 10  | 9  | 8  | 7  | 6  |   |
|                  |  |                  | 2         | 21                        | 21  | 21  | 21  | 21  | 21  | 19  | 16  | 14  | 12  | 11  | 9   | 8  | 7  | 6  | 5  |   |
|                  |  |                  | 3         | 19                        | 17  | 16  | 14  | 13  | 12  | 10  | 9   | 7   | 6   | 5   | 4   | 3  | 2  | 1  | 0  |   |
|                  | D  | 0 to 6 Degrees   | 1         | 18                        | 18  | 18  | 18  | 18  | 18  | 18  | 18  | 17  | 14  | 12  | 11  | 9  | 8  | 7  | 6  |   |
|                  |  |                  | 2         | 18                        | 18  | 18  | 18  | 16  | 15  | 12  | 10  | 9   | 8   | 7   | 6   | 5  | 4  | 3  | 2  |   |
|                  |  |                  | 3         | 17                        | 15  | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 5   | 4   | 3   | 2  | 1  | 0  | -1 |   |
|                  |  | 7 to 27 Degrees  | 1         | 15                        | 15  | 15  | 15  | 15  | 15  | 15  | 14  | 12  | 10  | 9   | 8   | 7  | 6  | 5  | 4  |   |
|                  |  |                  | 2         | 15                        | 15  | 14  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 4   | 3  | 2  | 1  | 0  |   |
|                  |  |                  | 3         | 15                        | 13  | 12  | 11  | 10  | 9   | 7   | 6   | 5   | 4   | 3   | 2   | 1  | 0  | -1 | -2 |   |
| 28 to 45 Degrees |  | 1                | 21        | 21                        | 21  | 21  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   | 7   | 6  | 5  | 4  |    |   |
|                  |  | 2                | 21        | 21                        | 21  | 19  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   | 6   | 5  | 4  | 3  |    |   |
|                  |  | 3                | 16        | 14                        | 13  | 12  | 11  | 10  | 8   | 7   | 6   | 5   | 4   | 3   | 2   | 1  | 0  | -1 |    |   |
| 61-70 PSF        | B  | 0 to 6 Degrees   | 1         | 15                        | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 14 | 12 | 10 | 8  |   |
|                  |  |                  | 2         | 15                        | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 14 | 12 | 10 | 8  |   |
|                  |  |                  | 3         | 15                        | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 13  | 11  | 9   | 8   | 7  | 6  | 5  | 4  |   |
|                  |  | 7 to 27 Degrees  | 1         | 13                        | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13 | 13 | 12 | 10 | 8 |
|                  |  |                  | 2         | 13                        | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 12  | 10 | 9  | 8  | 7  |   |
|                  |  |                  | 3         | 13                        | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 11  | 9   | 8  | 7  | 6  | 5  |   |
|                  |  | 28 to 45 Degrees | 1         | 19                        | 19  | 19  | 19  | 19  | 19  | 19  | 19  | 19  | 19  | 19  | 19  | 17 | 15 | 13 | 11 | 9 |
|                  |  |                  | 2         | 19                        | 19  | 19  | 19  | 19  | 19  | 19  | 19  | 19  | 19  | 17  | 15  | 13 | 12 | 10 | 9  |   |
|                  |  |                  | 3         | 19                        | 19  | 19  | 19  | 19  | 18  | 17  | 14  | 12  | 11  | 9   | 8   | 7  | 6  | 5  | 4  |   |
|                  | C  | 0 to 6 Degrees   | 1         | 15                        | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 13  | 11 | 10 | 9  | 8  |   |
|                  |  |                  | 2         | 15                        | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 13  | 11  | 9   | 8   | 7  | 6  | 5  | 4  |   |
|                  |  |                  | 3         | 15                        | 15  | 15  | 15  | 13  | 12  | 10  | 9   | 8   | 7   | 6   | 5   | 4  | 3  | 2  | 1  |   |
|                  |  | 7 to 27 Degrees  | 1         | 13                        | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 12  | 11  | 9  | 8  | 7  | 6  |   |
|                  |  |                  | 2         | 13                        | 13  | 13  | 13  | 13  | 13  | 13  | 11  | 9   | 8   | 7   | 6   | 5  | 4  | 3  | 2  |   |
|                  |  |                  | 3         | 13                        | 13  | 13  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 4   | 3  | 2  | 1  | 0  |   |
|                  |  | 28 to 45 Degrees | 1         | 19                        | 19  | 19  | 19  | 19  | 19  | 19  | 18  | 16  | 13  | 12  | 10  | 9  | 8  | 7  | 6  |   |
|                  |  |                  | 2         | 19                        | 19  | 19  | 19  | 19  | 19  | 19  | 16  | 14  | 12  | 11  | 9   | 8  | 7  | 6  | 5  |   |
|                  |  |                  | 3         | 19                        | 17  | 16  | 14  | 13  | 12  | 10  | 9   | 7   | 6   | 5   | 4   | 3  | 2  | 1  | 0  |   |
|                  | D  | 0 to 6 Degrees   | 1         | 15                        | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 14  | 12  | 11  | 9   | 8  | 7  | 6  | 5  |   |
|                  |  |                  | 2         | 15                        | 15  | 15  | 15  | 15  | 15  | 15  | 12  | 10  | 9   | 8   | 7   | 6  | 5  | 4  | 3  |   |
|                  |  |                  | 3         | 15                        | 15  | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 5   | 4   | 3   | 2  | 1  | 0  | -1 |   |
|                  |  | 7 to 27 Degrees  | 1         | 13                        | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 12  | 10  | 9   | 8   | 7  | 6  | 5  | 4  |   |
|                  |  |                  | 2         | 13                        | 13  | 13  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 4   | 3  | 2  | 1  | 0  |   |
|                  |  |                  | 3         | 13                        | 13  | 12  | 11  | 10  | 9   | 7   | 6   | 5   | 4   | 3   | 2   | 1  | 0  | -1 | -2 |   |
| 28 to 45 Degrees |  | 1                | 19        | 19                        | 19  | 19  | 19  | 19  | 18  | 15  | 13  | 11  | 10  | 9   | 8   | 7  | 6  | 5  |    |   |
|                  |  | 2                | 19        | 19                        | 19  | 19  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   | 6   | 5  | 4  | 3  |    |   |
|                  |  | 3                | 16        | 14                        | 13  | 12  | 11  | 10  | 8   | 7   | 6   | 5   | 4   | 3   | 2   | 1  | 0  | -1 |    |   |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Gable Roof RT6   | RT-[E] Mount Mini OSB Only Installations<br>(72 Cell PV Panels)<br>Maximum Mount Spacing in Inches |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |
|------------------|--|------------------|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                  | Portrait Orientation - ASCE 7-16   |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |
| Snow Load        | Exposure Category  | Roof Angle       | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |
|                  |  |                  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |
| 0 PSF            | B  | 0 to 6 Degrees   | 1         | 54                        | 48  | 43  | 38  | 34  | 31  | 26  | 22  | 19  | 16  | 14  | 13  |
|                  |  |                  | 2         | 38                        | 34  | 30  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 10  | 9   |
|                  |  |                  | 3         | 26                        | 23  | 21  | 19  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |
|                  |  | 7 to 27 Degrees  | 1         | 43                        | 38  | 34  | 31  | 28  | 25  | 21  | 18  | 16  | 14  | 12  | 11  |
|                  |  |                  | 2         | 27                        | 24  | 22  | 20  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |
|                  |  |                  | 3         | 22                        | 20  | 18  | 16  | 15  | 13  | 11  | 10  | 8   | 7   | 6   | 6   |
|                  |  | 28 to 45 Degrees | 1         | 43                        | 39  | 35  | 32  | 29  | 27  | 23  | 19  | 17  | 15  | 13  | 11  |
|                  |  |                  | 2         | 39                        | 35  | 31  | 29  | 26  | 24  | 20  | 17  | 15  | 13  | 12  | 10  |
|                  |  |                  | 3         | 24                        | 21  | 19  | 18  | 16  | 15  | 12  | 11  | 9   | 8   | 7   | 6   |
|                  | C  | 0 to 6 Degrees   | 1         | 36                        | 32  | 29  | 26  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |
|                  |  |                  | 2         | 26                        | 23  | 21  | 19  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |
|                  |  |                  | 3         | 18                        | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 4   |
|                  |  | 7 to 27 Degrees  | 1         | 29                        | 26  | 23  | 21  | 19  | 18  | 15  | 13  | 11  | 9   | 8   | 7   |
|                  |  |                  | 2         | 19                        | 17  | 15  | 14  | 12  | 11  | 10  | 8   | 7   | 6   | 5   | 5   |
|                  |  |                  | 3         | 15                        | 14  | 12  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 4   |
|                  |  | 28 to 45 Degrees | 1         | 30                        | 27  | 25  | 22  | 20  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |
|                  |  |                  | 2         | 27                        | 25  | 22  | 20  | 18  | 17  | 14  | 12  | 11  | 9   | 8   | 7   |
|                  |  |                  | 3         | 17                        | 15  | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 5   | 4   | 4   |
|                  | D  | 0 to 6 Degrees   | 1         | 30                        | 27  | 24  | 22  | 19  | 18  | 15  | 13  | 11  | 9   | 8   | 7   |
|                  |  |                  | 2         | 21                        | 19  | 17  | 15  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|                  |  |                  | 3         | 15                        | 13  | 12  | 11  | 10  | 9   | 7   | 6   | 5   | 4   | 4   | 4   |
|                  |  | 7 to 27 Degrees  | 1         | 24                        | 22  | 20  | 18  | 16  | 15  | 12  | 10  | 9   | 8   | 7   | 6   |
|                  |  |                  | 2         | 16                        | 14  | 13  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 4   |
|                  |  |                  | 3         | 13                        | 11  | 10  | 9   | 8   | 8   | 6   | 5   | 4   | 4   | 4   | 3   |
| 28 to 45 Degrees |  | 1                | 26        | 23                        | 21  | 19  | 17  | 16  | 13  | 11  | 10  | 9   | 8   | 7   |     |
|                  |  | 2                | 23        | 21                        | 19  | 17  | 15  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |     |
|                  |  | 3                | 14        | 13                        | 11  | 10  | 9   | 9   | 7   | 6   | 5   | 4   | 4   | 4   |     |
| 1-10 PSF         | B  | 0 to 6 Degrees   | 1         | 48                        | 48  | 43  | 38  | 34  | 31  | 26  | 22  | 19  | 16  | 14  | 13  |
|                  |  |                  | 2         | 38                        | 34  | 30  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 10  | 9   |
|                  |  |                  | 3         | 26                        | 23  | 21  | 19  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |
|                  |  | 7 to 27 Degrees  | 1         | 43                        | 38  | 34  | 31  | 28  | 25  | 21  | 18  | 16  | 14  | 12  | 11  |
|                  |  |                  | 2         | 27                        | 24  | 22  | 20  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |
|                  |  |                  | 3         | 22                        | 20  | 18  | 16  | 15  | 13  | 11  | 10  | 8   | 7   | 6   | 6   |
|                  |  | 28 to 45 Degrees | 1         | 43                        | 39  | 35  | 32  | 29  | 27  | 23  | 19  | 17  | 15  | 13  | 11  |
|                  |  |                  | 2         | 39                        | 35  | 31  | 29  | 26  | 24  | 20  | 17  | 15  | 13  | 12  | 10  |
|                  |  |                  | 3         | 24                        | 21  | 19  | 18  | 16  | 15  | 12  | 11  | 9   | 8   | 7   | 6   |
|                  | C  | 0 to 6 Degrees   | 1         | 36                        | 32  | 29  | 26  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |
|                  |  |                  | 2         | 26                        | 23  | 21  | 19  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |
|                  |  |                  | 3         | 18                        | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 4   |
|                  |  | 7 to 27 Degrees  | 1         | 29                        | 26  | 23  | 21  | 19  | 18  | 15  | 13  | 11  | 9   | 8   | 7   |
|                  |  |                  | 2         | 19                        | 17  | 15  | 14  | 12  | 11  | 10  | 8   | 7   | 6   | 5   | 5   |
|                  |  |                  | 3         | 15                        | 14  | 12  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 4   |
|                  |  | 28 to 45 Degrees | 1         | 30                        | 27  | 25  | 22  | 20  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |
|                  |  |                  | 2         | 27                        | 25  | 22  | 20  | 18  | 17  | 14  | 12  | 11  | 9   | 8   | 7   |
|                  |  |                  | 3         | 17                        | 15  | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 5   | 4   | 4   |
|                  | D  | 0 to 6 Degrees   | 1         | 30                        | 27  | 24  | 22  | 19  | 18  | 15  | 13  | 11  | 9   | 8   | 7   |
|                  |  |                  | 2         | 21                        | 19  | 17  | 15  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|                  |  |                  | 3         | 15                        | 13  | 12  | 11  | 10  | 9   | 7   | 6   | 5   | 4   | 4   | 4   |
|                  |  | 7 to 27 Degrees  | 1         | 24                        | 22  | 20  | 18  | 16  | 15  | 12  | 10  | 9   | 8   | 7   | 6   |
|                  |  |                  | 2         | 16                        | 14  | 13  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 4   |
|                  |  |                  | 3         | 13                        | 11  | 10  | 9   | 8   | 8   | 6   | 5   | 4   | 4   | 4   | 3   |
| 28 to 45 Degrees |  | 1                | 26        | 23                        | 21  | 19  | 17  | 16  | 13  | 11  | 10  | 9   | 8   | 7   |     |
|                  |  | 2                | 23        | 21                        | 19  | 17  | 15  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |     |
|                  |  | 3                | 14        | 13                        | 11  | 10  | 9   | 9   | 7   | 6   | 5   | 4   | 4   | 4   |     |
| 11-20 PSF        | B  | 0 to 6 Degrees   | 1         | 33                        | 33  | 33  | 33  | 33  | 31  | 26  | 22  | 19  | 16  | 14  | 13  |
|                  |  |                  | 2         | 33                        | 33  | 30  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 10  | 9   |
|                  |  |                  | 3         | 26                        | 23  | 21  | 19  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |
|                  |  | 7 to 27 Degrees  | 1         | 30                        | 30  | 30  | 30  | 28  | 25  | 21  | 18  | 16  | 14  | 12  | 11  |
|                  |  |                  | 2         | 27                        | 24  | 22  | 20  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |
|                  |  |                  | 3         | 22                        | 20  | 18  | 16  | 15  | 13  | 11  | 10  | 8   | 7   | 6   | 6   |
|                  |  | 28 to 45 Degrees | 1         | 36                        | 36  | 35  | 32  | 29  | 27  | 23  | 19  | 17  | 15  | 13  | 11  |
|                  |  |                  | 2         | 36                        | 35  | 31  | 29  | 26  | 24  | 20  | 17  | 15  | 13  | 12  | 10  |
|                  |  |                  | 3         | 24                        | 21  | 19  | 18  | 16  | 15  | 12  | 11  | 9   | 8   | 7   | 6   |
|                  | C  | 0 to 6 Degrees   | 1         | 33                        | 32  | 29  | 26  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |
|                  |  |                  | 2         | 26                        | 23  | 21  | 19  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |
|                  |  |                  | 3         | 18                        | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 4   |
|                  |  | 7 to 27 Degrees  | 1         | 29                        | 26  | 23  | 21  | 19  | 18  | 15  | 13  | 11  | 9   | 8   | 7   |
|                  |  |                  | 2         | 19                        | 17  | 15  | 14  | 12  | 11  | 10  | 8   | 7   | 6   | 5   | 5   |
|                  |  |                  | 3         | 15                        | 14  | 12  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 4   |
|                  |  | 28 to 45 Degrees | 1         | 30                        | 27  | 25  | 22  | 20  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |
|                  |  |                  | 2         | 27                        | 25  | 22  | 20  | 18  | 17  | 14  | 12  | 11  | 9   | 8   | 7   |
|                  |  |                  | 3         | 17                        | 15  | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 5   | 4   | 4   |
|                  | D  | 0 to 6 Degrees   | 1         | 30                        | 27  | 24  | 22  | 19  | 18  | 15  | 13  | 11  | 9   | 8   | 7   |
|                  |  |                  | 2         | 21                        | 19  | 17  | 15  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|                  |  |                  | 3         | 15                        | 13  | 12  | 11  | 10  | 9   | 7   | 6   | 5   | 4   | 4   | 4   |
|                  |  | 7 to 27 Degrees  | 1         | 24                        | 22  | 20  | 18  | 16  | 15  | 12  | 10  | 9   | 8   | 7   | 6   |
|                  |  |                  | 2         | 16                        | 14  | 13  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 4   |
|                  |  |                  | 3         | 13                        | 11  | 10  | 9   | 8   | 8   | 6   | 5   | 4   | 4   | 4   | 3   |
| 28 to 45 Degrees |  | 1                | 26        | 23                        | 21  | 19  | 17  | 16  | 13  | 11  | 10  | 9   | 8   | 7   |     |
|                  |  | 2                | 23        | 21                        | 19  | 17  | 15  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |     |
|                  |  | 3                | 14        | 13                        | 11  | 10  | 9   | 9   | 7   | 6   | 5   | 4   | 4   | 4   |     |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Snow Load                               | Exposure Category | Roof Angle       | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |    |
|---|-------------------|------------------|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
|   |                   |                  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |    |
| <b>Portrait Orientation - ASCE 7-16</b> |                   |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |
| 21-30 PSF                               | B                 | 0 to 6 Degrees   | 1         | 29                        | 29  | 29  | 29  | 29  | 29  | 26  | 22  | 19  | 16  | 14  | 13  |    |
|   |                   |                  | 2         | 29                        | 29  | 29  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 10  | 9   |    |
|   |                   |                  | 3         | 26                        | 23  | 21  | 19  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |    |
|   |                   | 7 to 27 Degrees  | 1         | 25                        | 25  | 25  | 25  | 25  | 21  | 18  | 16  | 14  | 12  | 11  | 11  |    |
|   |                   |                  | 2         | 25                        | 24  | 22  | 20  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |    |
|   |                   |                  | 3         | 22                        | 20  | 18  | 16  | 15  | 13  | 11  | 10  | 8   | 7   | 6   | 6   |    |
|   |                   | 28 to 45 Degrees | 1         | 32                        | 32  | 32  | 32  | 29  | 27  | 23  | 19  | 17  | 15  | 13  | 11  |    |
|   |                   |                  | 2         | 32                        | 32  | 31  | 29  | 26  | 24  | 20  | 17  | 15  | 13  | 12  | 10  |    |
|   |                   |                  | 3         | 24                        | 21  | 19  | 18  | 16  | 15  | 12  | 11  | 9   | 8   | 7   | 6   |    |
|   | C                 | 0 to 6 Degrees   | 1         | 29                        | 29  | 29  | 26  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |    |
|   |                   |                  | 2         | 26                        | 23  | 21  | 19  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |    |
|   |                   |                  | 3         | 18                        | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 4   |    |
|   |                   | 7 to 27 Degrees  | 1         | 25                        | 25  | 23  | 21  | 19  | 18  | 15  | 13  | 11  | 9   | 8   | 7   |    |
|   |                   |                  | 2         | 19                        | 17  | 15  | 14  | 12  | 11  | 10  | 8   | 7   | 6   | 5   | 5   |    |
|   |                   |                  | 3         | 15                        | 14  | 12  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 4   |    |
|   |                   | 28 to 45 Degrees | 1         | 30                        | 27  | 25  | 22  | 20  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |    |
|   |                   |                  | 2         | 27                        | 25  | 22  | 20  | 18  | 17  | 14  | 12  | 11  | 9   | 8   | 7   |    |
|   |                   |                  | 3         | 17                        | 15  | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 5   | 4   | 4   |    |
|   | D                 | 0 to 6 Degrees   | 1         | 29                        | 27  | 24  | 22  | 19  | 18  | 15  | 13  | 11  | 9   | 8   | 7   |    |
|   |                   |                  | 2         | 21                        | 19  | 17  | 15  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |    |
|   |                   |                  | 3         | 15                        | 13  | 12  | 11  | 10  | 9   | 7   | 6   | 5   | 4   | 4   | 4   |    |
|   |                   | 7 to 27 Degrees  | 1         | 24                        | 22  | 20  | 18  | 16  | 15  | 12  | 10  | 9   | 8   | 7   | 6   |    |
|   |                   |                  | 2         | 16                        | 14  | 13  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 4   |    |
|   |                   |                  | 3         | 13                        | 11  | 10  | 9   | 8   | 8   | 6   | 5   | 4   | 4   | 4   | 3   |    |
| 28 to 45 Degrees                        |                   | 1                | 26        | 23                        | 21  | 19  | 17  | 16  | 13  | 11  | 10  | 9   | 8   | 7   |     |    |
|   |                   | 2                | 23        | 21                        | 19  | 17  | 15  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |     |    |
|   |                   | 3                | 14        | 13                        | 11  | 10  | 9   | 9   | 7   | 6   | 5   | 4   | 4   | 4   |     |    |
| 31-40 PSF                               | B                 | 0 to 6 Degrees   | 1         | 23                        | 23  | 23  | 23  | 23  | 23  | 23  | 23  | 22  | 19  | 16  | 14  | 13 |
|   |                   |                  | 2         | 23                        | 23  | 23  | 23  | 23  | 22  | 19  | 16  | 14  | 12  | 10  | 9   |    |
|   |                   |                  | 3         | 23                        | 23  | 21  | 19  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |    |
|   |                   | 7 to 27 Degrees  | 1         | 20                        | 20  | 20  | 20  | 20  | 20  | 20  | 18  | 16  | 14  | 12  | 11  |    |
|   |                   |                  | 2         | 20                        | 20  | 20  | 20  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |    |
|   |                   |                  | 3         | 20                        | 20  | 18  | 16  | 15  | 13  | 11  | 10  | 8   | 7   | 6   | 6   |    |
|   |                   | 28 to 45 Degrees | 1         | 27                        | 27  | 27  | 27  | 27  | 51  | 23  | 19  | 17  | 15  | 13  | 11  |    |
|   |                   |                  | 2         | 27                        | 27  | 27  | 26  | 24  | 20  | 17  | 15  | 13  | 12  | 10  | 10  |    |
|   |                   |                  | 3         | 24                        | 21  | 19  | 18  | 16  | 15  | 12  | 11  | 9   | 8   | 7   | 6   |    |
|   | C                 | 0 to 6 Degrees   | 1         | 23                        | 23  | 23  | 23  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |    |
|   |                   |                  | 2         | 23                        | 23  | 21  | 19  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |    |
|   |                   |                  | 3         | 18                        | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 4   |    |
|   |                   | 7 to 27 Degrees  | 1         | 20                        | 20  | 20  | 20  | 19  | 18  | 15  | 13  | 11  | 9   | 8   | 7   |    |
|   |                   |                  | 2         | 19                        | 17  | 15  | 14  | 12  | 11  | 10  | 8   | 7   | 6   | 5   | 5   |    |
|   |                   |                  | 3         | 15                        | 14  | 12  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 4   |    |
|   |                   | 28 to 45 Degrees | 1         | 27                        | 26  | 25  | 22  | 20  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |    |
|   |                   |                  | 2         | 27                        | 25  | 22  | 20  | 18  | 17  | 14  | 12  | 11  | 9   | 8   | 7   |    |
|   |                   |                  | 3         | 17                        | 15  | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 5   | 4   | 4   |    |
|   | D                 | 0 to 6 Degrees   | 1         | 23                        | 23  | 23  | 22  | 19  | 18  | 15  | 13  | 11  | 9   | 8   | 7   |    |
|   |                   |                  | 2         | 21                        | 19  | 17  | 15  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |    |
|   |                   |                  | 3         | 15                        | 13  | 12  | 11  | 10  | 9   | 7   | 6   | 5   | 4   | 4   | 4   |    |
|   |                   | 7 to 27 Degrees  | 1         | 20                        | 20  | 20  | 18  | 16  | 15  | 12  | 10  | 9   | 8   | 7   | 6   |    |
|   |                   |                  | 2         | 16                        | 14  | 13  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 4   |    |
|   |                   |                  | 3         | 13                        | 11  | 10  | 9   | 8   | 8   | 6   | 5   | 4   | 4   | 4   | 3   |    |
| 28 to 45 Degrees                        |                   | 1                | 26        | 23                        | 21  | 19  | 17  | 16  | 13  | 11  | 10  | 9   | 8   | 7   |     |    |
|   |                   | 2                | 23        | 21                        | 19  | 17  | 15  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |     |    |
|   |                   | 3                | 14        | 13                        | 11  | 10  | 9   | 9   | 7   | 6   | 5   | 4   | 4   | 4   |     |    |
| 41-50 PSF                               | B                 | 0 to 6 Degrees   | 1         | 18                        | 18  | 18  | 18  | 18  | 18  | 18  | 18  | 18  | 16  | 14  | 13  |    |
|   |                   |                  | 2         | 18                        | 18  | 18  | 18  | 18  | 18  | 18  | 16  | 14  | 12  | 10  | 9   |    |
|   |                   |                  | 3         | 18                        | 18  | 18  | 18  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |    |
|   |                   | 7 to 27 Degrees  | 1         | 16                        | 16  | 16  | 16  | 16  | 16  | 16  | 16  | 16  | 14  | 12  | 11  |    |
|   |                   |                  | 2         | 16                        | 16  | 16  | 16  | 16  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |    |
|   |                   |                  | 3         | 16                        | 16  | 16  | 16  | 15  | 13  | 11  | 10  | 8   | 7   | 6   | 6   |    |
|   |                   | 28 to 45 Degrees | 1         | 22                        | 22  | 22  | 22  | 22  | 22  | 22  | 19  | 17  | 15  | 13  | 11  |    |
|   |                   |                  | 2         | 22                        | 22  | 22  | 22  | 22  | 22  | 20  | 17  | 15  | 13  | 12  | 10  |    |
|   |                   |                  | 3         | 22                        | 21  | 19  | 18  | 16  | 15  | 12  | 11  | 9   | 8   | 7   | 6   |    |
|   | C                 | 0 to 6 Degrees   | 1         | 18                        | 18  | 18  | 18  | 18  | 18  | 18  | 15  | 13  | 11  | 10  | 9   |    |
|   |                   |                  | 2         | 18                        | 18  | 18  | 18  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |    |
|   |                   |                  | 3         | 18                        | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 4   |    |
|   |                   | 7 to 27 Degrees  | 1         | 16                        | 16  | 16  | 16  | 16  | 16  | 15  | 13  | 11  | 9   | 8   | 7   |    |
|   |                   |                  | 2         | 16                        | 16  | 15  | 14  | 12  | 11  | 10  | 8   | 7   | 6   | 5   | 5   |    |
|   |                   |                  | 3         | 15                        | 14  | 12  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 4   |    |
|   |                   | 28 to 45 Degrees | 1         | 22                        | 22  | 22  | 22  | 20  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |    |
|   |                   |                  | 2         | 22                        | 22  | 22  | 20  | 18  | 17  | 14  | 12  | 11  | 9   | 8   | 7   |    |
|   |                   |                  | 3         | 17                        | 15  | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 5   | 4   | 4   |    |
|   | D                 | 0 to 6 Degrees   | 1         | 18                        | 18  | 18  | 18  | 18  | 18  | 18  | 15  | 13  | 11  | 9   | 8   | 7  |
|   |                   |                  | 2         | 18                        | 18  | 17  | 15  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |    |
|   |                   |                  | 3         | 15                        | 13  | 12  | 11  | 10  | 9   | 7   | 6   | 5   | 4   | 4   | 4   |    |
|   |                   | 7 to 27 Degrees  | 1         | 16                        | 16  | 16  | 16  | 16  | 15  | 12  | 10  | 9   | 8   | 7   | 6   |    |
|   |                   |                  | 2         | 16                        | 14  | 13  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 4   |    |
|   |                   |                  | 3         | 13                        | 11  | 10  | 9   | 8   | 8   | 6   | 5   | 4   | 4   | 4   | 3   |    |
| 28 to 45 Degrees                        |                   | 1                | 22        | 22                        | 21  | 19  | 17  | 16  | 13  | 11  | 10  | 9   | 8   | 7   |     |    |
|   |                   | 2                | 22        | 21                        | 19  | 17  | 15  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |     |    |
|   |                   | 3                | 14        | 13                        | 11  | 10  | 9   | 9   | 7   | 6   | 5   | 4   | 4   | 4   |     |    |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Gable Roof<br>RT6 | RT-[E] Mount Mini OSB Only Installations<br>(72 Cell PV Panels)<br>Maximum Mount Spacing in Inches |                  |           |    |     |     |     |     |     |     |     |     |     |     |     |    |    |
|-------------------|--|------------------|-----------|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|
|                   | Portrait Orientation - ASCE 7-16   |                  |           |    |     |     |     |     |     |     |     |     |     |     |     |    |    |
| Snow Load         | Exposure Category  | Roof Angle       | Roof Area | 95 | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |    |    |
| 51-60 PSF         | B  | 0 to 6 Degrees   | 1         | 15 | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 14  | 13 |    |
|                   |  |                  | 2         | 15 | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 14  | 12  | 10 | 9  |
|                   |  |                  | 3         | 15 | 15  | 15  | 15  | 15  | 15  | 15  | 13  | 11  | 9   | 8   | 7   | 6  | 6  |
|                   |  | 7 to 27 Degrees  | 1         | 13 | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 12 | 11 |
|                   |  |                  | 2         | 13 | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 12  | 10  | 9   | 8  | 7  |
|                   |  |                  | 3         | 13 | 13  | 13  | 13  | 13  | 13  | 13  | 11  | 10  | 8   | 7   | 6   | 6  | 6  |
|                   |  | 28 to 45 Degrees | 1         | 19 | 19  | 19  | 19  | 19  | 19  | 19  | 19  | 19  | 19  | 17  | 15  | 13 | 11 |
|                   |  |                  | 2         | 19 | 19  | 19  | 19  | 19  | 19  | 19  | 19  | 19  | 17  | 15  | 13  | 12 | 10 |
|                   |  |                  | 3         | 19 | 19  | 19  | 19  | 18  | 16  | 15  | 12  | 11  | 9   | 8   | 7   | 6  | 6  |
|                   | C  | 0 to 6 Degrees   | 1         | 15 | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 13  | 11  | 10  | 9  | 9  |
|                   |  |                  | 2         | 15 | 15  | 15  | 15  | 15  | 15  | 15  | 13  | 11  | 9   | 8   | 7   | 6  | 6  |
|                   |  |                  | 3         | 15 | 15  | 14  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 4   | 4  | 4  |
|                   |  | 7 to 27 Degrees  | 1         | 13 | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 11  | 9   | 8  | 7  |
|                   |  |                  | 2         | 13 | 13  | 13  | 13  | 13  | 12  | 11  | 10  | 8   | 7   | 6   | 5   | 5  | 5  |
|                   |  |                  | 3         | 13 | 13  | 12  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 4   | 4  | 4  |
|                   |  | 28 to 45 Degrees | 1         | 19 | 19  | 19  | 19  | 19  | 19  | 19  | 16  | 14  | 12  | 10  | 9   | 8  | 8  |
|                   |  |                  | 2         | 19 | 19  | 19  | 19  | 18  | 17  | 14  | 12  | 11  | 9   | 8   | 7   | 6  | 7  |
|                   |  |                  | 3         | 17 | 15  | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 6   | 5   | 4   | 4  | 4  |
|                   | D  | 0 to 6 Degrees   | 1         | 15 | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 13  | 11  | 9   | 8   | 7  | 7  |
|                   |  |                  | 2         | 15 | 15  | 15  | 15  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   | 4  | 5  |
|                   |  |                  | 3         | 15 | 13  | 12  | 11  | 10  | 9   | 7   | 6   | 5   | 5   | 4   | 4   | 4  | 4  |
|                   |  | 7 to 27 Degrees  | 1         | 13 | 13  | 13  | 13  | 13  | 13  | 13  | 12  | 10  | 9   | 8   | 7   | 6  | 6  |
|                   |  |                  | 2         | 13 | 13  | 13  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 4   | 4  | 4  |
|                   |  |                  | 3         | 13 | 11  | 10  | 9   | 8   | 8   | 6   | 5   | 5   | 4   | 4   | 4   | 3  | 3  |
| 28 to 45 Degrees  |  | 1                | 19        | 19 | 19  | 19  | 17  | 16  | 13  | 11  | 10  | 9   | 8   | 7   | 6   | 7  |    |
|                   |  | 2                | 19        | 19 | 19  | 17  | 15  | 14  | 12  | 10  | 9   | 8   | 7   | 6   | 5   | 6  |    |
|                   |  | 3                | 14        | 13 | 11  | 10  | 9   | 9   | 7   | 6   | 5   | 5   | 4   | 4   | 4   | 4  |    |
| 61-70 PSF         | B  | 0 to 6 Degrees   | 1         | 13 | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13 | 13 |
|                   |  |                  | 2         | 13 | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 12  | 10 | 9  |
|                   |  |                  | 3         | 13 | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 11  | 9   | 8   | 7   | 6  | 6  |
|                   |  | 7 to 27 Degrees  | 1         | 12 | 12  | 12  | 12  | 12  | 12  | 12  | 12  | 12  | 12  | 12  | 12  | 12 | 11 |
|                   |  |                  | 2         | 12 | 12  | 12  | 12  | 12  | 12  | 12  | 12  | 12  | 12  | 10  | 9   | 8  | 7  |
|                   |  |                  | 3         | 12 | 12  | 12  | 12  | 12  | 12  | 12  | 11  | 10  | 8   | 7   | 6   | 6  | 6  |
|                   |  | 28 to 45 Degrees | 1         | 16 | 16  | 16  | 16  | 16  | 16  | 16  | 16  | 16  | 16  | 16  | 15  | 13 | 11 |
|                   |  |                  | 2         | 16 | 16  | 16  | 16  | 16  | 16  | 16  | 16  | 16  | 15  | 13  | 12  | 10 | 10 |
|                   |  |                  | 3         | 16 | 16  | 16  | 16  | 16  | 16  | 15  | 12  | 11  | 9   | 8   | 7   | 6  | 6  |
|                   | C  | 0 to 6 Degrees   | 1         | 13 | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 11  | 10  | 9  | 9  |
|                   |  |                  | 2         | 13 | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 11  | 9   | 8   | 7   | 6  | 6  |
|                   |  |                  | 3         | 13 | 13  | 13  | 13  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 4  | 4  |
|                   |  | 7 to 27 Degrees  | 1         | 12 | 12  | 12  | 12  | 12  | 12  | 12  | 12  | 12  | 12  | 11  | 9   | 8  | 7  |
|                   |  |                  | 2         | 12 | 12  | 12  | 12  | 12  | 12  | 11  | 10  | 8   | 7   | 6   | 5   | 5  | 5  |
|                   |  |                  | 3         | 12 | 12  | 12  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 4   | 4  | 4  |
|                   |  | 28 to 45 Degrees | 1         | 16 | 16  | 16  | 16  | 16  | 16  | 16  | 16  | 14  | 12  | 10  | 9   | 8  | 8  |
|                   |  |                  | 2         | 16 | 16  | 16  | 16  | 16  | 16  | 14  | 12  | 11  | 9   | 8   | 7   | 6  | 7  |
|                   |  |                  | 3         | 16 | 15  | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 6   | 5   | 4   | 4  | 4  |
|                   | D  | 0 to 6 Degrees   | 1         | 13 | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 11  | 9   | 8   | 7  | 7  |
|                   |  |                  | 2         | 13 | 13  | 13  | 13  | 13  | 13  | 13  | 11  | 9   | 8   | 7   | 6   | 5  | 5  |
|                   |  |                  | 3         | 13 | 13  | 12  | 11  | 10  | 9   | 7   | 6   | 5   | 5   | 4   | 4   | 4  | 4  |
|                   |  | 7 to 27 Degrees  | 1         | 12 | 12  | 12  | 12  | 12  | 12  | 12  | 12  | 12  | 10  | 9   | 8   | 7  | 6  |
|                   |  |                  | 2         | 12 | 12  | 12  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 4   | 4  | 4  |
|                   |  |                  | 3         | 12 | 11  | 10  | 9   | 8   | 8   | 6   | 5   | 5   | 4   | 4   | 4   | 3  | 3  |
| 28 to 45 Degrees  |  | 1                | 16        | 16 | 16  | 16  | 16  | 16  | 16  | 13  | 11  | 10  | 9   | 8   | 7   | 7  |    |
|                   |  | 2                | 16        | 16 | 16  | 16  | 16  | 15  | 14  | 12  | 10  | 9   | 8   | 7   | 6   | 6  |    |
|                   |  | 3                | 14        | 13 | 11  | 10  | 9   | 9   | 7   | 6   | 5   | 5   | 4   | 4   | 4   | 4  |    |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.



| Gable Roof RT7 | RT-[E] Mount Mini Rafter Installations Cont.<br>Maximum Mount Spacing in Inches |                  |                  |                           |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |
|----------------|---|------------------|------------------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|
|                | Landscape Orientation - ASCE 7-16   |                  |                  |                           |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |
| Snow Load      | Exposure Category   | Roof Angle       | Roof Area        | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |
|                |   |                  |                  | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |    |    |    |    |
| 0 PSF          | B   | 0 to 6 Degrees   | 1                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 95  | 84 | 74 |    |    |
|                |   |                  | 2                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |    |
|                |   |                  | 3                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |    |
|                |   | 7 to 27 Degrees  | 1                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |    |
|                |   |                  | 2                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |    |
|                |   |                  | 3                | 96                        | 96  | 96  | 96  | 91  | 83  | 76  | 65  | 56  | 48  | 42  | 37  | 33 | 33 | 33 |    |
|                |   | 28 to 45 Degrees | 1                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 95  | 83 | 74 | 66 |    |
|                |   |                  | 2                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |    |
|                |   |                  | 3                | 96                        | 96  | 96  | 96  | 96  | 91  | 83  | 71  | 61  | 53  | 47  | 42  | 37 | 37 | 37 |    |
|                | C   | 0 to 6 Degrees   | 1                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |    |
|                |   |                  | 2                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |    |
|                |   |                  | 3                | 96                        | 92  | 83  | 75  | 68  | 63  | 53  | 45  | 39  | 34  | 30  | 27  | 24 | 24 | 24 |    |
|                |   | 7 to 27 Degrees  | 1                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |    |
|                |   |                  | 2                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |    |
|                |   |                  | 3                | 87                        | 79  | 71  | 65  | 59  | 54  | 46  | 39  | 34  | 30  | 27  | 24  | 24 | 24 | 24 |    |
|                |   | 28 to 45 Degrees | 1                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |    |
|                |   |                  | 2                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |    |
|                |   |                  | 3                | 95                        | 86  | 78  | 71  | 65  | 60  | 51  | 44  | 38  | 33  | 30  | 26  | 26 | 26 | 26 |    |
|                | D   | 0 to 6 Degrees   | 1                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |    |
|                |   |                  | 2                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |    |
|                |   |                  | 3                | 86                        | 77  | 69  | 63  | 57  | 53  | 44  | 38  | 33  | 29  | 25  | 22  | 20 | 20 | 20 |    |
|                |   | 7 to 27 Degrees  | 1                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |    |
|                |   |                  | 2                | 90                        | 81  | 73  | 66  | 60  | 55  | 47  | 40  | 35  | 31  | 27  | 24  | 24 | 24 | 24 |    |
|                |   |                  | 3                | 73                        | 66  | 60  | 54  | 50  | 46  | 39  | 33  | 29  | 25  | 22  | 20  | 20 | 20 | 20 |    |
|                |   | 28 to 45 Degrees | 1                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |    |
|                |   |                  | 2                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |    |
|                |   |                  | 3                | 80                        | 72  | 66  | 60  | 55  | 50  | 43  | 37  | 32  | 28  | 25  | 22  | 20 | 20 | 20 |    |
|                | 1-10 PSF  | B                | 0 to 6 Degrees   | 1                         | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 95 | 84 | 74 |    |
|                |   |                  |                  | 2                         | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 | 96 |
|                |   |                  |                  | 3                         | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 | 96 |
|                |   |                  | 7 to 27 Degrees  | 1                         | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 | 96 |
|                |   |                  |                  | 2                         | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 | 96 |
|                |   |                  |                  | 3                         | 96  | 96  | 96  | 96  | 91  | 83  | 76  | 65  | 56  | 48  | 42  | 37 | 33 | 33 | 33 |
|                |   |                  | 28 to 45 Degrees | 1                         | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 | 96 |
|                |   |                  |                  | 2                         | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 | 96 |
|                |   |                  |                  | 3                         | 96  | 96  | 96  | 96  | 91  | 83  | 71  | 61  | 53  | 47  | 42  | 37 | 37 | 37 | 37 |
| C              |   | 0 to 6 Degrees   | 1                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |    |
|                |   |                  | 2                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |    |
|                |   |                  | 3                | 96                        | 92  | 83  | 75  | 68  | 63  | 53  | 45  | 39  | 34  | 30  | 27  | 24 | 24 | 24 |    |
|                |   | 7 to 27 Degrees  | 1                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |    |
|                |   |                  | 2                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |    |
|                |   |                  | 3                | 87                        | 79  | 71  | 65  | 59  | 54  | 46  | 39  | 34  | 30  | 27  | 24  | 24 | 24 | 24 |    |
|                |   | 28 to 45 Degrees | 1                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |    |
|                |   |                  | 2                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |    |
|                |   |                  | 3                | 95                        | 86  | 78  | 71  | 65  | 60  | 51  | 44  | 38  | 33  | 30  | 26  | 26 | 26 | 26 |    |
| D              |   | 0 to 6 Degrees   | 1                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |    |
|                |   |                  | 2                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |    |
|                |   |                  | 3                | 86                        | 77  | 69  | 63  | 57  | 53  | 44  | 38  | 33  | 29  | 25  | 22  | 20 | 20 | 20 |    |
|                |   | 7 to 27 Degrees  | 1                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |    |
|                |   |                  | 2                | 90                        | 81  | 73  | 66  | 60  | 55  | 47  | 40  | 35  | 31  | 27  | 24  | 24 | 24 | 24 |    |
|                |   |                  | 3                | 73                        | 66  | 60  | 54  | 50  | 46  | 39  | 33  | 29  | 25  | 22  | 20  | 20 | 20 | 20 |    |
|                |   | 28 to 45 Degrees | 1                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |    |
|                |   |                  | 2                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |    |
|                |   |                  | 3                | 80                        | 72  | 66  | 60  | 55  | 50  | 43  | 37  | 32  | 28  | 25  | 22  | 20 | 20 | 20 |    |
| 11-20 PSF      |   | B                | 0 to 6 Degrees   | 1                         | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 95 | 84 | 74 |    |
|                |   |                  |                  | 2                         | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 | 96 |
|                |   |                  |                  | 3                         | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 | 96 |
|                |   |                  | 7 to 27 Degrees  | 1                         | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 | 96 |
|                |   |                  |                  | 2                         | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 | 96 |
|                |   |                  |                  | 3                         | 96  | 96  | 96  | 96  | 91  | 83  | 76  | 65  | 56  | 48  | 42  | 37 | 33 | 33 | 33 |
|                |   |                  | 28 to 45 Degrees | 1                         | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 | 96 |
|                |   |                  |                  | 2                         | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 | 96 |
|                |   |                  |                  | 3                         | 96  | 96  | 96  | 96  | 91  | 83  | 71  | 61  | 53  | 47  | 42  | 37 | 37 | 37 | 37 |
|                | C   | 0 to 6 Degrees   | 1                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |    |
|                |   |                  | 2                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |    |
|                |   |                  | 3                | 96                        | 92  | 83  | 75  | 68  | 63  | 53  | 45  | 39  | 34  | 30  | 27  | 24 | 24 | 24 |    |
|                |   | 7 to 27 Degrees  | 1                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |    |
|                |   |                  | 2                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |    |
|                |   |                  | 3                | 87                        | 79  | 71  | 65  | 59  | 54  | 46  | 39  | 34  | 30  | 27  | 24  | 24 | 24 | 24 |    |
|                |   | 28 to 45 Degrees | 1                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |    |
|                |   |                  | 2                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |    |
|                |   |                  | 3                | 95                        | 86  | 78  | 71  | 65  | 60  | 51  | 44  | 38  | 33  | 30  | 26  | 26 | 26 | 26 |    |
|                | D   | 0 to 6 Degrees   | 1                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |    |
|                |   |                  | 2                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |    |
|                |   |                  | 3                | 86                        | 77  | 69  | 63  | 57  | 53  | 44  | 38  | 33  | 29  | 25  | 22  | 20 | 20 | 20 |    |
|                |   | 7 to 27 Degrees  | 1                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |    |
|                |   |                  | 2                | 90                        | 81  | 73  | 66  | 60  | 55  | 47  | 40  | 35  | 31  | 27  | 24  | 24 | 24 | 24 |    |
|                |   |                  | 3                | 73                        | 66  | 60  | 54  | 50  | 46  | 39  | 33  | 29  | 25  | 22  | 20  | 20 | 20 | 20 |    |
|                |   | 28 to 45 Degrees | 1                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |    |
|                |   |                  | 2                | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |    |
|                |   |                  | 3                | 80                        | 72  | 66  | 60  | 55  | 50  | 43  | 37  | 32  | 28  | 25  | 22  | 20 | 20 | 20 |    |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Snow Load   | Exposure Category | Roof Angle       | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |    |    |
|---|-------------------|------------------|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|
|   |                   |                  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |    |    |
| <b>RT-[E] Mount Mini Rafter Installations Cont.<br/>Maximum Mount Spacing in Inches</b> |                   |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |    |
| <b>Landscape Orientation - ASCE 7-16</b>  |                   |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |    |
| 21-30 PSF   | B                 | 0 to 6 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 95  | 84  | 74 |    |
|   |                   |                  | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 92  | 79  | 69  | 61 | 54 |
|   |                   |                  | 3         | 96                        | 96  | 96  | 96  | 96  | 96  | 90  | 76  | 65  | 56  | 49  | 43  | 38 | 33 |
|   |                   | 7 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 90  | 78  | 69  | 61 | 54 |
|   |                   |                  | 2         | 96                        | 96  | 96  | 96  | 96  | 94  | 79  | 68  | 59  | 52  | 45  | 40  | 37 | 33 |
|   |                   |                  | 3         | 96                        | 96  | 96  | 91  | 83  | 76  | 65  | 56  | 48  | 42  | 37  | 33  | 33 | 33 |
|   |                   | 28 to 45 Degrees | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 95  | 83  | 74  | 66 | 59 |
|   |                   |                  | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 85  | 75  | 67  | 59  | 52 | 47 |
|   |                   |                  | 3         | 96                        | 96  | 96  | 96  | 91  | 83  | 71  | 61  | 53  | 47  | 42  | 37  | 33 | 33 |
|   | C                 | 0 to 6 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 88  | 76  | 67  | 59  | 52 |    |
|   |                   |                  | 2         | 96                        | 96  | 96  | 96  | 96  | 89  | 75  | 64  | 55  | 48  | 43  | 38  | 33 |    |
|   |                   |                  | 3         | 96                        | 92  | 83  | 75  | 68  | 63  | 53  | 45  | 39  | 34  | 30  | 27  | 24 |    |
|   |                   | 7 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 85  | 73  | 63  | 55  | 49  | 43  | 38 |    |
|   |                   |                  | 2         | 96                        | 96  | 87  | 79  | 72  | 66  | 56  | 48  | 42  | 36  | 32  | 29  | 24 |    |
|   |                   |                  | 3         | 87                        | 79  | 71  | 65  | 59  | 54  | 46  | 39  | 34  | 30  | 27  | 24  | 20 |    |
|   |                   | 28 to 45 Degrees | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 90  | 78  | 68  | 60  | 53  | 47  | 42 |    |
|   |                   |                  | 2         | 96                        | 96  | 96  | 96  | 96  | 95  | 81  | 70  | 61  | 54  | 47  | 42  | 37 |    |
|   |                   |                  | 3         | 95                        | 86  | 78  | 71  | 65  | 60  | 51  | 44  | 38  | 33  | 30  | 27  | 24 |    |
|   | D                 | 0 to 6 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 86  | 74  | 64  | 56  | 49  | 44  | 39 |    |
|   |                   |                  | 2         | 96                        | 96  | 96  | 89  | 81  | 74  | 63  | 54  | 47  | 41  | 36  | 32  | 27 |    |
|   |                   |                  | 3         | 86                        | 77  | 69  | 63  | 57  | 53  | 44  | 38  | 33  | 29  | 25  | 23  | 20 |    |
|   |                   | 7 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 92  | 84  | 71  | 61  | 53  | 46  | 41  | 36  | 32 |    |
|   |                   |                  | 2         | 90                        | 81  | 73  | 66  | 60  | 55  | 47  | 40  | 35  | 31  | 27  | 24  | 20 |    |
|   |                   |                  | 3         | 73                        | 66  | 60  | 54  | 50  | 46  | 39  | 33  | 29  | 25  | 22  | 20  | 17 |    |
| 28 to 45 Degrees  |                   | 1                | 96        | 96                        | 96  | 96  | 96  | 89  | 76  | 66  | 57  | 50  | 45  | 40  | 36  |    |    |
|   |                   | 2                | 96        | 96                        | 96  | 96  | 88  | 81  | 69  | 59  | 52  | 45  | 40  | 36  | 32  |    |    |
|   |                   | 3                | 80        | 72                        | 66  | 60  | 55  | 50  | 43  | 37  | 32  | 28  | 25  | 22  | 20  |    |    |
| 31-40 PSF   | B                 | 0 to 6 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 95  | 84  | 74  |    |    |
|   |                   |                  | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 92  | 79  | 69  | 61  | 54 |    |
|   |                   |                  | 3         | 96                        | 96  | 96  | 96  | 96  | 90  | 76  | 65  | 56  | 49  | 43  | 38  | 33 |    |
|   |                   | 7 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 90  | 78  | 69  | 61  | 54 |    |
|   |                   |                  | 2         | 96                        | 96  | 96  | 96  | 96  | 94  | 79  | 68  | 59  | 52  | 45  | 40  | 37 |    |
|   |                   |                  | 3         | 96                        | 96  | 96  | 91  | 83  | 76  | 65  | 56  | 48  | 42  | 37  | 33  | 33 |    |
|   |                   | 28 to 45 Degrees | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 95  | 83  | 74  | 66  | 59 |    |
|   |                   |                  | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 85  | 75  | 67  | 59  | 52 |    |
|   |                   |                  | 3         | 96                        | 96  | 96  | 96  | 91  | 83  | 71  | 61  | 53  | 47  | 42  | 37  | 33 |    |
|   | C                 | 0 to 6 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 88  | 76  | 67  | 59  | 52  |    |    |
|   |                   |                  | 2         | 96                        | 96  | 96  | 96  | 96  | 89  | 75  | 64  | 55  | 48  | 43  | 38  | 33 |    |
|   |                   |                  | 3         | 96                        | 92  | 83  | 75  | 68  | 63  | 53  | 45  | 39  | 34  | 30  | 27  | 24 |    |
|   |                   | 7 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 85  | 73  | 63  | 55  | 49  | 43  | 38 |    |
|   |                   |                  | 2         | 96                        | 96  | 87  | 79  | 72  | 66  | 56  | 48  | 42  | 36  | 32  | 29  | 24 |    |
|   |                   |                  | 3         | 87                        | 79  | 71  | 65  | 59  | 54  | 46  | 39  | 34  | 30  | 27  | 24  | 20 |    |
|   |                   | 28 to 45 Degrees | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 90  | 78  | 68  | 60  | 53  | 47  | 42 |    |
|   |                   |                  | 2         | 96                        | 96  | 96  | 96  | 96  | 95  | 81  | 70  | 61  | 54  | 47  | 42  | 37 |    |
|   |                   |                  | 3         | 95                        | 86  | 78  | 71  | 65  | 60  | 51  | 44  | 38  | 33  | 30  | 27  | 24 |    |
|   | D                 | 0 to 6 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 86  | 74  | 64  | 56  | 49  | 44  | 39 |    |
|   |                   |                  | 2         | 96                        | 96  | 96  | 89  | 81  | 74  | 63  | 54  | 47  | 41  | 36  | 32  | 27 |    |
|   |                   |                  | 3         | 86                        | 77  | 69  | 63  | 57  | 53  | 44  | 38  | 33  | 29  | 25  | 23  | 20 |    |
|   |                   | 7 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 92  | 84  | 71  | 61  | 53  | 46  | 41  | 36  | 32 |    |
|   |                   |                  | 2         | 90                        | 81  | 73  | 66  | 60  | 55  | 47  | 40  | 35  | 31  | 27  | 24  | 20 |    |
|   |                   |                  | 3         | 73                        | 66  | 60  | 54  | 50  | 46  | 39  | 33  | 29  | 25  | 22  | 20  | 17 |    |
| 28 to 45 Degrees  |                   | 1                | 96        | 96                        | 96  | 96  | 96  | 89  | 76  | 66  | 57  | 50  | 45  | 40  | 36  |    |    |
|   |                   | 2                | 96        | 96                        | 96  | 96  | 88  | 81  | 69  | 59  | 52  | 45  | 40  | 36  | 32  |    |    |
|   |                   | 3                | 80        | 72                        | 66  | 60  | 55  | 50  | 43  | 37  | 32  | 28  | 25  | 22  | 20  |    |    |
| 41-50 PSF   | B                 | 0 to 6 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 95  | 84  | 74  |    |    |
|   |                   |                  | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 92  | 79  | 69  | 61  | 54 |    |
|   |                   |                  | 3         | 96                        | 96  | 96  | 96  | 96  | 90  | 76  | 65  | 56  | 49  | 43  | 38  | 33 |    |
|   |                   | 7 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 90  | 78  | 69  | 61  | 54 |    |
|   |                   |                  | 2         | 96                        | 96  | 96  | 96  | 96  | 94  | 79  | 68  | 59  | 52  | 45  | 40  | 37 |    |
|   |                   |                  | 3         | 96                        | 96  | 96  | 91  | 83  | 76  | 65  | 56  | 48  | 42  | 37  | 33  | 33 |    |
|   |                   | 28 to 45 Degrees | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 95  | 83  | 74  | 66  | 59 |    |
|   |                   |                  | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 85  | 75  | 67  | 59  | 52 |    |
|   |                   |                  | 3         | 96                        | 96  | 96  | 96  | 91  | 83  | 71  | 61  | 53  | 47  | 42  | 37  | 33 |    |
|   | C                 | 0 to 6 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 88  | 76  | 67  | 59  | 52  |    |    |
|   |                   |                  | 2         | 96                        | 96  | 96  | 96  | 96  | 89  | 75  | 64  | 55  | 48  | 43  | 38  | 33 |    |
|   |                   |                  | 3         | 96                        | 92  | 83  | 75  | 68  | 63  | 53  | 45  | 39  | 34  | 30  | 27  | 24 |    |
|   |                   | 7 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 85  | 73  | 63  | 55  | 49  | 43  | 38 |    |
|   |                   |                  | 2         | 96                        | 96  | 87  | 79  | 72  | 66  | 56  | 48  | 42  | 36  | 32  | 29  | 24 |    |
|   |                   |                  | 3         | 87                        | 79  | 71  | 65  | 59  | 54  | 46  | 39  | 34  | 30  | 27  | 24  | 20 |    |
|   |                   | 28 to 45 Degrees | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 90  | 78  | 68  | 60  | 53  | 47  | 42 |    |
|   |                   |                  | 2         | 96                        | 96  | 96  | 96  | 96  | 95  | 81  | 70  | 61  | 54  | 47  | 42  | 37 |    |
|   |                   |                  | 3         | 95                        | 86  | 78  | 71  | 65  | 60  | 51  | 44  | 38  | 33  | 30  | 27  | 24 |    |
|   | D                 | 0 to 6 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 86  | 74  | 64  | 56  | 49  | 44  | 39 |    |
|   |                   |                  | 2         | 96                        | 96  | 96  | 89  | 81  | 74  | 63  | 54  | 47  | 41  | 36  | 32  | 27 |    |
|   |                   |                  | 3         | 86                        | 77  | 69  | 63  | 57  | 53  | 44  | 38  | 33  | 29  | 25  | 23  | 20 |    |
|   |                   | 7 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 92  | 84  | 71  | 61  | 53  | 46  | 41  | 36  | 32 |    |
|   |                   |                  | 2         | 90                        | 81  | 73  | 66  | 60  | 55  | 47  | 40  | 35  | 31  | 27  | 24  | 20 |    |
|   |                   |                  | 3         | 73                        | 66  | 60  | 54  | 50  | 46  | 39  | 33  | 29  | 25  | 22  | 20  | 17 |    |
| 28 to 45 Degrees  |                   | 1                | 96        | 96                        | 96  | 96  | 96  | 89  | 76  | 66  | 57  | 50  | 45  | 40  | 36  |    |    |
|   |                   | 2                | 96        | 96                        | 96  | 96  | 88  | 81  | 69  | 59  | 52  | 45  | 40  | 36  | 32  |    |    |
|   |                   | 3                | 80        | 72                        | 66  | 60  | 55  | 50  | 43  | 37  | 32  | 28  | 25  | 22  | 20  |    |    |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Snow Load   | Exposure Category | Roof Angle       | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |    |    |    |
|---|-------------------|------------------|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|
|   |                   |                  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |    |    |    |
| <b>RT-[E] Mount Mini Rafter Installations Cont.<br/>Maximum Mount Spacing in Inches</b> |                   |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |    |    |
| <b>Landscape Orientation - ASCE 7-16</b>  |                   |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |    |    |
| 51-60 PSF   | B                 | 0 to 6 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 95  | 84  | 74 |    |    |
|   |                   |                  | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 92  | 79  | 69 | 61 | 54 |
|   |                   |                  | 3         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 90  | 76  | 65  | 56  | 49  | 43 | 38 |    |
|   |                   | 7 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 90  | 78  | 69 | 61 | 54 |
|   |                   |                  | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 94  | 79  | 68  | 59  | 52  | 45  | 40 | 36 | 31 |
|   |                   |                  | 3         | 96                        | 96  | 96  | 96  | 91  | 83  | 76  | 65  | 56  | 48  | 42  | 37  | 33 | 29 | 24 |
|   |                   | 28 to 45 Degrees | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 95  | 83  | 74 | 66 | 59 |
|   |                   |                  | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 85  | 75  | 67 | 59 | 52 |
|   |                   |                  | 3         | 96                        | 96  | 96  | 96  | 96  | 91  | 83  | 71  | 61  | 53  | 47  | 42  | 37 | 33 | 29 |
|   | C                 | 0 to 6 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 88  | 76  | 67  | 59 | 52 | 46 |
|   |                   |                  | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 89  | 75  | 64  | 55  | 48  | 43  | 38 | 34 | 30 |
|   |                   |                  | 3         | 96                        | 92  | 83  | 75  | 68  | 63  | 53  | 45  | 39  | 34  | 30  | 27  | 24 | 21 | 18 |
|   |                   | 7 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 85  | 73  | 63  | 55  | 49  | 43 | 38 | 34 |
|   |                   |                  | 2         | 96                        | 96  | 96  | 87  | 79  | 72  | 66  | 56  | 48  | 42  | 36  | 32  | 29 | 26 | 23 |
|   |                   |                  | 3         | 87                        | 79  | 71  | 65  | 59  | 54  | 46  | 39  | 34  | 30  | 27  | 24  | 21 | 18 | 16 |
|   |                   | 28 to 45 Degrees | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 90  | 78  | 68  | 60  | 53  | 47 | 42 | 37 |
|   |                   |                  | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 95  | 81  | 70  | 61  | 54  | 47  | 42 | 37 | 33 |
|   |                   |                  | 3         | 95                        | 86  | 78  | 71  | 65  | 60  | 51  | 44  | 38  | 33  | 30  | 26  | 23 | 20 | 17 |
|   | D                 | 0 to 6 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 86  | 74  | 64  | 56  | 49  | 44 | 40 | 36 |
|   |                   |                  | 2         | 96                        | 96  | 96  | 96  | 89  | 81  | 74  | 63  | 54  | 47  | 41  | 36  | 32 | 29 | 26 |
|   |                   |                  | 3         | 86                        | 77  | 69  | 63  | 57  | 53  | 44  | 38  | 33  | 29  | 25  | 23  | 20 | 18 | 16 |
|   |                   | 7 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 92  | 84  | 71  | 61  | 53  | 46  | 41  | 36 | 32 | 29 |
|   |                   |                  | 2         | 90                        | 81  | 73  | 66  | 60  | 55  | 47  | 40  | 35  | 31  | 27  | 24  | 21 | 18 | 16 |
|   |                   |                  | 3         | 73                        | 66  | 60  | 54  | 50  | 46  | 39  | 33  | 29  | 25  | 22  | 20  | 18 | 16 | 14 |
| 28 to 45 Degrees  |                   | 1                | 96        | 96                        | 96  | 96  | 96  | 96  | 89  | 76  | 66  | 57  | 50  | 45  | 40  | 36 | 32 |    |
|   |                   | 2                | 96        | 96                        | 96  | 96  | 96  | 88  | 81  | 69  | 59  | 52  | 45  | 40  | 36  | 32 | 29 |    |
|   |                   | 3                | 80        | 72                        | 66  | 60  | 55  | 50  | 43  | 37  | 32  | 28  | 25  | 22  | 20  | 18 | 16 |    |
| 61-70 PSF   | B                 | 0 to 6 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 95  | 84  | 74 | 66 | 59 |
|   |                   |                  | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 92  | 79  | 69  | 61  | 54 | 48 | 43 |
|   |                   |                  | 3         | 96                        | 96  | 96  | 96  | 96  | 96  | 90  | 76  | 65  | 56  | 49  | 43  | 38 | 34 | 30 |
|   |                   | 7 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 90  | 78  | 69 | 61 | 54 |
|   |                   |                  | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 94  | 79  | 68  | 59  | 52  | 45  | 40 | 36 | 31 |
|   |                   |                  | 3         | 96                        | 96  | 96  | 96  | 91  | 83  | 76  | 65  | 56  | 48  | 42  | 37  | 33 | 29 | 24 |
|   |                   | 28 to 45 Degrees | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 95  | 83  | 74 | 66 | 59 |
|   |                   |                  | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 85  | 75  | 67 | 59 | 52 |
|   |                   |                  | 3         | 96                        | 96  | 96  | 96  | 96  | 91  | 83  | 71  | 61  | 53  | 47  | 42  | 37 | 33 | 29 |
|   | C                 | 0 to 6 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 88  | 76  | 67  | 59  | 52 | 46 | 40 |
|   |                   |                  | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 89  | 75  | 64  | 55  | 48  | 43  | 38 | 34 | 30 |
|   |                   |                  | 3         | 96                        | 92  | 83  | 75  | 68  | 63  | 53  | 45  | 39  | 34  | 30  | 27  | 24 | 21 | 18 |
|   |                   | 7 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 85  | 73  | 63  | 55  | 49  | 43 | 38 | 34 |
|   |                   |                  | 2         | 96                        | 96  | 96  | 87  | 79  | 72  | 66  | 56  | 48  | 42  | 36  | 32  | 29 | 26 | 23 |
|   |                   |                  | 3         | 87                        | 79  | 71  | 65  | 59  | 54  | 46  | 39  | 34  | 30  | 27  | 24  | 21 | 18 | 16 |
|   |                   | 28 to 45 Degrees | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 90  | 78  | 68  | 60  | 53  | 47 | 42 | 37 |
|   |                   |                  | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 95  | 81  | 70  | 61  | 54  | 47  | 42 | 37 | 33 |
|   |                   |                  | 3         | 95                        | 86  | 78  | 71  | 65  | 60  | 51  | 44  | 38  | 33  | 30  | 26  | 23 | 20 | 17 |
|   | D                 | 0 to 6 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 86  | 74  | 64  | 56  | 49  | 44 | 40 | 36 |
|   |                   |                  | 2         | 96                        | 96  | 96  | 96  | 89  | 81  | 74  | 63  | 54  | 47  | 41  | 36  | 32 | 29 | 26 |
|   |                   |                  | 3         | 86                        | 77  | 69  | 63  | 57  | 53  | 44  | 38  | 33  | 29  | 25  | 23  | 20 | 18 | 16 |
|   |                   | 7 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 92  | 84  | 71  | 61  | 53  | 46  | 41  | 36 | 32 | 29 |
|   |                   |                  | 2         | 90                        | 81  | 73  | 66  | 60  | 55  | 47  | 40  | 35  | 31  | 27  | 24  | 21 | 18 | 16 |
|   |                   |                  | 3         | 73                        | 66  | 60  | 54  | 50  | 46  | 39  | 33  | 29  | 25  | 22  | 20  | 18 | 16 | 14 |
| 28 to 45 Degrees  |                   | 1                | 96        | 96                        | 96  | 96  | 96  | 96  | 89  | 76  | 66  | 57  | 50  | 45  | 40  | 36 | 32 |    |
|   |                   | 2                | 96        | 96                        | 96  | 96  | 96  | 88  | 81  | 69  | 59  | 52  | 45  | 40  | 36  | 32 | 29 |    |
|   |                   | 3                | 80        | 72                        | 66  | 60  | 55  | 50  | 43  | 37  | 32  | 28  | 25  | 22  | 20  | 18 | 16 |    |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Gable Roof RT8   | RT-[E] Mount Mini Plywood Only Installations Cont.<br>Maximum Mount Spacing in Inches |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |
|------------------|---|------------------|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                  | Landscape Orientation - ASCE 7-16   |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |
| Snow Load        | Exposure Category   | Roof Angle       | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |
|                  |   |                  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |
| 0 PSF            | B   | 0 to 6 Degrees   | 1         | 96                        | 96  | 96  | 88  | 79  | 72  | 60  | 51  | 44  | 38  | 34  | 30  |
|                  |   |                  | 2         | 87                        | 77  | 69  | 62  | 57  | 51  | 43  | 37  | 32  | 28  | 24  | 21  |
|                  |   |                  | 3         | 60                        | 53  | 48  | 43  | 39  | 36  | 30  | 26  | 22  | 19  | 17  | 15  |
|                  |   | 7 to 27 Degrees  | 1         | 96                        | 88  | 79  | 71  | 65  | 59  | 49  | 42  | 36  | 32  | 28  | 25  |
|                  |   |                  | 2         | 63                        | 56  | 51  | 46  | 42  | 38  | 32  | 27  | 24  | 21  | 18  | 16  |
|                  |   |                  | 3         | 51                        | 46  | 41  | 37  | 34  | 31  | 26  | 22  | 19  | 17  | 15  | 13  |
|                  |   | 28 to 45 Degrees | 1         | 96                        | 91  | 82  | 74  | 68  | 62  | 53  | 45  | 39  | 34  | 30  | 27  |
|                  |   |                  | 2         | 91                        | 81  | 74  | 67  | 61  | 56  | 47  | 41  | 35  | 31  | 27  | 24  |
|                  |   |                  | 3         | 56                        | 50  | 45  | 41  | 37  | 34  | 29  | 25  | 22  | 19  | 17  | 15  |
|                  | C   | 0 to 6 Degrees   | 1         | 84                        | 74  | 67  | 60  | 54  | 49  | 42  | 35  | 31  | 27  | 23  | 21  |
|                  |   |                  | 2         | 59                        | 53  | 48  | 43  | 39  | 36  | 30  | 26  | 22  | 19  | 17  | 15  |
|                  |   |                  | 3         | 41                        | 37  | 33  | 30  | 27  | 25  | 21  | 18  | 16  | 14  | 12  | 11  |
|                  |   | 7 to 27 Degrees  | 1         | 68                        | 61  | 54  | 49  | 45  | 41  | 34  | 29  | 25  | 22  | 20  | 17  |
|                  |   |                  | 2         | 44                        | 39  | 35  | 32  | 29  | 27  | 22  | 19  | 17  | 14  | 13  | 11  |
|                  |   |                  | 3         | 36                        | 32  | 29  | 26  | 24  | 22  | 18  | 16  | 14  | 12  | 10  | 9   |
|                  |   | 28 to 45 Degrees | 1         | 71                        | 64  | 58  | 52  | 48  | 44  | 37  | 32  | 28  | 24  | 21  | 19  |
|                  |   |                  | 2         | 64                        | 57  | 52  | 47  | 43  | 39  | 33  | 29  | 25  | 22  | 19  | 17  |
|                  |   |                  | 3         | 39                        | 35  | 32  | 29  | 26  | 24  | 21  | 18  | 15  | 13  | 12  | 10  |
|                  | D   | 0 to 6 Degrees   | 1         | 69                        | 62  | 55  | 50  | 45  | 41  | 35  | 30  | 26  | 22  | 20  | 17  |
|                  |   |                  | 2         | 49                        | 44  | 40  | 36  | 33  | 30  | 25  | 21  | 18  | 16  | 14  | 13  |
|                  |   |                  | 3         | 34                        | 31  | 28  | 25  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |
|                  |   | 7 to 27 Degrees  | 1         | 56                        | 50  | 45  | 41  | 37  | 34  | 29  | 25  | 21  | 19  | 16  | 14  |
|                  |   |                  | 2         | 36                        | 33  | 29  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 11  | 9   |
|                  |   |                  | 3         | 30                        | 27  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |
| 28 to 45 Degrees |   | 1                | 60        | 54                        | 49  | 44  | 40  | 37  | 31  | 27  | 23  | 20  | 18  | 16  |     |
|                  |   | 2                | 54        | 48                        | 44  | 40  | 36  | 33  | 28  | 24  | 21  | 18  | 16  | 14  |     |
|                  |   | 3                | 33        | 30                        | 27  | 24  | 22  | 20  | 17  | 15  | 13  | 11  | 10  | 9   |     |
| 1-10 PSF         | B   | 0 to 6 Degrees   | 1         | 96                        | 96  | 96  | 88  | 79  | 72  | 60  | 51  | 44  | 38  | 34  | 30  |
|                  |   |                  | 2         | 87                        | 77  | 69  | 62  | 57  | 51  | 43  | 37  | 32  | 28  | 24  | 21  |
|                  |   |                  | 3         | 60                        | 53  | 48  | 43  | 39  | 36  | 30  | 26  | 22  | 19  | 17  | 15  |
|                  |   | 7 to 27 Degrees  | 1         | 96                        | 88  | 79  | 71  | 65  | 59  | 49  | 42  | 36  | 32  | 28  | 25  |
|                  |   |                  | 2         | 63                        | 56  | 51  | 46  | 42  | 38  | 32  | 27  | 24  | 21  | 18  | 16  |
|                  |   |                  | 3         | 51                        | 46  | 41  | 37  | 34  | 31  | 26  | 22  | 19  | 17  | 15  | 13  |
|                  |   | 28 to 45 Degrees | 1         | 96                        | 91  | 82  | 74  | 68  | 62  | 53  | 45  | 39  | 34  | 30  | 27  |
|                  |   |                  | 2         | 91                        | 81  | 74  | 67  | 61  | 56  | 47  | 41  | 35  | 31  | 27  | 24  |
|                  |   |                  | 3         | 56                        | 50  | 45  | 41  | 37  | 34  | 29  | 25  | 22  | 19  | 17  | 15  |
|                  | C   | 0 to 6 Degrees   | 1         | 84                        | 74  | 67  | 60  | 54  | 49  | 42  | 35  | 31  | 27  | 23  | 21  |
|                  |   |                  | 2         | 59                        | 53  | 48  | 43  | 39  | 36  | 30  | 26  | 22  | 19  | 17  | 15  |
|                  |   |                  | 3         | 41                        | 37  | 33  | 30  | 27  | 25  | 21  | 18  | 16  | 14  | 12  | 11  |
|                  |   | 7 to 27 Degrees  | 1         | 68                        | 61  | 54  | 49  | 45  | 41  | 34  | 29  | 25  | 22  | 20  | 17  |
|                  |   |                  | 2         | 44                        | 39  | 35  | 32  | 29  | 27  | 22  | 19  | 17  | 14  | 13  | 11  |
|                  |   |                  | 3         | 36                        | 32  | 29  | 26  | 24  | 22  | 18  | 16  | 14  | 12  | 10  | 9   |
|                  |   | 28 to 45 Degrees | 1         | 71                        | 64  | 58  | 52  | 48  | 44  | 37  | 32  | 28  | 24  | 21  | 19  |
|                  |   |                  | 2         | 64                        | 57  | 52  | 47  | 43  | 39  | 33  | 29  | 25  | 22  | 19  | 17  |
|                  |   |                  | 3         | 39                        | 35  | 32  | 29  | 26  | 24  | 21  | 18  | 15  | 13  | 12  | 10  |
|                  | D   | 0 to 6 Degrees   | 1         | 69                        | 62  | 55  | 50  | 45  | 41  | 35  | 30  | 26  | 22  | 20  | 17  |
|                  |   |                  | 2         | 49                        | 44  | 40  | 36  | 33  | 30  | 25  | 21  | 18  | 16  | 14  | 13  |
|                  |   |                  | 3         | 34                        | 31  | 28  | 25  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |
|                  |   | 7 to 27 Degrees  | 1         | 56                        | 50  | 45  | 41  | 37  | 34  | 29  | 25  | 21  | 19  | 16  | 14  |
|                  |   |                  | 2         | 36                        | 33  | 29  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 11  | 9   |
|                  |   |                  | 3         | 30                        | 27  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |
| 28 to 45 Degrees |   | 1                | 60        | 54                        | 49  | 44  | 40  | 37  | 31  | 27  | 23  | 20  | 18  | 16  |     |
|                  |   | 2                | 54        | 48                        | 44  | 40  | 36  | 33  | 28  | 24  | 21  | 18  | 16  | 14  |     |
|                  |   | 3                | 33        | 30                        | 27  | 24  | 22  | 20  | 17  | 15  | 13  | 11  | 10  | 9   |     |
| 1-1-20 PSF       | B   | 0 to 6 Degrees   | 1         | 96                        | 96  | 96  | 88  | 79  | 72  | 60  | 51  | 44  | 38  | 34  | 30  |
|                  |   |                  | 2         | 87                        | 77  | 69  | 62  | 57  | 51  | 43  | 37  | 32  | 28  | 24  | 21  |
|                  |   |                  | 3         | 60                        | 53  | 48  | 43  | 39  | 36  | 30  | 26  | 22  | 19  | 17  | 15  |
|                  |   | 7 to 27 Degrees  | 1         | 96                        | 88  | 79  | 71  | 65  | 59  | 49  | 42  | 36  | 32  | 28  | 25  |
|                  |   |                  | 2         | 63                        | 56  | 51  | 46  | 42  | 38  | 32  | 27  | 24  | 21  | 18  | 16  |
|                  |   |                  | 3         | 51                        | 46  | 41  | 37  | 34  | 31  | 26  | 22  | 19  | 17  | 15  | 13  |
|                  |   | 28 to 45 Degrees | 1         | 96                        | 91  | 82  | 74  | 68  | 62  | 53  | 45  | 39  | 34  | 30  | 27  |
|                  |   |                  | 2         | 91                        | 81  | 74  | 67  | 61  | 56  | 47  | 41  | 35  | 31  | 27  | 24  |
|                  |   |                  | 3         | 56                        | 50  | 45  | 41  | 37  | 34  | 29  | 25  | 22  | 19  | 17  | 15  |
|                  | C   | 0 to 6 Degrees   | 1         | 84                        | 74  | 67  | 60  | 54  | 49  | 42  | 35  | 31  | 27  | 23  | 21  |
|                  |   |                  | 2         | 59                        | 53  | 48  | 43  | 39  | 36  | 30  | 26  | 22  | 19  | 17  | 15  |
|                  |   |                  | 3         | 41                        | 37  | 33  | 30  | 27  | 25  | 21  | 18  | 16  | 14  | 12  | 11  |
|                  |   | 7 to 27 Degrees  | 1         | 68                        | 61  | 54  | 49  | 45  | 41  | 34  | 29  | 25  | 22  | 20  | 17  |
|                  |   |                  | 2         | 44                        | 39  | 35  | 32  | 29  | 27  | 22  | 19  | 17  | 14  | 13  | 11  |
|                  |   |                  | 3         | 36                        | 32  | 29  | 26  | 24  | 22  | 18  | 16  | 14  | 12  | 10  | 9   |
|                  |   | 28 to 45 Degrees | 1         | 71                        | 64  | 58  | 52  | 48  | 44  | 37  | 32  | 28  | 24  | 21  | 19  |
|                  |   |                  | 2         | 64                        | 57  | 52  | 47  | 43  | 39  | 33  | 29  | 25  | 22  | 19  | 17  |
|                  |   |                  | 3         | 39                        | 35  | 32  | 29  | 26  | 24  | 21  | 18  | 15  | 13  | 12  | 10  |
|                  | D   | 0 to 6 Degrees   | 1         | 69                        | 62  | 55  | 50  | 45  | 41  | 35  | 30  | 26  | 22  | 20  | 17  |
|                  |   |                  | 2         | 49                        | 44  | 40  | 36  | 33  | 30  | 25  | 21  | 18  | 16  | 14  | 13  |
|                  |   |                  | 3         | 34                        | 31  | 28  | 25  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |
|                  |   | 7 to 27 Degrees  | 1         | 56                        | 50  | 45  | 41  | 37  | 34  | 29  | 25  | 21  | 19  | 16  | 14  |
|                  |   |                  | 2         | 36                        | 33  | 29  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 11  | 9   |
|                  |   |                  | 3         | 30                        | 27  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |
| 28 to 45 Degrees |   | 1                | 60        | 54                        | 49  | 44  | 40  | 37  | 31  | 27  | 23  | 20  | 18  | 16  |     |
|                  |   | 2                | 54        | 48                        | 44  | 40  | 36  | 33  | 28  | 24  | 21  | 18  | 16  | 14  |     |
|                  |   | 3                | 33        | 30                        | 27  | 24  | 22  | 20  | 17  | 15  | 13  | 11  | 10  | 9   |     |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Gable Roof RT8   | RT-[E] Mount Mini Plywood Only Installations Cont.<br>Maximum Mount Spacing in Inches |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |
|------------------|---|------------------|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                  | Landscape Orientation - ASCE 7-16   |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |
| Snow Load        | Exposure Category   | Roof Angle       | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |
|                  |   |                  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |
| 21-30 PSF        | B   | 0 to 6 Degrees   | 1         | 96                        | 96  | 96  | 88  | 79  | 72  | 60  | 51  | 44  | 38  | 34  | 30  |
|                  |   |                  | 2         | 87                        | 77  | 69  | 62  | 57  | 51  | 43  | 37  | 32  | 28  | 24  | 21  |
|                  |   |                  | 3         | 60                        | 53  | 48  | 43  | 39  | 36  | 30  | 26  | 22  | 19  | 17  | 15  |
|                  |   | 7 to 27 Degrees  | 1         | 95                        | 88  | 79  | 71  | 65  | 59  | 49  | 42  | 36  | 32  | 28  | 25  |
|                  |   |                  | 2         | 63                        | 56  | 51  | 46  | 42  | 38  | 32  | 27  | 24  | 21  | 18  | 16  |
|                  |   |                  | 3         | 51                        | 46  | 41  | 37  | 34  | 31  | 26  | 22  | 19  | 17  | 15  | 13  |
|                  |   | 28 to 45 Degrees | 1         | 96                        | 91  | 82  | 74  | 68  | 62  | 53  | 45  | 39  | 34  | 30  | 27  |
|                  |   |                  | 2         | 91                        | 81  | 74  | 67  | 61  | 56  | 47  | 41  | 35  | 31  | 27  | 24  |
|                  |   |                  | 3         | 56                        | 50  | 45  | 41  | 37  | 34  | 29  | 25  | 22  | 19  | 17  | 15  |
|                  | C   | 0 to 6 Degrees   | 1         | 84                        | 74  | 67  | 60  | 54  | 49  | 42  | 35  | 31  | 27  | 23  | 21  |
|                  |   |                  | 2         | 59                        | 53  | 48  | 43  | 39  | 36  | 30  | 26  | 22  | 19  | 17  | 15  |
|                  |   |                  | 3         | 41                        | 37  | 33  | 30  | 27  | 25  | 21  | 18  | 16  | 14  | 12  | 11  |
|                  |   | 7 to 27 Degrees  | 1         | 68                        | 61  | 54  | 49  | 45  | 41  | 34  | 29  | 25  | 22  | 20  | 17  |
|                  |   |                  | 2         | 44                        | 39  | 35  | 32  | 29  | 27  | 22  | 19  | 17  | 14  | 13  | 11  |
|                  |   |                  | 3         | 36                        | 32  | 29  | 26  | 24  | 22  | 18  | 16  | 14  | 12  | 10  | 9   |
|                  |   | 28 to 45 Degrees | 1         | 71                        | 64  | 58  | 52  | 48  | 44  | 37  | 32  | 28  | 24  | 21  | 19  |
|                  |   |                  | 2         | 64                        | 57  | 52  | 47  | 43  | 39  | 33  | 29  | 25  | 22  | 19  | 17  |
|                  |   |                  | 3         | 39                        | 35  | 32  | 29  | 26  | 24  | 21  | 18  | 15  | 13  | 12  | 10  |
|                  | D   | 0 to 6 Degrees   | 1         | 69                        | 62  | 55  | 50  | 45  | 41  | 35  | 30  | 26  | 22  | 20  | 17  |
|                  |   |                  | 2         | 49                        | 44  | 40  | 36  | 33  | 30  | 25  | 21  | 18  | 16  | 14  | 13  |
|                  |   |                  | 3         | 34                        | 31  | 28  | 25  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |
|                  |   | 7 to 27 Degrees  | 1         | 56                        | 50  | 45  | 41  | 37  | 34  | 29  | 25  | 21  | 19  | 16  | 14  |
|                  |   |                  | 2         | 36                        | 33  | 29  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 11  | 9   |
|                  |   |                  | 3         | 30                        | 27  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |
| 28 to 45 Degrees |   | 1                | 60        | 54                        | 49  | 44  | 40  | 37  | 31  | 27  | 23  | 20  | 18  | 16  |     |
|                  |   | 2                | 54        | 48                        | 44  | 40  | 36  | 33  | 28  | 24  | 21  | 18  | 16  | 14  |     |
|                  |   | 3                | 33        | 30                        | 27  | 24  | 22  | 20  | 17  | 15  | 13  | 11  | 10  | 9   |     |
| 31-40 PSF        | B   | 0 to 6 Degrees   | 1         | 91                        | 91  | 91  | 88  | 79  | 72  | 60  | 51  | 44  | 38  | 34  | 30  |
|                  |   |                  | 2         | 87                        | 77  | 69  | 62  | 57  | 51  | 43  | 37  | 32  | 28  | 24  | 21  |
|                  |   |                  | 3         | 60                        | 53  | 48  | 43  | 39  | 36  | 30  | 26  | 22  | 19  | 17  | 15  |
|                  |   | 7 to 27 Degrees  | 1         | 74                        | 74  | 74  | 71  | 65  | 59  | 49  | 42  | 36  | 32  | 28  | 25  |
|                  |   |                  | 2         | 63                        | 56  | 51  | 46  | 42  | 38  | 32  | 27  | 24  | 21  | 18  | 16  |
|                  |   |                  | 3         | 51                        | 46  | 41  | 37  | 34  | 31  | 26  | 22  | 19  | 17  | 15  | 13  |
|                  |   | 28 to 45 Degrees | 1         | 91                        | 91  | 82  | 74  | 68  | 62  | 53  | 45  | 39  | 34  | 30  | 27  |
|                  |   |                  | 2         | 91                        | 81  | 74  | 67  | 61  | 56  | 47  | 41  | 35  | 31  | 27  | 24  |
|                  |   |                  | 3         | 56                        | 50  | 45  | 41  | 37  | 34  | 29  | 25  | 22  | 19  | 17  | 15  |
|                  | C   | 0 to 6 Degrees   | 1         | 84                        | 74  | 67  | 60  | 54  | 49  | 42  | 35  | 31  | 27  | 23  | 21  |
|                  |   |                  | 2         | 59                        | 53  | 48  | 43  | 39  | 36  | 30  | 26  | 22  | 19  | 17  | 15  |
|                  |   |                  | 3         | 41                        | 37  | 33  | 30  | 27  | 25  | 21  | 18  | 16  | 14  | 12  | 11  |
|                  |   | 7 to 27 Degrees  | 1         | 68                        | 61  | 54  | 49  | 45  | 41  | 34  | 29  | 25  | 22  | 20  | 17  |
|                  |   |                  | 2         | 44                        | 39  | 35  | 32  | 29  | 27  | 22  | 19  | 17  | 14  | 13  | 11  |
|                  |   |                  | 3         | 36                        | 32  | 29  | 26  | 24  | 22  | 18  | 16  | 14  | 12  | 10  | 9   |
|                  |   | 28 to 45 Degrees | 1         | 71                        | 64  | 58  | 52  | 48  | 44  | 37  | 32  | 28  | 24  | 21  | 19  |
|                  |   |                  | 2         | 64                        | 57  | 52  | 47  | 43  | 39  | 33  | 29  | 25  | 22  | 19  | 17  |
|                  |   |                  | 3         | 39                        | 35  | 32  | 29  | 26  | 24  | 21  | 18  | 15  | 13  | 12  | 10  |
|                  | D   | 0 to 6 Degrees   | 1         | 69                        | 62  | 55  | 50  | 45  | 41  | 35  | 30  | 26  | 22  | 20  | 17  |
|                  |   |                  | 2         | 49                        | 44  | 40  | 36  | 33  | 30  | 25  | 21  | 18  | 16  | 14  | 13  |
|                  |   |                  | 3         | 34                        | 31  | 28  | 25  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |
|                  |   | 7 to 27 Degrees  | 1         | 56                        | 50  | 45  | 41  | 37  | 34  | 29  | 25  | 21  | 19  | 16  | 14  |
|                  |   |                  | 2         | 36                        | 33  | 29  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 11  | 9   |
|                  |   |                  | 3         | 30                        | 27  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |
| 28 to 45 Degrees |   | 1                | 60        | 54                        | 49  | 44  | 40  | 37  | 31  | 27  | 23  | 20  | 18  | 16  |     |
|                  |   | 2                | 54        | 48                        | 44  | 40  | 36  | 33  | 28  | 24  | 21  | 18  | 16  | 14  |     |
|                  |   | 3                | 33        | 30                        | 27  | 24  | 22  | 20  | 17  | 15  | 13  | 11  | 10  | 9   |     |
| 41-50 PSF        | B   | 0 to 6 Degrees   | 1         | 75                        | 75  | 75  | 75  | 75  | 72  | 60  | 51  | 44  | 38  | 34  | 30  |
|                  |   |                  | 2         | 75                        | 75  | 69  | 62  | 57  | 51  | 43  | 37  | 32  | 28  | 24  | 21  |
|                  |   |                  | 3         | 60                        | 53  | 48  | 43  | 39  | 36  | 30  | 26  | 22  | 19  | 17  | 15  |
|                  |   | 7 to 27 Degrees  | 1         | 61                        | 61  | 61  | 61  | 61  | 59  | 49  | 42  | 36  | 32  | 28  | 25  |
|                  |   |                  | 2         | 61                        | 56  | 51  | 46  | 42  | 38  | 32  | 27  | 24  | 21  | 18  | 16  |
|                  |   |                  | 3         | 51                        | 46  | 41  | 37  | 34  | 31  | 26  | 22  | 19  | 17  | 15  | 13  |
|                  |   | 28 to 45 Degrees | 1         | 76                        | 76  | 76  | 74  | 68  | 62  | 53  | 45  | 39  | 34  | 30  | 27  |
|                  |   |                  | 2         | 76                        | 76  | 74  | 67  | 61  | 56  | 47  | 41  | 35  | 31  | 27  | 24  |
|                  |   |                  | 3         | 56                        | 50  | 45  | 41  | 37  | 34  | 29  | 25  | 22  | 19  | 17  | 15  |
|                  | C   | 0 to 6 Degrees   | 1         | 75                        | 74  | 67  | 60  | 54  | 49  | 42  | 35  | 31  | 27  | 23  | 21  |
|                  |   |                  | 2         | 59                        | 53  | 48  | 43  | 39  | 36  | 30  | 26  | 22  | 19  | 17  | 15  |
|                  |   |                  | 3         | 41                        | 37  | 33  | 30  | 27  | 25  | 21  | 18  | 16  | 14  | 12  | 11  |
|                  |   | 7 to 27 Degrees  | 1         | 61                        | 61  | 54  | 49  | 45  | 41  | 34  | 29  | 25  | 22  | 20  | 17  |
|                  |   |                  | 2         | 44                        | 39  | 35  | 32  | 29  | 27  | 22  | 19  | 17  | 14  | 13  | 11  |
|                  |   |                  | 3         | 36                        | 32  | 29  | 26  | 24  | 22  | 18  | 16  | 14  | 12  | 10  | 9   |
|                  |   | 28 to 45 Degrees | 1         | 71                        | 64  | 58  | 52  | 48  | 44  | 37  | 32  | 28  | 24  | 21  | 19  |
|                  |   |                  | 2         | 64                        | 57  | 52  | 47  | 43  | 39  | 33  | 29  | 25  | 22  | 19  | 17  |
|                  |   |                  | 3         | 39                        | 35  | 32  | 29  | 26  | 24  | 21  | 18  | 15  | 13  | 12  | 10  |
|                  | D   | 0 to 6 Degrees   | 1         | 69                        | 62  | 55  | 50  | 45  | 41  | 35  | 30  | 26  | 22  | 20  | 17  |
|                  |   |                  | 2         | 49                        | 44  | 40  | 36  | 33  | 30  | 25  | 21  | 18  | 16  | 14  | 13  |
|                  |   |                  | 3         | 34                        | 31  | 28  | 25  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |
|                  |   | 7 to 27 Degrees  | 1         | 56                        | 50  | 45  | 41  | 37  | 34  | 29  | 25  | 21  | 19  | 16  | 14  |
|                  |   |                  | 2         | 36                        | 33  | 29  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 11  | 9   |
|                  |   |                  | 3         | 30                        | 27  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |
| 28 to 45 Degrees |   | 1                | 60        | 54                        | 49  | 44  | 40  | 37  | 31  | 27  | 23  | 20  | 18  | 16  |     |
|                  |   | 2                | 54        | 48                        | 44  | 40  | 36  | 33  | 28  | 24  | 21  | 18  | 16  | 14  |     |
|                  |   | 3                | 33        | 30                        | 27  | 24  | 22  | 20  | 17  | 15  | 13  | 11  | 10  | 9   |     |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Gable Roof RT8   | RT-[E] Mount Mini Plywood Only Installations Cont.<br>Maximum Mount Spacing in Inches |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |
|------------------|---|------------------|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                  | Landscape Orientation - ASCE 7-16   |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |
| Snow Load        | Exposure Category   | Roof Angle       | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |
|                  |   |                  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |
| 51-60 PSF        | B   | 0 to 6 Degrees   | 1         | 63                        | 63  | 63  | 63  | 63  | 63  | 60  | 51  | 44  | 38  | 34  | 30  |
|                  |   |                  | 2         | 63                        | 63  | 63  | 62  | 57  | 51  | 43  | 37  | 32  | 28  | 24  | 21  |
|                  |   |                  | 3         | 60                        | 53  | 48  | 43  | 39  | 36  | 30  | 26  | 22  | 19  | 17  | 15  |
|                  |   | 7 to 27 Degrees  | 1         | 51                        | 51  | 51  | 51  | 51  | 49  | 42  | 36  | 32  | 28  | 25  | 25  |
|                  |   |                  | 2         | 51                        | 51  | 51  | 46  | 42  | 38  | 32  | 27  | 24  | 21  | 18  | 16  |
|                  |   |                  | 3         | 51                        | 46  | 41  | 37  | 34  | 31  | 26  | 22  | 19  | 17  | 15  | 13  |
|                  |   | 28 to 45 Degrees | 1         | 64                        | 64  | 64  | 64  | 64  | 62  | 53  | 45  | 39  | 34  | 30  | 27  |
|                  |   |                  | 2         | 64                        | 64  | 64  | 64  | 61  | 56  | 47  | 41  | 35  | 31  | 27  | 24  |
|                  |   |                  | 3         | 56                        | 50  | 45  | 41  | 37  | 34  | 29  | 25  | 22  | 19  | 17  | 15  |
|                  | C   | 0 to 6 Degrees   | 1         | 63                        | 63  | 63  | 60  | 54  | 49  | 42  | 35  | 31  | 27  | 23  | 21  |
|                  |   |                  | 2         | 59                        | 53  | 48  | 43  | 39  | 36  | 30  | 26  | 22  | 19  | 17  | 15  |
|                  |   |                  | 3         | 41                        | 37  | 33  | 30  | 27  | 25  | 21  | 18  | 16  | 14  | 12  | 11  |
|                  |   | 7 to 27 Degrees  | 1         | 51                        | 51  | 51  | 49  | 45  | 41  | 34  | 29  | 25  | 22  | 20  | 17  |
|                  |   |                  | 2         | 44                        | 39  | 35  | 32  | 29  | 27  | 22  | 19  | 17  | 14  | 13  | 11  |
|                  |   |                  | 3         | 36                        | 32  | 29  | 26  | 24  | 22  | 18  | 16  | 14  | 12  | 10  | 9   |
|                  |   | 28 to 45 Degrees | 1         | 64                        | 64  | 58  | 52  | 48  | 44  | 37  | 32  | 28  | 24  | 21  | 19  |
|                  |   |                  | 2         | 64                        | 57  | 52  | 47  | 43  | 39  | 33  | 29  | 25  | 22  | 19  | 17  |
|                  |   |                  | 3         | 39                        | 35  | 32  | 29  | 26  | 24  | 21  | 18  | 15  | 13  | 12  | 10  |
|                  | D   | 0 to 6 Degrees   | 1         | 63                        | 62  | 55  | 50  | 54  | 41  | 35  | 30  | 26  | 22  | 20  | 17  |
|                  |   |                  | 2         | 49                        | 44  | 40  | 36  | 33  | 30  | 25  | 21  | 18  | 16  | 14  | 13  |
|                  |   |                  | 3         | 34                        | 31  | 28  | 25  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |
|                  |   | 7 to 27 Degrees  | 1         | 51                        | 50  | 45  | 41  | 37  | 34  | 29  | 25  | 21  | 19  | 16  | 14  |
|                  |   |                  | 2         | 36                        | 33  | 29  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 11  | 9   |
|                  |   |                  | 3         | 30                        | 27  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |
| 28 to 45 Degrees |   | 1                | 60        | 54                        | 49  | 44  | 40  | 37  | 31  | 27  | 23  | 20  | 18  | 16  |     |
|                  |   | 2                | 54        | 48                        | 44  | 40  | 36  | 33  | 28  | 24  | 21  | 18  | 16  | 14  |     |
|                  |   | 3                | 33        | 30                        | 27  | 24  | 22  | 20  | 17  | 15  | 13  | 11  | 10  | 9   |     |
| 61-70 PSF        | B   | 0 to 6 Degrees   | 1         | 54                        | 54  | 54  | 54  | 54  | 54  | 54  | 51  | 44  | 38  | 34  | 30  |
|                  |   |                  | 2         | 54                        | 54  | 54  | 54  | 54  | 51  | 43  | 37  | 32  | 28  | 24  | 21  |
|                  |   |                  | 3         | 54                        | 53  | 48  | 43  | 39  | 36  | 30  | 26  | 22  | 19  | 17  | 15  |
|                  |   | 7 to 27 Degrees  | 1         | 44                        | 44  | 44  | 44  | 44  | 44  | 44  | 42  | 36  | 32  | 28  | 25  |
|                  |   |                  | 2         | 44                        | 44  | 44  | 44  | 42  | 38  | 32  | 27  | 24  | 21  | 18  | 16  |
|                  |   |                  | 3         | 44                        | 44  | 41  | 37  | 34  | 31  | 26  | 22  | 19  | 17  | 15  | 13  |
|                  |   | 28 to 45 Degrees | 1         | 56                        | 56  | 56  | 56  | 56  | 56  | 53  | 45  | 39  | 34  | 30  | 27  |
|                  |   |                  | 2         | 56                        | 56  | 56  | 56  | 56  | 56  | 47  | 41  | 35  | 31  | 27  | 24  |
|                  |   |                  | 3         | 56                        | 50  | 45  | 41  | 37  | 34  | 29  | 25  | 22  | 19  | 17  | 15  |
|                  | C   | 0 to 6 Degrees   | 1         | 54                        | 54  | 54  | 54  | 54  | 49  | 42  | 35  | 31  | 27  | 23  | 21  |
|                  |   |                  | 2         | 54                        | 53  | 48  | 43  | 39  | 36  | 30  | 26  | 22  | 19  | 17  | 15  |
|                  |   |                  | 3         | 41                        | 37  | 33  | 30  | 27  | 25  | 21  | 18  | 16  | 14  | 12  | 11  |
|                  |   | 7 to 27 Degrees  | 1         | 44                        | 44  | 44  | 44  | 44  | 41  | 34  | 29  | 25  | 22  | 20  | 17  |
|                  |   |                  | 2         | 44                        | 39  | 35  | 32  | 29  | 27  | 22  | 19  | 17  | 14  | 13  | 11  |
|                  |   |                  | 3         | 36                        | 32  | 29  | 26  | 24  | 22  | 18  | 16  | 14  | 12  | 10  | 9   |
|                  |   | 28 to 45 Degrees | 1         | 56                        | 56  | 56  | 52  | 48  | 44  | 37  | 32  | 28  | 24  | 21  | 19  |
|                  |   |                  | 2         | 56                        | 56  | 52  | 47  | 43  | 39  | 33  | 29  | 25  | 22  | 19  | 17  |
|                  |   |                  | 3         | 39                        | 35  | 32  | 29  | 26  | 24  | 21  | 18  | 15  | 13  | 12  | 10  |
|                  | D   | 0 to 6 Degrees   | 1         | 54                        | 54  | 54  | 50  | 45  | 41  | 35  | 30  | 26  | 22  | 20  | 17  |
|                  |   |                  | 2         | 49                        | 44  | 40  | 36  | 33  | 30  | 25  | 21  | 18  | 16  | 14  | 13  |
|                  |   |                  | 3         | 34                        | 31  | 28  | 25  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |
|                  |   | 7 to 27 Degrees  | 1         | 44                        | 44  | 44  | 41  | 37  | 34  | 29  | 25  | 21  | 19  | 16  | 14  |
|                  |   |                  | 2         | 36                        | 33  | 29  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 11  | 9   |
|                  |   |                  | 3         | 30                        | 27  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |
| 28 to 45 Degrees |   | 1                | 56        | 54                        | 49  | 44  | 40  | 37  | 31  | 27  | 23  | 20  | 18  | 16  |     |
|                  |   | 2                | 54        | 48                        | 44  | 40  | 36  | 33  | 28  | 24  | 21  | 18  | 16  | 14  |     |
|                  |   | 3                | 33        | 30                        | 27  | 24  | 22  | 20  | 17  | 15  | 13  | 11  | 10  | 9   |     |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Gable Roof RT9   | RT-[E] Mount Mini OSB Only Installations Cont.<br>Maximum Mount Spacing in Inches |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |
|------------------|---|------------------|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                  | Landscape Orientation - ASCE 7-16   |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |
| Snow Load        | Exposure Category   | Roof Angle       | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |
|                  |   |                  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |
| 0 PSF            | B   | 0 to 6 Degrees   | 1         | 96                        | 93  | 83  | 74  | 67  | 61  | 51  | 43  | 37  | 32  | 28  | 25  |
|                  |   |                  | 2         | 74                        | 66  | 59  | 53  | 48  | 44  | 37  | 31  | 27  | 23  | 21  | 18  |
|                  |   |                  | 3         | 51                        | 45  | 41  | 37  | 33  | 30  | 26  | 22  | 19  | 16  | 14  | 13  |
|                  |   | 7 to 27 Degrees  | 1         | 83                        | 74  | 66  | 60  | 54  | 50  | 42  | 36  | 31  | 27  | 24  | 21  |
|                  |   |                  | 2         | 53                        | 47  | 43  | 39  | 35  | 32  | 27  | 23  | 20  | 17  | 15  | 14  |
|                  |   |                  | 3         | 43                        | 38  | 35  | 31  | 29  | 26  | 22  | 19  | 16  | 14  | 13  | 11  |
|                  |   | 28 to 45 Degrees | 1         | 84                        | 76  | 68  | 62  | 57  | 52  | 44  | 38  | 33  | 29  | 25  | 23  |
|                  |   |                  | 2         | 75                        | 68  | 61  | 56  | 51  | 47  | 40  | 34  | 30  | 26  | 23  | 20  |
|                  |   |                  | 3         | 47                        | 42  | 38  | 34  | 31  | 29  | 24  | 21  | 18  | 16  | 14  | 12  |
|                  | C   | 0 to 6 Degrees   | 1         | 71                        | 63  | 56  | 51  | 46  | 42  | 35  | 30  | 26  | 22  | 20  | 17  |
|                  |   |                  | 2         | 50                        | 45  | 40  | 36  | 33  | 30  | 25  | 22  | 19  | 16  | 14  | 13  |
|                  |   |                  | 3         | 35                        | 31  | 28  | 25  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |
|                  |   | 7 to 27 Degrees  | 1         | 57                        | 51  | 46  | 41  | 38  | 34  | 29  | 25  | 21  | 19  | 16  | 15  |
|                  |   |                  | 2         | 37                        | 33  | 30  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 11  | 9   |
|                  |   |                  | 3         | 30                        | 27  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |
|                  |   | 28 to 45 Degrees | 1         | 59                        | 53  | 48  | 44  | 40  | 37  | 31  | 27  | 23  | 20  | 18  | 16  |
|                  |   |                  | 2         | 53                        | 48  | 43  | 39  | 36  | 33  | 28  | 24  | 21  | 18  | 16  | 14  |
|                  |   |                  | 3         | 33                        | 30  | 27  | 24  | 22  | 20  | 17  | 15  | 13  | 11  | 10  | 9   |
|                  | D   | 0 to 6 Degrees   | 1         | 58                        | 52  | 47  | 42  | 38  | 35  | 29  | 25  | 22  | 19  | 16  | 15  |
|                  |   |                  | 2         | 42                        | 37  | 34  | 30  | 28  | 25  | 21  | 18  | 16  | 14  | 12  | 11  |
|                  |   |                  | 3         | 29                        | 26  | 23  | 21  | 19  | 18  | 15  | 13  | 11  | 10  | 8   | 7   |
|                  |   | 7 to 27 Degrees  | 1         | 47                        | 42  | 38  | 35  | 31  | 29  | 24  | 21  | 18  | 16  | 14  | 12  |
|                  |   |                  | 2         | 31                        | 28  | 25  | 23  | 20  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |
|                  |   |                  | 3         | 25                        | 23  | 20  | 18  | 17  | 15  | 13  | 11  | 10  | 8   | 7   | 6   |
| 28 to 45 Degrees |   | 1                | 50        | 45                        | 41  | 37  | 34  | 31  | 26  | 23  | 20  | 17  | 15  | 13  |     |
|                  |   | 2                | 45        | 40                        | 37  | 33  | 30  | 28  | 24  | 20  | 18  | 15  | 14  | 12  |     |
|                  |   | 3                | 28        | 25                        | 23  | 20  | 19  | 17  | 14  | 12  | 11  | 9   | 8   | 7   |     |
| 1-10 PSF         | B   | 0 to 6 Degrees   | 1         | 93                        | 93  | 83  | 74  | 67  | 61  | 51  | 43  | 37  | 32  | 28  | 25  |
|                  |   |                  | 2         | 74                        | 66  | 59  | 53  | 48  | 44  | 37  | 31  | 27  | 23  | 21  | 18  |
|                  |   |                  | 3         | 51                        | 45  | 41  | 37  | 33  | 30  | 26  | 22  | 19  | 16  | 14  | 13  |
|                  |   | 7 to 27 Degrees  | 1         | 83                        | 74  | 66  | 60  | 54  | 50  | 42  | 36  | 31  | 27  | 24  | 21  |
|                  |   |                  | 2         | 53                        | 47  | 43  | 39  | 35  | 32  | 27  | 23  | 20  | 17  | 15  | 14  |
|                  |   |                  | 3         | 43                        | 38  | 35  | 31  | 29  | 26  | 22  | 19  | 16  | 14  | 13  | 11  |
|                  |   | 28 to 45 Degrees | 1         | 84                        | 76  | 68  | 62  | 57  | 52  | 44  | 38  | 33  | 29  | 25  | 23  |
|                  |   |                  | 2         | 75                        | 68  | 61  | 56  | 51  | 47  | 40  | 34  | 30  | 26  | 23  | 20  |
|                  |   |                  | 3         | 47                        | 42  | 38  | 34  | 31  | 29  | 24  | 21  | 18  | 16  | 14  | 12  |
|                  | C   | 0 to 6 Degrees   | 1         | 71                        | 63  | 56  | 51  | 46  | 42  | 35  | 30  | 26  | 22  | 20  | 17  |
|                  |   |                  | 2         | 50                        | 45  | 40  | 36  | 33  | 30  | 25  | 22  | 19  | 16  | 14  | 13  |
|                  |   |                  | 3         | 35                        | 31  | 28  | 25  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |
|                  |   | 7 to 27 Degrees  | 1         | 57                        | 51  | 46  | 41  | 38  | 34  | 29  | 25  | 21  | 19  | 16  | 15  |
|                  |   |                  | 2         | 37                        | 33  | 30  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 11  | 9   |
|                  |   |                  | 3         | 30                        | 27  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |
|                  |   | 28 to 45 Degrees | 1         | 59                        | 53  | 48  | 44  | 40  | 37  | 31  | 27  | 23  | 20  | 18  | 16  |
|                  |   |                  | 2         | 53                        | 48  | 43  | 39  | 36  | 33  | 28  | 24  | 21  | 18  | 16  | 14  |
|                  |   |                  | 3         | 33                        | 30  | 27  | 24  | 22  | 20  | 17  | 15  | 13  | 11  | 10  | 9   |
|                  | D   | 0 to 6 Degrees   | 1         | 58                        | 52  | 47  | 42  | 38  | 35  | 29  | 25  | 22  | 19  | 16  | 15  |
|                  |   |                  | 2         | 42                        | 37  | 34  | 30  | 28  | 25  | 21  | 18  | 16  | 14  | 12  | 11  |
|                  |   |                  | 3         | 29                        | 26  | 23  | 21  | 19  | 18  | 15  | 13  | 11  | 10  | 8   | 7   |
|                  |   | 7 to 27 Degrees  | 1         | 47                        | 42  | 38  | 35  | 31  | 29  | 24  | 21  | 18  | 16  | 14  | 12  |
|                  |   |                  | 2         | 31                        | 28  | 25  | 23  | 20  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |
|                  |   |                  | 3         | 25                        | 23  | 20  | 18  | 17  | 15  | 13  | 11  | 10  | 8   | 7   | 6   |
| 28 to 45 Degrees |   | 1                | 50        | 45                        | 41  | 37  | 34  | 31  | 26  | 23  | 20  | 17  | 15  | 13  |     |
|                  |   | 2                | 45        | 40                        | 37  | 33  | 30  | 28  | 24  | 20  | 18  | 15  | 14  | 12  |     |
|                  |   | 3                | 28        | 25                        | 23  | 20  | 19  | 17  | 14  | 12  | 11  | 9   | 8   | 7   |     |
| 11-20 PSF        | B   | 0 to 6 Degrees   | 1         | 65                        | 65  | 65  | 65  | 65  | 61  | 51  | 43  | 37  | 32  | 28  | 25  |
|                  |   |                  | 2         | 65                        | 65  | 59  | 53  | 48  | 44  | 37  | 31  | 27  | 23  | 21  | 18  |
|                  |   |                  | 3         | 51                        | 45  | 41  | 37  | 33  | 30  | 26  | 22  | 19  | 16  | 14  | 13  |
|                  |   | 7 to 27 Degrees  | 1         | 59                        | 59  | 59  | 59  | 54  | 50  | 42  | 36  | 31  | 27  | 24  | 21  |
|                  |   |                  | 2         | 53                        | 47  | 43  | 39  | 35  | 32  | 27  | 23  | 20  | 17  | 15  | 14  |
|                  |   |                  | 3         | 43                        | 38  | 35  | 31  | 29  | 26  | 22  | 19  | 16  | 14  | 13  | 11  |
|                  |   | 28 to 45 Degrees | 1         | 70                        | 70  | 68  | 62  | 57  | 52  | 44  | 38  | 33  | 29  | 25  | 23  |
|                  |   |                  | 2         | 70                        | 68  | 61  | 56  | 51  | 47  | 40  | 34  | 30  | 26  | 23  | 20  |
|                  |   |                  | 3         | 47                        | 42  | 38  | 34  | 31  | 29  | 24  | 21  | 18  | 16  | 14  | 12  |
|                  | C   | 0 to 6 Degrees   | 1         | 65                        | 63  | 56  | 51  | 46  | 42  | 35  | 30  | 26  | 22  | 20  | 17  |
|                  |   |                  | 2         | 50                        | 45  | 40  | 36  | 33  | 30  | 25  | 22  | 19  | 16  | 14  | 13  |
|                  |   |                  | 3         | 35                        | 31  | 28  | 25  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |
|                  |   | 7 to 27 Degrees  | 1         | 57                        | 51  | 46  | 41  | 38  | 34  | 29  | 25  | 21  | 19  | 16  | 15  |
|                  |   |                  | 2         | 37                        | 33  | 30  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 11  | 9   |
|                  |   |                  | 3         | 30                        | 27  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |
|                  |   | 28 to 45 Degrees | 1         | 59                        | 53  | 48  | 44  | 40  | 37  | 31  | 27  | 23  | 20  | 18  | 16  |
|                  |   |                  | 2         | 53                        | 48  | 43  | 39  | 36  | 33  | 28  | 24  | 21  | 18  | 16  | 14  |
|                  |   |                  | 3         | 33                        | 30  | 27  | 24  | 22  | 20  | 17  | 15  | 13  | 11  | 10  | 9   |
|                  | D   | 0 to 6 Degrees   | 1         | 58                        | 52  | 47  | 42  | 38  | 35  | 29  | 25  | 22  | 19  | 16  | 15  |
|                  |   |                  | 2         | 42                        | 37  | 34  | 30  | 28  | 25  | 21  | 18  | 16  | 14  | 12  | 11  |
|                  |   |                  | 3         | 29                        | 26  | 23  | 21  | 19  | 18  | 15  | 13  | 11  | 10  | 8   | 7   |
|                  |   | 7 to 27 Degrees  | 1         | 47                        | 42  | 38  | 35  | 31  | 29  | 24  | 21  | 18  | 16  | 14  | 12  |
|                  |   |                  | 2         | 31                        | 28  | 25  | 23  | 20  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |
|                  |   |                  | 3         | 25                        | 23  | 20  | 18  | 17  | 15  | 13  | 11  | 10  | 8   | 7   | 6   |
| 28 to 45 Degrees |   | 1                | 50        | 45                        | 41  | 37  | 34  | 31  | 26  | 23  | 20  | 17  | 15  | 13  |     |
|                  |   | 2                | 45        | 40                        | 37  | 33  | 30  | 28  | 24  | 20  | 18  | 15  | 14  | 12  |     |
|                  |   | 3                | 28        | 25                        | 23  | 20  | 19  | 17  | 14  | 12  | 11  | 9   | 8   | 7   |     |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.



| Gable Roof RT9   | RT-[E] Mount Mini OSB Only Installations Cont.<br>Maximum Mount Spacing in Inches |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |
|------------------|---|------------------|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
|                  | Landscape Orientation - ASCE 7-16   |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |
| Snow Load        | Exposure Category   | Roof Angle       | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |    |
|                  |   |                  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |    |
| 21-30 PSF        | B   | 0 to 6 Degrees   | 1         | 57                        | 57  | 57  | 57  | 57  | 57  | 51  | 43  | 37  | 32  | 28  | 25  |    |
|                  |   |                  | 2         | 57                        | 57  | 57  | 53  | 48  | 44  | 37  | 31  | 27  | 23  | 21  | 18  |    |
|                  |   |                  | 3         | 51                        | 45  | 41  | 37  | 33  | 30  | 26  | 22  | 19  | 16  | 14  | 13  |    |
|                  |   | 7 to 27 Degrees  | 1         | 50                        | 50  | 50  | 50  | 50  | 42  | 36  | 31  | 27  | 24  | 21  | 18  |    |
|                  |   |                  | 2         | 50                        | 47  | 43  | 39  | 35  | 32  | 27  | 23  | 20  | 17  | 15  | 14  |    |
|                  |   |                  | 3         | 43                        | 38  | 35  | 31  | 29  | 26  | 22  | 19  | 16  | 14  | 13  | 11  |    |
|                  |   | 28 to 45 Degrees | 1         | 62                        | 62  | 62  | 62  | 57  | 52  | 44  | 38  | 33  | 29  | 25  | 23  |    |
|                  |   |                  | 2         | 62                        | 62  | 61  | 56  | 51  | 47  | 40  | 34  | 30  | 26  | 23  | 20  |    |
|                  |   |                  | 3         | 47                        | 42  | 38  | 34  | 31  | 29  | 24  | 21  | 18  | 16  | 14  | 12  |    |
|                  | C   | 0 to 6 Degrees   | 1         | 57                        | 57  | 56  | 51  | 46  | 42  | 35  | 30  | 26  | 22  | 20  | 17  |    |
|                  |   |                  | 2         | 50                        | 45  | 40  | 36  | 33  | 30  | 25  | 22  | 19  | 16  | 14  | 13  |    |
|                  |   |                  | 3         | 35                        | 31  | 28  | 25  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |    |
|                  |   | 7 to 27 Degrees  | 1         | 50                        | 50  | 46  | 41  | 38  | 34  | 29  | 25  | 21  | 19  | 16  | 15  |    |
|                  |   |                  | 2         | 37                        | 33  | 30  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 11  | 9   |    |
|                  |   |                  | 3         | 30                        | 27  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |    |
|                  |   | 28 to 45 Degrees | 1         | 59                        | 53  | 48  | 44  | 40  | 37  | 31  | 27  | 23  | 20  | 18  | 16  |    |
|                  |   |                  | 2         | 53                        | 48  | 43  | 39  | 36  | 33  | 28  | 24  | 21  | 18  | 16  | 14  |    |
|                  |   |                  | 3         | 33                        | 30  | 27  | 24  | 22  | 20  | 17  | 15  | 13  | 11  | 10  | 9   |    |
|                  | D   | 0 to 6 Degrees   | 1         | 57                        | 52  | 47  | 42  | 38  | 35  | 29  | 25  | 22  | 19  | 16  | 15  |    |
|                  |   |                  | 2         | 42                        | 37  | 34  | 30  | 28  | 25  | 21  | 18  | 16  | 14  | 12  | 11  |    |
|                  |   |                  | 3         | 29                        | 26  | 23  | 21  | 19  | 18  | 15  | 13  | 11  | 10  | 8   | 7   |    |
|                  |   | 7 to 27 Degrees  | 1         | 47                        | 42  | 38  | 35  | 31  | 29  | 24  | 21  | 18  | 16  | 14  | 12  |    |
|                  |   |                  | 2         | 31                        | 28  | 25  | 23  | 20  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |    |
|                  |   |                  | 3         | 25                        | 23  | 20  | 18  | 17  | 15  | 13  | 11  | 10  | 8   | 7   | 6   |    |
| 28 to 45 Degrees |   | 1                | 50        | 45                        | 41  | 37  | 34  | 31  | 26  | 23  | 20  | 17  | 15  | 13  |     |    |
|                  |   | 2                | 45        | 40                        | 37  | 33  | 30  | 28  | 24  | 20  | 18  | 15  | 14  | 12  |     |    |
|                  |   | 3                | 28        | 25                        | 23  | 20  | 19  | 17  | 14  | 12  | 11  | 9   | 8   | 7   |     |    |
| 31-40 PSF        | B   | 0 to 6 Degrees   | 1         | 44                        | 44  | 44  | 44  | 44  | 44  | 44  | 44  | 43  | 37  | 32  | 28  | 25 |
|                  |   |                  | 2         | 44                        | 44  | 44  | 44  | 44  | 44  | 44  | 37  | 31  | 27  | 23  | 21  | 18 |
|                  |   |                  | 3         | 44                        | 44  | 41  | 37  | 33  | 30  | 26  | 22  | 19  | 16  | 14  | 13  |    |
|                  |   | 7 to 27 Degrees  | 1         | 39                        | 39  | 39  | 39  | 39  | 39  | 39  | 36  | 31  | 27  | 24  | 21  |    |
|                  |   |                  | 2         | 39                        | 39  | 39  | 39  | 35  | 32  | 27  | 23  | 20  | 17  | 15  | 14  |    |
|                  |   |                  | 3         | 39                        | 38  | 35  | 31  | 29  | 26  | 22  | 19  | 16  | 14  | 13  | 11  |    |
|                  |   | 28 to 45 Degrees | 1         | 52                        | 52  | 52  | 52  | 52  | 51  | 44  | 38  | 33  | 29  | 25  | 23  |    |
|                  |   |                  | 2         | 52                        | 52  | 52  | 52  | 51  | 47  | 40  | 34  | 30  | 26  | 23  | 20  |    |
|                  |   |                  | 3         | 47                        | 42  | 38  | 34  | 31  | 29  | 24  | 21  | 18  | 16  | 14  | 12  |    |
|                  | C   | 0 to 6 Degrees   | 1         | 44                        | 44  | 44  | 44  | 44  | 42  | 35  | 30  | 26  | 22  | 20  | 17  |    |
|                  |   |                  | 2         | 44                        | 44  | 40  | 36  | 33  | 30  | 25  | 22  | 19  | 16  | 14  | 13  |    |
|                  |   |                  | 3         | 35                        | 31  | 28  | 25  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |    |
|                  |   | 7 to 27 Degrees  | 1         | 39                        | 39  | 39  | 39  | 38  | 34  | 29  | 25  | 21  | 19  | 16  | 15  |    |
|                  |   |                  | 2         | 37                        | 33  | 30  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 11  | 9   |    |
|                  |   |                  | 3         | 30                        | 27  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |    |
|                  |   | 28 to 45 Degrees | 1         | 52                        | 51  | 48  | 44  | 40  | 37  | 31  | 27  | 23  | 20  | 18  | 16  |    |
|                  |   |                  | 2         | 52                        | 48  | 43  | 39  | 36  | 33  | 28  | 24  | 21  | 18  | 16  | 14  |    |
|                  |   |                  | 3         | 33                        | 30  | 27  | 24  | 22  | 20  | 17  | 15  | 13  | 11  | 10  | 9   |    |
|                  | D   | 0 to 6 Degrees   | 1         | 44                        | 44  | 44  | 42  | 38  | 35  | 29  | 25  | 22  | 19  | 16  | 15  |    |
|                  |   |                  | 2         | 42                        | 37  | 34  | 30  | 28  | 25  | 21  | 18  | 16  | 14  | 12  | 11  |    |
|                  |   |                  | 3         | 29                        | 26  | 23  | 21  | 19  | 18  | 15  | 13  | 11  | 10  | 8   | 7   |    |
|                  |   | 7 to 27 Degrees  | 1         | 39                        | 39  | 38  | 35  | 31  | 29  | 24  | 21  | 18  | 16  | 14  | 12  |    |
|                  |   |                  | 2         | 31                        | 28  | 25  | 23  | 20  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |    |
|                  |   |                  | 3         | 25                        | 23  | 20  | 18  | 17  | 15  | 13  | 11  | 10  | 8   | 7   | 6   |    |
| 28 to 45 Degrees |   | 1                | 50        | 45                        | 41  | 37  | 34  | 31  | 26  | 23  | 20  | 17  | 15  | 13  |     |    |
|                  |   | 2                | 45        | 40                        | 37  | 33  | 30  | 28  | 24  | 20  | 18  | 15  | 14  | 12  |     |    |
|                  |   | 3                | 28        | 25                        | 23  | 20  | 19  | 17  | 14  | 12  | 11  | 9   | 8   | 7   |     |    |
| 41-50 PSF        | B   | 0 to 6 Degrees   | 1         | 36                        | 36  | 36  | 36  | 36  | 36  | 36  | 36  | 36  | 32  | 28  | 25  |    |
|                  |   |                  | 2         | 36                        | 36  | 36  | 36  | 36  | 36  | 36  | 36  | 31  | 27  | 23  | 21  | 18 |
|                  |   |                  | 3         | 36                        | 36  | 36  | 36  | 33  | 30  | 26  | 22  | 19  | 16  | 14  | 13  |    |
|                  |   | 7 to 27 Degrees  | 1         | 32                        | 32  | 32  | 32  | 32  | 32  | 32  | 32  | 31  | 27  | 24  | 21  |    |
|                  |   |                  | 2         | 32                        | 32  | 32  | 32  | 32  | 32  | 27  | 23  | 20  | 17  | 15  | 14  |    |
|                  |   |                  | 3         | 32                        | 32  | 32  | 31  | 29  | 26  | 22  | 19  | 16  | 14  | 13  | 11  |    |
|                  |   | 28 to 45 Degrees | 1         | 43                        | 43  | 43  | 43  | 43  | 43  | 43  | 38  | 33  | 29  | 25  | 23  |    |
|                  |   |                  | 2         | 43                        | 43  | 43  | 43  | 43  | 43  | 40  | 34  | 30  | 26  | 23  | 20  |    |
|                  |   |                  | 3         | 43                        | 42  | 38  | 34  | 31  | 29  | 24  | 21  | 18  | 16  | 14  | 12  |    |
|                  | C   | 0 to 6 Degrees   | 1         | 36                        | 36  | 36  | 36  | 36  | 36  | 35  | 30  | 26  | 22  | 20  | 17  |    |
|                  |   |                  | 2         | 36                        | 36  | 36  | 36  | 33  | 30  | 25  | 22  | 19  | 16  | 14  | 13  |    |
|                  |   |                  | 3         | 35                        | 31  | 28  | 25  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |    |
|                  |   | 7 to 27 Degrees  | 1         | 32                        | 32  | 32  | 32  | 32  | 32  | 29  | 25  | 21  | 19  | 16  | 15  |    |
|                  |   |                  | 2         | 32                        | 32  | 30  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 11  | 9   |    |
|                  |   |                  | 3         | 30                        | 27  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |    |
|                  |   | 28 to 45 Degrees | 1         | 43                        | 43  | 43  | 43  | 40  | 37  | 31  | 27  | 23  | 20  | 18  | 16  |    |
|                  |   |                  | 2         | 43                        | 43  | 43  | 39  | 36  | 33  | 28  | 24  | 21  | 18  | 16  | 14  |    |
|                  |   |                  | 3         | 33                        | 30  | 27  | 24  | 22  | 20  | 17  | 15  | 13  | 11  | 10  | 9   |    |
|                  | D   | 0 to 6 Degrees   | 1         | 36                        | 36  | 36  | 36  | 36  | 35  | 29  | 25  | 22  | 19  | 16  | 15  |    |
|                  |   |                  | 2         | 36                        | 36  | 34  | 30  | 28  | 25  | 21  | 18  | 16  | 14  | 12  | 11  |    |
|                  |   |                  | 3         | 29                        | 26  | 23  | 21  | 19  | 18  | 15  | 13  | 11  | 10  | 8   | 7   |    |
|                  |   | 7 to 27 Degrees  | 1         | 32                        | 32  | 32  | 32  | 31  | 29  | 24  | 21  | 18  | 16  | 14  | 12  |    |
|                  |   |                  | 2         | 31                        | 28  | 25  | 23  | 20  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |    |
|                  |   |                  | 3         | 25                        | 23  | 20  | 18  | 17  | 15  | 13  | 11  | 10  | 8   | 7   | 6   |    |
| 28 to 45 Degrees |   | 1                | 43        | 43                        | 41  | 37  | 34  | 31  | 26  | 23  | 20  | 17  | 15  | 13  |     |    |
|                  |   | 2                | 43        | 40                        | 37  | 33  | 30  | 28  | 24  | 20  | 18  | 15  | 14  | 12  |     |    |
|                  |   | 3                | 28        | 25                        | 23  | 20  | 19  | 17  | 14  | 12  | 11  | 9   | 8   | 7   |     |    |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Gable Roof<br>RT9 | RT-[E] Mount Mini OSB Only Installations Cont.<br>Maximum Mount Spacing in Inches |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |    |
|-------------------|---|------------------|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|
|                   | Landscape Orientation - ASCE 7-16   |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |    |
| Snow Load         | Exposure Category   | Roof Angle       | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |    |    |
|                   |   |                  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |    |    |
| 51-60 PSF         | B   | 0 to 6 Degrees   | 1         | 30                        | 30  | 30  | 30  | 30  | 30  | 30  | 30  | 30  | 30  | 30  | 28  | 25 |    |
|                   |   |                  | 2         | 30                        | 30  | 30  | 30  | 30  | 30  | 30  | 30  | 30  | 27  | 23  | 21  | 18 |    |
|                   |   |                  | 3         | 30                        | 30  | 30  | 30  | 30  | 30  | 30  | 26  | 22  | 19  | 16  | 14  | 13 |    |
|                   |   | 7 to 27 Degrees  | 1         | 27                        | 27  | 27  | 27  | 27  | 27  | 27  | 27  | 27  | 27  | 27  | 24  | 21 |    |
|                   |   |                  | 2         | 27                        | 27  | 27  | 27  | 27  | 27  | 27  | 27  | 23  | 20  | 17  | 15  | 14 |    |
|                   |   |                  | 3         | 27                        | 27  | 27  | 27  | 27  | 27  | 26  | 22  | 19  | 16  | 14  | 13  | 11 |    |
|                   |   | 28 to 45 Degrees | 1         | 37                        | 37  | 37  | 37  | 37  | 37  | 37  | 37  | 37  | 33  | 29  | 25  | 23 |    |
|                   |   |                  | 2         | 37                        | 37  | 37  | 37  | 37  | 37  | 37  | 34  | 30  | 26  | 23  | 20  | 20 |    |
|                   |   |                  | 3         | 37                        | 37  | 37  | 34  | 31  | 29  | 24  | 21  | 18  | 16  | 14  | 12  | 12 |    |
|                   | C   | 0 to 6 Degrees   | 1         | 30                        | 30  | 30  | 30  | 30  | 30  | 30  | 30  | 30  | 26  | 22  | 20  | 17 |    |
|                   |   |                  | 2         | 30                        | 30  | 30  | 30  | 30  | 30  | 30  | 25  | 22  | 19  | 16  | 14  | 13 |    |
|                   |   |                  | 3         | 30                        | 30  | 28  | 25  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   | 9  |    |
|                   |   | 7 to 27 Degrees  | 1         | 27                        | 27  | 27  | 27  | 27  | 27  | 27  | 27  | 25  | 21  | 19  | 16  | 15 |    |
|                   |   |                  | 2         | 27                        | 27  | 27  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 11  | 9   | 9  |    |
|                   |   |                  | 3         | 27                        | 27  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   | 8  |    |
|                   |   | 28 to 45 Degrees | 1         | 37                        | 37  | 37  | 37  | 37  | 37  | 36  | 31  | 27  | 23  | 20  | 18  | 16 |    |
|                   |   |                  | 2         | 37                        | 37  | 37  | 37  | 36  | 33  | 28  | 24  | 21  | 18  | 16  | 14  | 14 |    |
|                   |   |                  | 3         | 33                        | 30  | 27  | 24  | 22  | 20  | 17  | 15  | 13  | 11  | 10  | 9   | 9  |    |
|                   | D   | 0 to 6 Degrees   | 1         | 30                        | 30  | 30  | 30  | 30  | 30  | 29  | 25  | 22  | 19  | 16  | 15  | 15 |    |
|                   |   |                  | 2         | 30                        | 30  | 30  | 30  | 28  | 25  | 21  | 18  | 16  | 14  | 12  | 11  | 11 |    |
|                   |   |                  | 3         | 29                        | 26  | 23  | 21  | 19  | 18  | 15  | 13  | 11  | 10  | 8   | 7   | 7  |    |
|                   |   | 7 to 27 Degrees  | 1         | 27                        | 27  | 27  | 27  | 27  | 27  | 24  | 21  | 18  | 16  | 14  | 12  | 12 |    |
|                   |   |                  | 2         | 27                        | 27  | 25  | 23  | 20  | 19  | 16  | 14  | 12  | 10  | 9   | 8   | 8  |    |
|                   |   |                  | 3         | 25                        | 23  | 20  | 18  | 17  | 15  | 13  | 11  | 10  | 8   | 7   | 6   | 6  |    |
| 28 to 45 Degrees  |   | 1                | 37        | 37                        | 37  | 36  | 34  | 31  | 26  | 23  | 20  | 17  | 15  | 13  | 13  |    |    |
|                   |   | 2                | 37        | 37                        | 37  | 33  | 30  | 28  | 24  | 20  | 18  | 15  | 14  | 12  | 12  |    |    |
|                   |   | 3                | 28        | 25                        | 23  | 20  | 19  | 17  | 14  | 12  | 11  | 9   | 8   | 7   | 7   |    |    |
| 61-70 PSF         | B   | 0 to 6 Degrees   | 1         | 26                        | 26  | 26  | 26  | 26  | 26  | 26  | 26  | 26  | 26  | 26  | 26  | 25 |    |
|                   |   |                  | 2         | 26                        | 26  | 26  | 26  | 26  | 26  | 26  | 26  | 26  | 26  | 26  | 23  | 21 | 18 |
|                   |   |                  | 3         | 26                        | 26  | 26  | 26  | 26  | 26  | 26  | 26  | 22  | 19  | 16  | 14  | 13 |    |
|                   |   | 7 to 27 Degrees  | 1         | 23                        | 23  | 23  | 23  | 23  | 23  | 23  | 23  | 23  | 23  | 23  | 23  | 21 | 21 |
|                   |   |                  | 2         | 23                        | 23  | 23  | 23  | 23  | 23  | 23  | 23  | 23  | 20  | 17  | 15  | 14 | 14 |
|                   |   |                  | 3         | 23                        | 23  | 23  | 23  | 23  | 23  | 23  | 22  | 19  | 16  | 14  | 13  | 11 | 11 |
|                   |   | 28 to 45 Degrees | 1         | 32                        | 32  | 32  | 32  | 32  | 32  | 32  | 32  | 32  | 32  | 29  | 25  | 23 | 23 |
|                   |   |                  | 2         | 32                        | 32  | 32  | 32  | 32  | 32  | 32  | 32  | 32  | 30  | 26  | 23  | 20 | 20 |
|                   |   |                  | 3         | 32                        | 32  | 32  | 32  | 31  | 29  | 24  | 21  | 18  | 16  | 14  | 12  | 12 |    |
|                   | C   | 0 to 6 Degrees   | 1         | 26                        | 26  | 26  | 26  | 26  | 26  | 26  | 26  | 26  | 26  | 22  | 20  | 17 | 17 |
|                   |   |                  | 2         | 26                        | 26  | 26  | 26  | 26  | 26  | 26  | 25  | 22  | 19  | 16  | 14  | 13 | 13 |
|                   |   |                  | 3         | 26                        | 26  | 26  | 25  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   | 9  | 9  |
|                   |   | 7 to 27 Degrees  | 1         | 23                        | 23  | 23  | 23  | 23  | 23  | 23  | 23  | 23  | 21  | 19  | 16  | 15 | 15 |
|                   |   |                  | 2         | 23                        | 23  | 23  | 23  | 23  | 23  | 22  | 19  | 16  | 14  | 12  | 11  | 9  | 9  |
|                   |   |                  | 3         | 23                        | 23  | 23  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   | 8  | 8  |
|                   |   | 28 to 45 Degrees | 1         | 32                        | 32  | 32  | 32  | 32  | 32  | 32  | 31  | 27  | 23  | 20  | 18  | 16 | 16 |
|                   |   |                  | 2         | 32                        | 32  | 32  | 32  | 32  | 32  | 32  | 28  | 24  | 21  | 18  | 16  | 14 | 14 |
|                   |   |                  | 3         | 32                        | 30  | 27  | 24  | 22  | 20  | 17  | 15  | 13  | 11  | 10  | 9   | 9  | 9  |
|                   | D   | 0 to 6 Degrees   | 1         | 26                        | 26  | 26  | 26  | 26  | 26  | 26  | 26  | 25  | 22  | 19  | 16  | 15 | 15 |
|                   |   |                  | 2         | 26                        | 26  | 26  | 26  | 26  | 26  | 25  | 21  | 18  | 16  | 14  | 12  | 11 | 11 |
|                   |   |                  | 3         | 26                        | 26  | 23  | 21  | 19  | 18  | 15  | 13  | 11  | 10  | 8   | 7   | 7  | 7  |
|                   |   | 7 to 27 Degrees  | 1         | 23                        | 23  | 23  | 23  | 23  | 23  | 23  | 23  | 23  | 21  | 18  | 16  | 14 | 12 |
|                   |   |                  | 2         | 23                        | 23  | 23  | 23  | 23  | 20  | 19  | 16  | 14  | 12  | 10  | 9   | 8  | 8  |
|                   |   |                  | 3         | 23                        | 23  | 20  | 18  | 17  | 15  | 13  | 11  | 10  | 8   | 7   | 6   | 6  | 6  |
| 28 to 45 Degrees  |   | 1                | 32        | 32                        | 32  | 32  | 32  | 32  | 31  | 26  | 23  | 20  | 17  | 15  | 13  | 13 |    |
|                   |   | 2                | 32        | 32                        | 32  | 32  | 32  | 30  | 28  | 24  | 20  | 18  | 15  | 14  | 12  | 12 |    |
|                   |   | 3                | 28        | 25                        | 23  | 20  | 19  | 17  | 14  | 12  | 11  | 9   | 8   | 7   | 6   | 6  |    |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

Also, Note that there is no table RT10. RT1 to RT9 are for Gable Roofs and RT11 to RT19 are for Hip Roofs.

| Hip Roof<br>RT11 | RT-[E] Mount Mini Rafter Installations<br>(60 Cell PV Panels)<br>Maximum Mount Spacing in Inches |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |
|------------------|--|------------------|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                  | Portrait Orientation - ASCE 7-16   |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |
| Snow Load        | Exposure Category  | Roof Angle       | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |
|                  |  |                  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |
| 0 PSF            | B  | 7 to 20 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 94  | 79  | 68  | 59  | 51  | 45  | 40  |
|                  |  |                  | 2         | 96                        | 96  | 92  | 83  | 76  | 69  | 59  | 50  | 43  | 38  | 33  | 30  |
|                  |  |                  | 3         | 96                        | 94  | 85  | 77  | 70  | 64  | 54  | 46  | 40  | 35  | 31  | 27  |
|                  |  | 20 to 27 Degrees | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 86  | 75  | 66  | 58  | 51  |
|                  |  |                  | 2         | 96                        | 96  | 96  | 96  | 90  | 82  | 70  | 60  | 52  | 45  | 40  | 36  |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                  |  | 27 to 45 Degrees | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 88  | 76  | 67  | 59  | 52  | 46  |
|                  |  |                  | 2         | 89                        | 80  | 73  | 66  | 61  | 56  | 48  | 41  | 36  | 31  | 28  | 25  |
|                  |  |                  | 3         | 69                        | 63  | 57  | 52  | 47  | 43  | 37  | 32  | 28  | 24  | 22  | 19  |
|                  | C  | 7 to 20 Degrees  | 1         | 96                        | 96  | 87  | 79  | 72  | 66  | 56  | 48  | 41  | 36  | 32  | 28  |
|                  |  |                  | 2         | 80                        | 71  | 64  | 58  | 53  | 49  | 41  | 35  | 31  | 27  | 24  | 21  |
|                  |  |                  | 3         | 73                        | 66  | 59  | 54  | 49  | 45  | 38  | 32  | 28  | 25  | 22  | 19  |
|                  |  | 20 to 27 Degrees | 1         | 96                        | 96  | 96  | 96  | 92  | 84  | 71  | 61  | 53  | 46  | 41  | 36  |
|                  |  |                  | 2         | 94                        | 85  | 76  | 69  | 63  | 58  | 49  | 42  | 37  | 32  | 28  | 25  |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                  |  | 27 to 45 Degrees | 1         | 96                        | 96  | 96  | 88  | 81  | 74  | 63  | 55  | 48  | 42  | 37  | 33  |
|                  |  |                  | 2         | 64                        | 57  | 52  | 47  | 43  | 40  | 34  | 29  | 25  | 22  | 20  | 18  |
|                  |  |                  | 3         | 49                        | 45  | 40  | 37  | 34  | 31  | 26  | 23  | 20  | 17  | 15  | 14  |
|                  | D  | 7 to 20 Degrees  | 1         | 90                        | 81  | 73  | 66  | 60  | 55  | 47  | 40  | 35  | 30  | 27  | 24  |
|                  |  |                  | 2         | 67                        | 60  | 54  | 49  | 45  | 41  | 35  | 30  | 26  | 22  | 20  | 18  |
|                  |  |                  | 3         | 61                        | 55  | 50  | 45  | 41  | 38  | 32  | 27  | 24  | 21  | 18  | 16  |
|                  |  | 20 to 27 Degrees | 1         | 96                        | 96  | 93  | 84  | 77  | 70  | 60  | 51  | 44  | 39  | 34  | 30  |
|                  |  |                  | 2         | 79                        | 71  | 64  | 58  | 53  | 49  | 41  | 35  | 31  | 27  | 24  | 21  |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 27 to 45 Degrees |  | 1                | 96        | 90                        | 82  | 75  | 68  | 63  | 54  | 46  | 40  | 35  | 31  | 28  |     |
|                  |  | 2                | 54        | 49                        | 44  | 40  | 37  | 34  | 29  | 25  | 21  | 19  | 17  | 15  |     |
|                  |  | 3                | 42        | 38                        | 34  | 31  | 28  | 26  | 22  | 19  | 17  | 15  | 13  | 11  |     |
| 1-10 PSF         | B  | 7 to 20 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 94  | 79  | 68  | 59  | 51  | 45  | 40  |
|                  |  |                  | 2         | 96                        | 96  | 92  | 83  | 76  | 69  | 59  | 50  | 43  | 38  | 33  | 30  |
|                  |  |                  | 3         | 96                        | 94  | 85  | 77  | 70  | 64  | 54  | 46  | 40  | 35  | 31  | 27  |
|                  |  | 20 to 27 Degrees | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 86  | 75  | 66  | 58  | 51  |     |
|                  |  |                  | 2         | 96                        | 96  | 96  | 96  | 90  | 82  | 70  | 60  | 52  | 45  | 40  | 36  |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                  |  | 27 to 45 Degrees | 1         | 96                        | 96  | 96  | 96  | 96  | 88  | 76  | 67  | 59  | 52  | 46  |     |
|                  |  |                  | 2         | 89                        | 80  | 73  | 66  | 61  | 56  | 48  | 41  | 36  | 31  | 28  | 25  |
|                  |  |                  | 3         | 69                        | 63  | 57  | 52  | 47  | 43  | 37  | 32  | 28  | 24  | 22  | 19  |
|                  | C  | 7 to 20 Degrees  | 1         | 96                        | 96  | 87  | 79  | 72  | 66  | 56  | 48  | 41  | 36  | 32  | 28  |
|                  |  |                  | 2         | 80                        | 71  | 64  | 58  | 53  | 49  | 41  | 35  | 31  | 27  | 24  | 21  |
|                  |  |                  | 3         | 73                        | 66  | 59  | 54  | 49  | 45  | 38  | 32  | 28  | 25  | 22  | 19  |
|                  |  | 20 to 27 Degrees | 1         | 96                        | 96  | 96  | 96  | 92  | 84  | 71  | 61  | 53  | 46  | 41  | 36  |
|                  |  |                  | 2         | 94                        | 85  | 76  | 69  | 63  | 58  | 49  | 42  | 37  | 32  | 28  | 25  |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                  |  | 27 to 45 Degrees | 1         | 96                        | 96  | 96  | 88  | 81  | 74  | 63  | 55  | 48  | 42  | 37  | 33  |
|                  |  |                  | 2         | 64                        | 57  | 52  | 47  | 43  | 40  | 34  | 29  | 25  | 22  | 20  | 18  |
|                  |  |                  | 3         | 49                        | 45  | 40  | 37  | 34  | 31  | 26  | 23  | 20  | 17  | 15  | 14  |
|                  | D  | 7 to 20 Degrees  | 1         | 90                        | 81  | 73  | 66  | 60  | 55  | 47  | 40  | 35  | 30  | 27  | 24  |
|                  |  |                  | 2         | 67                        | 60  | 54  | 49  | 45  | 41  | 35  | 30  | 26  | 22  | 20  | 18  |
|                  |  |                  | 3         | 61                        | 55  | 50  | 45  | 41  | 38  | 32  | 27  | 24  | 21  | 18  | 16  |
|                  |  | 20 to 27 Degrees | 1         | 96                        | 96  | 93  | 84  | 77  | 70  | 60  | 51  | 44  | 39  | 34  | 30  |
|                  |  |                  | 2         | 79                        | 71  | 64  | 58  | 53  | 49  | 41  | 35  | 31  | 27  | 24  | 21  |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 27 to 45 Degrees |  | 1                | 96        | 90                        | 82  | 75  | 68  | 63  | 54  | 46  | 40  | 35  | 31  | 28  |     |
|                  |  | 2                | 54        | 49                        | 44  | 40  | 37  | 34  | 29  | 25  | 21  | 19  | 17  | 15  |     |
|                  |  | 3                | 42        | 38                        | 34  | 31  | 28  | 26  | 22  | 19  | 17  | 15  | 13  | 11  |     |
| 11-20 PSF        | B  | 7 to 20 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 94  | 79  | 68  | 59  | 51  | 45  | 40  |
|                  |  |                  | 2         | 96                        | 96  | 92  | 83  | 76  | 69  | 59  | 50  | 43  | 38  | 33  | 30  |
|                  |  |                  | 3         | 96                        | 94  | 85  | 77  | 70  | 64  | 54  | 46  | 40  | 35  | 31  | 27  |
|                  |  | 20 to 27 Degrees | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 86  | 75  | 66  | 58  | 51  |     |
|                  |  |                  | 2         | 96                        | 96  | 96  | 96  | 90  | 82  | 70  | 60  | 52  | 45  | 40  | 36  |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                  |  | 27 to 45 Degrees | 1         | 96                        | 96  | 96  | 96  | 96  | 88  | 76  | 67  | 59  | 52  | 46  |     |
|                  |  |                  | 2         | 89                        | 80  | 73  | 66  | 61  | 56  | 48  | 41  | 36  | 31  | 28  | 25  |
|                  |  |                  | 3         | 69                        | 63  | 57  | 52  | 47  | 43  | 37  | 32  | 28  | 24  | 22  | 19  |
|                  | C  | 7 to 20 Degrees  | 1         | 96                        | 96  | 87  | 79  | 72  | 66  | 56  | 48  | 41  | 36  | 32  | 28  |
|                  |  |                  | 2         | 80                        | 71  | 64  | 58  | 53  | 49  | 41  | 35  | 31  | 27  | 24  | 21  |
|                  |  |                  | 3         | 73                        | 66  | 59  | 54  | 49  | 45  | 38  | 32  | 28  | 25  | 22  | 19  |
|                  |  | 20 to 27 Degrees | 1         | 96                        | 96  | 96  | 96  | 92  | 84  | 71  | 61  | 53  | 46  | 41  | 36  |
|                  |  |                  | 2         | 94                        | 85  | 76  | 69  | 63  | 58  | 49  | 42  | 37  | 32  | 28  | 25  |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                  |  | 27 to 45 Degrees | 1         | 96                        | 96  | 96  | 88  | 81  | 74  | 63  | 55  | 48  | 42  | 37  | 33  |
|                  |  |                  | 2         | 64                        | 57  | 52  | 47  | 43  | 40  | 34  | 29  | 25  | 22  | 20  | 18  |
|                  |  |                  | 3         | 49                        | 45  | 40  | 37  | 34  | 31  | 26  | 23  | 20  | 17  | 15  | 14  |
|                  | D  | 7 to 20 Degrees  | 1         | 90                        | 81  | 73  | 66  | 60  | 55  | 47  | 40  | 35  | 30  | 27  | 24  |
|                  |  |                  | 2         | 67                        | 60  | 54  | 49  | 45  | 41  | 35  | 30  | 26  | 22  | 20  | 18  |
|                  |  |                  | 3         | 61                        | 55  | 50  | 45  | 41  | 38  | 32  | 27  | 24  | 21  | 18  | 16  |
|                  |  | 20 to 27 Degrees | 1         | 96                        | 96  | 93  | 84  | 77  | 70  | 60  | 51  | 44  | 39  | 34  | 30  |
|                  |  |                  | 2         | 79                        | 71  | 64  | 58  | 53  | 49  | 41  | 35  | 31  | 27  | 24  | 21  |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 27 to 45 Degrees |  | 1                | 96        | 90                        | 82  | 75  | 68  | 63  | 54  | 46  | 40  | 35  | 31  | 28  |     |
|                  |  | 2                | 54        | 49                        | 44  | 40  | 37  | 34  | 29  | 25  | 21  | 19  | 17  | 15  |     |
|                  |  | 3                | 42        | 38                        | 34  | 31  | 28  | 26  | 22  | 19  | 17  | 15  | 13  | 11  |     |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Hip Roof<br>RT11 | RT-[E] Mount Mini Rafter Installations<br>(60 Cell PV Panels)<br>Maximum Mount Spacing in Inches |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |
|------------------|--|------------------|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
|                  | Portrait Orientation - ASCE 7-16   |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |
| Snow Load        | Exposure Category  | Roof Angle       | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |    |
|                  |  |                  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |    |
| 21-30 PSF        | B  | 7 to 20 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 94  | 79  | 68  | 59  | 51  | 45  | 40  |    |
|                  |  |                  | 2         | 96                        | 96  | 92  | 83  | 76  | 69  | 59  | 50  | 43  | 38  | 33  | 30  |    |
|                  |  |                  | 3         | 96                        | 94  | 85  | 77  | 70  | 64  | 54  | 46  | 40  | 35  | 31  | 27  |    |
|                  |  | 20 to 27 Degrees | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 86  | 75  | 66  | 58  | 51  |    |
|                  |  |                  | 2         | 96                        | 96  | 96  | 96  | 90  | 82  | 70  | 60  | 52  | 45  | 40  | 36  |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                  |  | 27 to 45 Degrees | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 88  | 76  | 67  | 59  | 52  | 46 |
|                  |  |                  | 2         | 89                        | 80  | 73  | 66  | 61  | 56  | 48  | 41  | 36  | 31  | 28  | 25  |    |
|                  |  |                  | 3         | 69                        | 63  | 57  | 52  | 47  | 43  | 37  | 32  | 28  | 24  | 22  | 19  |    |
|                  | C  | 7 to 20 Degrees  | 1         | 96                        | 96  | 87  | 79  | 72  | 66  | 56  | 48  | 41  | 36  | 32  | 28  |    |
|                  |  |                  | 2         | 80                        | 71  | 64  | 58  | 53  | 49  | 41  | 35  | 31  | 27  | 24  | 21  |    |
|                  |  |                  | 3         | 73                        | 66  | 59  | 54  | 49  | 45  | 38  | 32  | 28  | 25  | 22  | 19  |    |
|                  |  | 20 to 27 Degrees | 1         | 96                        | 96  | 96  | 96  | 92  | 84  | 71  | 61  | 53  | 46  | 41  | 36  |    |
|                  |  |                  | 2         | 94                        | 85  | 76  | 69  | 63  | 58  | 49  | 42  | 37  | 32  | 28  | 25  |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                  |  | 27 to 45 Degrees | 1         | 96                        | 96  | 96  | 88  | 81  | 74  | 63  | 55  | 48  | 42  | 37  | 33  |    |
|                  |  |                  | 2         | 64                        | 57  | 52  | 47  | 43  | 40  | 34  | 29  | 25  | 22  | 20  | 18  |    |
|                  |  |                  | 3         | 49                        | 45  | 40  | 37  | 34  | 31  | 26  | 23  | 20  | 17  | 15  | 14  |    |
|                  | D  | 7 to 20 Degrees  | 1         | 90                        | 81  | 73  | 66  | 60  | 55  | 47  | 40  | 35  | 30  | 27  | 24  |    |
|                  |  |                  | 2         | 67                        | 60  | 54  | 49  | 45  | 41  | 35  | 30  | 26  | 22  | 20  | 18  |    |
|                  |  |                  | 3         | 61                        | 55  | 50  | 45  | 41  | 38  | 32  | 27  | 24  | 21  | 18  | 16  |    |
|                  |  | 20 to 27 Degrees | 1         | 96                        | 96  | 93  | 84  | 77  | 70  | 60  | 51  | 44  | 39  | 34  | 30  |    |
|                  |  |                  | 2         | 79                        | 71  | 64  | 58  | 53  | 49  | 41  | 35  | 31  | 27  | 24  | 21  |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
| 27 to 45 Degrees |  | 1                | 96        | 90                        | 82  | 75  | 68  | 63  | 54  | 46  | 40  | 35  | 31  | 28  |     |    |
|                  |  | 2                | 54        | 49                        | 44  | 40  | 37  | 34  | 29  | 25  | 21  | 19  | 17  | 15  |     |    |
|                  |  | 3                | 42        | 38                        | 34  | 31  | 28  | 26  | 22  | 19  | 17  | 15  | 13  | 11  |     |    |
| 31-40 PSF        | B  | 7 to 20 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 94  | 79  | 68  | 59  | 51  | 45  | 40  |    |
|                  |  |                  | 2         | 96                        | 96  | 92  | 83  | 76  | 69  | 59  | 50  | 43  | 38  | 33  | 30  |    |
|                  |  |                  | 3         | 96                        | 94  | 85  | 77  | 70  | 64  | 54  | 46  | 40  | 35  | 31  | 27  |    |
|                  |  | 20 to 27 Degrees | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 86  | 75  | 66  | 58  | 51  |    |
|                  |  |                  | 2         | 96                        | 96  | 96  | 96  | 90  | 82  | 70  | 60  | 52  | 45  | 40  | 36  |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                  |  | 27 to 45 Degrees | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 88  | 76  | 67  | 59  | 52  | 46  |    |
|                  |  |                  | 2         | 89                        | 80  | 73  | 66  | 61  | 56  | 48  | 41  | 36  | 31  | 28  | 25  |    |
|                  |  |                  | 3         | 69                        | 63  | 57  | 52  | 47  | 43  | 37  | 32  | 28  | 24  | 22  | 19  |    |
|                  | C  | 7 to 20 Degrees  | 1         | 96                        | 96  | 87  | 79  | 72  | 66  | 56  | 48  | 41  | 36  | 32  | 28  |    |
|                  |  |                  | 2         | 80                        | 71  | 64  | 58  | 53  | 49  | 41  | 35  | 31  | 27  | 24  | 21  |    |
|                  |  |                  | 3         | 73                        | 66  | 59  | 54  | 49  | 45  | 38  | 32  | 28  | 25  | 22  | 19  |    |
|                  |  | 20 to 27 Degrees | 1         | 96                        | 96  | 96  | 96  | 92  | 84  | 71  | 61  | 53  | 46  | 41  | 36  |    |
|                  |  |                  | 2         | 94                        | 85  | 76  | 69  | 63  | 58  | 49  | 42  | 37  | 32  | 28  | 25  |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                  |  | 27 to 45 Degrees | 1         | 96                        | 96  | 96  | 88  | 81  | 74  | 63  | 55  | 48  | 42  | 37  | 33  |    |
|                  |  |                  | 2         | 64                        | 57  | 52  | 47  | 43  | 40  | 34  | 29  | 25  | 22  | 20  | 18  |    |
|                  |  |                  | 3         | 49                        | 45  | 40  | 37  | 34  | 31  | 26  | 23  | 20  | 17  | 15  | 14  |    |
|                  | D  | 7 to 20 Degrees  | 1         | 90                        | 81  | 73  | 66  | 60  | 55  | 47  | 40  | 35  | 30  | 27  | 24  |    |
|                  |  |                  | 2         | 67                        | 60  | 54  | 49  | 45  | 41  | 35  | 30  | 26  | 22  | 20  | 18  |    |
|                  |  |                  | 3         | 61                        | 55  | 50  | 45  | 41  | 38  | 32  | 27  | 24  | 21  | 18  | 16  |    |
|                  |  | 20 to 27 Degrees | 1         | 96                        | 96  | 93  | 84  | 77  | 70  | 60  | 51  | 44  | 39  | 34  | 30  |    |
|                  |  |                  | 2         | 79                        | 71  | 64  | 58  | 53  | 49  | 41  | 35  | 31  | 27  | 24  | 21  |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
| 27 to 45 Degrees |  | 1                | 96        | 90                        | 82  | 75  | 68  | 63  | 54  | 46  | 40  | 35  | 31  | 28  |     |    |
|                  |  | 2                | 54        | 49                        | 44  | 40  | 37  | 34  | 29  | 25  | 21  | 19  | 17  | 15  |     |    |
|                  |  | 3                | 42        | 38                        | 34  | 31  | 28  | 26  | 22  | 19  | 17  | 15  | 13  | 11  |     |    |
| 41-50 PSF        | B  | 7 to 20 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 94  | 79  | 68  | 59  | 51  | 45  | 40  |    |
|                  |  |                  | 2         | 96                        | 96  | 92  | 83  | 76  | 69  | 59  | 50  | 43  | 38  | 33  | 30  |    |
|                  |  |                  | 3         | 96                        | 94  | 85  | 77  | 70  | 64  | 54  | 46  | 40  | 35  | 31  | 27  |    |
|                  |  | 20 to 27 Degrees | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 86  | 75  | 66  | 58  | 51  |    |
|                  |  |                  | 2         | 96                        | 96  | 96  | 96  | 90  | 82  | 70  | 60  | 52  | 45  | 40  | 36  |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                  |  | 27 to 45 Degrees | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 88  | 76  | 67  | 59  | 52  | 46  |    |
|                  |  |                  | 2         | 89                        | 80  | 73  | 66  | 61  | 56  | 48  | 41  | 36  | 31  | 28  | 25  |    |
|                  |  |                  | 3         | 69                        | 63  | 57  | 52  | 47  | 43  | 37  | 32  | 28  | 24  | 22  | 19  |    |
|                  | C  | 7 to 20 Degrees  | 1         | 96                        | 96  | 87  | 79  | 72  | 66  | 56  | 48  | 41  | 36  | 32  | 28  |    |
|                  |  |                  | 2         | 80                        | 71  | 64  | 58  | 53  | 49  | 41  | 35  | 31  | 27  | 24  | 21  |    |
|                  |  |                  | 3         | 73                        | 66  | 59  | 54  | 49  | 45  | 38  | 32  | 28  | 25  | 22  | 19  |    |
|                  |  | 20 to 27 Degrees | 1         | 96                        | 96  | 96  | 96  | 92  | 84  | 71  | 61  | 53  | 46  | 41  | 36  |    |
|                  |  |                  | 2         | 94                        | 85  | 76  | 69  | 63  | 58  | 49  | 42  | 37  | 32  | 28  | 25  |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                  |  | 27 to 45 Degrees | 1         | 96                        | 96  | 96  | 88  | 81  | 74  | 63  | 55  | 48  | 42  | 37  | 33  |    |
|                  |  |                  | 2         | 64                        | 57  | 52  | 47  | 43  | 40  | 34  | 29  | 25  | 22  | 20  | 18  |    |
|                  |  |                  | 3         | 49                        | 45  | 40  | 37  | 34  | 31  | 26  | 23  | 20  | 17  | 15  | 14  |    |
|                  | D  | 7 to 20 Degrees  | 1         | 90                        | 81  | 73  | 66  | 60  | 55  | 47  | 40  | 35  | 30  | 27  | 24  |    |
|                  |  |                  | 2         | 67                        | 60  | 54  | 49  | 45  | 41  | 35  | 30  | 26  | 22  | 20  | 18  |    |
|                  |  |                  | 3         | 61                        | 55  | 50  | 45  | 41  | 38  | 32  | 27  | 24  | 21  | 18  | 16  |    |
|                  |  | 20 to 27 Degrees | 1         | 96                        | 96  | 93  | 84  | 77  | 70  | 60  | 51  | 44  | 39  | 34  | 30  |    |
|                  |  |                  | 2         | 79                        | 71  | 64  | 58  | 53  | 49  | 41  | 35  | 31  | 27  | 24  | 21  |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
| 27 to 45 Degrees |  | 1                | 96        | 90                        | 82  | 75  | 68  | 63  | 54  | 46  | 40  | 35  | 31  | 28  |     |    |
|                  |  | 2                | 54        | 49                        | 44  | 40  | 37  | 34  | 29  | 25  | 21  | 19  | 17  | 15  |     |    |
|                  |  | 3                | 42        | 38                        | 34  | 31  | 28  | 26  | 22  | 19  | 17  | 15  | 13  | 11  |     |    |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Snow Load                               | Exposure Category | Roof Angle       | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |
|---|-------------------|------------------|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|   |                   |                  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |
| <b>Portrait Orientation - ASCE 7-16</b> |                   |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |
| 51:60 PSF                               | B                 | 7 to 20 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 94  | 79  | 68  | 59  | 51  | 45  | 40  |
|   |                   |                  | 2         | 96                        | 96  | 92  | 83  | 76  | 69  | 59  | 50  | 43  | 38  | 33  | 30  |
|   |                   |                  | 3         | 96                        | 94  | 85  | 77  | 70  | 64  | 54  | 46  | 40  | 35  | 31  | 27  |
|   |                   | 20 to 27 Degrees | 1         | 84                        | 84  | 84  | 84  | 84  | 84  | 84  | 84  | 75  | 66  | 58  | 51  |
|   |                   |                  | 2         | 84                        | 84  | 84  | 84  | 84  | 82  | 70  | 60  | 52  | 45  | 40  | 36  |
|   |                   |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|   |                   | 27 to 45 Degrees | 1         | 85                        | 85  | 85  | 85  | 85  | 85  | 85  | 76  | 67  | 59  | 52  | 46  |
|   |                   |                  | 2         | 85                        | 80  | 73  | 66  | 61  | 56  | 48  | 41  | 36  | 31  | 28  | 25  |
|   |                   |                  | 3         | 69                        | 63  | 57  | 52  | 47  | 43  | 37  | 32  | 28  | 24  | 22  | 19  |
|   | C                 | 7 to 20 Degrees  | 1         | 96                        | 96  | 87  | 79  | 72  | 66  | 56  | 48  | 41  | 36  | 32  | 28  |
|   |                   |                  | 2         | 80                        | 71  | 64  | 58  | 53  | 49  | 41  | 35  | 31  | 27  | 24  | 21  |
|   |                   |                  | 3         | 73                        | 66  | 59  | 54  | 49  | 45  | 38  | 32  | 28  | 25  | 22  | 19  |
|   |                   | 20 to 27 Degrees | 1         | 84                        | 84  | 84  | 84  | 84  | 84  | 71  | 61  | 53  | 46  | 41  | 36  |
|   |                   |                  | 2         | 84                        | 84  | 76  | 69  | 63  | 58  | 49  | 42  | 37  | 32  | 28  | 25  |
|   |                   |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|   |                   | 27 to 45 Degrees | 1         | 85                        | 85  | 85  | 85  | 81  | 74  | 63  | 55  | 48  | 42  | 37  | 33  |
|   |                   |                  | 2         | 64                        | 57  | 52  | 47  | 43  | 40  | 34  | 29  | 25  | 22  | 20  | 18  |
|   |                   |                  | 3         | 49                        | 45  | 40  | 37  | 34  | 31  | 26  | 23  | 20  | 17  | 15  | 14  |
|   | D                 | 7 to 20 Degrees  | 1         | 90                        | 81  | 73  | 66  | 72  | 55  | 47  | 40  | 35  | 30  | 27  | 24  |
|   |                   |                  | 2         | 67                        | 60  | 54  | 49  | 45  | 41  | 35  | 30  | 26  | 22  | 20  | 18  |
|   |                   |                  | 3         | 61                        | 55  | 50  | 45  | 41  | 38  | 32  | 27  | 24  | 21  | 18  | 16  |
|   |                   | 20 to 27 Degrees | 1         | 84                        | 84  | 84  | 84  | 77  | 70  | 60  | 51  | 44  | 39  | 34  | 30  |
|   |                   |                  | 2         | 79                        | 71  | 64  | 58  | 53  | 49  | 41  | 35  | 31  | 27  | 24  | 21  |
|   |                   |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 27 to 45 Degrees                        |                   | 1                | 85        | 85                        | 82  | 75  | 68  | 63  | 54  | 46  | 40  | 35  | 31  | 28  |     |
|   |                   | 2                | 54        | 49                        | 44  | 40  | 37  | 34  | 29  | 25  | 21  | 19  | 17  | 15  |     |
|   |                   | 3                | 42        | 38                        | 34  | 31  | 28  | 26  | 22  | 19  | 17  | 15  | 13  | 11  |     |
| 61:70 PSF                               | B                 | 7 to 20 Degrees  | 1         | 84                        | 84  | 84  | 84  | 84  | 84  | 79  | 68  | 59  | 51  | 45  | 40  |
|   |                   |                  | 2         | 84                        | 84  | 84  | 83  | 76  | 69  | 59  | 50  | 43  | 38  | 33  | 30  |
|   |                   |                  | 3         | 84                        | 84  | 84  | 77  | 70  | 64  | 54  | 46  | 40  | 35  | 31  | 27  |
|   |                   | 20 to 27 Degrees | 1         | 73                        | 73  | 73  | 73  | 73  | 73  | 73  | 73  | 73  | 66  | 58  | 51  |
|   |                   |                  | 2         | 73                        | 73  | 73  | 73  | 73  | 73  | 70  | 60  | 52  | 45  | 40  | 36  |
|   |                   |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|   |                   | 27 to 45 Degrees | 1         | 74                        | 74  | 74  | 74  | 74  | 74  | 74  | 74  | 67  | 59  | 52  | 46  |
|   |                   |                  | 2         | 74                        | 74  | 73  | 66  | 61  | 56  | 48  | 41  | 36  | 31  | 28  | 25  |
|   |                   |                  | 3         | 69                        | 63  | 57  | 52  | 47  | 43  | 37  | 32  | 28  | 24  | 22  | 19  |
|   | C                 | 7 to 20 Degrees  | 1         | 84                        | 84  | 84  | 79  | 72  | 66  | 56  | 48  | 41  | 36  | 32  | 28  |
|   |                   |                  | 2         | 80                        | 71  | 64  | 58  | 53  | 49  | 41  | 35  | 31  | 27  | 24  | 21  |
|   |                   |                  | 3         | 73                        | 66  | 59  | 54  | 49  | 45  | 38  | 32  | 28  | 25  | 22  | 19  |
|   |                   | 20 to 27 Degrees | 1         | 73                        | 73  | 73  | 73  | 73  | 73  | 71  | 61  | 53  | 46  | 41  | 36  |
|   |                   |                  | 2         | 73                        | 73  | 73  | 69  | 63  | 58  | 49  | 42  | 37  | 32  | 28  | 25  |
|   |                   |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|   |                   | 27 to 45 Degrees | 1         | 74                        | 74  | 74  | 74  | 74  | 74  | 63  | 55  | 48  | 42  | 37  | 33  |
|   |                   |                  | 2         | 64                        | 57  | 52  | 47  | 43  | 40  | 34  | 29  | 25  | 22  | 20  | 18  |
|   |                   |                  | 3         | 49                        | 45  | 40  | 37  | 34  | 31  | 26  | 23  | 20  | 17  | 15  | 14  |
|   | D                 | 7 to 20 Degrees  | 1         | 84                        | 81  | 73  | 66  | 60  | 55  | 47  | 40  | 35  | 30  | 27  | 24  |
|   |                   |                  | 2         | 67                        | 60  | 54  | 49  | 45  | 41  | 35  | 30  | 26  | 22  | 20  | 18  |
|   |                   |                  | 3         | 61                        | 55  | 50  | 45  | 41  | 38  | 32  | 27  | 24  | 21  | 18  | 16  |
|   |                   | 20 to 27 Degrees | 1         | 73                        | 73  | 73  | 73  | 73  | 70  | 60  | 51  | 44  | 39  | 34  | 30  |
|   |                   |                  | 2         | 73                        | 71  | 64  | 58  | 53  | 49  | 41  | 35  | 31  | 27  | 24  | 21  |
|   |                   |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 27 to 45 Degrees                        |                   | 1                | 74        | 74                        | 74  | 74  | 68  | 63  | 54  | 46  | 40  | 35  | 31  | 28  |     |
|   |                   | 2                | 54        | 49                        | 44  | 40  | 37  | 34  | 29  | 25  | 21  | 19  | 17  | 15  |     |
|   |                   | 3                | 42        | 38                        | 34  | 31  | 28  | 26  | 22  | 19  | 17  | 15  | 13  | 11  |     |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Hip Roof<br>RT12 | RT-[E] Mount Mini Rafter Installations<br>(72 Cell PV Panels)<br>Maximum Mount Spacing in Inches |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |
|------------------|--|------------------|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                  | Portrait Orientation - ASCE 7-16   |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |
| Snow Load        | Exposure Category  | Roof Angle       | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |
|                  |  |                  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |
| 0 PSF            | B  | 7 to 20 Degrees  | 1         | 96                        | 96  | 96  | 96  | 90  | 83  | 70  | 59  | 51  | 45  | 40  | 35  |
|                  |  |                  | 2         | 96                        | 90  | 81  | 73  | 67  | 61  | 51  | 44  | 38  | 33  | 29  | 26  |
|                  |  |                  | 3         | 92                        | 82  | 74  | 67  | 61  | 56  | 47  | 40  | 35  | 31  | 27  | 24  |
|                  |  | 20 to 27 Degrees | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 89  | 76  | 66  | 57  | 51  | 45  |
|                  |  |                  | 2         | 96                        | 96  | 95  | 86  | 79  | 72  | 61  | 52  | 45  | 40  | 35  | 31  |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                  |  | 27 to 45 Degrees | 1         | 96                        | 96  | 96  | 96  | 96  | 91  | 78  | 67  | 58  | 51  | 46  | 41  |
|                  |  |                  | 2         | 78                        | 70  | 64  | 58  | 53  | 49  | 42  | 36  | 31  | 27  | 24  | 22  |
|                  |  |                  | 3         | 61                        | 55  | 50  | 45  | 41  | 38  | 32  | 28  | 24  | 21  | 19  | 17  |
|                  | C  | 7 to 20 Degrees  | 1         | 95                        | 85  | 77  | 69  | 63  | 58  | 49  | 42  | 36  | 32  | 28  | 25  |
|                  |  |                  | 2         | 70                        | 63  | 56  | 51  | 47  | 43  | 36  | 31  | 27  | 23  | 21  | 18  |
|                  |  |                  | 3         | 64                        | 57  | 52  | 47  | 43  | 39  | 33  | 28  | 25  | 22  | 19  | 17  |
|                  |  | 20 to 27 Degrees | 1         | 96                        | 96  | 96  | 88  | 80  | 73  | 62  | 53  | 46  | 40  | 36  | 32  |
|                  |  |                  | 2         | 82                        | 74  | 67  | 61  | 55  | 51  | 43  | 37  | 32  | 28  | 25  | 22  |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                  |  | 27 to 45 Degrees | 1         | 96                        | 93  | 85  | 77  | 71  | 65  | 55  | 48  | 42  | 37  | 32  | 29  |
|                  |  |                  | 2         | 56                        | 50  | 46  | 42  | 38  | 35  | 30  | 26  | 22  | 19  | 17  | 15  |
|                  |  |                  | 3         | 43                        | 39  | 35  | 32  | 30  | 27  | 23  | 20  | 17  | 15  | 13  | 12  |
|                  | D  | 7 to 20 Degrees  | 1         | 79                        | 71  | 64  | 58  | 53  | 48  | 41  | 35  | 30  | 26  | 23  | 21  |
|                  |  |                  | 2         | 58                        | 52  | 47  | 43  | 39  | 36  | 30  | 26  | 22  | 20  | 17  | 15  |
|                  |  |                  | 3         | 54                        | 48  | 43  | 39  | 36  | 33  | 28  | 24  | 21  | 18  | 16  | 14  |
|                  |  | 20 to 27 Degrees | 1         | 96                        | 90  | 81  | 74  | 67  | 62  | 52  | 45  | 39  | 34  | 30  | 27  |
|                  |  |                  | 2         | 69                        | 62  | 56  | 51  | 47  | 43  | 36  | 31  | 27  | 24  | 21  | 18  |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 27 to 45 Degrees |  | 1                | 87        | 79                        | 72  | 65  | 60  | 55  | 47  | 40  | 35  | 31  | 27  | 24  |     |
|                  |  | 2                | 47        | 42                        | 39  | 35  | 32  | 29  | 25  | 22  | 19  | 16  | 14  | 13  |     |
|                  |  | 3                | 37        | 33                        | 30  | 27  | 25  | 23  | 19  | 17  | 14  | 13  | 11  | 10  |     |
| 1-10 PSF         | B  | 7 to 20 Degrees  | 1         | 96                        | 96  | 96  | 96  | 90  | 83  | 70  | 59  | 51  | 45  | 40  | 35  |
|                  |  |                  | 2         | 96                        | 90  | 81  | 73  | 67  | 61  | 51  | 44  | 38  | 33  | 29  | 26  |
|                  |  |                  | 3         | 92                        | 82  | 74  | 67  | 61  | 56  | 47  | 40  | 35  | 31  | 27  | 24  |
|                  |  | 20 to 27 Degrees | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 89  | 76  | 66  | 57  | 51  | 45  |
|                  |  |                  | 2         | 96                        | 96  | 95  | 86  | 79  | 72  | 61  | 52  | 45  | 40  | 35  | 31  |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                  |  | 27 to 45 Degrees | 1         | 96                        | 96  | 96  | 96  | 96  | 91  | 78  | 67  | 58  | 51  | 46  | 41  |
|                  |  |                  | 2         | 78                        | 70  | 64  | 58  | 53  | 49  | 42  | 36  | 31  | 27  | 24  | 22  |
|                  |  |                  | 3         | 61                        | 55  | 50  | 45  | 41  | 38  | 32  | 28  | 24  | 21  | 19  | 17  |
|                  | C  | 7 to 20 Degrees  | 1         | 95                        | 85  | 77  | 69  | 63  | 58  | 49  | 42  | 36  | 32  | 28  | 25  |
|                  |  |                  | 2         | 70                        | 63  | 56  | 51  | 47  | 43  | 36  | 31  | 27  | 23  | 21  | 18  |
|                  |  |                  | 3         | 64                        | 57  | 52  | 47  | 43  | 39  | 33  | 28  | 25  | 22  | 19  | 17  |
|                  |  | 20 to 27 Degrees | 1         | 96                        | 96  | 96  | 88  | 80  | 73  | 62  | 53  | 46  | 40  | 36  | 32  |
|                  |  |                  | 2         | 82                        | 74  | 67  | 61  | 55  | 51  | 43  | 37  | 32  | 28  | 25  | 22  |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                  |  | 27 to 45 Degrees | 1         | 96                        | 93  | 85  | 77  | 71  | 65  | 55  | 48  | 42  | 37  | 32  | 29  |
|                  |  |                  | 2         | 56                        | 50  | 46  | 42  | 38  | 35  | 30  | 26  | 22  | 19  | 17  | 15  |
|                  |  |                  | 3         | 43                        | 39  | 35  | 32  | 30  | 27  | 23  | 20  | 17  | 15  | 13  | 12  |
|                  | D  | 7 to 20 Degrees  | 1         | 79                        | 71  | 64  | 58  | 53  | 48  | 41  | 35  | 30  | 26  | 23  | 21  |
|                  |  |                  | 2         | 58                        | 52  | 47  | 43  | 39  | 36  | 30  | 26  | 22  | 20  | 17  | 15  |
|                  |  |                  | 3         | 54                        | 48  | 43  | 39  | 36  | 33  | 28  | 24  | 21  | 18  | 16  | 14  |
|                  |  | 20 to 27 Degrees | 1         | 96                        | 90  | 81  | 74  | 67  | 62  | 52  | 45  | 39  | 34  | 30  | 27  |
|                  |  |                  | 2         | 69                        | 62  | 56  | 51  | 47  | 43  | 36  | 31  | 27  | 24  | 21  | 18  |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 27 to 45 Degrees |  | 1                | 87        | 79                        | 72  | 65  | 60  | 55  | 47  | 40  | 35  | 31  | 27  | 24  |     |
|                  |  | 2                | 47        | 42                        | 39  | 35  | 32  | 29  | 25  | 22  | 19  | 16  | 14  | 13  |     |
|                  |  | 3                | 37        | 33                        | 30  | 27  | 25  | 23  | 19  | 17  | 14  | 13  | 11  | 10  |     |
| 1-1-20 PSF       | B  | 7 to 20 Degrees  | 1         | 96                        | 96  | 96  | 96  | 90  | 83  | 70  | 59  | 51  | 45  | 40  | 35  |
|                  |  |                  | 2         | 96                        | 90  | 81  | 73  | 67  | 61  | 51  | 44  | 38  | 33  | 29  | 26  |
|                  |  |                  | 3         | 92                        | 82  | 74  | 67  | 61  | 56  | 47  | 40  | 35  | 31  | 27  | 24  |
|                  |  | 20 to 27 Degrees | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 89  | 76  | 66  | 57  | 51  | 45  |
|                  |  |                  | 2         | 96                        | 96  | 95  | 86  | 79  | 72  | 61  | 52  | 45  | 40  | 35  | 31  |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                  |  | 27 to 45 Degrees | 1         | 96                        | 96  | 96  | 96  | 96  | 91  | 78  | 67  | 58  | 51  | 46  | 41  |
|                  |  |                  | 2         | 78                        | 70  | 64  | 58  | 53  | 49  | 42  | 36  | 31  | 27  | 24  | 22  |
|                  |  |                  | 3         | 61                        | 55  | 50  | 45  | 41  | 38  | 32  | 28  | 24  | 21  | 19  | 17  |
|                  | C  | 7 to 20 Degrees  | 1         | 95                        | 85  | 77  | 69  | 63  | 58  | 49  | 42  | 36  | 32  | 28  | 25  |
|                  |  |                  | 2         | 70                        | 63  | 56  | 51  | 47  | 43  | 36  | 31  | 27  | 23  | 21  | 18  |
|                  |  |                  | 3         | 64                        | 57  | 52  | 47  | 43  | 39  | 33  | 28  | 25  | 22  | 19  | 17  |
|                  |  | 20 to 27 Degrees | 1         | 96                        | 96  | 96  | 88  | 80  | 73  | 62  | 53  | 46  | 40  | 36  | 32  |
|                  |  |                  | 2         | 82                        | 74  | 67  | 61  | 55  | 51  | 43  | 37  | 32  | 28  | 25  | 22  |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                  |  | 27 to 45 Degrees | 1         | 96                        | 93  | 85  | 77  | 71  | 65  | 55  | 48  | 42  | 37  | 32  | 29  |
|                  |  |                  | 2         | 56                        | 50  | 46  | 42  | 38  | 35  | 30  | 26  | 22  | 19  | 17  | 15  |
|                  |  |                  | 3         | 43                        | 39  | 35  | 32  | 30  | 27  | 23  | 20  | 17  | 15  | 13  | 12  |
|                  | D  | 7 to 20 Degrees  | 1         | 79                        | 71  | 64  | 58  | 53  | 48  | 41  | 35  | 30  | 26  | 23  | 21  |
|                  |  |                  | 2         | 58                        | 52  | 47  | 43  | 39  | 36  | 30  | 26  | 22  | 20  | 17  | 15  |
|                  |  |                  | 3         | 54                        | 48  | 43  | 39  | 36  | 33  | 28  | 24  | 21  | 18  | 16  | 14  |
|                  |  | 20 to 27 Degrees | 1         | 96                        | 90  | 81  | 74  | 67  | 62  | 52  | 45  | 39  | 34  | 30  | 27  |
|                  |  |                  | 2         | 69                        | 62  | 56  | 51  | 47  | 43  | 36  | 31  | 27  | 24  | 21  | 18  |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 27 to 45 Degrees |  | 1                | 87        | 79                        | 72  | 65  | 60  | 55  | 47  | 40  | 35  | 31  | 27  | 24  |     |
|                  |  | 2                | 47        | 42                        | 39  | 35  | 32  | 29  | 25  | 22  | 19  | 16  | 14  | 13  |     |
|                  |  | 3                | 37        | 33                        | 30  | 27  | 25  | 23  | 19  | 17  | 14  | 13  | 11  | 10  |     |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Hip Roof<br>RT12 | RT-[E] Mount Mini Rafter Installations<br>(72 Cell PV Panels)<br>Maximum Mount Spacing in Inches |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |
|------------------|--|------------------|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
|                  | Portrait Orientation - ASCE 7-16   |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |
| Snow Load        | Exposure Category  | Roof Angle       | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |    |
|                  |  |                  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |    |
| 21-30 PSF        | B  | 7 to 20 Degrees  | 1         | 96                        | 96  | 96  | 96  | 90  | 83  | 70  | 59  | 51  | 45  | 40  | 35  |    |
|                  |  |                  | 2         | 96                        | 90  | 81  | 73  | 67  | 61  | 51  | 44  | 38  | 33  | 29  | 26  |    |
|                  |  |                  | 3         | 92                        | 82  | 74  | 67  | 61  | 56  | 47  | 40  | 35  | 31  | 27  | 24  |    |
|                  |  | 20 to 27 Degrees | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 89  | 76  | 66  | 57  | 51  | 45  |    |
|                  |  |                  | 2         | 96                        | 96  | 95  | 86  | 79  | 72  | 61  | 52  | 45  | 40  | 35  | 31  |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                  |  | 27 to 45 Degrees | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 91  | 78  | 67  | 58  | 51  | 46  | 41 |
|                  |  |                  | 2         | 78                        | 70  | 64  | 58  | 53  | 49  | 42  | 36  | 31  | 27  | 24  | 22  |    |
|                  |  |                  | 3         | 61                        | 55  | 50  | 45  | 41  | 38  | 32  | 28  | 24  | 21  | 19  | 17  |    |
|                  | C  | 7 to 20 Degrees  | 1         | 95                        | 85  | 77  | 69  | 63  | 58  | 49  | 42  | 36  | 32  | 28  | 25  |    |
|                  |  |                  | 2         | 70                        | 63  | 56  | 51  | 47  | 43  | 36  | 31  | 27  | 23  | 21  | 18  |    |
|                  |  |                  | 3         | 64                        | 57  | 52  | 47  | 43  | 39  | 33  | 28  | 25  | 22  | 19  | 17  |    |
|                  |  | 20 to 27 Degrees | 1         | 96                        | 96  | 96  | 88  | 80  | 73  | 62  | 53  | 46  | 40  | 36  | 32  |    |
|                  |  |                  | 2         | 82                        | 74  | 67  | 61  | 55  | 51  | 43  | 37  | 32  | 28  | 25  | 22  |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                  |  | 27 to 45 Degrees | 1         | 96                        | 93  | 85  | 77  | 71  | 65  | 55  | 48  | 42  | 37  | 32  | 29  |    |
|                  |  |                  | 2         | 56                        | 50  | 46  | 42  | 38  | 35  | 30  | 26  | 22  | 19  | 17  | 15  |    |
|                  |  |                  | 3         | 43                        | 39  | 35  | 32  | 30  | 27  | 23  | 20  | 17  | 15  | 13  | 12  |    |
|                  | D  | 7 to 20 Degrees  | 1         | 79                        | 71  | 64  | 58  | 53  | 48  | 41  | 35  | 30  | 26  | 23  | 21  |    |
|                  |  |                  | 2         | 58                        | 52  | 47  | 43  | 39  | 36  | 30  | 26  | 22  | 20  | 17  | 15  |    |
|                  |  |                  | 3         | 54                        | 48  | 43  | 39  | 36  | 33  | 28  | 24  | 21  | 18  | 16  | 14  |    |
|                  |  | 20 to 27 Degrees | 1         | 96                        | 90  | 81  | 74  | 67  | 62  | 52  | 45  | 39  | 34  | 30  | 27  |    |
|                  |  |                  | 2         | 69                        | 62  | 56  | 51  | 47  | 43  | 36  | 31  | 27  | 24  | 21  | 18  |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
| 27 to 45 Degrees |  | 1                | 87        | 79                        | 72  | 65  | 60  | 55  | 47  | 40  | 35  | 31  | 27  | 24  |     |    |
|                  |  | 2                | 47        | 42                        | 39  | 35  | 32  | 29  | 25  | 22  | 19  | 16  | 14  | 13  |     |    |
|                  |  | 3                | 37        | 33                        | 30  | 27  | 25  | 23  | 19  | 17  | 14  | 13  | 11  | 10  |     |    |
| 31-40 PSF        | B  | 7 to 20 Degrees  | 1         | 96                        | 96  | 96  | 96  | 90  | 83  | 70  | 59  | 51  | 45  | 40  | 35  |    |
|                  |  |                  | 2         | 96                        | 90  | 81  | 73  | 67  | 61  | 51  | 44  | 38  | 33  | 29  | 26  |    |
|                  |  |                  | 3         | 92                        | 82  | 74  | 67  | 61  | 56  | 47  | 40  | 35  | 31  | 27  | 24  |    |
|                  |  | 20 to 27 Degrees | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 89  | 76  | 66  | 57  | 51  | 45  |    |
|                  |  |                  | 2         | 96                        | 96  | 95  | 86  | 79  | 72  | 61  | 52  | 45  | 40  | 35  | 31  |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                  |  | 27 to 45 Degrees | 1         | 96                        | 96  | 96  | 96  | 96  | 91  | 78  | 67  | 58  | 51  | 46  | 41  |    |
|                  |  |                  | 2         | 78                        | 70  | 64  | 58  | 53  | 49  | 42  | 36  | 31  | 27  | 24  | 22  |    |
|                  |  |                  | 3         | 61                        | 55  | 50  | 45  | 41  | 38  | 32  | 28  | 24  | 21  | 19  | 17  |    |
|                  | C  | 7 to 20 Degrees  | 1         | 95                        | 85  | 77  | 69  | 63  | 58  | 49  | 42  | 36  | 32  | 28  | 25  |    |
|                  |  |                  | 2         | 70                        | 63  | 56  | 51  | 47  | 43  | 36  | 31  | 27  | 23  | 21  | 18  |    |
|                  |  |                  | 3         | 64                        | 57  | 52  | 47  | 43  | 39  | 33  | 28  | 25  | 22  | 19  | 17  |    |
|                  |  | 20 to 27 Degrees | 1         | 96                        | 96  | 96  | 88  | 80  | 73  | 62  | 53  | 46  | 40  | 36  | 32  |    |
|                  |  |                  | 2         | 82                        | 74  | 67  | 61  | 55  | 51  | 43  | 37  | 32  | 28  | 25  | 22  |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                  |  | 27 to 45 Degrees | 1         | 96                        | 93  | 85  | 77  | 71  | 65  | 55  | 48  | 42  | 37  | 32  | 29  |    |
|                  |  |                  | 2         | 56                        | 50  | 46  | 42  | 38  | 35  | 30  | 26  | 22  | 19  | 17  | 15  |    |
|                  |  |                  | 3         | 43                        | 39  | 35  | 32  | 30  | 27  | 23  | 20  | 17  | 15  | 13  | 12  |    |
|                  | D  | 7 to 20 Degrees  | 1         | 79                        | 71  | 64  | 58  | 53  | 48  | 41  | 35  | 30  | 26  | 23  | 21  |    |
|                  |  |                  | 2         | 58                        | 52  | 47  | 43  | 39  | 36  | 30  | 26  | 22  | 20  | 17  | 15  |    |
|                  |  |                  | 3         | 54                        | 48  | 43  | 39  | 36  | 33  | 28  | 24  | 21  | 18  | 16  | 14  |    |
|                  |  | 20 to 27 Degrees | 1         | 96                        | 90  | 81  | 74  | 67  | 62  | 52  | 45  | 39  | 34  | 30  | 27  |    |
|                  |  |                  | 2         | 69                        | 62  | 56  | 51  | 47  | 43  | 36  | 31  | 27  | 24  | 21  | 18  |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
| 27 to 45 Degrees |  | 1                | 87        | 79                        | 72  | 65  | 60  | 55  | 47  | 40  | 35  | 31  | 27  | 24  |     |    |
|                  |  | 2                | 47        | 42                        | 39  | 35  | 32  | 29  | 25  | 22  | 19  | 16  | 14  | 13  |     |    |
|                  |  | 3                | 37        | 33                        | 30  | 27  | 25  | 23  | 19  | 17  | 14  | 13  | 11  | 10  |     |    |
| 41-50 PSF        | B  | 7 to 20 Degrees  | 1         | 96                        | 96  | 96  | 96  | 90  | 83  | 70  | 59  | 51  | 45  | 40  | 35  |    |
|                  |  |                  | 2         | 96                        | 90  | 81  | 73  | 67  | 61  | 51  | 44  | 38  | 33  | 29  | 26  |    |
|                  |  |                  | 3         | 92                        | 82  | 74  | 67  | 61  | 56  | 47  | 40  | 35  | 31  | 27  | 24  |    |
|                  |  | 20 to 27 Degrees | 1         | 87                        | 87  | 87  | 87  | 87  | 87  | 87  | 76  | 66  | 57  | 51  | 45  |    |
|                  |  |                  | 2         | 87                        | 87  | 87  | 86  | 79  | 72  | 61  | 52  | 45  | 40  | 35  | 31  |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                  |  | 27 to 45 Degrees | 1         | 87                        | 87  | 87  | 87  | 87  | 87  | 78  | 67  | 58  | 51  | 46  | 41  |    |
|                  |  |                  | 2         | 78                        | 70  | 64  | 58  | 53  | 49  | 42  | 36  | 31  | 27  | 24  | 22  |    |
|                  |  |                  | 3         | 61                        | 55  | 50  | 45  | 41  | 38  | 32  | 28  | 24  | 21  | 19  | 17  |    |
|                  | C  | 7 to 20 Degrees  | 1         | 95                        | 85  | 77  | 69  | 63  | 58  | 49  | 42  | 36  | 32  | 28  | 25  |    |
|                  |  |                  | 2         | 70                        | 63  | 56  | 51  | 47  | 43  | 36  | 31  | 27  | 23  | 21  | 18  |    |
|                  |  |                  | 3         | 64                        | 57  | 52  | 47  | 43  | 39  | 33  | 28  | 25  | 22  | 19  | 17  |    |
|                  |  | 20 to 27 Degrees | 1         | 87                        | 87  | 87  | 87  | 80  | 73  | 62  | 53  | 46  | 40  | 36  | 32  |    |
|                  |  |                  | 2         | 82                        | 74  | 67  | 61  | 55  | 51  | 43  | 37  | 32  | 28  | 25  | 22  |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                  |  | 27 to 45 Degrees | 1         | 87                        | 87  | 85  | 77  | 71  | 65  | 55  | 48  | 42  | 37  | 32  | 29  |    |
|                  |  |                  | 2         | 56                        | 50  | 46  | 42  | 38  | 35  | 30  | 26  | 22  | 19  | 17  | 15  |    |
|                  |  |                  | 3         | 43                        | 39  | 35  | 32  | 30  | 27  | 23  | 20  | 17  | 15  | 13  | 12  |    |
|                  | D  | 7 to 20 Degrees  | 1         | 79                        | 71  | 64  | 58  | 53  | 48  | 41  | 35  | 30  | 26  | 23  | 21  |    |
|                  |  |                  | 2         | 58                        | 52  | 47  | 43  | 39  | 36  | 30  | 26  | 22  | 20  | 17  | 15  |    |
|                  |  |                  | 3         | 54                        | 48  | 43  | 39  | 36  | 33  | 28  | 24  | 21  | 18  | 16  | 14  |    |
|                  |  | 20 to 27 Degrees | 1         | 87                        | 87  | 81  | 74  | 67  | 62  | 52  | 45  | 39  | 34  | 30  | 27  |    |
|                  |  |                  | 2         | 69                        | 62  | 56  | 51  | 47  | 43  | 36  | 31  | 27  | 24  | 21  | 18  |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
| 27 to 45 Degrees |  | 1                | 87        | 79                        | 72  | 65  | 60  | 55  | 47  | 40  | 35  | 31  | 27  | 24  |     |    |
|                  |  | 2                | 47        | 42                        | 39  | 35  | 32  | 29  | 25  | 22  | 19  | 16  | 14  | 13  |     |    |
|                  |  | 3                | 37        | 33                        | 30  | 27  | 25  | 23  | 19  | 17  | 14  | 13  | 11  | 10  |     |    |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.



| Hip Roof<br>RT12 | RT-[E] Mount Mini Rafter Installations<br>(72 Cell PV Panels)<br>Maximum Mount Spacing in Inches |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |
|------------------|--|------------------|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
|                  | Portrait Orientation - ASCE 7-16   |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |
| Snow Load        | Exposure Category  | Roof Angle       | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |    |
|                  |  |                  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |    |
| 5.1-60 PSF       | B  | 7 to 20 Degrees  | 1         | 85                        | 85  | 85  | 85  | 85  | 83  | 70  | 59  | 51  | 45  | 40  | 35  |    |
|                  |  |                  | 2         | 85                        | 85  | 81  | 73  | 67  | 61  | 51  | 44  | 38  | 33  | 29  | 26  |    |
|                  |  |                  | 3         | 85                        | 82  | 74  | 67  | 61  | 56  | 47  | 40  | 35  | 31  | 27  | 24  |    |
|                  |  | 20 to 27 Degrees | 1         | 74                        | 74  | 74  | 74  | 74  | 74  | 74  | 74  | 74  | 66  | 57  | 51  | 45 |
|                  |  |                  | 2         | 74                        | 74  | 74  | 74  | 74  | 74  | 72  | 61  | 52  | 45  | 40  | 35  | 31 |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  |
|                  |  | 27 to 45 Degrees | 1         | 75                        | 75  | 75  | 75  | 75  | 75  | 75  | 75  | 67  | 58  | 51  | 46  | 41 |
|                  |  |                  | 2         | 75                        | 70  | 64  | 58  | 53  | 49  | 42  | 36  | 31  | 27  | 24  | 22  |    |
|                  |  |                  | 3         | 61                        | 55  | 50  | 45  | 41  | 38  | 32  | 28  | 24  | 21  | 19  | 17  |    |
|                  | C  | 7 to 20 Degrees  | 1         | 85                        | 85  | 77  | 69  | 63  | 58  | 49  | 42  | 36  | 32  | 28  | 25  |    |
|                  |  |                  | 2         | 70                        | 63  | 56  | 51  | 47  | 43  | 36  | 31  | 27  | 23  | 21  | 18  |    |
|                  |  |                  | 3         | 64                        | 57  | 52  | 47  | 43  | 39  | 33  | 28  | 25  | 22  | 19  | 17  |    |
|                  |  | 20 to 27 Degrees | 1         | 74                        | 74  | 74  | 74  | 74  | 73  | 62  | 53  | 46  | 40  | 36  | 32  |    |
|                  |  |                  | 2         | 74                        | 74  | 67  | 61  | 55  | 51  | 43  | 37  | 32  | 28  | 25  | 22  |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                  |  | 27 to 45 Degrees | 1         | 75                        | 75  | 75  | 75  | 71  | 65  | 55  | 48  | 42  | 37  | 32  | 29  |    |
|                  |  |                  | 2         | 56                        | 50  | 46  | 42  | 38  | 35  | 30  | 26  | 22  | 19  | 17  | 15  |    |
|                  |  |                  | 3         | 43                        | 39  | 35  | 32  | 30  | 27  | 23  | 20  | 17  | 15  | 13  | 12  |    |
|                  | D  | 7 to 20 Degrees  | 1         | 79                        | 71  | 64  | 58  | 63  | 48  | 41  | 35  | 30  | 26  | 23  | 21  |    |
|                  |  |                  | 2         | 58                        | 52  | 47  | 43  | 39  | 36  | 30  | 26  | 22  | 20  | 17  | 15  |    |
|                  |  |                  | 3         | 54                        | 48  | 43  | 39  | 36  | 33  | 28  | 24  | 21  | 18  | 16  | 14  |    |
|                  |  | 20 to 27 Degrees | 1         | 74                        | 74  | 74  | 74  | 67  | 62  | 52  | 45  | 39  | 34  | 30  | 27  |    |
|                  |  |                  | 2         | 69                        | 62  | 56  | 51  | 47  | 43  | 36  | 31  | 27  | 24  | 21  | 18  |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
| 27 to 45 Degrees |  | 1                | 75        | 75                        | 72  | 65  | 60  | 55  | 47  | 40  | 35  | 31  | 27  | 24  |     |    |
|                  |  | 2                | 47        | 42                        | 39  | 35  | 32  | 29  | 25  | 22  | 19  | 16  | 14  | 13  |     |    |
|                  |  | 3                | 37        | 33                        | 30  | 27  | 25  | 23  | 19  | 17  | 14  | 13  | 11  | 10  |     |    |
| 6.1-70 PSF       | B  | 7 to 20 Degrees  | 1         | 74                        | 74  | 74  | 74  | 74  | 74  | 70  | 59  | 51  | 45  | 40  | 35  |    |
|                  |  |                  | 2         | 74                        | 74  | 74  | 73  | 67  | 61  | 51  | 44  | 38  | 33  | 29  | 26  |    |
|                  |  |                  | 3         | 74                        | 74  | 74  | 67  | 61  | 56  | 47  | 40  | 35  | 31  | 27  | 24  |    |
|                  |  | 20 to 27 Degrees | 1         | 64                        | 64  | 64  | 64  | 64  | 64  | 64  | 64  | 64  | 57  | 51  | 45  |    |
|                  |  |                  | 2         | 64                        | 64  | 64  | 64  | 64  | 64  | 61  | 52  | 45  | 40  | 35  | 31  |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                  |  | 27 to 45 Degrees | 1         | 65                        | 65  | 65  | 65  | 65  | 65  | 65  | 65  | 58  | 51  | 46  | 41  |    |
|                  |  |                  | 2         | 65                        | 65  | 64  | 58  | 53  | 49  | 42  | 36  | 31  | 27  | 24  | 22  |    |
|                  |  |                  | 3         | 61                        | 55  | 50  | 45  | 41  | 38  | 32  | 28  | 24  | 21  | 19  | 17  |    |
|                  | C  | 7 to 20 Degrees  | 1         | 74                        | 74  | 74  | 69  | 63  | 58  | 49  | 42  | 36  | 32  | 28  | 25  |    |
|                  |  |                  | 2         | 70                        | 63  | 56  | 51  | 47  | 43  | 36  | 31  | 27  | 23  | 21  | 18  |    |
|                  |  |                  | 3         | 64                        | 57  | 52  | 47  | 43  | 39  | 33  | 28  | 25  | 22  | 19  | 17  |    |
|                  |  | 20 to 27 Degrees | 1         | 64                        | 64  | 64  | 64  | 64  | 64  | 62  | 53  | 46  | 40  | 36  | 32  |    |
|                  |  |                  | 2         | 64                        | 64  | 64  | 61  | 55  | 51  | 43  | 37  | 32  | 28  | 25  | 22  |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                  |  | 27 to 45 Degrees | 1         | 65                        | 65  | 65  | 65  | 65  | 65  | 55  | 48  | 42  | 37  | 32  | 29  |    |
|                  |  |                  | 2         | 56                        | 50  | 46  | 42  | 38  | 35  | 30  | 26  | 22  | 19  | 17  | 15  |    |
|                  |  |                  | 3         | 43                        | 39  | 35  | 32  | 30  | 27  | 23  | 20  | 17  | 15  | 13  | 12  |    |
|                  | D  | 7 to 20 Degrees  | 1         | 74                        | 71  | 64  | 58  | 53  | 48  | 41  | 35  | 30  | 26  | 23  | 21  |    |
|                  |  |                  | 2         | 58                        | 52  | 47  | 43  | 39  | 36  | 30  | 26  | 22  | 20  | 17  | 15  |    |
|                  |  |                  | 3         | 54                        | 48  | 43  | 39  | 36  | 33  | 28  | 24  | 21  | 18  | 16  | 14  |    |
|                  |  | 20 to 27 Degrees | 1         | 64                        | 64  | 64  | 64  | 64  | 62  | 52  | 45  | 39  | 34  | 30  | 27  |    |
|                  |  |                  | 2         | 64                        | 62  | 56  | 51  | 47  | 43  | 36  | 31  | 27  | 24  | 21  | 18  |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
| 27 to 45 Degrees |  | 1                | 65        | 65                        | 65  | 65  | 60  | 55  | 47  | 40  | 35  | 31  | 27  | 24  |     |    |
|                  |  | 2                | 47        | 42                        | 39  | 35  | 32  | 29  | 25  | 22  | 19  | 16  | 14  | 13  |     |    |
|                  |  | 3                | 37        | 33                        | 30  | 27  | 25  | 23  | 19  | 17  | 14  | 13  | 11  | 10  |     |    |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Hip Roof RT13    | RT-[E] Mount Mini Plywood Only Installations<br>(60 Cell PV Panels)<br>Maximum Mount Spacing in Inches |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |
|------------------|--|------------------|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                  | Portrait Orientation - ASCE 7-16   |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |
| Snow Load        | Exposure Category  | Roof Angle       | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |
|                  |  |                  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |
| 0 PSF            | B  | 7 to 20 Degrees  | 1         | 65                        | 58  | 52  | 47  | 42  | 39  | 32  | 28  | 24  | 21  | 18  | 16  |
|                  |  |                  | 2         | 47                        | 42  | 38  | 34  | 31  | 28  | 24  | 20  | 17  | 15  | 13  | 12  |
|                  |  |                  | 3         | 43                        | 38  | 35  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |
|                  |  | 20 to 27 Degrees | 1         | 85                        | 75  | 67  | 61  | 55  | 50  | 42  | 36  | 31  | 27  | 23  | 21  |
|                  |  |                  | 2         | 57                        | 50  | 45  | 41  | 37  | 34  | 28  | 24  | 21  | 18  | 16  | 14  |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                  |  | 27 to 45 Degrees | 1         | 72                        | 65  | 58  | 53  | 48  | 44  | 37  | 32  | 28  | 24  | 21  | 19  |
|                  |  |                  | 2         | 37                        | 34  | 30  | 28  | 25  | 23  | 19  | 17  | 14  | 13  | 11  | 10  |
|                  |  |                  | 3         | 29                        | 26  | 23  | 21  | 19  | 18  | 15  | 13  | 11  | 10  | 8   | 8   |
|                  | C  | 7 to 20 Degrees  | 1         | 45                        | 40  | 36  | 32  | 29  | 27  | 22  | 19  | 17  | 14  | 13  | 11  |
|                  |  |                  | 2         | 32                        | 29  | 26  | 24  | 21  | 20  | 16  | 14  | 12  | 11  | 9   | 8   |
|                  |  |                  | 3         | 30                        | 27  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 8   | 8   |
|                  |  | 20 to 27 Degrees | 1         | 58                        | 51  | 46  | 42  | 38  | 35  | 29  | 25  | 21  | 19  | 16  | 15  |
|                  |  |                  | 2         | 39                        | 35  | 31  | 28  | 26  | 24  | 20  | 17  | 15  | 13  | 11  | 10  |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                  |  | 27 to 45 Degrees | 1         | 50                        | 45  | 41  | 37  | 34  | 31  | 26  | 22  | 19  | 17  | 15  | 13  |
|                  |  |                  | 2         | 26                        | 24  | 21  | 19  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |
|                  |  |                  | 3         | 20                        | 18  | 16  | 15  | 14  | 12  | 10  | 9   | 8   | 7   | 6   | 5   |
|                  | D  | 7 to 20 Degrees  | 1         | 37                        | 33  | 30  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 11  | 9   |
|                  |  |                  | 2         | 27                        | 24  | 22  | 20  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |
|                  |  |                  | 3         | 25                        | 22  | 20  | 18  | 16  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |
|                  |  | 20 to 27 Degrees | 1         | 48                        | 43  | 38  | 35  | 32  | 29  | 24  | 21  | 18  | 16  | 14  | 12  |
|                  |  |                  | 2         | 32                        | 29  | 26  | 24  | 22  | 20  | 17  | 14  | 12  | 11  | 9   | 8   |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 27 to 45 Degrees |  | 1                | 42        | 38                        | 34  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 13  | 11  |     |
|                  |  | 2                | 22        | 20                        | 18  | 16  | 15  | 14  | 11  | 10  | 8   | 7   | 6   | 6   |     |
|                  |  | 3                | 17        | 15                        | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 6   | 5   | 4   |     |
| 1-10 PSF         | B  | 7 to 20 Degrees  | 1         | 65                        | 58  | 52  | 47  | 42  | 39  | 32  | 28  | 24  | 21  | 18  | 16  |
|                  |  |                  | 2         | 47                        | 42  | 38  | 34  | 31  | 28  | 24  | 20  | 17  | 15  | 13  | 12  |
|                  |  |                  | 3         | 43                        | 38  | 35  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |
|                  |  | 20 to 27 Degrees | 1         | 85                        | 75  | 67  | 61  | 55  | 50  | 42  | 36  | 31  | 27  | 23  | 21  |
|                  |  |                  | 2         | 57                        | 50  | 45  | 41  | 37  | 34  | 28  | 24  | 21  | 18  | 16  | 14  |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                  |  | 27 to 45 Degrees | 1         | 72                        | 65  | 58  | 53  | 48  | 44  | 37  | 32  | 28  | 24  | 21  | 19  |
|                  |  |                  | 2         | 37                        | 34  | 30  | 28  | 25  | 23  | 19  | 17  | 14  | 13  | 11  | 10  |
|                  |  |                  | 3         | 29                        | 26  | 23  | 21  | 19  | 18  | 15  | 13  | 11  | 10  | 8   | 8   |
|                  | C  | 7 to 20 Degrees  | 1         | 45                        | 40  | 36  | 32  | 29  | 27  | 22  | 19  | 17  | 14  | 13  | 11  |
|                  |  |                  | 2         | 32                        | 29  | 26  | 24  | 21  | 20  | 16  | 14  | 12  | 11  | 9   | 8   |
|                  |  |                  | 3         | 30                        | 27  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 8   | 8   |
|                  |  | 20 to 27 Degrees | 1         | 58                        | 51  | 46  | 42  | 38  | 35  | 29  | 25  | 21  | 19  | 16  | 15  |
|                  |  |                  | 2         | 39                        | 35  | 31  | 28  | 26  | 24  | 20  | 17  | 15  | 13  | 11  | 10  |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                  |  | 27 to 45 Degrees | 1         | 50                        | 45  | 41  | 37  | 34  | 31  | 26  | 22  | 19  | 17  | 15  | 13  |
|                  |  |                  | 2         | 26                        | 24  | 21  | 19  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |
|                  |  |                  | 3         | 20                        | 18  | 16  | 15  | 14  | 12  | 10  | 9   | 8   | 7   | 6   | 5   |
|                  | D  | 7 to 20 Degrees  | 1         | 37                        | 33  | 30  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 11  | 9   |
|                  |  |                  | 2         | 27                        | 24  | 22  | 20  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |
|                  |  |                  | 3         | 25                        | 22  | 20  | 18  | 16  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |
|                  |  | 20 to 27 Degrees | 1         | 48                        | 43  | 38  | 35  | 32  | 29  | 24  | 21  | 18  | 16  | 14  | 12  |
|                  |  |                  | 2         | 32                        | 29  | 26  | 24  | 22  | 20  | 17  | 14  | 12  | 11  | 9   | 8   |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 27 to 45 Degrees |  | 1                | 42        | 38                        | 34  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 13  | 11  |     |
|                  |  | 2                | 22        | 20                        | 18  | 16  | 15  | 14  | 11  | 10  | 8   | 7   | 6   | 6   |     |
|                  |  | 3                | 17        | 15                        | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 6   | 5   | 4   |     |
| 1-20 PSF         | B  | 7 to 20 Degrees  | 1         | 65                        | 58  | 52  | 47  | 42  | 39  | 32  | 28  | 24  | 21  | 18  | 16  |
|                  |  |                  | 2         | 47                        | 42  | 38  | 34  | 31  | 28  | 24  | 20  | 17  | 15  | 13  | 12  |
|                  |  |                  | 3         | 43                        | 38  | 35  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |
|                  |  | 20 to 27 Degrees | 1         | 68                        | 68  | 67  | 61  | 55  | 50  | 42  | 36  | 31  | 27  | 23  | 21  |
|                  |  |                  | 2         | 57                        | 50  | 45  | 41  | 37  | 34  | 28  | 24  | 21  | 18  | 16  | 14  |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                  |  | 27 to 45 Degrees | 1         | 72                        | 65  | 58  | 53  | 48  | 44  | 37  | 32  | 28  | 24  | 21  | 19  |
|                  |  |                  | 2         | 37                        | 34  | 30  | 28  | 25  | 23  | 19  | 17  | 14  | 13  | 11  | 10  |
|                  |  |                  | 3         | 29                        | 26  | 23  | 21  | 19  | 18  | 15  | 13  | 11  | 10  | 8   | 8   |
|                  | C  | 7 to 20 Degrees  | 1         | 45                        | 40  | 36  | 32  | 29  | 27  | 22  | 19  | 17  | 14  | 13  | 11  |
|                  |  |                  | 2         | 32                        | 29  | 26  | 24  | 21  | 20  | 16  | 14  | 12  | 11  | 9   | 8   |
|                  |  |                  | 3         | 30                        | 27  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 8   | 8   |
|                  |  | 20 to 27 Degrees | 1         | 58                        | 51  | 46  | 42  | 38  | 35  | 29  | 25  | 21  | 19  | 16  | 15  |
|                  |  |                  | 2         | 39                        | 35  | 31  | 28  | 26  | 24  | 20  | 17  | 15  | 13  | 11  | 10  |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                  |  | 27 to 45 Degrees | 1         | 50                        | 45  | 41  | 37  | 34  | 31  | 26  | 22  | 19  | 17  | 15  | 13  |
|                  |  |                  | 2         | 26                        | 24  | 21  | 19  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |
|                  |  |                  | 3         | 20                        | 18  | 16  | 15  | 14  | 12  | 10  | 9   | 8   | 7   | 6   | 5   |
|                  | D  | 7 to 20 Degrees  | 1         | 37                        | 33  | 30  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 11  | 9   |
|                  |  |                  | 2         | 27                        | 24  | 22  | 20  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |
|                  |  |                  | 3         | 25                        | 22  | 20  | 18  | 16  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |
|                  |  | 20 to 27 Degrees | 1         | 48                        | 43  | 38  | 35  | 32  | 29  | 24  | 21  | 18  | 16  | 14  | 12  |
|                  |  |                  | 2         | 32                        | 29  | 26  | 24  | 22  | 20  | 17  | 14  | 12  | 11  | 9   | 8   |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 27 to 45 Degrees |  | 1                | 42        | 38                        | 34  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 13  | 11  |     |
|                  |  | 2                | 22        | 20                        | 18  | 16  | 15  | 14  | 11  | 10  | 8   | 7   | 6   | 6   |     |
|                  |  | 3                | 17        | 15                        | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 6   | 5   | 4   |     |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Hip Roof RT13    | RT-[E] Mount Mini Plywood Only Installations<br>(60 Cell PV Panels)<br>Maximum Mount Spacing in Inches |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |
|------------------|--|------------------|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                  | Portrait Orientation - ASCE 7-16   |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |
| Snow Load        | Exposure Category  | Roof Angle       | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |
|                  |  |                  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |
| 21-30 PSF        | B  | 7 to 20 Degrees  | 1         | 56                        | 56  | 52  | 47  | 42  | 39  | 32  | 28  | 24  | 21  | 18  | 16  |
|                  |  |                  | 2         | 47                        | 42  | 38  | 34  | 31  | 28  | 24  | 20  | 17  | 15  | 13  | 12  |
|                  |  |                  | 3         | 43                        | 38  | 35  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |
|                  |  | 20 to 27 Degrees | 1         | 57                        | 57  | 57  | 57  | 55  | 50  | 42  | 36  | 31  | 27  | 23  | 21  |
|                  |  |                  | 2         | 57                        | 50  | 45  | 41  | 37  | 34  | 28  | 24  | 21  | 18  | 16  | 14  |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                  |  | 27 to 45 Degrees | 1         | 66                        | 65  | 58  | 53  | 48  | 44  | 37  | 32  | 28  | 24  | 21  | 19  |
|                  |  |                  | 2         | 37                        | 34  | 30  | 28  | 25  | 23  | 19  | 17  | 14  | 13  | 11  | 10  |
|                  |  |                  | 3         | 29                        | 26  | 23  | 21  | 19  | 18  | 15  | 13  | 11  | 10  | 8   | 8   |
|                  | C  | 7 to 20 Degrees  | 1         | 45                        | 40  | 36  | 32  | 29  | 27  | 22  | 19  | 17  | 14  | 13  | 11  |
|                  |  |                  | 2         | 32                        | 29  | 26  | 24  | 21  | 20  | 16  | 14  | 12  | 11  | 9   | 8   |
|                  |  |                  | 3         | 30                        | 27  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 8   | 8   |
|                  |  | 20 to 27 Degrees | 1         | 57                        | 51  | 46  | 42  | 38  | 35  | 29  | 25  | 21  | 19  | 16  | 15  |
|                  |  |                  | 2         | 39                        | 35  | 31  | 28  | 26  | 24  | 20  | 17  | 15  | 13  | 11  | 10  |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                  |  | 27 to 45 Degrees | 1         | 50                        | 45  | 41  | 37  | 34  | 31  | 26  | 22  | 19  | 17  | 15  | 13  |
|                  |  |                  | 2         | 26                        | 24  | 21  | 19  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |
|                  |  |                  | 3         | 20                        | 18  | 16  | 15  | 14  | 12  | 10  | 9   | 8   | 7   | 6   | 5   |
|                  | D  | 7 to 20 Degrees  | 1         | 37                        | 33  | 30  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 11  | 9   |
|                  |  |                  | 2         | 27                        | 24  | 22  | 20  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |
|                  |  |                  | 3         | 25                        | 22  | 20  | 18  | 16  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |
|                  |  | 20 to 27 Degrees | 1         | 48                        | 43  | 38  | 35  | 32  | 29  | 24  | 21  | 18  | 16  | 14  | 12  |
|                  |  |                  | 2         | 32                        | 29  | 26  | 24  | 22  | 20  | 17  | 14  | 12  | 11  | 9   | 8   |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 27 to 45 Degrees |  | 1                | 42        | 38                        | 34  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 13  | 11  |     |
|                  |  | 2                | 22        | 20                        | 18  | 16  | 15  | 14  | 11  | 10  | 8   | 7   | 6   | 6   |     |
|                  |  | 3                | 17        | 15                        | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 6   | 5   | 4   |     |
| 31-40 PSF        | B  | 7 to 20 Degrees  | 1         | 43                        | 43  | 43  | 43  | 42  | 39  | 32  | 28  | 24  | 21  | 18  | 16  |
|                  |  |                  | 2         | 43                        | 42  | 38  | 34  | 31  | 28  | 24  | 20  | 17  | 15  | 13  | 12  |
|                  |  |                  | 3         | 43                        | 38  | 35  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |
|                  |  | 20 to 27 Degrees | 1         | 45                        | 45  | 45  | 45  | 45  | 45  | 42  | 36  | 31  | 27  | 23  | 21  |
|                  |  |                  | 2         | 45                        | 45  | 45  | 41  | 37  | 34  | 28  | 24  | 21  | 18  | 16  | 14  |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                  |  | 27 to 45 Degrees | 1         | 53                        | 53  | 53  | 53  | 48  | 44  | 37  | 32  | 28  | 24  | 21  | 19  |
|                  |  |                  | 2         | 37                        | 34  | 30  | 28  | 25  | 23  | 19  | 17  | 14  | 13  | 11  | 10  |
|                  |  |                  | 3         | 29                        | 26  | 23  | 21  | 19  | 18  | 15  | 13  | 11  | 10  | 8   | 8   |
|                  | C  | 7 to 20 Degrees  | 1         | 43                        | 40  | 36  | 32  | 29  | 27  | 22  | 19  | 17  | 14  | 13  | 11  |
|                  |  |                  | 2         | 32                        | 29  | 26  | 24  | 21  | 20  | 16  | 14  | 12  | 11  | 9   | 8   |
|                  |  |                  | 3         | 30                        | 27  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 8   | 8   |
|                  |  | 20 to 27 Degrees | 1         | 45                        | 45  | 45  | 42  | 38  | 35  | 29  | 25  | 21  | 19  | 16  | 15  |
|                  |  |                  | 2         | 39                        | 35  | 31  | 28  | 26  | 24  | 20  | 17  | 15  | 13  | 11  | 10  |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                  |  | 27 to 45 Degrees | 1         | 50                        | 45  | 41  | 37  | 34  | 31  | 26  | 22  | 19  | 17  | 15  | 13  |
|                  |  |                  | 2         | 26                        | 24  | 21  | 19  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |
|                  |  |                  | 3         | 20                        | 18  | 16  | 15  | 14  | 12  | 10  | 9   | 8   | 7   | 6   | 5   |
|                  | D  | 7 to 20 Degrees  | 1         | 37                        | 33  | 30  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 11  | 9   |
|                  |  |                  | 2         | 27                        | 24  | 22  | 20  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |
|                  |  |                  | 3         | 25                        | 22  | 20  | 18  | 16  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |
|                  |  | 20 to 27 Degrees | 1         | 45                        | 43  | 38  | 35  | 32  | 29  | 24  | 21  | 18  | 16  | 14  | 12  |
|                  |  |                  | 2         | 32                        | 29  | 26  | 24  | 22  | 20  | 17  | 14  | 12  | 11  | 9   | 8   |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 27 to 45 Degrees |  | 1                | 42        | 38                        | 34  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 13  | 11  |     |
|                  |  | 2                | 22        | 20                        | 18  | 16  | 15  | 14  | 11  | 10  | 8   | 7   | 6   | 6   |     |
|                  |  | 3                | 17        | 15                        | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 6   | 5   | 4   |     |
| 41-50 PSF        | B  | 7 to 20 Degrees  | 1         | 35                        | 35  | 35  | 35  | 35  | 35  | 32  | 28  | 24  | 21  | 18  | 16  |
|                  |  |                  | 2         | 35                        | 35  | 35  | 34  | 31  | 28  | 24  | 20  | 17  | 15  | 13  | 12  |
|                  |  |                  | 3         | 35                        | 35  | 35  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |
|                  |  | 20 to 27 Degrees | 1         | 37                        | 37  | 37  | 37  | 37  | 37  | 37  | 36  | 31  | 27  | 23  | 21  |
|                  |  |                  | 2         | 37                        | 37  | 37  | 37  | 37  | 34  | 28  | 24  | 21  | 18  | 16  | 14  |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                  |  | 27 to 45 Degrees | 1         | 44                        | 44  | 44  | 44  | 44  | 44  | 37  | 32  | 28  | 24  | 21  | 19  |
|                  |  |                  | 2         | 37                        | 34  | 30  | 28  | 25  | 23  | 19  | 17  | 14  | 13  | 11  | 10  |
|                  |  |                  | 3         | 29                        | 26  | 23  | 21  | 19  | 18  | 15  | 13  | 11  | 10  | 8   | 8   |
|                  | C  | 7 to 20 Degrees  | 1         | 35                        | 35  | 35  | 32  | 29  | 27  | 22  | 19  | 17  | 14  | 13  | 11  |
|                  |  |                  | 2         | 32                        | 29  | 26  | 24  | 21  | 20  | 16  | 14  | 12  | 11  | 9   | 8   |
|                  |  |                  | 3         | 30                        | 27  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 8   | 8   |
|                  |  | 20 to 27 Degrees | 1         | 37                        | 37  | 37  | 37  | 37  | 35  | 29  | 25  | 21  | 19  | 16  | 15  |
|                  |  |                  | 2         | 37                        | 35  | 31  | 28  | 26  | 24  | 20  | 17  | 15  | 13  | 11  | 10  |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                  |  | 27 to 45 Degrees | 1         | 44                        | 44  | 41  | 37  | 34  | 31  | 26  | 22  | 19  | 17  | 15  | 13  |
|                  |  |                  | 2         | 26                        | 24  | 21  | 19  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |
|                  |  |                  | 3         | 20                        | 18  | 16  | 15  | 14  | 12  | 10  | 9   | 8   | 7   | 6   | 5   |
|                  | D  | 7 to 20 Degrees  | 1         | 35                        | 33  | 30  | 27  | 24  | 22  | 19  | 16  | 14  | 12  | 11  | 9   |
|                  |  |                  | 2         | 27                        | 24  | 22  | 20  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |
|                  |  |                  | 3         | 25                        | 22  | 20  | 18  | 16  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |
|                  |  | 20 to 27 Degrees | 1         | 37                        | 37  | 37  | 35  | 32  | 29  | 24  | 21  | 18  | 16  | 14  | 12  |
|                  |  |                  | 2         | 32                        | 29  | 26  | 24  | 22  | 20  | 17  | 14  | 12  | 11  | 9   | 8   |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 27 to 45 Degrees |  | 1                | 42        | 38                        | 34  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 13  | 11  |     |
|                  |  | 2                | 22        | 20                        | 18  | 16  | 15  | 14  | 11  | 10  | 8   | 7   | 6   | 6   |     |
|                  |  | 3                | 17        | 15                        | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 6   | 5   | 4   |     |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Hip Roof<br>RT13 | RT-[E] Mount Mini Plywood Only Installations<br>(60 Cell PV Panels)<br>Maximum Mount Spacing in Inches |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |
|------------------|--|------------------|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
|                  | Portrait Orientation - ASCE 7-16   |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |
| Snow Load        | Exposure Category  | Roof Angle       | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |    |
|                  |  |                  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |    |
| 5.1-60 PSF       | B  | 7 to 20 Degrees  | 1         | 30                        | 30  | 30  | 30  | 30  | 30  | 28  | 24  | 20  | 17  | 15  | 13  | 12 |
|                  |  |                  | 2         | 30                        | 30  | 30  | 30  | 30  | 28  | 24  | 20  | 17  | 15  | 13  | 12  |    |
|                  |  |                  | 3         | 30                        | 30  | 30  | 30  | 28  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |    |
|                  |  | 20 to 27 Degrees | 1         | 31                        | 31  | 31  | 31  | 31  | 31  | 31  | 31  | 31  | 31  | 27  | 23  | 21 |
|                  |  |                  | 2         | 31                        | 31  | 31  | 31  | 31  | 31  | 31  | 28  | 24  | 21  | 18  | 16  | 14 |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  |
|                  |  | 27 to 45 Degrees | 1         | 38                        | 38  | 38  | 38  | 38  | 38  | 38  | 37  | 32  | 28  | 24  | 21  | 19 |
|                  |  |                  | 2         | 37                        | 34  | 30  | 28  | 25  | 23  | 19  | 17  | 14  | 13  | 11  | 10  |    |
|                  |  |                  | 3         | 29                        | 26  | 23  | 21  | 19  | 18  | 15  | 13  | 11  | 10  | 8   | 8   |    |
|                  | C  | 7 to 20 Degrees  | 1         | 30                        | 30  | 30  | 30  | 29  | 27  | 22  | 19  | 17  | 14  | 13  | 11  |    |
|                  |  |                  | 2         | 30                        | 29  | 26  | 24  | 21  | 20  | 16  | 14  | 12  | 11  | 9   | 8   |    |
|                  |  |                  | 3         | 30                        | 27  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 8   | 8   |    |
|                  |  | 20 to 27 Degrees | 1         | 31                        | 31  | 31  | 31  | 31  | 31  | 29  | 25  | 21  | 19  | 16  | 15  |    |
|                  |  |                  | 2         | 31                        | 31  | 31  | 28  | 26  | 24  | 20  | 17  | 15  | 13  | 11  | 10  |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                  |  | 27 to 45 Degrees | 1         | 38                        | 38  | 38  | 37  | 34  | 31  | 26  | 22  | 19  | 17  | 15  | 13  |    |
|                  |  |                  | 2         | 26                        | 24  | 21  | 19  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |    |
|                  |  |                  | 3         | 20                        | 18  | 16  | 15  | 14  | 12  | 10  | 9   | 8   | 7   | 6   | 5   |    |
|                  | D  | 7 to 20 Degrees  | 1         | 30                        | 30  | 30  | 27  | 29  | 22  | 19  | 16  | 14  | 12  | 11  | 9   |    |
|                  |  |                  | 2         | 27                        | 24  | 22  | 20  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |    |
|                  |  |                  | 3         | 25                        | 22  | 20  | 18  | 16  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |    |
|                  |  | 20 to 27 Degrees | 1         | 31                        | 31  | 31  | 31  | 31  | 29  | 24  | 21  | 18  | 16  | 14  | 12  |    |
|                  |  |                  | 2         | 31                        | 29  | 26  | 24  | 22  | 20  | 17  | 14  | 12  | 11  | 9   | 8   |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
| 27 to 45 Degrees |  | 1                | 38        | 38                        | 34  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 13  | 11  |     |    |
|                  |  | 2                | 22        | 20                        | 18  | 16  | 15  | 14  | 11  | 10  | 8   | 7   | 6   | 6   |     |    |
|                  |  | 3                | 17        | 15                        | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 6   | 5   | 4   |     |    |
| 6.1-70 PSF       | B  | 7 to 20 Degrees  | 1         | 26                        | 26  | 26  | 26  | 26  | 26  | 26  | 26  | 24  | 21  | 18  | 16  |    |
|                  |  |                  | 2         | 26                        | 26  | 26  | 26  | 26  | 26  | 24  | 20  | 17  | 15  | 13  | 12  |    |
|                  |  |                  | 3         | 26                        | 26  | 26  | 26  | 26  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |    |
|                  |  | 20 to 27 Degrees | 1         | 27                        | 27  | 27  | 27  | 27  | 27  | 27  | 27  | 27  | 27  | 23  | 21  |    |
|                  |  |                  | 2         | 27                        | 27  | 27  | 27  | 27  | 27  | 27  | 24  | 21  | 18  | 16  | 14  |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                  |  | 27 to 45 Degrees | 1         | 33                        | 33  | 33  | 33  | 33  | 33  | 33  | 32  | 28  | 24  | 21  | 19  |    |
|                  |  |                  | 2         | 33                        | 33  | 30  | 28  | 25  | 23  | 19  | 17  | 14  | 13  | 11  | 10  |    |
|                  |  |                  | 3         | 29                        | 26  | 23  | 21  | 19  | 18  | 15  | 13  | 11  | 10  | 8   | 8   |    |
|                  | C  | 7 to 20 Degrees  | 1         | 26                        | 26  | 26  | 26  | 26  | 26  | 22  | 19  | 17  | 14  | 13  | 11  |    |
|                  |  |                  | 2         | 26                        | 26  | 26  | 24  | 21  | 20  | 16  | 14  | 12  | 11  | 9   | 8   |    |
|                  |  |                  | 3         | 26                        | 26  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 8   | 8   |    |
|                  |  | 20 to 27 Degrees | 1         | 27                        | 27  | 27  | 27  | 27  | 27  | 27  | 25  | 21  | 19  | 16  | 15  |    |
|                  |  |                  | 2         | 27                        | 27  | 27  | 27  | 26  | 24  | 20  | 17  | 15  | 13  | 11  | 10  |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                  |  | 27 to 45 Degrees | 1         | 33                        | 33  | 33  | 33  | 33  | 31  | 26  | 22  | 19  | 17  | 15  | 13  |    |
|                  |  |                  | 2         | 26                        | 24  | 21  | 19  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |    |
|                  |  |                  | 3         | 20                        | 18  | 16  | 15  | 14  | 12  | 10  | 9   | 8   | 7   | 6   | 5   |    |
|                  | D  | 7 to 20 Degrees  | 1         | 26                        | 26  | 26  | 26  | 24  | 22  | 19  | 16  | 14  | 12  | 11  | 9   |    |
|                  |  |                  | 2         | 26                        | 24  | 22  | 20  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |    |
|                  |  |                  | 3         | 25                        | 22  | 20  | 18  | 16  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |    |
|                  |  | 20 to 27 Degrees | 1         | 27                        | 27  | 27  | 27  | 27  | 27  | 24  | 21  | 18  | 16  | 14  | 12  |    |
|                  |  |                  | 2         | 27                        | 27  | 26  | 24  | 22  | 20  | 17  | 14  | 12  | 11  | 9   | 8   |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
| 27 to 45 Degrees |  | 1                | 33        | 33                        | 33  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 13  | 11  |     |    |
|                  |  | 2                | 22        | 20                        | 18  | 16  | 15  | 14  | 11  | 10  | 8   | 7   | 6   | 6   |     |    |
|                  |  | 3                | 17        | 15                        | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 6   | 5   | 4   |     |    |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Hip Roof RT14                    |                   | RT-[E] Mount Mini Plywood Only Installations<br>(72 Cell PV Panels)<br>Maximum Mount Spacing in Inches |           |                           |     |     |     |     |     |     |     |     |     |     |     |
|----------------------------------|-------------------|--|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Portrait Orientation - ASCE 7-16 |                   |  |           |                           |     |     |     |     |     |     |     |     |     |     |     |
| Snow Load                        | Exposure Category | Roof Angle   | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |
|                                  |                   |  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |
| 0 PSF                            | B                 | 7 to 20 Degrees  | 1         | 57                        | 51  | 46  | 41  | 37  | 34  | 28  | 24  | 21  | 18  | 16  | 14  |
|                                  |                   |  | 2         | 41                        | 37  | 33  | 30  | 27  | 25  | 21  | 18  | 15  | 13  | 12  | 10  |
|                                  |                   |  | 3         | 38                        | 34  | 30  | 27  | 25  | 23  | 19  | 16  | 14  | 12  | 11  | 9   |
|                                  |                   | 20 to 27 Degrees   | 1         | 74                        | 66  | 59  | 53  | 48  | 44  | 37  | 31  | 27  | 23  | 21  | 18  |
|                                  |                   |  | 2         | 50                        | 44  | 40  | 36  | 32  | 30  | 25  | 21  | 18  | 16  | 14  | 12  |
|                                  |                   |  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                                  |                   | 27 to 45 Degrees   | 1         | 63                        | 57  | 51  | 46  | 42  | 39  | 33  | 28  | 24  | 21  | 19  | 17  |
|                                  |                   |  | 2         | 33                        | 29  | 27  | 24  | 22  | 20  | 17  | 15  | 13  | 11  | 10  | 9   |
|                                  |                   |  | 3         | 25                        | 23  | 20  | 19  | 17  | 15  | 13  | 11  | 10  | 8   | 7   | 7   |
|                                  | C                 | 7 to 20 Degrees  | 1         | 39                        | 35  | 31  | 28  | 26  | 23  | 20  | 17  | 14  | 13  | 11  | 10  |
|                                  |                   |  | 2         | 28                        | 25  | 23  | 21  | 19  | 17  | 14  | 12  | 11  | 9   | 8   | 7   |
|                                  |                   |  | 3         | 26                        | 23  | 21  | 19  | 17  | 16  | 13  | 11  | 10  | 8   | 7   | 7   |
|                                  |                   | 20 to 27 Degrees   | 1         | 51                        | 45  | 40  | 37  | 33  | 30  | 25  | 22  | 19  | 16  | 14  | 13  |
|                                  |                   |  | 2         | 34                        | 31  | 27  | 25  | 23  | 21  | 17  | 15  | 13  | 11  | 10  | 9   |
|                                  |                   |  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                                  |                   | 27 to 45 Degrees   | 1         | 44                        | 40  | 36  | 32  | 30  | 27  | 23  | 20  | 17  | 15  | 13  | 12  |
|                                  |                   |  | 2         | 23                        | 21  | 19  | 17  | 15  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |
|                                  |                   |  | 3         | 18                        | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 5   |
|                                  | D                 | 7 to 20 Degrees  | 1         | 32                        | 29  | 26  | 23  | 21  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |
|                                  |                   |  | 2         | 24                        | 21  | 19  | 17  | 16  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |
|                                  |                   |  | 3         | 22                        | 19  | 17  | 16  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|                                  |                   | 20 to 27 Degrees   | 1         | 42                        | 37  | 34  | 30  | 28  | 25  | 21  | 18  | 16  | 14  | 12  | 11  |
|                                  |                   |  | 2         | 28                        | 25  | 23  | 21  | 19  | 17  | 15  | 12  | 11  | 9   | 8   | 7   |
|                                  |                   |  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 27 to 45 Degrees                 |                   | 1  | 37        | 33                        | 30  | 27  | 25  | 23  | 19  | 16  | 14  | 12  | 11  | 10  |     |
|                                  |                   | 2  | 19        | 17                        | 16  | 14  | 13  | 12  | 10  | 9   | 7   | 6   | 6   | 5   |     |
|                                  |                   | 3  | 15        | 13                        | 12  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 4   |     |
| 1-10 PSF                         | B                 | 7 to 20 Degrees  | 1         | 57                        | 51  | 46  | 41  | 37  | 34  | 28  | 24  | 21  | 18  | 16  | 14  |
|                                  |                   |  | 2         | 41                        | 37  | 33  | 30  | 27  | 25  | 21  | 18  | 15  | 13  | 12  | 10  |
|                                  |                   |  | 3         | 38                        | 34  | 30  | 27  | 25  | 23  | 19  | 16  | 14  | 12  | 11  | 9   |
|                                  |                   | 20 to 27 Degrees   | 1         | 74                        | 66  | 59  | 53  | 48  | 44  | 37  | 31  | 27  | 23  | 21  | 18  |
|                                  |                   |  | 2         | 50                        | 44  | 40  | 36  | 32  | 30  | 25  | 21  | 18  | 16  | 14  | 12  |
|                                  |                   |  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                                  |                   | 27 to 45 Degrees   | 1         | 63                        | 57  | 51  | 46  | 42  | 39  | 33  | 28  | 24  | 21  | 19  | 17  |
|                                  |                   |  | 2         | 33                        | 29  | 27  | 24  | 22  | 20  | 17  | 15  | 13  | 11  | 10  | 9   |
|                                  |                   |  | 3         | 25                        | 23  | 20  | 19  | 17  | 15  | 13  | 11  | 10  | 8   | 7   | 7   |
|                                  | C                 | 7 to 20 Degrees  | 1         | 39                        | 35  | 31  | 28  | 26  | 23  | 20  | 17  | 14  | 13  | 11  | 10  |
|                                  |                   |  | 2         | 28                        | 25  | 23  | 21  | 19  | 17  | 14  | 12  | 11  | 9   | 8   | 7   |
|                                  |                   |  | 3         | 26                        | 23  | 21  | 19  | 17  | 16  | 13  | 11  | 10  | 8   | 7   | 7   |
|                                  |                   | 20 to 27 Degrees   | 1         | 51                        | 45  | 40  | 37  | 33  | 30  | 25  | 22  | 19  | 16  | 14  | 13  |
|                                  |                   |  | 2         | 34                        | 31  | 27  | 25  | 23  | 21  | 17  | 15  | 13  | 11  | 10  | 9   |
|                                  |                   |  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                                  |                   | 27 to 45 Degrees   | 1         | 44                        | 40  | 36  | 32  | 30  | 27  | 23  | 20  | 17  | 15  | 13  | 12  |
|                                  |                   |  | 2         | 23                        | 21  | 19  | 17  | 15  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |
|                                  |                   |  | 3         | 18                        | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 5   |
|                                  | D                 | 7 to 20 Degrees  | 1         | 32                        | 29  | 26  | 23  | 21  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |
|                                  |                   |  | 2         | 24                        | 21  | 19  | 17  | 16  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |
|                                  |                   |  | 3         | 22                        | 19  | 17  | 16  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|                                  |                   | 20 to 27 Degrees   | 1         | 42                        | 37  | 34  | 30  | 28  | 25  | 21  | 18  | 16  | 14  | 12  | 11  |
|                                  |                   |  | 2         | 28                        | 25  | 23  | 21  | 19  | 17  | 15  | 12  | 11  | 9   | 8   | 7   |
|                                  |                   |  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 27 to 45 Degrees                 |                   | 1  | 37        | 33                        | 30  | 27  | 25  | 23  | 19  | 16  | 14  | 12  | 11  | 10  |     |
|                                  |                   | 2  | 19        | 17                        | 16  | 14  | 13  | 12  | 10  | 9   | 7   | 6   | 6   | 5   |     |
|                                  |                   | 3  | 15        | 13                        | 12  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 4   |     |
| 1-1-20 PSF                       | B                 | 7 to 20 Degrees  | 1         | 57                        | 51  | 46  | 41  | 37  | 34  | 28  | 24  | 21  | 18  | 16  | 14  |
|                                  |                   |  | 2         | 41                        | 37  | 33  | 30  | 27  | 25  | 21  | 18  | 15  | 13  | 12  | 10  |
|                                  |                   |  | 3         | 38                        | 34  | 30  | 27  | 25  | 23  | 19  | 16  | 14  | 12  | 11  | 9   |
|                                  |                   | 20 to 27 Degrees   | 1         | 60                        | 60  | 59  | 53  | 48  | 44  | 37  | 31  | 27  | 23  | 21  | 18  |
|                                  |                   |  | 2         | 50                        | 44  | 40  | 36  | 32  | 30  | 25  | 21  | 18  | 16  | 14  | 12  |
|                                  |                   |  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                                  |                   | 27 to 45 Degrees   | 1         | 63                        | 57  | 51  | 46  | 42  | 39  | 33  | 28  | 24  | 21  | 19  | 17  |
|                                  |                   |  | 2         | 33                        | 29  | 27  | 24  | 22  | 20  | 17  | 15  | 13  | 11  | 10  | 9   |
|                                  |                   |  | 3         | 25                        | 23  | 20  | 19  | 17  | 15  | 13  | 11  | 10  | 8   | 7   | 7   |
|                                  | C                 | 7 to 20 Degrees  | 1         | 39                        | 35  | 31  | 28  | 26  | 23  | 20  | 17  | 14  | 13  | 11  | 10  |
|                                  |                   |  | 2         | 28                        | 25  | 23  | 21  | 19  | 17  | 14  | 12  | 11  | 9   | 8   | 7   |
|                                  |                   |  | 3         | 26                        | 23  | 21  | 19  | 17  | 16  | 13  | 11  | 10  | 8   | 7   | 7   |
|                                  |                   | 20 to 27 Degrees   | 1         | 51                        | 45  | 40  | 37  | 33  | 30  | 25  | 22  | 19  | 16  | 14  | 13  |
|                                  |                   |  | 2         | 34                        | 31  | 27  | 25  | 23  | 21  | 17  | 15  | 13  | 11  | 10  | 9   |
|                                  |                   |  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                                  |                   | 27 to 45 Degrees   | 1         | 44                        | 40  | 36  | 32  | 30  | 27  | 23  | 20  | 17  | 15  | 13  | 12  |
|                                  |                   |  | 2         | 23                        | 21  | 19  | 17  | 15  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |
|                                  |                   |  | 3         | 18                        | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 5   |
|                                  | D                 | 7 to 20 Degrees  | 1         | 32                        | 29  | 26  | 23  | 21  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |
|                                  |                   |  | 2         | 24                        | 21  | 19  | 17  | 16  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |
|                                  |                   |  | 3         | 22                        | 19  | 17  | 16  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|                                  |                   | 20 to 27 Degrees   | 1         | 42                        | 37  | 34  | 30  | 28  | 25  | 21  | 18  | 16  | 14  | 12  | 11  |
|                                  |                   |  | 2         | 28                        | 25  | 23  | 21  | 19  | 17  | 15  | 12  | 11  | 9   | 8   | 7   |
|                                  |                   |  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 27 to 45 Degrees                 |                   | 1  | 37        | 33                        | 30  | 27  | 25  | 23  | 19  | 16  | 14  | 12  | 11  | 10  |     |
|                                  |                   | 2  | 19        | 17                        | 16  | 14  | 13  | 12  | 10  | 9   | 7   | 6   | 6   | 5   |     |
|                                  |                   | 3  | 15        | 13                        | 12  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 4   |     |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Hip Roof RT14    | RT-[E] Mount Mini Plywood Only Installations<br>(72 Cell PV Panels)<br>Maximum Mount Spacing in Inches |                  |           |    |     |     |     |     |     |     |     |     |     |     |     |
|------------------|--|------------------|-----------|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                  | Portrait Orientation - ASCE 7-16   |                  |           |    |     |     |     |     |     |     |     |     |     |     |     |
| Snow Load        | Exposure Category  | Roof Angle       | Roof Area | 95 | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |
| 21-30 PSF        | B  | 7 to 20 Degrees  | 1         | 49 | 49  | 46  | 41  | 37  | 34  | 28  | 24  | 21  | 18  | 16  | 14  |
|                  |  |                  | 2         | 41 | 37  | 33  | 30  | 27  | 25  | 21  | 18  | 15  | 13  | 12  | 10  |
|                  |  |                  | 3         | 38 | 34  | 30  | 27  | 25  | 23  | 19  | 16  | 14  | 12  | 11  | 9   |
|                  |  | 20 to 27 Degrees | 1         | 50 | 50  | 50  | 50  | 48  | 44  | 37  | 31  | 27  | 23  | 21  | 18  |
|                  |  |                  | 2         | 50 | 44  | 40  | 36  | 32  | 30  | 25  | 21  | 18  | 16  | 14  | 12  |
|                  |  |                  | 3         | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                  |  | 27 to 45 Degrees | 1         | 58 | 57  | 51  | 46  | 42  | 39  | 33  | 28  | 24  | 21  | 19  | 17  |
|                  |  |                  | 2         | 33 | 29  | 27  | 24  | 22  | 20  | 17  | 15  | 13  | 11  | 10  | 9   |
|                  |  |                  | 3         | 25 | 23  | 20  | 19  | 17  | 15  | 13  | 11  | 10  | 8   | 7   | 7   |
|                  | C  | 7 to 20 Degrees  | 1         | 39 | 35  | 31  | 28  | 26  | 23  | 20  | 17  | 14  | 13  | 11  | 10  |
|                  |  |                  | 2         | 28 | 25  | 23  | 21  | 19  | 17  | 14  | 12  | 11  | 9   | 8   | 7   |
|                  |  |                  | 3         | 26 | 23  | 21  | 19  | 17  | 16  | 13  | 11  | 10  | 8   | 7   | 7   |
|                  |  | 20 to 27 Degrees | 1         | 50 | 45  | 40  | 37  | 33  | 30  | 25  | 22  | 19  | 16  | 14  | 13  |
|                  |  |                  | 2         | 34 | 31  | 27  | 25  | 23  | 21  | 17  | 15  | 13  | 11  | 10  | 9   |
|                  |  |                  | 3         | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                  |  | 27 to 45 Degrees | 1         | 44 | 40  | 36  | 32  | 30  | 27  | 23  | 20  | 17  | 15  | 13  | 12  |
|                  |  |                  | 2         | 23 | 21  | 19  | 17  | 15  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |
|                  |  |                  | 3         | 18 | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 5   |
|                  | D  | 7 to 20 Degrees  | 1         | 32 | 29  | 26  | 23  | 21  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |
|                  |  |                  | 2         | 24 | 21  | 19  | 17  | 16  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |
|                  |  |                  | 3         | 22 | 19  | 17  | 16  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|                  |  | 20 to 27 Degrees | 1         | 42 | 37  | 34  | 30  | 28  | 25  | 21  | 18  | 16  | 14  | 12  | 11  |
|                  |  |                  | 2         | 28 | 25  | 23  | 21  | 19  | 17  | 15  | 12  | 11  | 9   | 8   | 7   |
|                  |  |                  | 3         | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 27 to 45 Degrees |  | 1                | 37        | 33 | 30  | 27  | 25  | 23  | 19  | 16  | 14  | 12  | 11  | 10  |     |
|                  |  | 2                | 19        | 17 | 16  | 14  | 13  | 12  | 10  | 9   | 7   | 6   | 6   | 5   |     |
|                  |  | 3                | 15        | 13 | 12  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 4   |     |
| 31-40 PSF        | B  | 7 to 20 Degrees  | 1         | 38 | 38  | 38  | 38  | 37  | 34  | 28  | 24  | 21  | 18  | 16  | 14  |
|                  |  |                  | 2         | 38 | 37  | 33  | 30  | 27  | 25  | 21  | 18  | 15  | 13  | 12  | 10  |
|                  |  |                  | 3         | 38 | 34  | 30  | 27  | 25  | 23  | 19  | 16  | 14  | 12  | 11  | 9   |
|                  |  | 20 to 27 Degrees | 1         | 39 | 39  | 39  | 39  | 39  | 39  | 37  | 31  | 27  | 23  | 21  | 18  |
|                  |  |                  | 2         | 39 | 39  | 39  | 36  | 32  | 30  | 25  | 21  | 18  | 16  | 14  | 12  |
|                  |  |                  | 3         | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                  |  | 27 to 45 Degrees | 1         | 47 | 47  | 47  | 46  | 42  | 39  | 33  | 28  | 24  | 21  | 19  | 17  |
|                  |  |                  | 2         | 33 | 29  | 27  | 24  | 22  | 20  | 17  | 15  | 13  | 11  | 10  | 9   |
|                  |  |                  | 3         | 25 | 23  | 20  | 19  | 17  | 15  | 13  | 11  | 10  | 8   | 7   | 7   |
|                  | C  | 7 to 20 Degrees  | 1         | 38 | 35  | 31  | 28  | 26  | 23  | 20  | 17  | 14  | 13  | 11  | 10  |
|                  |  |                  | 2         | 28 | 25  | 23  | 21  | 19  | 17  | 14  | 12  | 11  | 9   | 8   | 7   |
|                  |  |                  | 3         | 26 | 23  | 21  | 19  | 17  | 16  | 13  | 11  | 10  | 8   | 7   | 7   |
|                  |  | 20 to 27 Degrees | 1         | 39 | 39  | 39  | 37  | 33  | 30  | 25  | 22  | 19  | 16  | 14  | 13  |
|                  |  |                  | 2         | 34 | 31  | 27  | 25  | 23  | 21  | 17  | 15  | 13  | 11  | 10  | 9   |
|                  |  |                  | 3         | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                  |  | 27 to 45 Degrees | 1         | 44 | 40  | 36  | 32  | 30  | 27  | 23  | 20  | 17  | 15  | 13  | 12  |
|                  |  |                  | 2         | 23 | 21  | 19  | 17  | 15  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |
|                  |  |                  | 3         | 18 | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 5   |
|                  | D  | 7 to 20 Degrees  | 1         | 32 | 29  | 26  | 23  | 21  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |
|                  |  |                  | 2         | 24 | 21  | 19  | 17  | 16  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |
|                  |  |                  | 3         | 22 | 19  | 17  | 16  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|                  |  | 20 to 27 Degrees | 1         | 39 | 37  | 34  | 30  | 28  | 25  | 21  | 18  | 16  | 14  | 12  | 11  |
|                  |  |                  | 2         | 28 | 25  | 23  | 21  | 19  | 17  | 15  | 12  | 11  | 9   | 8   | 7   |
|                  |  |                  | 3         | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 27 to 45 Degrees |  | 1                | 37        | 33 | 30  | 27  | 25  | 23  | 19  | 16  | 14  | 12  | 11  | 10  |     |
|                  |  | 2                | 19        | 17 | 16  | 14  | 13  | 12  | 10  | 9   | 7   | 6   | 6   | 5   |     |
|                  |  | 3                | 15        | 13 | 12  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 4   |     |
| 41-50 PSF        | B  | 7 to 20 Degrees  | 1         | 31 | 31  | 31  | 31  | 31  | 31  | 28  | 24  | 21  | 18  | 16  | 14  |
|                  |  |                  | 2         | 31 | 31  | 31  | 30  | 27  | 25  | 21  | 18  | 15  | 13  | 12  | 10  |
|                  |  |                  | 3         | 31 | 31  | 30  | 27  | 25  | 23  | 19  | 16  | 14  | 12  | 11  | 9   |
|                  |  | 20 to 27 Degrees | 1         | 32 | 32  | 32  | 32  | 32  | 32  | 32  | 31  | 27  | 23  | 21  | 18  |
|                  |  |                  | 2         | 32 | 32  | 32  | 32  | 32  | 30  | 25  | 21  | 18  | 16  | 14  | 12  |
|                  |  |                  | 3         | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                  |  | 27 to 45 Degrees | 1         | 39 | 39  | 39  | 39  | 39  | 39  | 33  | 28  | 24  | 21  | 19  | 17  |
|                  |  |                  | 2         | 33 | 29  | 27  | 24  | 22  | 20  | 17  | 15  | 13  | 11  | 10  | 9   |
|                  |  |                  | 3         | 25 | 23  | 20  | 19  | 17  | 15  | 13  | 11  | 10  | 8   | 7   | 7   |
|                  | C  | 7 to 20 Degrees  | 1         | 31 | 31  | 31  | 28  | 26  | 23  | 20  | 17  | 14  | 13  | 11  | 10  |
|                  |  |                  | 2         | 28 | 25  | 23  | 21  | 19  | 17  | 14  | 12  | 11  | 9   | 8   | 7   |
|                  |  |                  | 3         | 26 | 23  | 21  | 19  | 17  | 16  | 13  | 11  | 10  | 8   | 7   | 7   |
|                  |  | 20 to 27 Degrees | 1         | 32 | 32  | 32  | 32  | 32  | 30  | 25  | 22  | 19  | 16  | 14  | 13  |
|                  |  |                  | 2         | 32 | 31  | 27  | 25  | 23  | 21  | 17  | 15  | 13  | 11  | 10  | 9   |
|                  |  |                  | 3         | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                  |  | 27 to 45 Degrees | 1         | 39 | 39  | 36  | 32  | 30  | 27  | 23  | 20  | 17  | 15  | 13  | 12  |
|                  |  |                  | 2         | 23 | 21  | 19  | 17  | 15  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |
|                  |  |                  | 3         | 18 | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 5   |
|                  | D  | 7 to 20 Degrees  | 1         | 31 | 29  | 26  | 23  | 21  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |
|                  |  |                  | 2         | 24 | 21  | 19  | 17  | 16  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |
|                  |  |                  | 3         | 22 | 19  | 17  | 16  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|                  |  | 20 to 27 Degrees | 1         | 32 | 32  | 32  | 30  | 28  | 25  | 21  | 18  | 16  | 14  | 12  | 11  |
|                  |  |                  | 2         | 28 | 25  | 23  | 21  | 19  | 17  | 15  | 12  | 11  | 9   | 8   | 7   |
|                  |  |                  | 3         | 0  | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 27 to 45 Degrees |  | 1                | 37        | 33 | 30  | 27  | 25  | 23  | 19  | 16  | 14  | 12  | 11  | 10  |     |
|                  |  | 2                | 19        | 17 | 16  | 14  | 13  | 12  | 10  | 9   | 7   | 6   | 6   | 5   |     |
|                  |  | 3                | 15        | 13 | 12  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 4   |     |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Hip Roof RT14    | RT-[E] Mount Mini Plywood Only Installations<br>(72 Cell PV Panels)<br>Maximum Mount Spacing in Inches |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |    |
|------------------|--|------------------|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|
|                  | Portrait Orientation - ASCE 7-16   |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |    |
| Snow Load        | Exposure Category  | Roof Angle       | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |    |    |
|                  |  |                  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |    |    |
| 51-60 PSF        | B  | 7 to 20 Degrees  | 1         | 26                        | 26  | 26  | 26  | 26  | 26  | 26  | 24  | 21  | 18  | 16  | 14  |    |    |
|                  |  |                  | 2         | 26                        | 26  | 26  | 26  | 26  | 25  | 21  | 18  | 15  | 13  | 12  | 10  |    |    |
|                  |  |                  | 3         | 26                        | 26  | 26  | 26  | 25  | 23  | 19  | 16  | 14  | 12  | 11  | 9   |    |    |
|                  |  | 20 to 27 Degrees | 1         | 27                        | 27  | 27  | 27  | 27  | 27  | 27  | 27  | 27  | 27  | 23  | 21  | 18 |    |
|                  |  |                  | 2         | 27                        | 27  | 27  | 27  | 27  | 27  | 27  | 25  | 21  | 18  | 16  | 14  | 12 |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  |    |
|                  |  | 27 to 45 Degrees | 1         | 33                        | 33  | 33  | 33  | 33  | 33  | 33  | 33  | 33  | 28  | 24  | 21  | 19 | 17 |
|                  |  |                  | 2         | 33                        | 29  | 27  | 24  | 22  | 20  | 17  | 15  | 13  | 11  | 10  | 9   | 8  |    |
|                  |  |                  | 3         | 25                        | 23  | 20  | 19  | 17  | 15  | 13  | 11  | 10  | 8   | 7   | 7   | 7  |    |
|                  | C  | 7 to 20 Degrees  | 1         | 26                        | 26  | 26  | 26  | 26  | 23  | 20  | 17  | 14  | 13  | 11  | 10  |    |    |
|                  |  |                  | 2         | 26                        | 25  | 23  | 21  | 19  | 17  | 14  | 12  | 11  | 9   | 8   | 7   |    |    |
|                  |  |                  | 3         | 26                        | 23  | 21  | 19  | 17  | 16  | 13  | 11  | 10  | 8   | 7   | 7   |    |    |
|                  |  | 20 to 27 Degrees | 1         | 27                        | 27  | 27  | 27  | 27  | 27  | 25  | 22  | 19  | 16  | 14  | 13  |    |    |
|                  |  |                  | 2         | 27                        | 27  | 27  | 25  | 23  | 21  | 17  | 15  | 13  | 11  | 10  | 9   |    |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |    |
|                  |  | 27 to 45 Degrees | 1         | 33                        | 33  | 33  | 32  | 30  | 27  | 23  | 20  | 17  | 15  | 13  | 12  |    |    |
|                  |  |                  | 2         | 23                        | 21  | 19  | 17  | 15  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |    |    |
|                  |  |                  | 3         | 18                        | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 5   |    |    |
|                  | D  | 7 to 20 Degrees  | 1         | 26                        | 26  | 26  | 23  | 26  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |    |    |
|                  |  |                  | 2         | 24                        | 21  | 19  | 17  | 16  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |    |    |
|                  |  |                  | 3         | 22                        | 19  | 17  | 16  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |    |    |
|                  |  | 20 to 27 Degrees | 1         | 27                        | 27  | 27  | 27  | 27  | 25  | 21  | 18  | 16  | 14  | 12  | 11  |    |    |
|                  |  |                  | 2         | 27                        | 25  | 23  | 21  | 19  | 17  | 15  | 12  | 11  | 9   | 8   | 7   |    |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |    |
| 27 to 45 Degrees |  | 1                | 33        | 33                        | 30  | 27  | 25  | 23  | 19  | 16  | 14  | 12  | 11  | 10  |     |    |    |
|                  |  | 2                | 19        | 17                        | 16  | 14  | 13  | 12  | 10  | 9   | 7   | 6   | 6   | 5   |     |    |    |
|                  |  | 3                | 15        | 13                        | 12  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 4   |     |    |    |
| 61-70 PSF        | B  | 7 to 20 Degrees  | 1         | 23                        | 23  | 23  | 23  | 23  | 23  | 23  | 23  | 21  | 18  | 16  | 14  |    |    |
|                  |  |                  | 2         | 23                        | 23  | 23  | 23  | 23  | 23  | 21  | 18  | 15  | 13  | 12  | 10  |    |    |
|                  |  |                  | 3         | 23                        | 23  | 23  | 23  | 23  | 23  | 19  | 16  | 14  | 12  | 11  | 9   |    |    |
|                  |  | 20 to 27 Degrees | 1         | 24                        | 24  | 24  | 24  | 24  | 24  | 24  | 24  | 24  | 24  | 23  | 21  | 18 |    |
|                  |  |                  | 2         | 24                        | 24  | 24  | 24  | 24  | 24  | 24  | 24  | 21  | 18  | 16  | 14  | 12 |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |    |
|                  |  | 27 to 45 Degrees | 1         | 29                        | 29  | 29  | 29  | 29  | 29  | 29  | 28  | 24  | 21  | 19  | 17  |    |    |
|                  |  |                  | 2         | 29                        | 29  | 27  | 24  | 22  | 20  | 17  | 15  | 13  | 11  | 10  | 9   |    |    |
|                  |  |                  | 3         | 25                        | 23  | 20  | 19  | 17  | 15  | 13  | 11  | 10  | 8   | 7   | 7   |    |    |
|                  | C  | 7 to 20 Degrees  | 1         | 23                        | 23  | 23  | 23  | 23  | 23  | 20  | 17  | 14  | 13  | 11  | 10  |    |    |
|                  |  |                  | 2         | 23                        | 23  | 23  | 21  | 19  | 17  | 14  | 12  | 11  | 9   | 8   | 7   |    |    |
|                  |  |                  | 3         | 23                        | 23  | 21  | 19  | 17  | 16  | 13  | 11  | 10  | 8   | 7   | 7   |    |    |
|                  |  | 20 to 27 Degrees | 1         | 24                        | 24  | 24  | 24  | 24  | 24  | 24  | 24  | 22  | 19  | 16  | 14  | 13 |    |
|                  |  |                  | 2         | 24                        | 24  | 24  | 24  | 23  | 21  | 17  | 15  | 13  | 11  | 10  | 9   |    |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |    |
|                  |  | 27 to 45 Degrees | 1         | 29                        | 29  | 29  | 29  | 29  | 27  | 23  | 20  | 17  | 15  | 13  | 12  |    |    |
|                  |  |                  | 2         | 23                        | 21  | 19  | 17  | 15  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |    |    |
|                  |  |                  | 3         | 18                        | 16  | 14  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 5   |    |    |
|                  | D  | 7 to 20 Degrees  | 1         | 23                        | 23  | 23  | 23  | 21  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |    |    |
|                  |  |                  | 2         | 23                        | 21  | 19  | 17  | 16  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |    |    |
|                  |  |                  | 3         | 22                        | 19  | 17  | 16  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |    |    |
|                  |  | 20 to 27 Degrees | 1         | 24                        | 24  | 24  | 24  | 24  | 24  | 21  | 18  | 16  | 14  | 12  | 11  |    |    |
|                  |  |                  | 2         | 24                        | 24  | 23  | 21  | 19  | 17  | 15  | 12  | 11  | 9   | 8   | 7   |    |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |    |
| 27 to 45 Degrees |  | 1                | 29        | 29                        | 29  | 27  | 25  | 23  | 19  | 16  | 14  | 12  | 11  | 10  |     |    |    |
|                  |  | 2                | 19        | 17                        | 16  | 14  | 13  | 12  | 10  | 9   | 7   | 6   | 6   | 5   |     |    |    |
|                  |  | 3                | 15        | 13                        | 12  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 4   |     |    |    |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.



| Hip Roof RT15    | RT-[E] Mount Mini OSB Only Installations<br>(60 Cell PV Panels)<br>Maximum Mount Spacing in Inches |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |
|------------------|--|------------------|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|                  | Portrait Orientation - ASCE 7-16   |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |
| Snow Load        | Exposure Category  | Roof Angle       | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |
|                  |  |                  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |
| 0 PSF            | B  | 7 to 20 Degrees  | 1         | 55                        | 49  | 44  | 39  | 36  | 32  | 27  | 23  | 20  | 17  | 15  | 13  |
|                  |  |                  | 2         | 40                        | 35  | 32  | 29  | 26  | 24  | 20  | 17  | 15  | 13  | 11  | 10  |
|                  |  |                  | 3         | 36                        | 32  | 29  | 26  | 24  | 22  | 18  | 16  | 13  | 12  | 10  | 9   |
|                  |  | 20 to 27 Degrees | 1         | 70                        | 63  | 56  | 51  | 46  | 42  | 35  | 30  | 26  | 22  | 20  | 17  |
|                  |  |                  | 2         | 47                        | 42  | 38  | 34  | 31  | 28  | 24  | 20  | 18  | 15  | 14  | 12  |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                  |  | 27 to 45 Degrees | 1         | 60                        | 54  | 48  | 44  | 40  | 37  | 31  | 27  | 23  | 20  | 18  | 16  |
|                  |  |                  | 2         | 31                        | 28  | 25  | 23  | 21  | 19  | 16  | 14  | 12  | 11  | 9   | 8   |
|                  |  |                  | 3         | 24                        | 22  | 20  | 18  | 16  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |
|                  | C  | 7 to 20 Degrees  | 1         | 37                        | 33  | 30  | 27  | 25  | 22  | 19  | 16  | 14  | 12  | 11  | 9   |
|                  |  |                  | 2         | 27                        | 24  | 22  | 20  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |
|                  |  |                  | 3         | 25                        | 22  | 20  | 18  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |
|                  |  | 20 to 27 Degrees | 1         | 48                        | 43  | 39  | 35  | 32  | 29  | 24  | 21  | 18  | 16  | 14  | 12  |
|                  |  |                  | 2         | 33                        | 29  | 26  | 24  | 22  | 20  | 17  | 14  | 12  | 11  | 9   | 8   |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                  |  | 27 to 45 Degrees | 1         | 42                        | 38  | 34  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 13  | 11  |
|                  |  |                  | 2         | 22                        | 20  | 18  | 16  | 15  | 14  | 11  | 10  | 8   | 7   | 6   | 6   |
|                  |  |                  | 3         | 17                        | 15  | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 5   | 4   | 4   |
|                  | D  | 7 to 20 Degrees  | 1         | 31                        | 28  | 25  | 23  | 21  | 19  | 16  | 13  | 12  | 10  | 9   | 8   |
|                  |  |                  | 2         | 23                        | 20  | 18  | 17  | 15  | 14  | 12  | 10  | 8   | 7   | 6   | 6   |
|                  |  |                  | 3         | 21                        | 19  | 17  | 15  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|                  |  | 20 to 27 Degrees | 1         | 40                        | 36  | 32  | 29  | 27  | 24  | 20  | 17  | 15  | 13  | 12  | 10  |
|                  |  |                  | 2         | 27                        | 24  | 22  | 20  | 18  | 17  | 14  | 12  | 10  | 9   | 8   | 7   |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 27 to 45 Degrees |  | 1                | 35        | 32                        | 29  | 26  | 24  | 22  | 18  | 16  | 14  | 12  | 11  | 9   |     |
|                  |  | 2                | 18        | 17                        | 15  | 14  | 12  | 11  | 10  | 8   | 7   | 6   | 5   | 5   |     |
|                  |  | 3                | 14        | 13                        | 12  | 10  | 10  | 9   | 7   | 6   | 5   | 4   | 4   | 4   |     |
| 1-10 PSF         | B  | 7 to 20 Degrees  | 1         | 49                        | 49  | 44  | 39  | 36  | 32  | 27  | 23  | 20  | 17  | 15  | 13  |
|                  |  |                  | 2         | 40                        | 35  | 32  | 29  | 26  | 24  | 20  | 17  | 15  | 13  | 11  | 10  |
|                  |  |                  | 3         | 36                        | 32  | 29  | 26  | 24  | 22  | 18  | 16  | 13  | 12  | 10  | 9   |
|                  |  | 20 to 27 Degrees | 1         | 50                        | 50  | 50  | 50  | 46  | 42  | 35  | 30  | 26  | 22  | 20  | 17  |
|                  |  |                  | 2         | 47                        | 42  | 38  | 34  | 31  | 28  | 24  | 20  | 18  | 15  | 14  | 12  |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                  |  | 27 to 45 Degrees | 1         | 54                        | 54  | 48  | 44  | 40  | 37  | 31  | 27  | 23  | 20  | 18  | 16  |
|                  |  |                  | 2         | 31                        | 28  | 25  | 23  | 21  | 19  | 16  | 14  | 12  | 11  | 9   | 8   |
|                  |  |                  | 3         | 24                        | 22  | 20  | 18  | 16  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |
|                  | C  | 7 to 20 Degrees  | 1         | 37                        | 33  | 30  | 27  | 25  | 22  | 19  | 16  | 14  | 12  | 11  | 9   |
|                  |  |                  | 2         | 27                        | 24  | 22  | 20  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |
|                  |  |                  | 3         | 25                        | 22  | 20  | 18  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |
|                  |  | 20 to 27 Degrees | 1         | 48                        | 43  | 39  | 35  | 32  | 29  | 35  | 21  | 18  | 16  | 14  | 12  |
|                  |  |                  | 2         | 33                        | 29  | 26  | 24  | 22  | 20  | 24  | 14  | 12  | 11  | 9   | 8   |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                  |  | 27 to 45 Degrees | 1         | 42                        | 38  | 34  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 13  | 11  |
|                  |  |                  | 2         | 22                        | 20  | 18  | 16  | 15  | 14  | 11  | 10  | 8   | 7   | 6   | 6   |
|                  |  |                  | 3         | 17                        | 15  | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 5   | 4   | 4   |
|                  | D  | 7 to 20 Degrees  | 1         | 31                        | 28  | 25  | 23  | 21  | 19  | 16  | 13  | 12  | 10  | 9   | 8   |
|                  |  |                  | 2         | 23                        | 20  | 18  | 17  | 15  | 14  | 12  | 10  | 8   | 7   | 6   | 6   |
|                  |  |                  | 3         | 21                        | 19  | 17  | 15  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|                  |  | 20 to 27 Degrees | 1         | 40                        | 36  | 32  | 29  | 27  | 24  | 20  | 17  | 15  | 13  | 12  | 10  |
|                  |  |                  | 2         | 27                        | 24  | 22  | 20  | 18  | 17  | 14  | 12  | 10  | 9   | 8   | 7   |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 27 to 45 Degrees |  | 1                | 35        | 32                        | 29  | 26  | 24  | 22  | 18  | 16  | 14  | 12  | 11  | 9   |     |
|                  |  | 2                | 18        | 17                        | 15  | 14  | 12  | 11  | 10  | 8   | 7   | 6   | 5   | 5   |     |
|                  |  | 3                | 14        | 13                        | 12  | 10  | 10  | 9   | 7   | 6   | 5   | 4   | 4   | 4   |     |
| 1-1-20 PSF       | B  | 7 to 20 Degrees  | 1         | 34                        | 34  | 34  | 34  | 34  | 32  | 27  | 23  | 20  | 17  | 15  | 13  |
|                  |  |                  | 2         | 34                        | 34  | 32  | 29  | 26  | 24  | 20  | 17  | 15  | 13  | 11  | 10  |
|                  |  |                  | 3         | 34                        | 32  | 29  | 26  | 24  | 22  | 18  | 16  | 13  | 12  | 10  | 9   |
|                  |  | 20 to 27 Degrees | 1         | 36                        | 36  | 36  | 36  | 36  | 36  | 35  | 30  | 26  | 22  | 20  | 17  |
|                  |  |                  | 2         | 36                        | 36  | 36  | 34  | 31  | 28  | 24  | 20  | 18  | 15  | 14  | 12  |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                  |  | 27 to 45 Degrees | 1         | 41                        | 41  | 41  | 41  | 40  | 37  | 31  | 27  | 23  | 20  | 18  | 16  |
|                  |  |                  | 2         | 31                        | 28  | 25  | 23  | 21  | 19  | 16  | 14  | 12  | 11  | 9   | 8   |
|                  |  |                  | 3         | 24                        | 22  | 20  | 18  | 16  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |
|                  | C  | 7 to 20 Degrees  | 1         | 34                        | 33  | 30  | 27  | 25  | 22  | 19  | 16  | 14  | 12  | 11  | 9   |
|                  |  |                  | 2         | 27                        | 24  | 22  | 20  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |
|                  |  |                  | 3         | 25                        | 22  | 20  | 18  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |
|                  |  | 20 to 27 Degrees | 1         | 36                        | 36  | 36  | 35  | 32  | 29  | 24  | 21  | 18  | 16  | 14  | 12  |
|                  |  |                  | 2         | 33                        | 29  | 26  | 24  | 22  | 20  | 17  | 14  | 12  | 11  | 9   | 8   |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                  |  | 27 to 45 Degrees | 1         | 41                        | 38  | 34  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 13  | 11  |
|                  |  |                  | 2         | 22                        | 20  | 18  | 16  | 15  | 14  | 11  | 10  | 8   | 7   | 6   | 6   |
|                  |  |                  | 3         | 17                        | 15  | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 5   | 4   | 4   |
|                  | D  | 7 to 20 Degrees  | 1         | 31                        | 28  | 25  | 23  | 21  | 19  | 16  | 13  | 12  | 10  | 9   | 8   |
|                  |  |                  | 2         | 23                        | 20  | 18  | 17  | 15  | 14  | 12  | 10  | 8   | 7   | 6   | 6   |
|                  |  |                  | 3         | 21                        | 19  | 17  | 15  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|                  |  | 20 to 27 Degrees | 1         | 36                        | 36  | 32  | 29  | 27  | 24  | 20  | 17  | 15  | 13  | 12  | 10  |
|                  |  |                  | 2         | 27                        | 24  | 22  | 20  | 18  | 17  | 14  | 12  | 10  | 9   | 8   | 7   |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 27 to 45 Degrees |  | 1                | 35        | 32                        | 29  | 26  | 24  | 22  | 18  | 16  | 14  | 12  | 11  | 9   |     |
|                  |  | 2                | 18        | 17                        | 15  | 14  | 12  | 11  | 10  | 8   | 7   | 6   | 5   | 5   |     |
|                  |  | 3                | 14        | 13                        | 12  | 10  | 10  | 9   | 7   | 6   | 5   | 4   | 4   | 4   |     |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Hip Roof RT15    | RT-[E] Mount Mini OSB Only Installations<br>(60 Cell PV Panels)<br>Maximum Mount Spacing in Inches |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |
|------------------|--|------------------|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
|                  | Portrait Orientation - ASCE 7-16   |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |
| Snow Load        | Exposure Category  | Roof Angle       | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |    |
|                  |  |                  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |    |
| 21-30 PSF        | B  | 7 to 20 Degrees  | 1         | 29                        | 29  | 29  | 29  | 29  | 29  | 27  | 23  | 20  | 17  | 15  | 13  |    |
|                  |  |                  | 2         | 29                        | 29  | 29  | 29  | 26  | 24  | 20  | 17  | 15  | 13  | 11  | 10  |    |
|                  |  |                  | 3         | 29                        | 29  | 29  | 26  | 24  | 22  | 18  | 16  | 13  | 12  | 10  | 9   |    |
|                  |  | 20 to 27 Degrees | 1         | 31                        | 31  | 31  | 31  | 31  | 31  | 31  | 30  | 26  | 22  | 20  | 17  |    |
|                  |  |                  | 2         | 31                        | 31  | 31  | 31  | 31  | 28  | 24  | 20  | 18  | 15  | 14  | 12  |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                  |  | 27 to 45 Degrees | 1         | 36                        | 36  | 36  | 36  | 36  | 35  | 31  | 27  | 23  | 20  | 18  | 16  |    |
|                  |  |                  | 2         | 31                        | 28  | 25  | 23  | 21  | 19  | 16  | 14  | 12  | 11  | 9   | 8   |    |
|                  |  |                  | 3         | 24                        | 22  | 20  | 18  | 16  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |    |
|                  | C  | 7 to 20 Degrees  | 1         | 29                        | 29  | 29  | 27  | 25  | 22  | 19  | 16  | 14  | 12  | 11  | 9   |    |
|                  |  |                  | 2         | 27                        | 24  | 22  | 20  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |    |
|                  |  |                  | 3         | 25                        | 22  | 20  | 18  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |    |
|                  |  | 20 to 27 Degrees | 1         | 31                        | 31  | 31  | 31  | 30  | 29  | 24  | 21  | 18  | 16  | 14  | 12  |    |
|                  |  |                  | 2         | 31                        | 29  | 26  | 24  | 22  | 20  | 17  | 14  | 12  | 11  | 9   | 8   |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                  |  | 27 to 45 Degrees | 1         | 36                        | 35  | 34  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 13  | 11  |    |
|                  |  |                  | 2         | 22                        | 20  | 18  | 16  | 15  | 14  | 11  | 10  | 8   | 7   | 6   | 6   |    |
|                  |  |                  | 3         | 17                        | 15  | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 6   | 5   | 4   |    |
|                  | D  | 7 to 20 Degrees  | 1         | 29                        | 28  | 25  | 23  | 21  | 19  | 16  | 13  | 12  | 10  | 9   | 8   |    |
|                  |  |                  | 2         | 23                        | 20  | 18  | 17  | 15  | 14  | 12  | 10  | 8   | 7   | 6   | 6   |    |
|                  |  |                  | 3         | 21                        | 19  | 17  | 15  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |    |
|                  |  | 20 to 27 Degrees | 1         | 31                        | 31  | 30  | 29  | 27  | 24  | 20  | 17  | 15  | 13  | 12  | 10  |    |
|                  |  |                  | 2         | 27                        | 24  | 22  | 20  | 18  | 17  | 14  | 12  | 10  | 9   | 8   | 7   |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
| 27 to 45 Degrees |  | 1                | 35        | 32                        | 29  | 26  | 24  | 22  | 18  | 16  | 14  | 12  | 11  | 9   |     |    |
|                  |  | 2                | 18        | 17                        | 15  | 14  | 12  | 11  | 10  | 8   | 7   | 6   | 5   | 5   |     |    |
|                  |  | 3                | 14        | 13                        | 12  | 10  | 10  | 9   | 7   | 6   | 5   | 5   | 4   | 4   |     |    |
| 31-40 PSF        | B  | 7 to 20 Degrees  | 1         | 23                        | 23  | 23  | 23  | 23  | 23  | 23  | 23  | 20  | 17  | 15  | 13  |    |
|                  |  |                  | 2         | 23                        | 23  | 23  | 23  | 23  | 23  | 20  | 17  | 15  | 13  | 11  | 10  |    |
|                  |  |                  | 3         | 23                        | 23  | 23  | 23  | 23  | 22  | 18  | 16  | 13  | 12  | 10  | 9   |    |
|                  |  | 20 to 27 Degrees | 1         | 24                        | 24  | 24  | 24  | 24  | 24  | 24  | 24  | 24  | 22  | 20  | 17  |    |
|                  |  |                  | 2         | 24                        | 24  | 24  | 24  | 24  | 24  | 24  | 20  | 18  | 15  | 14  | 12  |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                  |  | 27 to 45 Degrees | 1         | 30                        | 30  | 30  | 30  | 30  | 51  | 29  | 27  | 23  | 20  | 18  | 16  |    |
|                  |  |                  | 2         | 30                        | 28  | 25  | 23  | 21  | 19  | 16  | 14  | 12  | 11  | 9   | 8   |    |
|                  |  |                  | 3         | 24                        | 22  | 20  | 18  | 16  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |    |
|                  | C  | 7 to 20 Degrees  | 1         | 23                        | 23  | 23  | 23  | 23  | 22  | 19  | 16  | 14  | 12  | 11  | 9   |    |
|                  |  |                  | 2         | 23                        | 23  | 22  | 20  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |    |
|                  |  |                  | 3         | 23                        | 22  | 20  | 18  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |    |
|                  |  | 20 to 27 Degrees | 1         | 24                        | 24  | 24  | 24  | 24  | 24  | 24  | 21  | 18  | 16  | 14  | 12  |    |
|                  |  |                  | 2         | 24                        | 24  | 24  | 24  | 22  | 20  | 17  | 14  | 12  | 11  | 9   | 8   |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                  |  | 27 to 45 Degrees | 1         | 30                        | 30  | 29  | 29  | 28  | 26  | 22  | 19  | 16  | 14  | 13  | 11  |    |
|                  |  |                  | 2         | 22                        | 20  | 18  | 16  | 15  | 14  | 11  | 10  | 8   | 7   | 6   | 6   |    |
|                  |  |                  | 3         | 17                        | 15  | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 6   | 5   | 4   |    |
|                  | D  | 7 to 20 Degrees  | 1         | 23                        | 23  | 23  | 23  | 21  | 19  | 16  | 13  | 12  | 10  | 9   | 8   |    |
|                  |  |                  | 2         | 23                        | 20  | 18  | 17  | 15  | 14  | 12  | 10  | 8   | 7   | 6   | 6   |    |
|                  |  |                  | 3         | 21                        | 19  | 17  | 15  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |    |
|                  |  | 20 to 27 Degrees | 1         | 24                        | 24  | 24  | 24  | 24  | 24  | 20  | 17  | 15  | 13  | 12  | 10  |    |
|                  |  |                  | 2         | 24                        | 24  | 22  | 20  | 18  | 17  | 14  | 12  | 10  | 9   | 8   | 7   |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
| 27 to 45 Degrees |  | 1                | 29        | 29                        | 28  | 26  | 24  | 22  | 18  | 16  | 14  | 12  | 11  | 9   |     |    |
|                  |  | 2                | 18        | 17                        | 15  | 14  | 12  | 11  | 10  | 8   | 7   | 6   | 5   | 5   |     |    |
|                  |  | 3                | 14        | 13                        | 12  | 10  | 10  | 9   | 7   | 6   | 5   | 5   | 4   | 4   |     |    |
| 41-50 PSF        | B  | 7 to 20 Degrees  | 1         | 18                        | 18  | 18  | 18  | 18  | 18  | 18  | 18  | 18  | 17  | 15  | 13  |    |
|                  |  |                  | 2         | 18                        | 18  | 18  | 18  | 18  | 18  | 18  | 18  | 17  | 15  | 13  | 11  | 10 |
|                  |  |                  | 3         | 18                        | 18  | 18  | 18  | 18  | 18  | 18  | 18  | 16  | 13  | 12  | 10  | 9  |
|                  |  | 20 to 27 Degrees | 1         | 20                        | 20  | 20  | 20  | 20  | 20  | 20  | 20  | 20  | 20  | 20  | 17  |    |
|                  |  |                  | 2         | 20                        | 20  | 20  | 20  | 20  | 20  | 20  | 20  | 20  | 18  | 15  | 14  | 12 |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  |
|                  |  | 27 to 45 Degrees | 1         | 25                        | 25  | 25  | 25  | 25  | 25  | 25  | 24  | 23  | 20  | 18  | 16  |    |
|                  |  |                  | 2         | 25                        | 25  | 25  | 23  | 21  | 19  | 16  | 14  | 12  | 11  | 9   | 8   |    |
|                  |  |                  | 3         | 24                        | 22  | 20  | 18  | 16  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |    |
|                  | C  | 7 to 20 Degrees  | 1         | 18                        | 18  | 18  | 18  | 18  | 18  | 18  | 16  | 14  | 12  | 11  | 9   |    |
|                  |  |                  | 2         | 18                        | 18  | 18  | 18  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |    |
|                  |  |                  | 3         | 18                        | 18  | 18  | 18  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |    |
|                  |  | 20 to 27 Degrees | 1         | 20                        | 20  | 20  | 20  | 20  | 20  | 20  | 20  | 18  | 16  | 14  | 12  |    |
|                  |  |                  | 2         | 20                        | 20  | 20  | 20  | 20  | 20  | 17  | 14  | 12  | 11  | 9   | 8   |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                  |  | 27 to 45 Degrees | 1         | 25                        | 25  | 25  | 25  | 24  | 24  | 22  | 19  | 16  | 14  | 13  | 11  |    |
|                  |  |                  | 2         | 22                        | 20  | 18  | 16  | 15  | 14  | 11  | 10  | 8   | 7   | 6   | 6   |    |
|                  |  |                  | 3         | 17                        | 15  | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 6   | 5   | 4   |    |
|                  | D  | 7 to 20 Degrees  | 1         | 18                        | 18  | 18  | 18  | 18  | 18  | 18  | 16  | 13  | 12  | 10  | 9   | 8  |
|                  |  |                  | 2         | 18                        | 18  | 18  | 17  | 15  | 14  | 12  | 10  | 8   | 7   | 6   | 6   |    |
|                  |  |                  | 3         | 18                        | 18  | 17  | 15  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |    |
|                  |  | 20 to 27 Degrees | 1         | 20                        | 20  | 20  | 20  | 20  | 20  | 20  | 17  | 15  | 13  | 12  | 10  |    |
|                  |  |                  | 2         | 20                        | 20  | 20  | 20  | 18  | 17  | 14  | 12  | 10  | 9   | 8   | 7   |    |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
| 27 to 45 Degrees |  | 1                | 25        | 25                        | 24  | 24  | 23  | 22  | 18  | 16  | 14  | 12  | 11  | 9   |     |    |
|                  |  | 2                | 18        | 17                        | 15  | 14  | 12  | 11  | 10  | 8   | 7   | 6   | 5   | 5   |     |    |
|                  |  | 3                | 14        | 13                        | 12  | 10  | 10  | 9   | 7   | 6   | 5   | 5   | 4   | 4   |     |    |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Snow Load                               | Exposure Category | Roof Angle       | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |    |    |    |   |
|---|-------------------|------------------|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|---|
|   |                   |                  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |    |    |    |   |
| <b>Portrait Orientation - ASCE 7-16</b> |                   |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |    |    |   |
| 51.60 PSF                               | B                 | 7 to 20 Degrees  | 1         | 15                        | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 13 |    |    |   |
|   |                   |                  | 2         | 15                        | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 13  | 11 | 10 |    |   |
|   |                   |                  | 3         | 15                        | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 13  | 12  | 10 | 9  |    |   |
|   |                   | 20 to 27 Degrees | 1         | 17                        | 17  | 17  | 17  | 17  | 17  | 17  | 17  | 17  | 17  | 17  | 17  | 17 | 17 |    |   |
|   |                   |                  | 2         | 17                        | 17  | 17  | 17  | 17  | 17  | 17  | 17  | 17  | 17  | 17  | 17  | 15 | 14 | 12 |   |
|   |                   |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  | 0  |   |
|   |                   | 27 to 45 Degrees | 1         | 21                        | 21  | 21  | 21  | 21  | 21  | 21  | 21  | 21  | 21  | 21  | 21  | 20 | 18 | 16 |   |
|   |                   |                  | 2         | 21                        | 21  | 21  | 21  | 21  | 21  | 21  | 19  | 16  | 14  | 12  | 11  | 9  | 8  | 8  |   |
|   |                   |                  | 3         | 21                        | 21  | 20  | 18  | 16  | 15  | 13  | 11  | 9   | 8   | 7   | 6   | 5  | 4  | 4  |   |
|   | C                 | 7 to 20 Degrees  | 1         | 15                        | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 13 | 11 | 9  |   |
|   |                   |                  | 2         | 15                        | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 14  | 12  | 10  | 9   | 8  | 7  | 7  |   |
|   |                   |                  | 3         | 15                        | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 13  | 11  | 9   | 8   | 7  | 6  | 6  |   |
|   |                   | 20 to 27 Degrees | 1         | 17                        | 17  | 17  | 17  | 17  | 17  | 17  | 17  | 17  | 17  | 17  | 17  | 16 | 14 | 12 |   |
|   |                   |                  | 2         | 17                        | 17  | 17  | 17  | 17  | 17  | 17  | 17  | 17  | 17  | 17  | 14  | 12 | 11 | 9  | 8 |
|   |                   |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  | 0  | 0 |
|   |                   | 27 to 45 Degrees | 1         | 21                        | 21  | 21  | 21  | 21  | 21  | 21  | 21  | 20  | 19  | 16  | 14  | 13 | 11 | 11 |   |
|   |                   |                  | 2         | 21                        | 20  | 18  | 16  | 15  | 14  | 11  | 10  | 8   | 7   | 6   | 6   | 6  | 6  | 6  |   |
|   |                   |                  | 3         | 17                        | 15  | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 5   | 4   | 4   | 4  | 4  | 4  |   |
|   | D                 | 7 to 20 Degrees  | 1         | 15                        | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 13  | 12  | 10  | 9  | 8  | 8  |   |
|   |                   |                  | 2         | 15                        | 15  | 15  | 15  | 15  | 15  | 14  | 12  | 10  | 8   | 7   | 6   | 6  | 6  | 6  |   |
|   |                   |                  | 3         | 15                        | 15  | 15  | 15  | 15  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 6  | 5  | 5  |   |
|   |                   | 20 to 27 Degrees | 1         | 17                        | 17  | 17  | 17  | 17  | 17  | 17  | 17  | 17  | 17  | 15  | 13  | 12 | 10 | 10 |   |
|   |                   |                  | 2         | 17                        | 17  | 17  | 17  | 17  | 17  | 17  | 17  | 14  | 12  | 10  | 9   | 8  | 7  | 7  |   |
|   |                   |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  | 0  | 0 |
| 27 to 45 Degrees                        |                   | 1                | 21        | 21                        | 21  | 21  | 21  | 21  | 20  | 18  | 16  | 14  | 12  | 11  | 9   | 8  | 9  |    |   |
|   |                   | 2                | 18        | 17                        | 15  | 14  | 12  | 11  | 10  | 8   | 7   | 6   | 5   | 5   | 5   | 5  | 5  |    |   |
|   |                   | 3                | 14        | 13                        | 12  | 10  | 10  | 9   | 7   | 6   | 5   | 4   | 4   | 4   | 4   | 4  | 4  |    |   |
| 61.70 PSF                               | B                 | 7 to 20 Degrees  | 1         | 13                        | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13 | 13 |    |   |
|   |                   |                  | 2         | 13                        | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13 | 11 | 10 |   |
|   |                   |                  | 3         | 13                        | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 12  | 10 | 9  | 9  |   |
|   |                   | 20 to 27 Degrees | 1         | 14                        | 14  | 14  | 14  | 14  | 14  | 14  | 14  | 14  | 14  | 14  | 14  | 14 | 14 | 14 |   |
|   |                   |                  | 2         | 14                        | 14  | 14  | 14  | 14  | 14  | 14  | 14  | 14  | 14  | 14  | 14  | 14 | 14 | 12 |   |
|   |                   |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  | 0  |   |
|   |                   | 27 to 45 Degrees | 1         | 19                        | 19  | 19  | 19  | 19  | 19  | 19  | 19  | 19  | 19  | 18  | 18  | 16 | 13 | 11 |   |
|   |                   |                  | 2         | 19                        | 19  | 19  | 19  | 19  | 19  | 19  | 16  | 14  | 12  | 11  | 9   | 8  | 7  | 8  |   |
|   |                   |                  | 3         | 19                        | 19  | 19  | 18  | 16  | 15  | 13  | 11  | 9   | 8   | 7   | 6   | 6  | 6  | 6  |   |
|   | C                 | 7 to 20 Degrees  | 1         | 13                        | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 12  | 11 | 9  | 9  |   |
|   |                   |                  | 2         | 13                        | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 12  | 10  | 9   | 8  | 7  | 7  |   |
|   |                   |                  | 3         | 13                        | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 11  | 9   | 8   | 7   | 6  | 6  | 6  |   |
|   |                   | 20 to 27 Degrees | 1         | 14                        | 14  | 14  | 14  | 14  | 14  | 14  | 14  | 14  | 14  | 14  | 14  | 14 | 14 | 12 |   |
|   |                   |                  | 2         | 14                        | 14  | 14  | 14  | 14  | 14  | 14  | 14  | 14  | 14  | 12  | 11  | 9  | 8  | 8  |   |
|   |                   |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  | 0  |   |
|   |                   | 27 to 45 Degrees | 1         | 19                        | 19  | 19  | 19  | 19  | 19  | 19  | 18  | 18  | 16  | 14  | 13  | 11 | 11 | 11 |   |
|   |                   |                  | 2         | 19                        | 19  | 18  | 16  | 15  | 14  | 11  | 10  | 8   | 7   | 6   | 6   | 6  | 6  | 6  |   |
|   |                   |                  | 3         | 17                        | 15  | 14  | 12  | 11  | 10  | 9   | 7   | 6   | 5   | 4   | 4   | 4  | 4  | 4  |   |
|   | D                 | 7 to 20 Degrees  | 1         | 13                        | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 12  | 10  | 9   | 8  | 8  | 8  |   |
|   |                   |                  | 2         | 13                        | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 12  | 10  | 8   | 7   | 6  | 6  | 6  |   |
|   |                   |                  | 3         | 13                        | 13  | 13  | 13  | 13  | 13  | 13  | 11  | 9   | 8   | 7   | 6   | 6  | 5  | 5  |   |
|   |                   | 20 to 27 Degrees | 1         | 14                        | 14  | 14  | 14  | 14  | 14  | 14  | 14  | 14  | 14  | 14  | 13  | 12 | 10 | 10 |   |
|   |                   |                  | 2         | 14                        | 14  | 14  | 14  | 14  | 14  | 14  | 14  | 14  | 12  | 10  | 9   | 8  | 7  | 7  |   |
|   |                   |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  | 0  |   |
| 27 to 45 Degrees                        |                   | 1                | 19        | 19                        | 19  | 19  | 19  | 19  | 18  | 18  | 16  | 14  | 12  | 11  | 9   | 8  | 9  |    |   |
|   |                   | 2                | 18        | 17                        | 15  | 14  | 12  | 11  | 10  | 8   | 7   | 6   | 5   | 5   | 5   | 5  | 5  |    |   |
|   |                   | 3                | 14        | 13                        | 12  | 10  | 10  | 9   | 7   | 6   | 5   | 4   | 4   | 4   | 4   | 4  | 4  |    |   |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Hip Roof RT16                    |                   | RT-[E] Mount Mini OSB Only Installations<br>(72 Cell PV Panels)<br>Maximum Mount Spacing in Inches |           |                           |     |     |     |     |     |     |     |     |     |     |     |
|----------------------------------|-------------------|--|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Portrait Orientation - ASCE 7-16 |                   |  |           |                           |     |     |     |     |     |     |     |     |     |     |     |
| Snow Load                        | Exposure Category | Roof Angle   | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |
|                                  |                   |  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |
| 0 PSF                            | B                 | 7 to 20 Degrees  | 1         | 48                        | 43  | 38  | 34  | 31  | 28  | 24  | 20  | 17  | 15  | 13  | 12  |
|                                  |                   |  | 2         | 35                        | 31  | 28  | 25  | 23  | 21  | 17  | 15  | 13  | 11  | 10  | 9   |
|                                  |                   |  | 3         | 32                        | 28  | 25  | 23  | 21  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |
|                                  |                   | 20 to 27 Degrees   | 1         | 61                        | 55  | 49  | 44  | 40  | 37  | 31  | 26  | 23  | 20  | 17  | 15  |
|                                  |                   |  | 2         | 41                        | 37  | 33  | 30  | 27  | 25  | 21  | 18  | 15  | 13  | 12  | 10  |
|                                  |                   |  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                                  | 27 to 45 Degrees  | 1  | 52        | 47                        | 42  | 38  | 35  | 32  | 27  | 23  | 20  | 18  | 16  | 14  |     |
|                                  |                   | 2  | 27        | 25                        | 22  | 20  | 18  | 17  | 14  | 12  | 11  | 9   | 8   | 7   |     |
|                                  |                   | 3  | 21        | 19                        | 17  | 16  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |     |
|                                  | C                 | 7 to 20 Degrees  | 1         | 33                        | 29  | 26  | 24  | 22  | 20  | 17  | 14  | 12  | 11  | 9   | 8   |
|                                  |                   |  | 2         | 24                        | 21  | 19  | 17  | 16  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |
|                                  |                   |  | 3         | 22                        | 20  | 18  | 16  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|                                  |                   | 20 to 27 Degrees   | 1         | 42                        | 38  | 34  | 31  | 28  | 25  | 21  | 18  | 16  | 14  | 12  | 11  |
|                                  |                   |  | 2         | 29                        | 26  | 23  | 21  | 19  | 17  | 15  | 12  | 11  | 9   | 8   | 7   |
|                                  |                   |  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                                  | 27 to 45 Degrees  | 1  | 37        | 33                        | 30  | 27  | 25  | 23  | 19  | 16  | 14  | 12  | 11  | 10  |     |
|                                  |                   | 2  | 19        | 17                        | 16  | 14  | 13  | 12  | 10  | 9   | 7   | 6   | 5   | 4   |     |
|                                  |                   | 3  | 15        | 13                        | 12  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 3   |     |
| D                                | 7 to 20 Degrees   | 1  | 27        | 24                        | 22  | 20  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |     |
|                                  |                   | 2  | 20        | 18                        | 16  | 14  | 13  | 12  | 10  | 9   | 7   | 6   | 5   | 4   |     |
|                                  |                   | 3  | 18        | 16                        | 15  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 4   |     |
|                                  | 20 to 27 Degrees  | 1  | 35        | 31                        | 28  | 26  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |     |
|                                  |                   | 2  | 24        | 21                        | 19  | 17  | 16  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |     |
|                                  |                   | 3  | 0         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |     |
| 27 to 45 Degrees                 | 1                 | 31   | 28        | 25                        | 23  | 21  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |     |     |
|                                  | 2                 | 16   | 15        | 13                        | 12  | 11  | 10  | 8   | 7   | 6   | 5   | 4   | 3   |     |     |
|                                  | 3                 | 12   | 11        | 10                        | 9   | 8   | 8   | 6   | 5   | 4   | 3   | 2   | 1   |     |     |
| 1-10 PSF                         | B                 | 7 to 20 Degrees  | 1         | 43                        | 43  | 38  | 34  | 31  | 28  | 24  | 20  | 17  | 15  | 13  | 12  |
|                                  |                   |  | 2         | 35                        | 31  | 28  | 25  | 23  | 21  | 17  | 15  | 13  | 11  | 10  | 9   |
|                                  |                   |  | 3         | 32                        | 28  | 25  | 23  | 21  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |
|                                  |                   | 20 to 27 Degrees   | 1         | 44                        | 44  | 44  | 44  | 40  | 37  | 31  | 26  | 23  | 20  | 17  | 15  |
|                                  |                   |  | 2         | 41                        | 37  | 33  | 30  | 27  | 25  | 21  | 18  | 15  | 13  | 12  | 10  |
|                                  |                   |  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                                  | 27 to 45 Degrees  | 1  | 47        | 47                        | 42  | 38  | 35  | 32  | 27  | 23  | 20  | 18  | 16  | 14  |     |
|                                  |                   | 2  | 27        | 25                        | 22  | 20  | 18  | 17  | 14  | 12  | 11  | 9   | 8   | 7   |     |
|                                  |                   | 3  | 21        | 19                        | 17  | 16  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |     |
|                                  | C                 | 7 to 20 Degrees  | 1         | 33                        | 29  | 26  | 24  | 22  | 20  | 17  | 14  | 12  | 11  | 9   | 8   |
|                                  |                   |  | 2         | 24                        | 21  | 19  | 17  | 16  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |
|                                  |                   |  | 3         | 22                        | 20  | 18  | 16  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|                                  |                   | 20 to 27 Degrees   | 1         | 42                        | 38  | 34  | 31  | 28  | 25  | 21  | 18  | 16  | 14  | 12  | 11  |
|                                  |                   |  | 2         | 29                        | 26  | 23  | 21  | 19  | 17  | 15  | 12  | 11  | 9   | 8   | 7   |
|                                  |                   |  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                                  | 27 to 45 Degrees  | 1  | 37        | 33                        | 30  | 27  | 25  | 23  | 19  | 16  | 14  | 12  | 11  | 10  |     |
|                                  |                   | 2  | 19        | 17                        | 16  | 14  | 13  | 12  | 10  | 9   | 7   | 6   | 5   | 4   |     |
|                                  |                   | 3  | 15        | 13                        | 12  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 3   |     |
| D                                | 7 to 20 Degrees   | 1  | 27        | 24                        | 22  | 20  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |     |
|                                  |                   | 2  | 20        | 18                        | 16  | 14  | 13  | 12  | 10  | 9   | 7   | 6   | 5   | 4   |     |
|                                  |                   | 3  | 18        | 16                        | 15  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 4   |     |
|                                  | 20 to 27 Degrees  | 1  | 35        | 31                        | 28  | 26  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |     |
|                                  |                   | 2  | 24        | 21                        | 19  | 17  | 16  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |     |
|                                  |                   | 3  | 0         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |     |
| 27 to 45 Degrees                 | 1                 | 31   | 28        | 25                        | 23  | 21  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |     |     |
|                                  | 2                 | 16   | 15        | 13                        | 12  | 11  | 10  | 8   | 7   | 6   | 5   | 4   | 3   |     |     |
|                                  | 3                 | 12   | 11        | 10                        | 9   | 8   | 8   | 6   | 5   | 4   | 3   | 2   | 1   |     |     |
| 11-20 PSF                        | B                 | 7 to 20 Degrees  | 1         | 30                        | 30  | 30  | 30  | 30  | 28  | 24  | 20  | 17  | 15  | 13  | 12  |
|                                  |                   |  | 2         | 30                        | 30  | 28  | 25  | 23  | 21  | 17  | 15  | 13  | 11  | 10  | 9   |
|                                  |                   |  | 3         | 30                        | 28  | 25  | 23  | 21  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |
|                                  |                   | 20 to 27 Degrees   | 1         | 31                        | 31  | 31  | 31  | 31  | 31  | 31  | 26  | 23  | 20  | 17  | 15  |
|                                  |                   |  | 2         | 31                        | 31  | 31  | 30  | 27  | 25  | 21  | 18  | 15  | 13  | 12  | 10  |
|                                  |                   |  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                                  | 27 to 45 Degrees  | 1  | 36        | 36                        | 36  | 36  | 35  | 32  | 27  | 23  | 20  | 18  | 16  | 14  |     |
|                                  |                   | 2  | 27        | 25                        | 22  | 20  | 18  | 17  | 14  | 12  | 11  | 9   | 8   | 7   |     |
|                                  |                   | 3  | 21        | 19                        | 17  | 16  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |     |
|                                  | C                 | 7 to 20 Degrees  | 1         | 30                        | 29  | 26  | 24  | 22  | 20  | 17  | 14  | 12  | 11  | 9   | 8   |
|                                  |                   |  | 2         | 24                        | 21  | 19  | 17  | 16  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |
|                                  |                   |  | 3         | 22                        | 20  | 18  | 16  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |
|                                  |                   | 20 to 27 Degrees   | 1         | 31                        | 31  | 31  | 31  | 28  | 25  | 21  | 18  | 16  | 14  | 12  | 11  |
|                                  |                   |  | 2         | 29                        | 26  | 23  | 21  | 19  | 17  | 15  | 12  | 11  | 9   | 8   | 7   |
|                                  |                   |  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                                  | 27 to 45 Degrees  | 1  | 36        | 33                        | 30  | 27  | 25  | 23  | 19  | 16  | 14  | 12  | 11  | 10  |     |
|                                  |                   | 2  | 19        | 17                        | 16  | 14  | 13  | 12  | 10  | 9   | 7   | 6   | 5   | 4   |     |
|                                  |                   | 3  | 15        | 13                        | 12  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 3   |     |
| D                                | 7 to 20 Degrees   | 1  | 27        | 24                        | 22  | 20  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |     |
|                                  |                   | 2  | 20        | 18                        | 16  | 14  | 13  | 12  | 10  | 9   | 7   | 6   | 5   | 4   |     |
|                                  |                   | 3  | 18        | 16                        | 15  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 4   |     |
|                                  | 20 to 27 Degrees  | 1  | 31        | 31                        | 28  | 26  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |     |
|                                  |                   | 2  | 24        | 21                        | 19  | 17  | 16  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |     |
|                                  |                   | 3  | 0         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |     |
| 27 to 45 Degrees                 | 1                 | 31   | 28        | 25                        | 23  | 21  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |     |     |
|                                  | 2                 | 16   | 15        | 13                        | 12  | 11  | 10  | 8   | 7   | 6   | 5   | 4   | 3   |     |     |
|                                  | 3                 | 12   | 11        | 10                        | 9   | 8   | 8   | 6   | 5   | 4   | 3   | 2   | 1   |     |     |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Hip Roof RT16                    |                   | RT-[E] Mount Mini OSB Only Installations<br>(72 Cell PV Panels)<br>Maximum Mount Spacing in Inches |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |
|----------------------------------|-------------------|--|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| Portrait Orientation - ASCE 7-16 |                   |  |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |
| Snow Load                        | Exposure Category | Roof Angle   | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |    |
|                                  |                   |  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |    |
| 21-30 PSF                        | B                 | 7 to 20 Degrees  | 1         | 25                        | 25  | 25  | 25  | 25  | 25  | 25  | 24  | 20  | 17  | 15  | 13  | 12 |
|                                  |                   |  | 2         | 25                        | 25  | 25  | 25  | 23  | 21  | 17  | 15  | 13  | 11  | 10  | 9   |    |
|                                  |                   |  | 3         | 25                        | 25  | 25  | 23  | 21  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |    |
|                                  |                   | 20 to 27 Degrees   | 1         | 27                        | 27  | 27  | 27  | 27  | 27  | 27  | 26  | 23  | 20  | 17  | 15  |    |
|                                  |                   |  | 2         | 27                        | 27  | 27  | 27  | 27  | 25  | 21  | 18  | 15  | 13  | 12  | 10  |    |
|                                  |                   |  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                                  |                   | 27 to 45 Degrees   | 1         | 32                        | 32  | 32  | 32  | 31  | 31  | 27  | 23  | 20  | 18  | 16  | 14  |    |
|                                  |                   |  | 2         | 27                        | 25  | 22  | 20  | 18  | 17  | 14  | 12  | 11  | 9   | 8   | 7   |    |
|                                  |                   |  | 3         | 21                        | 19  | 17  | 16  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |    |
|                                  | C                 | 7 to 20 Degrees  | 1         | 25                        | 25  | 25  | 24  | 22  | 20  | 17  | 14  | 12  | 11  | 9   | 8   |    |
|                                  |                   |  | 2         | 24                        | 21  | 19  | 17  | 16  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |    |
|                                  |                   |  | 3         | 22                        | 20  | 18  | 16  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |    |
|                                  |                   | 20 to 27 Degrees   | 1         | 27                        | 27  | 27  | 27  | 27  | 25  | 21  | 18  | 16  | 14  | 12  | 11  |    |
|                                  |                   |  | 2         | 27                        | 26  | 23  | 21  | 19  | 17  | 15  | 12  | 11  | 9   | 8   | 7   |    |
|                                  |                   |  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                                  |                   | 27 to 45 Degrees   | 1         | 32                        | 31  | 30  | 27  | 25  | 23  | 19  | 16  | 14  | 12  | 11  | 10  |    |
|                                  |                   |  | 2         | 19                        | 17  | 16  | 14  | 13  | 12  | 10  | 9   | 7   | 6   | 6   | 5   |    |
|                                  |                   |  | 3         | 15                        | 13  | 12  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 4   |    |
|                                  | D                 | 7 to 20 Degrees  | 1         | 25                        | 24  | 22  | 20  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |    |
|                                  |                   |  | 2         | 20                        | 18  | 16  | 14  | 13  | 12  | 10  | 9   | 7   | 6   | 6   | 5   |    |
|                                  |                   |  | 3         | 18                        | 16  | 15  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 5   |    |
|                                  |                   | 20 to 27 Degrees   | 1         | 27                        | 27  | 27  | 26  | 23  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |    |
|                                  |                   |  | 2         | 24                        | 21  | 19  | 17  | 16  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |    |
|                                  |                   |  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
| 27 to 45 Degrees                 |                   | 1  | 30        | 28                        | 25  | 23  | 21  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |     |    |
|                                  |                   | 2  | 16        | 15                        | 13  | 12  | 11  | 10  | 8   | 7   | 6   | 5   | 5   | 4   |     |    |
|                                  |                   | 3  | 12        | 11                        | 10  | 9   | 8   | 8   | 6   | 5   | 5   | 4   | 4   | 3   |     |    |
| 31-40 PSF                        | B                 | 7 to 20 Degrees  | 1         | 20                        | 20  | 20  | 20  | 20  | 20  | 20  | 20  | 17  | 15  | 13  | 12  |    |
|                                  |                   |  | 2         | 20                        | 20  | 20  | 20  | 20  | 20  | 17  | 15  | 13  | 11  | 10  | 9   |    |
|                                  |                   |  | 3         | 20                        | 20  | 20  | 20  | 20  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |    |
|                                  |                   | 20 to 27 Degrees   | 1         | 21                        | 21  | 21  | 21  | 21  | 21  | 21  | 21  | 21  | 20  | 17  | 15  |    |
|                                  |                   |  | 2         | 21                        | 21  | 21  | 21  | 21  | 21  | 21  | 18  | 15  | 13  | 12  | 10  |    |
|                                  |                   |  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                                  |                   | 27 to 45 Degrees   | 1         | 27                        | 27  | 27  | 27  | 27  | 27  | 25  | 23  | 20  | 18  | 16  | 14  |    |
|                                  |                   |  | 2         | 27                        | 25  | 22  | 20  | 18  | 17  | 14  | 12  | 11  | 9   | 8   | 7   |    |
|                                  |                   |  | 3         | 21                        | 19  | 17  | 16  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |    |
|                                  | C                 | 7 to 20 Degrees  | 1         | 20                        | 20  | 20  | 20  | 20  | 20  | 17  | 14  | 12  | 11  | 9   | 8   |    |
|                                  |                   |  | 2         | 20                        | 20  | 19  | 17  | 16  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |    |
|                                  |                   |  | 3         | 20                        | 20  | 18  | 16  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |    |
|                                  |                   | 20 to 27 Degrees   | 1         | 21                        | 21  | 21  | 21  | 21  | 21  | 21  | 18  | 16  | 14  | 12  | 11  |    |
|                                  |                   |  | 2         | 21                        | 21  | 21  | 21  | 19  | 17  | 15  | 12  | 11  | 9   | 8   | 7   |    |
|                                  |                   |  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                                  |                   | 27 to 45 Degrees   | 1         | 27                        | 26  | 26  | 25  | 24  | 23  | 19  | 16  | 14  | 12  | 11  | 10  |    |
|                                  |                   |  | 2         | 19                        | 17  | 16  | 14  | 13  | 12  | 10  | 9   | 7   | 6   | 6   | 5   |    |
|                                  |                   |  | 3         | 15                        | 13  | 12  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 4   |    |
|                                  | D                 | 7 to 20 Degrees  | 1         | 20                        | 20  | 20  | 20  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |    |
|                                  |                   |  | 2         | 20                        | 18  | 16  | 14  | 13  | 12  | 10  | 9   | 7   | 6   | 6   | 5   |    |
|                                  |                   |  | 3         | 18                        | 16  | 15  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 5   |    |
|                                  |                   | 20 to 27 Degrees   | 1         | 21                        | 21  | 21  | 21  | 21  | 21  | 18  | 15  | 13  | 11  | 10  | 9   |    |
|                                  |                   |  | 2         | 21                        | 21  | 19  | 17  | 16  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |    |
|                                  |                   |  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
| 27 to 45 Degrees                 |                   | 1  | 26        | 25                        | 25  | 23  | 21  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |     |    |
|                                  |                   | 2  | 16        | 15                        | 13  | 12  | 11  | 10  | 8   | 7   | 6   | 5   | 5   | 4   |     |    |
|                                  |                   | 3  | 12        | 11                        | 10  | 9   | 8   | 8   | 6   | 5   | 5   | 4   | 4   | 3   |     |    |
| 41-50 PSF                        | B                 | 7 to 20 Degrees  | 1         | 16                        | 16  | 16  | 16  | 16  | 16  | 16  | 16  | 16  | 15  | 13  | 12  |    |
|                                  |                   |  | 2         | 16                        | 16  | 16  | 16  | 16  | 16  | 16  | 16  | 15  | 13  | 11  | 10  | 9  |
|                                  |                   |  | 3         | 16                        | 16  | 16  | 16  | 16  | 16  | 16  | 16  | 14  | 12  | 10  | 9   | 8  |
|                                  |                   | 20 to 27 Degrees   | 1         | 17                        | 17  | 17  | 17  | 17  | 17  | 17  | 17  | 17  | 17  | 17  | 17  | 15 |
|                                  |                   |  | 2         | 17                        | 17  | 17  | 17  | 17  | 17  | 17  | 17  | 17  | 15  | 13  | 12  | 10 |
|                                  |                   |  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  |
|                                  |                   | 27 to 45 Degrees   | 1         | 22                        | 22  | 22  | 22  | 22  | 22  | 22  | 21  | 20  | 18  | 16  | 14  |    |
|                                  |                   |  | 2         | 22                        | 22  | 22  | 20  | 18  | 17  | 14  | 12  | 11  | 9   | 8   | 7   |    |
|                                  |                   |  | 3         | 21                        | 19  | 17  | 16  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |    |
|                                  | C                 | 7 to 20 Degrees  | 1         | 16                        | 16  | 16  | 16  | 16  | 16  | 16  | 14  | 12  | 11  | 9   | 8   |    |
|                                  |                   |  | 2         | 16                        | 16  | 16  | 16  | 16  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |    |
|                                  |                   |  | 3         | 16                        | 16  | 16  | 16  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   |    |
|                                  |                   | 20 to 27 Degrees   | 1         | 17                        | 17  | 17  | 17  | 17  | 17  | 17  | 17  | 16  | 14  | 12  | 11  |    |
|                                  |                   |  | 2         | 17                        | 17  | 17  | 17  | 17  | 17  | 15  | 12  | 11  | 9   | 8   | 7   |    |
|                                  |                   |  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                                  |                   | 27 to 45 Degrees   | 1         | 22                        | 22  | 22  | 22  | 21  | 21  | 19  | 16  | 14  | 12  | 11  | 10  |    |
|                                  |                   |  | 2         | 19                        | 17  | 16  | 14  | 13  | 12  | 10  | 9   | 7   | 6   | 6   | 5   |    |
|                                  |                   |  | 3         | 15                        | 13  | 12  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 4   |    |
|                                  | D                 | 7 to 20 Degrees  | 1         | 16                        | 16  | 16  | 16  | 16  | 16  | 14  | 12  | 10  | 9   | 8   | 7   |    |
|                                  |                   |  | 2         | 16                        | 16  | 16  | 14  | 13  | 12  | 10  | 9   | 7   | 6   | 6   | 5   |    |
|                                  |                   |  | 3         | 16                        | 16  | 15  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 5   |    |
|                                  |                   | 20 to 27 Degrees   | 1         | 17                        | 17  | 17  | 17  | 17  | 17  | 17  | 15  | 13  | 11  | 10  | 9   |    |
|                                  |                   |  | 2         | 17                        | 17  | 17  | 17  | 16  | 14  | 12  | 10  | 9   | 8   | 7   | 6   |    |
|                                  |                   |  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
| 27 to 45 Degrees                 |                   | 1  | 22        | 22                        | 21  | 21  | 20  | 19  | 16  | 14  | 12  | 10  | 9   | 8   |     |    |
|                                  |                   | 2  | 16        | 15                        | 13  | 12  | 11  | 10  | 8   | 7   | 6   | 5   | 5   | 4   |     |    |
|                                  |                   | 3  | 12        | 11                        | 10  | 9   | 8   | 8   | 6   | 5   | 5   | 4   | 4   | 3   |     |    |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Hip Roof RT16    | RT-[E] Mount Mini OSB Only Installations<br>(72 Cell PV Panels)<br>Maximum Mount Spacing in Inches |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |    |   |
|------------------|--|------------------|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|---|
|                  | Portrait Orientation - ASCE 7-16   |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |    |   |
| Snow Load        | Exposure Category  | Roof Angle       | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |    |    |   |
|                  |  |                  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |    |    |   |
| 51-60 PSF        | B  | 7 to 20 Degrees  | 1         | 13                        | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 12 |    |   |
|                  |  |                  | 2         | 13                        | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 11  | 10 | 9  |   |
|                  |  |                  | 3         | 13                        | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 12  | 10  | 9  | 8  |   |
|                  |  | 20 to 27 Degrees | 1         | 15                        | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15 | 15 |   |
|                  |  |                  | 2         | 15                        | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 13  | 12 | 10 |   |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  |   |
|                  |  | 27 to 45 Degrees | 1         | 19                        | 19  | 19  | 19  | 19  | 19  | 19  | 19  | 19  | 19  | 18  | 17  | 16 | 14 |   |
|                  |  |                  | 2         | 19                        | 19  | 19  | 19  | 19  | 18  | 17  | 14  | 12  | 11  | 9   | 8   | 7  | 6  |   |
|                  |  |                  | 3         | 19                        | 19  | 17  | 16  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5   | 4  | 3  |   |
|                  | C  | 7 to 20 Degrees  | 1         | 13                        | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 12  | 11  | 9   | 8  | 7  |   |
|                  |  |                  | 2         | 13                        | 13  | 13  | 13  | 13  | 13  | 13  | 12  | 10  | 9   | 8   | 7   | 6  | 5  |   |
|                  |  |                  | 3         | 13                        | 13  | 13  | 13  | 13  | 13  | 13  | 11  | 9   | 8   | 7   | 6   | 5  | 4  |   |
|                  |  | 20 to 27 Degrees | 1         | 15                        | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 14  | 12 | 11 |   |
|                  |  |                  | 2         | 15                        | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 12  | 11  | 9   | 8   | 7  | 6  |   |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  |   |
|                  |  | 27 to 45 Degrees | 1         | 19                        | 19  | 19  | 19  | 19  | 19  | 19  | 18  | 16  | 14  | 12  | 11  | 10 | 9  |   |
|                  |  |                  | 2         | 19                        | 17  | 16  | 14  | 13  | 12  | 10  | 9   | 7   | 6   | 5   | 4   | 3  | 2  |   |
|                  |  |                  | 3         | 15                        | 13  | 12  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 3   | 2  | 1  |   |
|                  | D  | 7 to 20 Degrees  | 1         | 13                        | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 12  | 10  | 9   | 8   | 7  | 6  |   |
|                  |  |                  | 2         | 13                        | 13  | 13  | 13  | 13  | 13  | 12  | 10  | 9   | 7   | 6   | 5   | 4  | 3  |   |
|                  |  |                  | 3         | 13                        | 13  | 13  | 13  | 13  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 4  | 3  |   |
|                  |  | 20 to 27 Degrees | 1         | 15                        | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 15  | 13  | 11  | 10 | 9  |   |
|                  |  |                  | 2         | 15                        | 15  | 15  | 15  | 15  | 15  | 14  | 12  | 10  | 9   | 8   | 7   | 6  | 5  |   |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  |   |
| 27 to 45 Degrees |  | 1                | 19        | 19                        | 19  | 19  | 19  | 18  | 18  | 16  | 14  | 12  | 10  | 9   | 8   | 7  |    |   |
|                  |  | 2                | 16        | 15                        | 13  | 12  | 11  | 10  | 8   | 7   | 6   | 5   | 4   | 3   | 2   | 1  |    |   |
|                  |  | 3                | 12        | 11                        | 10  | 9   | 8   | 8   | 6   | 5   | 4   | 3   | 2   | 1   | 0   | 0  |    |   |
| 61-70 PSF        | B  | 7 to 20 Degrees  | 1         | 12                        | 12  | 12  | 12  | 12  | 12  | 12  | 12  | 12  | 12  | 12  | 12  | 12 | 12 |   |
|                  |  |                  | 2         | 12                        | 12  | 12  | 12  | 12  | 12  | 12  | 12  | 12  | 12  | 12  | 11  | 10 | 9  |   |
|                  |  |                  | 3         | 12                        | 12  | 12  | 12  | 12  | 12  | 12  | 12  | 12  | 12  | 12  | 10  | 9  | 8  |   |
|                  |  | 20 to 27 Degrees | 1         | 13                        | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13 | 13 |   |
|                  |  |                  | 2         | 13                        | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 12 | 10 |   |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  |   |
|                  |  | 27 to 45 Degrees | 1         | 16                        | 16  | 16  | 16  | 16  | 16  | 16  | 16  | 16  | 16  | 16  | 16  | 15 | 14 |   |
|                  |  |                  | 2         | 16                        | 16  | 16  | 16  | 16  | 16  | 16  | 14  | 12  | 11  | 9   | 8   | 7  | 6  |   |
|                  |  |                  | 3         | 16                        | 16  | 16  | 16  | 16  | 14  | 13  | 11  | 9   | 8   | 7   | 6   | 5  | 4  |   |
|                  | C  | 7 to 20 Degrees  | 1         | 12                        | 12  | 12  | 12  | 12  | 12  | 12  | 12  | 12  | 12  | 12  | 11  | 9  | 8  |   |
|                  |  |                  | 2         | 12                        | 12  | 12  | 12  | 12  | 12  | 12  | 12  | 10  | 9   | 8   | 7   | 6  | 5  |   |
|                  |  |                  | 3         | 12                        | 12  | 12  | 12  | 12  | 12  | 12  | 11  | 9   | 8   | 7   | 6   | 5  | 4  |   |
|                  |  | 20 to 27 Degrees | 1         | 13                        | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 12 | 11 |   |
|                  |  |                  | 2         | 13                        | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 12  | 11  | 9   | 8   | 7  | 6  |   |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  |   |
|                  |  | 27 to 45 Degrees | 1         | 16                        | 16  | 16  | 16  | 16  | 16  | 16  | 16  | 16  | 16  | 14  | 12  | 11 | 10 |   |
|                  |  |                  | 2         | 16                        | 16  | 16  | 16  | 14  | 13  | 12  | 10  | 9   | 7   | 6   | 5   | 4  | 3  |   |
|                  |  |                  | 3         | 15                        | 13  | 12  | 11  | 10  | 9   | 8   | 7   | 6   | 5   | 4   | 3   | 2  | 1  |   |
|                  | D  | 7 to 20 Degrees  | 1         | 12                        | 12  | 12  | 12  | 12  | 12  | 12  | 12  | 12  | 12  | 10  | 9   | 8  | 7  |   |
|                  |  |                  | 2         | 12                        | 12  | 12  | 12  | 12  | 12  | 12  | 12  | 10  | 9   | 7   | 6   | 5  | 4  |   |
|                  |  |                  | 3         | 12                        | 12  | 12  | 12  | 12  | 12  | 11  | 9   | 8   | 7   | 6   | 5   | 4  | 3  |   |
|                  |  | 20 to 27 Degrees | 1         | 13                        | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 11 | 10 | 9 |
|                  |  |                  | 2         | 13                        | 13  | 13  | 13  | 13  | 13  | 13  | 13  | 12  | 10  | 9   | 8   | 7  | 6  |   |
|                  |  |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  |   |
| 27 to 45 Degrees |  | 1                | 16        | 16                        | 16  | 16  | 16  | 16  | 16  | 16  | 15  | 14  | 12  | 10  | 9   | 8  |    |   |
|                  |  | 2                | 16        | 15                        | 13  | 12  | 11  | 10  | 8   | 7   | 6   | 5   | 4   | 3   | 2   | 1  |    |   |
|                  |  | 3                | 12        | 11                        | 10  | 9   | 8   | 8   | 6   | 5   | 4   | 3   | 2   | 1   | 0   | 0  |    |   |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Hip Roof RT17                     |                   | RT-[E] Mount Mini Rafter Installations Cont.<br>Maximum Mount Spacing in Inches |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |    |    |
|-----------------------------------|-------------------|---|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|
| Landscape Orientation - ASCE 7-16 |                   |   |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |    |    |
| Snow Load                         | Exposure Category | Roof Angle  | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |    |    |    |
|                                   |                   |   |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |    |    |    |
| 0 PSF                             | B                 | 7 to 20 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 88  | 77 | 69 |    |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 88 | 77 | 69 |
|                                   |                   |   | 3         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   | 20 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  | 0  |
|                                   |                   | 27 to 45 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 89 | 79 |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 3         | 96                        | 96  | 96  | 96  | 88  | 81  | 74  | 63  | 55  | 48  | 42  | 37  | 33 | 33 | 33 |
|                                   | C                 | 7 to 20 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 3         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   | 20 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  | 0  |
|                                   |                   | 27 to 45 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 3         | 84                        | 76  | 69  | 63  | 58  | 53  | 49  | 45  | 41  | 37  | 33  | 29  | 25 | 22 | 20 |
|                                   | D                 | 7 to 20 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 3         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   | 20 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  | 0  |
| 27 to 45 Degrees                  |                   | 1   | 96        | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 |    |
|                                   |                   | 2   | 96        | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 |    |
|                                   |                   | 3   | 84        | 76                        | 69  | 63  | 58  | 53  | 49  | 45  | 41  | 37  | 33  | 29  | 25  | 22 | 20 |    |
| 1-10 PSF                          | B                 | 7 to 20 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 |    |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 |    |
|                                   |                   |   | 3         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   | 20 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  | 0  |
|                                   |                   | 27 to 45 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 3         | 96                        | 96  | 96  | 96  | 88  | 81  | 74  | 63  | 55  | 48  | 42  | 37  | 33 | 33 | 33 |
|                                   | C                 | 7 to 20 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 3         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   | 20 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  | 0  |
|                                   |                   | 27 to 45 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 3         | 84                        | 76  | 69  | 63  | 58  | 53  | 49  | 45  | 41  | 37  | 33  | 29  | 25 | 22 | 20 |
|                                   | D                 | 7 to 20 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 3         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   | 20 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  | 0  |
| 27 to 45 Degrees                  |                   | 1   | 96        | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 |    |
|                                   |                   | 2   | 96        | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 |    |
|                                   |                   | 3   | 84        | 76                        | 69  | 63  | 58  | 53  | 49  | 45  | 41  | 37  | 33  | 29  | 25  | 22 | 20 |    |
| 11-20 PSF                         | B                 | 7 to 20 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 |    |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 |    |
|                                   |                   |   | 3         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   | 20 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  | 0  |
|                                   |                   | 27 to 45 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 3         | 96                        | 96  | 96  | 96  | 88  | 81  | 74  | 63  | 55  | 48  | 42  | 37  | 33 | 33 | 33 |
|                                   | C                 | 7 to 20 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 3         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   | 20 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  | 0  |
|                                   |                   | 27 to 45 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 3         | 84                        | 76  | 69  | 63  | 58  | 53  | 49  | 45  | 41  | 37  | 33  | 29  | 25 | 22 | 20 |
|                                   | D                 | 7 to 20 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 3         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   | 20 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 96 |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  | 0  |
| 27 to 45 Degrees                  |                   | 1   | 96        | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 |    |
|                                   |                   | 2   | 96        | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 |    |
|                                   |                   | 3   | 84        | 76                        | 69  | 63  | 58  | 53  | 49  | 45  | 41  | 37  | 33  | 29  | 25  | 22 | 20 |    |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.



| Hip Roof RT17                     |                   | RT-[E] Mount Mini Rafter Installations Cont.<br>Maximum Mount Spacing in Inches |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |    |    |
|-----------------------------------|-------------------|---|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|
| Landscape Orientation - ASCE 7-16 |                   |   |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |    |    |
| Snow Load                         | Exposure Category | Roof Angle  | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |    |    |    |
|                                   |                   |   |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |    |    |    |
| 21-30 PSF                         | B                 | 7 to 20 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 88  | 77 | 69 |    |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 86  | 74 | 65 | 51 |
|                                   |                   |   | 3         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 92  | 79  | 68  | 60  | 53 | 47 |    |
|                                   |                   | 20 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 88 |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 88  | 77 | 68 | 61 |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  | 0  |
|                                   |                   | 27 to 45 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 89 | 79 |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 95  | 81  | 70  | 61  | 54  | 48  | 42 | 37 | 33 |
|                                   |                   |   | 3         | 96                        | 96  | 96  | 88  | 81  | 74  | 63  | 55  | 48  | 42  | 37  | 33  |    |    |    |
|                                   | C                 | 7 to 20 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 95  | 81  | 70  | 62  | 54  | 48 |    |    |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 91  | 83  | 70  | 60  | 52  | 46  | 40  | 36 |    |    |
|                                   |                   |   | 3         | 96                        | 96  | 96  | 92  | 83  | 76  | 65  | 56  | 48  | 42  | 37  | 33  |    |    |    |
|                                   |                   | 20 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 90  | 79  | 70 | 62 |    |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 84  | 72  | 62  | 55  | 48  | 43 |    |    |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  | 0  |
|                                   |                   | 27 to 45 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 93  | 81  | 71  | 63 | 56 |    |
|                                   |                   |   | 2         | 96                        | 96  | 89  | 81  | 74  | 68  | 58  | 50  | 44  | 38  | 34  | 30  |    |    |    |
|                                   |                   |   | 3         | 84                        | 76  | 69  | 63  | 58  | 53  | 45  | 39  | 34  | 30  | 26  | 23  |    |    |    |
|                                   | D                 | 7 to 20 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 94  | 80  | 68  | 59  | 52  | 46  | 41 |    |    |
|                                   |                   |   | 2         | 96                        | 96  | 92  | 84  | 76  | 70  | 59  | 51  | 44  | 39  | 34  | 30  |    |    |    |
|                                   |                   |   | 3         | 96                        | 94  | 85  | 77  | 70  | 64  | 54  | 47  | 41  | 35  | 31  | 28  |    |    |    |
|                                   |                   | 20 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 87  | 76  | 66  | 59  | 52 |    |    |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 91  | 83  | 71  | 61  | 53  | 46  | 41  | 36  |    |    |    |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  |    |
| 27 to 45 Degrees                  |                   | 1   | 96        | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 91  | 79  | 69  | 60  | 54  | 48 |    |    |
|                                   |                   | 2   | 92        | 83                        | 75  | 68  | 63  | 58  | 49  | 42  | 37  | 32  | 29  | 25  |     |    |    |    |
|                                   |                   | 3   | 71        | 64                        | 58  | 53  | 49  | 45  | 38  | 33  | 29  | 25  | 22  | 20  |     |    |    |    |
| 31-40 PSF                         | B                 | 7 to 20 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 88  | 77 | 69 |    |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 86  | 74 | 65 | 51 |
|                                   |                   |   | 3         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 92  | 79  | 68  | 60  | 53  | 47 |    |    |
|                                   |                   | 20 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 88 |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 88  | 77  | 68 | 61 |    |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  | 0  |
|                                   |                   | 27 to 45 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 89 | 79 |    |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 95  | 81  | 70  | 61  | 54  | 48  | 42  | 37 | 33 |    |
|                                   |                   |   | 3         | 96                        | 96  | 96  | 88  | 81  | 74  | 63  | 55  | 48  | 42  | 37  | 33  |    |    |    |
|                                   | C                 | 7 to 20 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 95  | 81  | 70  | 62  | 54  | 48 |    |    |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 91  | 83  | 70  | 60  | 52  | 46  | 40  | 36  |    |    |    |
|                                   |                   |   | 3         | 96                        | 96  | 96  | 92  | 83  | 76  | 65  | 56  | 48  | 42  | 37  | 33  |    |    |    |
|                                   |                   | 20 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 90  | 79  | 70  | 62 |    |    |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 84  | 72  | 62  | 55  | 48  | 43 |    |    |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  |    |
|                                   |                   | 27 to 45 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 93  | 81  | 71  | 63  | 56 |    |    |
|                                   |                   |   | 2         | 96                        | 96  | 89  | 81  | 74  | 68  | 58  | 50  | 44  | 38  | 34  | 30  |    |    |    |
|                                   |                   |   | 3         | 84                        | 76  | 69  | 63  | 58  | 53  | 45  | 39  | 34  | 30  | 26  | 23  |    |    |    |
|                                   | D                 | 7 to 20 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 94  | 80  | 68  | 59  | 52  | 46  | 41 |    |    |
|                                   |                   |   | 2         | 96                        | 96  | 92  | 84  | 76  | 70  | 59  | 51  | 44  | 39  | 34  | 30  |    |    |    |
|                                   |                   |   | 3         | 96                        | 94  | 85  | 77  | 70  | 64  | 54  | 47  | 41  | 35  | 31  | 28  |    |    |    |
|                                   |                   | 20 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 87  | 76  | 66  | 59  | 52 |    |    |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 91  | 83  | 71  | 61  | 53  | 46  | 41  | 36  |    |    |    |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  |    |
| 27 to 45 Degrees                  |                   | 1   | 96        | 96                        | 96  | 96  | 96  | 96  | 96  | 91  | 79  | 69  | 60  | 54  | 48  |    |    |    |
|                                   |                   | 2   | 92        | 83                        | 75  | 68  | 63  | 58  | 49  | 42  | 37  | 32  | 29  | 25  |     |    |    |    |
|                                   |                   | 3   | 71        | 64                        | 58  | 53  | 49  | 45  | 38  | 33  | 29  | 25  | 22  | 20  |     |    |    |    |
| 41-50 PSF                         | B                 | 7 to 20 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 88  | 77 | 69 |    |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 86  | 74 | 65 | 51 |
|                                   |                   |   | 3         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 92  | 79  | 68  | 60  | 53  | 47 |    |    |
|                                   |                   | 20 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96 | 96 | 88 |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 88  | 77  | 68 | 61 |    |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  | 0  |
|                                   |                   | 27 to 45 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 89 | 79 |    |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 95  | 81  | 70  | 61  | 54  | 48  | 42  | 37 | 33 |    |
|                                   |                   |   | 3         | 96                        | 96  | 96  | 88  | 81  | 74  | 63  | 55  | 48  | 42  | 37  | 33  |    |    |    |
|                                   | C                 | 7 to 20 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 95  | 81  | 70  | 62  | 54  | 48 |    |    |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 91  | 83  | 70  | 60  | 52  | 46  | 40  | 36  |    |    |    |
|                                   |                   |   | 3         | 96                        | 96  | 96  | 92  | 83  | 76  | 65  | 56  | 48  | 42  | 37  | 33  |    |    |    |
|                                   |                   | 20 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 90  | 79  | 70  | 62 |    |    |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 84  | 72  | 62  | 55  | 48  | 43 |    |    |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  |    |
|                                   |                   | 27 to 45 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 93  | 81  | 71  | 63  | 56 |    |    |
|                                   |                   |   | 2         | 96                        | 96  | 89  | 81  | 74  | 68  | 58  | 50  | 44  | 38  | 34  | 30  |    |    |    |
|                                   |                   |   | 3         | 84                        | 76  | 69  | 63  | 58  | 53  | 45  | 39  | 34  | 30  | 26  | 23  |    |    |    |
|                                   | D                 | 7 to 20 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 94  | 80  | 68  | 59  | 52  | 46  | 41 |    |    |
|                                   |                   |   | 2         | 96                        | 96  | 92  | 84  | 76  | 70  | 59  | 51  | 44  | 39  | 34  | 30  |    |    |    |
|                                   |                   |   | 3         | 96                        | 94  | 85  | 77  | 70  | 64  | 54  | 47  | 41  | 35  | 31  | 28  |    |    |    |
|                                   |                   | 20 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 87  | 76  | 66  | 59  | 52 |    |    |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 91  | 83  | 71  | 61  | 53  | 46  | 41  | 36  |    |    |    |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  |    |
| 27 to 45 Degrees                  |                   | 1   | 96        | 96                        | 96  | 96  | 96  | 96  | 96  | 91  | 79  | 69  | 60  | 54  | 48  |    |    |    |
|                                   |                   | 2   | 92        | 83                        | 75  | 68  | 63  | 58  | 49  | 42  | 37  | 32  | 29  | 25  |     |    |    |    |
|                                   |                   | 3   | 71        | 64                        | 58  | 53  | 49  | 45  | 38  | 33  | 29  | 25  | 22  | 20  |     |    |    |    |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Hip Roof<br>RT17                  |                   | RT-[E] Mount Mini Rafter Installations Cont.<br>Maximum Mount Spacing in Inches |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |
|-----------------------------------|-------------------|---|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|
| Landscape Orientation - ASCE 7-16 |                   |   |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |
| Snow Load                         | Exposure Category | Roof Angle  | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |
|                                   |                   |   |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |    |    |    |    |
| 5.1-60 PSF                        | B                 | 7 to 20 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 88  | 77  | 69 |    |    |    |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 86  | 74  | 65  | 57  | 51 |    |    |    |
|                                   |                   |   | 3         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 92  | 79  | 68  | 60  | 53  | 47 |    |    |    |
|                                   |                   | 20 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 88 | 77 | 68 | 61 |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 88  | 77  | 68 | 61 | 0  | 0  |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  | 0  | 0  |
|                                   |                   | 27 to 45 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 89 | 79 | 71 | 63 |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 95  | 81  | 70  | 61  | 54  | 48 | 42 | 37 | 33 |
|                                   |                   |   | 3         | 96                        | 96  | 96  | 88  | 81  | 74  | 63  | 55  | 48  | 42  | 37  | 33  | 28 | 23 | 18 | 14 |
|                                   | C                 | 7 to 20 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 95  | 81  | 70  | 62  | 54  | 48 | 42 | 37 | 33 |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 91  | 83  | 70  | 60  | 52  | 46  | 40  | 36 | 31 | 28 | 24 |
|                                   |                   |   | 3         | 96                        | 96  | 96  | 92  | 83  | 76  | 65  | 56  | 48  | 42  | 37  | 33  | 28 | 24 | 20 | 16 |
|                                   |                   | 20 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 90  | 79  | 70 | 62 | 54 | 48 |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 84  | 72  | 62  | 55  | 48  | 43 | 38 | 34 | 30 |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  | 0  | 0  |
|                                   |                   | 27 to 45 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 93  | 81  | 71  | 63  | 56 | 50 | 44 | 38 |
|                                   |                   |   | 2         | 96                        | 96  | 89  | 81  | 74  | 68  | 58  | 50  | 44  | 38  | 34  | 30  | 26 | 23 | 19 | 15 |
|                                   |                   |   | 3         | 84                        | 76  | 69  | 63  | 58  | 53  | 45  | 39  | 34  | 30  | 26  | 23  | 19 | 15 | 12 | 9  |
|                                   | D                 | 7 to 20 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 94  | 80  | 68  | 59  | 52  | 46  | 41 | 36 | 31 | 28 |
|                                   |                   |   | 2         | 96                        | 96  | 92  | 84  | 76  | 70  | 59  | 51  | 44  | 39  | 34  | 30  | 26 | 22 | 18 | 14 |
|                                   |                   |   | 3         | 96                        | 94  | 85  | 77  | 70  | 64  | 54  | 47  | 41  | 35  | 31  | 28  | 24 | 20 | 16 | 12 |
|                                   |                   | 20 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 87  | 76  | 66  | 59  | 52 | 46 | 41 | 36 |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 91  | 83  | 71  | 61  | 53  | 46  | 41  | 36 | 31 | 28 | 24 |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  | 0  | 0  |
| 27 to 45 Degrees                  |                   | 1   | 96        | 96                        | 96  | 96  | 96  | 96  | 96  | 91  | 79  | 69  | 60  | 54  | 48  | 42 | 37 | 33 |    |
|                                   |                   | 2   | 92        | 83                        | 75  | 68  | 63  | 58  | 49  | 42  | 37  | 32  | 29  | 25  | 22  | 18 | 14 | 11 |    |
|                                   |                   | 3   | 71        | 64                        | 58  | 53  | 49  | 45  | 38  | 33  | 29  | 25  | 22  | 18  | 14  | 11 | 8  | 5  |    |
| 6.1-70 PSF                        | B                 | 7 to 20 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 88  | 77  | 69 |    |    |    |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 86  | 74  | 65  | 57  | 51 |    |    |    |
|                                   |                   |   | 3         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 92  | 79  | 68  | 60  | 53  | 47 |    |    |    |
|                                   |                   | 20 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 88 | 77 | 68 | 61 |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 88  | 77  | 68 | 61 | 0  | 0  |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  | 0  | 0  |
|                                   |                   | 27 to 45 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 89 | 79 | 71 | 63 |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 95  | 81  | 70  | 61  | 54  | 48  | 42 | 37 | 33 | 28 |
|                                   |                   |   | 3         | 96                        | 96  | 96  | 88  | 81  | 74  | 63  | 55  | 48  | 42  | 37  | 33  | 28 | 24 | 20 | 16 |
|                                   | C                 | 7 to 20 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 95  | 81  | 70  | 62  | 54  | 48 | 42 | 37 | 33 |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 91  | 83  | 70  | 60  | 52  | 46  | 40  | 36 | 31 | 28 | 24 |
|                                   |                   |   | 3         | 96                        | 96  | 96  | 92  | 83  | 76  | 65  | 56  | 48  | 42  | 37  | 33  | 28 | 24 | 20 | 16 |
|                                   |                   | 20 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 90  | 79  | 70 | 62 | 54 | 48 |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 84  | 72  | 62  | 55  | 48  | 43 | 38 | 34 | 30 |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  | 0  | 0  |
|                                   |                   | 27 to 45 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 93  | 81  | 71  | 63  | 56 | 50 | 44 | 38 |
|                                   |                   |   | 2         | 96                        | 96  | 89  | 81  | 74  | 68  | 58  | 50  | 44  | 38  | 34  | 30  | 26 | 23 | 19 | 15 |
|                                   |                   |   | 3         | 84                        | 76  | 69  | 63  | 58  | 53  | 45  | 39  | 34  | 30  | 26  | 23  | 19 | 15 | 12 | 9  |
|                                   | D                 | 7 to 20 Degrees   | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 94  | 80  | 68  | 59  | 52  | 46  | 41 | 36 | 31 | 28 |
|                                   |                   |   | 2         | 96                        | 96  | 92  | 84  | 76  | 70  | 59  | 51  | 44  | 39  | 34  | 30  | 26 | 22 | 18 | 14 |
|                                   |                   |   | 3         | 96                        | 94  | 85  | 77  | 70  | 64  | 54  | 47  | 41  | 35  | 31  | 28  | 24 | 20 | 16 | 12 |
|                                   |                   | 20 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 96  | 96  | 96  | 96  | 87  | 76  | 66  | 59  | 52 | 46 | 41 | 36 |
|                                   |                   |   | 2         | 96                        | 96  | 96  | 96  | 96  | 91  | 83  | 71  | 61  | 53  | 46  | 41  | 36 | 31 | 28 | 24 |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  | 0  | 0  |
| 27 to 45 Degrees                  |                   | 1   | 96        | 96                        | 96  | 96  | 96  | 96  | 96  | 91  | 79  | 69  | 60  | 54  | 48  | 42 | 37 | 33 |    |
|                                   |                   | 2   | 92        | 83                        | 75  | 68  | 63  | 58  | 49  | 42  | 37  | 32  | 29  | 25  | 22  | 18 | 14 | 11 |    |
|                                   |                   | 3   | 71        | 64                        | 58  | 53  | 49  | 45  | 38  | 33  | 29  | 25  | 22  | 18  | 14  | 11 | 8  | 5  |    |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Hip Roof RT18                     |                   | RT-[E] Mount Mini Plywood Only Installations Cont.<br>Maximum Mount Spacing in Inches |           |                           |     |     |     |     |     |     |     |     |     |     |     |
|-----------------------------------|-------------------|---|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Landscape Orientation - ASCE 7-16 |                   |   |           |                           |     |     |     |     |     |     |     |     |     |     |     |
| Snow Load                         | Exposure Category | Roof Angle  | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |
|                                   |                   |   |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |
| 0 PSF                             | B                 | 7 to 20 Degrees   | 1         | 96                        | 96  | 89  | 80  | 72  | 66  | 55  | 47  | 41  | 35  | 31  | 28  |
|                                   |                   |   | 2         | 80                        | 72  | 64  | 58  | 53  | 48  | 41  | 35  | 30  | 26  | 23  | 20  |
|                                   |                   |   | 3         | 74                        | 66  | 59  | 53  | 48  | 44  | 37  | 32  | 28  | 24  | 21  | 19  |
|                                   |                   | 20 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 94  | 85  | 72  | 61  | 53  | 46  | 40  | 36  |
|                                   |                   |   | 2         | 96                        | 86  | 77  | 70  | 63  | 58  | 49  | 42  | 36  | 31  | 28  | 25  |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                                   |                   | 27 to 45 Degrees  | 1         | 96                        | 96  | 96  | 90  | 82  | 75  | 64  | 55  | 47  | 41  | 37  | 32  |
|                                   |                   |   | 2         | 64                        | 57  | 52  | 47  | 43  | 39  | 33  | 29  | 25  | 22  | 19  | 17  |
|                                   |                   |   | 3         | 49                        | 44  | 40  | 36  | 33  | 30  | 26  | 22  | 19  | 17  | 15  | 13  |
|                                   | C                 | 7 to 20 Degrees   | 1         | 76                        | 68  | 61  | 55  | 50  | 46  | 38  | 33  | 28  | 25  | 22  | 19  |
|                                   |                   |   | 2         | 55                        | 50  | 45  | 40  | 37  | 34  | 28  | 24  | 21  | 18  | 16  | 14  |
|                                   |                   |   | 3         | 51                        | 46  | 41  | 37  | 34  | 31  | 26  | 22  | 19  | 17  | 15  | 13  |
|                                   |                   | 20 to 27 Degrees  | 1         | 96                        | 88  | 79  | 71  | 65  | 59  | 50  | 42  | 37  | 32  | 28  | 25  |
|                                   |                   |   | 2         | 67                        | 60  | 54  | 49  | 44  | 40  | 34  | 29  | 25  | 22  | 19  | 17  |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                                   |                   | 27 to 45 Degrees  | 1         | 86                        | 77  | 70  | 63  | 58  | 53  | 45  | 38  | 33  | 29  | 26  | 23  |
|                                   |                   |   | 2         | 45                        | 40  | 37  | 33  | 30  | 28  | 24  | 20  | 18  | 15  | 14  | 12  |
|                                   |                   |   | 3         | 35                        | 31  | 28  | 26  | 23  | 21  | 18  | 16  | 13  | 12  | 10  | 9   |
|                                   | D                 | 7 to 20 Degrees   | 1         | 63                        | 57  | 51  | 46  | 42  | 38  | 32  | 28  | 24  | 21  | 18  | 16  |
|                                   |                   |   | 2         | 46                        | 41  | 37  | 34  | 31  | 28  | 24  | 20  | 18  | 15  | 13  | 12  |
|                                   |                   |   | 3         | 42                        | 38  | 34  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |
|                                   |                   | 20 to 27 Degrees  | 1         | 82                        | 73  | 66  | 59  | 54  | 49  | 42  | 36  | 31  | 27  | 24  | 21  |
|                                   |                   |   | 2         | 56                        | 50  | 45  | 41  | 37  | 34  | 29  | 24  | 21  | 18  | 16  | 14  |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 27 to 45 Degrees                  |                   | 1   | 72        | 65                        | 59  | 53  | 49  | 44  | 38  | 32  | 28  | 25  | 22  | 19  |     |
|                                   |                   | 2   | 38        | 34                        | 31  | 28  | 26  | 23  | 20  | 17  | 15  | 13  | 11  | 10  |     |
|                                   |                   | 3   | 29        | 26                        | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |     |
| 1-10 PSF                          | B                 | 7 to 20 Degrees   | 1         | 96                        | 96  | 89  | 80  | 72  | 66  | 55  | 47  | 41  | 35  | 31  | 28  |
|                                   |                   |   | 2         | 80                        | 72  | 64  | 58  | 53  | 48  | 41  | 35  | 30  | 26  | 23  | 20  |
|                                   |                   |   | 3         | 74                        | 66  | 59  | 53  | 48  | 44  | 37  | 32  | 28  | 24  | 21  | 19  |
|                                   |                   | 20 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 94  | 85  | 72  | 61  | 53  | 46  | 40  | 36  |
|                                   |                   |   | 2         | 96                        | 86  | 77  | 70  | 63  | 58  | 49  | 42  | 36  | 31  | 28  | 25  |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                                   |                   | 27 to 45 Degrees  | 1         | 96                        | 96  | 96  | 90  | 82  | 75  | 64  | 55  | 47  | 41  | 37  | 32  |
|                                   |                   |   | 2         | 64                        | 57  | 52  | 47  | 43  | 39  | 33  | 29  | 25  | 22  | 19  | 17  |
|                                   |                   |   | 3         | 49                        | 44  | 40  | 36  | 33  | 30  | 26  | 22  | 19  | 17  | 15  | 13  |
|                                   | C                 | 7 to 20 Degrees   | 1         | 76                        | 68  | 61  | 55  | 50  | 46  | 38  | 33  | 28  | 25  | 22  | 19  |
|                                   |                   |   | 2         | 55                        | 50  | 45  | 40  | 37  | 34  | 28  | 24  | 21  | 18  | 16  | 14  |
|                                   |                   |   | 3         | 51                        | 46  | 41  | 37  | 34  | 31  | 26  | 22  | 19  | 17  | 15  | 13  |
|                                   |                   | 20 to 27 Degrees  | 1         | 96                        | 88  | 79  | 71  | 65  | 59  | 50  | 42  | 37  | 32  | 28  | 25  |
|                                   |                   |   | 2         | 67                        | 60  | 54  | 49  | 44  | 40  | 34  | 29  | 25  | 22  | 19  | 17  |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                                   |                   | 27 to 45 Degrees  | 1         | 86                        | 77  | 70  | 63  | 58  | 53  | 45  | 38  | 33  | 29  | 26  | 23  |
|                                   |                   |   | 2         | 45                        | 40  | 37  | 33  | 30  | 28  | 24  | 20  | 18  | 15  | 14  | 12  |
|                                   |                   |   | 3         | 35                        | 31  | 28  | 26  | 23  | 21  | 18  | 16  | 13  | 12  | 10  | 9   |
|                                   | D                 | 7 to 20 Degrees   | 1         | 63                        | 57  | 51  | 46  | 42  | 38  | 32  | 28  | 24  | 21  | 18  | 16  |
|                                   |                   |   | 2         | 46                        | 41  | 37  | 34  | 31  | 28  | 24  | 20  | 18  | 15  | 13  | 12  |
|                                   |                   |   | 3         | 42                        | 38  | 34  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |
|                                   |                   | 20 to 27 Degrees  | 1         | 82                        | 73  | 66  | 59  | 54  | 49  | 42  | 36  | 31  | 27  | 24  | 21  |
|                                   |                   |   | 2         | 56                        | 50  | 45  | 41  | 37  | 34  | 29  | 24  | 21  | 18  | 16  | 14  |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 27 to 45 Degrees                  |                   | 1   | 72        | 65                        | 59  | 53  | 49  | 44  | 38  | 32  | 28  | 25  | 22  | 19  |     |
|                                   |                   | 2   | 38        | 34                        | 31  | 28  | 26  | 23  | 20  | 17  | 15  | 13  | 11  | 10  |     |
|                                   |                   | 3   | 29        | 26                        | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |     |
| 11-20 PSF                         | B                 | 7 to 20 Degrees   | 1         | 96                        | 96  | 89  | 80  | 72  | 66  | 55  | 47  | 41  | 35  | 31  | 28  |
|                                   |                   |   | 2         | 80                        | 72  | 64  | 58  | 53  | 48  | 41  | 35  | 30  | 26  | 23  | 20  |
|                                   |                   |   | 3         | 74                        | 66  | 59  | 53  | 48  | 44  | 37  | 32  | 28  | 24  | 21  | 19  |
|                                   |                   | 20 to 27 Degrees  | 1         | 96                        | 96  | 96  | 96  | 94  | 85  | 72  | 61  | 53  | 46  | 40  | 36  |
|                                   |                   |   | 2         | 96                        | 86  | 77  | 70  | 63  | 58  | 49  | 42  | 36  | 31  | 28  | 25  |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                                   |                   | 27 to 45 Degrees  | 1         | 96                        | 96  | 96  | 90  | 82  | 75  | 64  | 55  | 47  | 41  | 37  | 32  |
|                                   |                   |   | 2         | 64                        | 57  | 52  | 47  | 43  | 39  | 33  | 29  | 25  | 22  | 19  | 17  |
|                                   |                   |   | 3         | 49                        | 44  | 40  | 36  | 33  | 30  | 26  | 22  | 19  | 17  | 15  | 13  |
|                                   | C                 | 7 to 20 Degrees   | 1         | 76                        | 68  | 61  | 55  | 50  | 46  | 38  | 33  | 28  | 25  | 22  | 19  |
|                                   |                   |   | 2         | 55                        | 50  | 45  | 40  | 37  | 34  | 28  | 24  | 21  | 18  | 16  | 14  |
|                                   |                   |   | 3         | 51                        | 46  | 41  | 37  | 34  | 31  | 26  | 22  | 19  | 17  | 15  | 13  |
|                                   |                   | 20 to 27 Degrees  | 1         | 96                        | 88  | 79  | 71  | 65  | 59  | 50  | 42  | 37  | 32  | 28  | 25  |
|                                   |                   |   | 2         | 67                        | 60  | 54  | 49  | 44  | 40  | 34  | 29  | 25  | 22  | 19  | 17  |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                                   |                   | 27 to 45 Degrees  | 1         | 86                        | 77  | 70  | 63  | 58  | 53  | 45  | 38  | 33  | 29  | 26  | 23  |
|                                   |                   |   | 2         | 45                        | 40  | 37  | 33  | 30  | 28  | 24  | 20  | 18  | 15  | 14  | 12  |
|                                   |                   |   | 3         | 35                        | 31  | 28  | 26  | 23  | 21  | 18  | 16  | 13  | 12  | 10  | 9   |
|                                   | D                 | 7 to 20 Degrees   | 1         | 63                        | 57  | 51  | 46  | 42  | 38  | 32  | 28  | 24  | 21  | 18  | 16  |
|                                   |                   |   | 2         | 46                        | 41  | 37  | 34  | 31  | 28  | 24  | 20  | 18  | 15  | 13  | 12  |
|                                   |                   |   | 3         | 42                        | 38  | 34  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |
|                                   |                   | 20 to 27 Degrees  | 1         | 82                        | 73  | 66  | 59  | 54  | 49  | 42  | 36  | 31  | 27  | 24  | 21  |
|                                   |                   |   | 2         | 56                        | 50  | 45  | 41  | 37  | 34  | 29  | 24  | 21  | 18  | 16  | 14  |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 27 to 45 Degrees                  |                   | 1   | 72        | 65                        | 59  | 53  | 49  | 44  | 38  | 32  | 28  | 25  | 22  | 19  |     |
|                                   |                   | 2   | 38        | 34                        | 31  | 28  | 26  | 23  | 20  | 17  | 15  | 13  | 11  | 10  |     |
|                                   |                   | 3   | 29        | 26                        | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |     |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Hip Roof<br>RT18 | RT-[E] Mount Mini Plywood Only Installations Cont.<br>Maximum Mount Spacing in Inches |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |
|------------------|---|------------------|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
|                  | Landscape Orientation - ASCE 7-16   |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |
| Snow Load        | Exposure Category   | Roof Angle       | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |    |
|                  |   |                  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |    |
| 21-30 PSF        | B   | 7 to 20 Degrees  | 1         | 95                        | 95  | 89  | 80  | 72  | 66  | 55  | 47  | 41  | 35  | 31  | 28  |    |
|                  |   |                  | 2         | 80                        | 72  | 64  | 58  | 53  | 48  | 41  | 35  | 30  | 26  | 23  | 20  |    |
|                  |   |                  | 3         | 74                        | 66  | 59  | 53  | 48  | 44  | 37  | 32  | 28  | 24  | 21  | 19  |    |
|                  |   | 20 to 27 Degrees | 1         | 96                        | 96  | 96  | 96  | 94  | 85  | 72  | 61  | 53  | 46  | 40  | 36  |    |
|                  |   |                  | 2         | 96                        | 86  | 77  | 70  | 63  | 58  | 49  | 42  | 36  | 31  | 28  | 25  |    |
|                  |   |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                  |   | 27 to 45 Degrees | 1         | 96                        | 96  | 96  | 90  | 82  | 75  | 64  | 55  | 47  | 41  | 37  | 32  |    |
|                  |   |                  | 2         | 64                        | 57  | 52  | 47  | 43  | 39  | 33  | 29  | 25  | 22  | 19  | 17  |    |
|                  |   |                  | 3         | 49                        | 44  | 40  | 36  | 33  | 30  | 26  | 22  | 19  | 17  | 15  | 13  |    |
|                  | C   | 7 to 20 Degrees  | 1         | 76                        | 68  | 61  | 55  | 50  | 46  | 38  | 33  | 28  | 25  | 22  | 19  |    |
|                  |   |                  | 2         | 55                        | 50  | 45  | 40  | 37  | 34  | 28  | 24  | 21  | 18  | 16  | 14  |    |
|                  |   |                  | 3         | 51                        | 46  | 41  | 37  | 34  | 31  | 26  | 22  | 19  | 17  | 15  | 13  |    |
|                  |   | 20 to 27 Degrees | 1         | 96                        | 88  | 79  | 71  | 65  | 59  | 50  | 42  | 37  | 32  | 28  | 25  |    |
|                  |   |                  | 2         | 67                        | 60  | 54  | 49  | 44  | 40  | 34  | 29  | 25  | 22  | 19  | 17  |    |
|                  |   |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                  |   | 27 to 45 Degrees | 1         | 86                        | 77  | 70  | 63  | 58  | 53  | 45  | 38  | 33  | 29  | 26  | 23  |    |
|                  |   |                  | 2         | 45                        | 40  | 37  | 33  | 30  | 28  | 24  | 20  | 18  | 15  | 14  | 12  |    |
|                  |   |                  | 3         | 35                        | 31  | 28  | 26  | 23  | 21  | 18  | 16  | 13  | 12  | 10  | 9   |    |
|                  | D   | 7 to 20 Degrees  | 1         | 63                        | 57  | 51  | 46  | 42  | 38  | 32  | 28  | 24  | 21  | 18  | 16  |    |
|                  |   |                  | 2         | 46                        | 41  | 37  | 34  | 31  | 28  | 24  | 20  | 18  | 15  | 13  | 12  |    |
|                  |   |                  | 3         | 42                        | 38  | 34  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |    |
|                  |   | 20 to 27 Degrees | 1         | 82                        | 73  | 66  | 59  | 54  | 49  | 42  | 36  | 31  | 27  | 24  | 21  |    |
|                  |   |                  | 2         | 56                        | 50  | 45  | 41  | 37  | 34  | 29  | 24  | 21  | 18  | 16  | 14  |    |
|                  |   |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
| 27 to 45 Degrees |   | 1                | 72        | 65                        | 59  | 53  | 49  | 44  | 38  | 32  | 28  | 25  | 22  | 19  |     |    |
|                  |   | 2                | 38        | 34                        | 31  | 28  | 26  | 23  | 20  | 17  | 15  | 13  | 11  | 10  |     |    |
|                  |   | 3                | 29        | 26                        | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |     |    |
| 31-40 PSF        | B   | 7 to 20 Degrees  | 1         | 74                        | 74  | 74  | 74  | 72  | 66  | 55  | 47  | 41  | 35  | 31  | 28  |    |
|                  |   |                  | 2         | 74                        | 72  | 64  | 58  | 53  | 48  | 41  | 35  | 30  | 26  | 23  | 20  |    |
|                  |   |                  | 3         | 74                        | 66  | 59  | 53  | 48  | 44  | 37  | 32  | 28  | 24  | 21  | 19  |    |
|                  |   | 20 to 27 Degrees | 1         | 76                        | 76  | 76  | 76  | 76  | 76  | 72  | 61  | 53  | 46  | 40  | 36  |    |
|                  |   |                  | 2         | 76                        | 76  | 76  | 70  | 63  | 58  | 49  | 42  | 36  | 31  | 28  | 25  |    |
|                  |   |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                  |   | 27 to 45 Degrees | 1         | 91                        | 91  | 91  | 90  | 82  | 75  | 64  | 55  | 47  | 41  | 37  | 32  |    |
|                  |   |                  | 2         | 64                        | 57  | 52  | 47  | 43  | 39  | 33  | 29  | 25  | 22  | 19  | 17  |    |
|                  |   |                  | 3         | 49                        | 44  | 40  | 36  | 33  | 30  | 26  | 22  | 19  | 17  | 15  | 13  |    |
|                  | C   | 7 to 20 Degrees  | 1         | 74                        | 68  | 61  | 55  | 50  | 46  | 38  | 33  | 28  | 25  | 22  | 19  |    |
|                  |   |                  | 2         | 55                        | 50  | 45  | 40  | 37  | 34  | 28  | 24  | 21  | 18  | 16  | 14  |    |
|                  |   |                  | 3         | 51                        | 46  | 41  | 37  | 34  | 31  | 26  | 22  | 19  | 17  | 15  | 13  |    |
|                  |   | 20 to 27 Degrees | 1         | 76                        | 76  | 76  | 71  | 65  | 59  | 50  | 42  | 37  | 32  | 28  | 25  |    |
|                  |   |                  | 2         | 67                        | 60  | 54  | 49  | 44  | 40  | 34  | 29  | 25  | 22  | 19  | 17  |    |
|                  |   |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                  |   | 27 to 45 Degrees | 1         | 86                        | 77  | 70  | 63  | 58  | 53  | 45  | 38  | 33  | 29  | 26  | 23  |    |
|                  |   |                  | 2         | 45                        | 40  | 37  | 33  | 30  | 28  | 24  | 20  | 18  | 15  | 14  | 12  |    |
|                  |   |                  | 3         | 35                        | 31  | 28  | 26  | 23  | 21  | 18  | 16  | 13  | 12  | 10  | 9   |    |
|                  | D   | 7 to 20 Degrees  | 1         | 63                        | 57  | 51  | 46  | 42  | 38  | 32  | 28  | 24  | 21  | 18  | 16  |    |
|                  |   |                  | 2         | 46                        | 41  | 37  | 34  | 31  | 28  | 24  | 20  | 18  | 15  | 13  | 12  |    |
|                  |   |                  | 3         | 42                        | 38  | 34  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |    |
|                  |   | 20 to 27 Degrees | 1         | 76                        | 73  | 66  | 59  | 54  | 49  | 42  | 36  | 31  | 27  | 24  | 21  |    |
|                  |   |                  | 2         | 56                        | 50  | 45  | 41  | 37  | 34  | 29  | 24  | 21  | 18  | 16  | 14  |    |
|                  |   |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
| 27 to 45 Degrees |   | 1                | 72        | 65                        | 59  | 53  | 49  | 44  | 38  | 32  | 28  | 25  | 22  | 19  |     |    |
|                  |   | 2                | 38        | 34                        | 31  | 28  | 26  | 23  | 20  | 17  | 15  | 13  | 11  | 10  |     |    |
|                  |   | 3                | 29        | 26                        | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |     |    |
| 41-50 PSF        | B   | 7 to 20 Degrees  | 1         | 61                        | 61  | 61  | 61  | 61  | 61  | 55  | 47  | 41  | 35  | 31  | 28  |    |
|                  |   |                  | 2         | 61                        | 61  | 61  | 58  | 53  | 48  | 41  | 35  | 30  | 26  | 23  | 20  |    |
|                  |   |                  | 3         | 61                        | 61  | 59  | 53  | 48  | 44  | 37  | 32  | 28  | 24  | 21  | 19  |    |
|                  |   | 20 to 27 Degrees | 1         | 63                        | 63  | 63  | 63  | 63  | 63  | 63  | 61  | 53  | 46  | 40  | 36  |    |
|                  |   |                  | 2         | 63                        | 63  | 63  | 63  | 63  | 63  | 58  | 49  | 42  | 36  | 31  | 28  | 25 |
|                  |   |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                  |   | 27 to 45 Degrees | 1         | 76                        | 76  | 76  | 76  | 76  | 75  | 64  | 55  | 47  | 41  | 37  | 32  |    |
|                  |   |                  | 2         | 64                        | 57  | 52  | 47  | 43  | 39  | 33  | 29  | 25  | 22  | 19  | 17  |    |
|                  |   |                  | 3         | 49                        | 44  | 40  | 36  | 33  | 30  | 26  | 22  | 19  | 17  | 15  | 13  |    |
|                  | C   | 7 to 20 Degrees  | 1         | 61                        | 61  | 61  | 55  | 50  | 46  | 38  | 33  | 28  | 25  | 22  | 19  |    |
|                  |   |                  | 2         | 55                        | 50  | 45  | 40  | 37  | 34  | 28  | 24  | 21  | 18  | 16  | 14  |    |
|                  |   |                  | 3         | 51                        | 46  | 41  | 37  | 34  | 31  | 26  | 22  | 19  | 17  | 15  | 13  |    |
|                  |   | 20 to 27 Degrees | 1         | 63                        | 63  | 63  | 63  | 63  | 59  | 50  | 42  | 37  | 32  | 28  | 25  |    |
|                  |   |                  | 2         | 63                        | 60  | 54  | 49  | 44  | 40  | 34  | 29  | 25  | 22  | 19  | 17  |    |
|                  |   |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                  |   | 27 to 45 Degrees | 1         | 76                        | 76  | 70  | 63  | 58  | 53  | 45  | 38  | 33  | 29  | 26  | 23  |    |
|                  |   |                  | 2         | 45                        | 40  | 37  | 33  | 30  | 28  | 24  | 20  | 18  | 15  | 14  | 12  |    |
|                  |   |                  | 3         | 35                        | 31  | 28  | 26  | 23  | 21  | 18  | 16  | 13  | 12  | 10  | 9   |    |
|                  | D   | 7 to 20 Degrees  | 1         | 61                        | 57  | 51  | 46  | 42  | 38  | 32  | 28  | 24  | 21  | 18  | 16  |    |
|                  |   |                  | 2         | 46                        | 41  | 37  | 34  | 31  | 28  | 24  | 20  | 18  | 15  | 13  | 12  |    |
|                  |   |                  | 3         | 42                        | 38  | 34  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |    |
|                  |   | 20 to 27 Degrees | 1         | 63                        | 63  | 63  | 59  | 54  | 49  | 42  | 36  | 31  | 27  | 24  | 21  |    |
|                  |   |                  | 2         | 56                        | 50  | 45  | 41  | 37  | 34  | 29  | 24  | 21  | 18  | 16  | 14  |    |
|                  |   |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
| 27 to 45 Degrees |   | 1                | 72        | 65                        | 59  | 53  | 49  | 44  | 38  | 32  | 28  | 25  | 22  | 19  |     |    |
|                  |   | 2                | 38        | 34                        | 31  | 28  | 26  | 23  | 20  | 17  | 15  | 13  | 11  | 10  |     |    |
|                  |   | 3                | 29        | 26                        | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |     |    |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Hip Roof RT18                     |                   | RT-[E] Mount Mini Plywood Only Installations Cont.<br>Maximum Mount Spacing in Inches |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |
|-----------------------------------|-------------------|---|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| Landscape Orientation - ASCE 7-16 |                   |   |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |
| Snow Load                         | Exposure Category | Roof Angle  | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |    |
|                                   |                   |   |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |    |
| 51-60 PSF                         | B                 | 7 to 20 Degrees   | 1         | 51                        | 51  | 51  | 51  | 51  | 51  | 51  | 51  | 47  | 41  | 35  | 31  | 28 |
|                                   |                   |   | 2         | 51                        | 51  | 51  | 51  | 51  | 48  | 41  | 35  | 30  | 26  | 23  | 20  |    |
|                                   |                   |   | 3         | 51                        | 51  | 51  | 51  | 48  | 44  | 37  | 32  | 28  | 24  | 21  | 19  |    |
|                                   |                   | 20 to 27 Degrees  | 1         | 53                        | 53  | 53  | 53  | 53  | 53  | 53  | 53  | 53  | 46  | 40  | 36  |    |
|                                   |                   |   | 2         | 53                        | 53  | 53  | 53  | 53  | 53  | 49  | 42  | 36  | 31  | 28  | 25  |    |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                                   |                   | 27 to 45 Degrees  | 1         | 64                        | 64  | 64  | 64  | 64  | 64  | 64  | 64  | 55  | 47  | 41  | 37  | 32 |
|                                   |                   |   | 2         | 64                        | 57  | 52  | 47  | 43  | 39  | 33  | 29  | 25  | 22  | 19  | 17  |    |
|                                   |                   |   | 3         | 49                        | 44  | 40  | 36  | 33  | 30  | 26  | 22  | 19  | 17  | 15  | 13  |    |
|                                   | C                 | 7 to 20 Degrees   | 1         | 51                        | 51  | 51  | 51  | 50  | 46  | 38  | 33  | 28  | 25  | 22  | 19  |    |
|                                   |                   |   | 2         | 51                        | 50  | 45  | 40  | 37  | 34  | 28  | 24  | 21  | 18  | 16  | 14  |    |
|                                   |                   |   | 3         | 51                        | 46  | 41  | 37  | 34  | 31  | 26  | 22  | 19  | 17  | 15  | 13  |    |
|                                   |                   | 20 to 27 Degrees  | 1         | 53                        | 53  | 53  | 53  | 53  | 53  | 50  | 42  | 37  | 32  | 28  | 25  |    |
|                                   |                   |   | 2         | 53                        | 53  | 53  | 49  | 44  | 40  | 34  | 29  | 25  | 22  | 19  | 17  |    |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                                   |                   | 27 to 45 Degrees  | 1         | 64                        | 64  | 64  | 63  | 58  | 53  | 45  | 38  | 33  | 29  | 26  | 23  |    |
|                                   |                   |   | 2         | 45                        | 40  | 37  | 33  | 30  | 28  | 24  | 20  | 18  | 15  | 14  | 12  |    |
|                                   |                   |   | 3         | 35                        | 31  | 28  | 26  | 23  | 21  | 18  | 16  | 13  | 12  | 10  | 9   |    |
|                                   | D                 | 7 to 20 Degrees   | 1         | 51                        | 51  | 51  | 46  | 50  | 38  | 32  | 28  | 24  | 21  | 18  | 16  |    |
|                                   |                   |   | 2         | 46                        | 41  | 37  | 34  | 31  | 28  | 24  | 20  | 18  | 15  | 13  | 12  |    |
|                                   |                   |   | 3         | 42                        | 38  | 34  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |    |
|                                   |                   | 20 to 27 Degrees  | 1         | 53                        | 53  | 53  | 53  | 53  | 49  | 42  | 36  | 31  | 27  | 24  | 21  |    |
|                                   |                   |   | 2         | 53                        | 50  | 45  | 41  | 37  | 34  | 29  | 24  | 21  | 18  | 16  | 14  |    |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
| 27 to 45 Degrees                  |                   | 1   | 64        | 64                        | 59  | 53  | 49  | 44  | 38  | 32  | 28  | 25  | 22  | 19  |     |    |
|                                   |                   | 2   | 38        | 34                        | 31  | 28  | 26  | 23  | 20  | 17  | 15  | 13  | 11  | 10  |     |    |
|                                   |                   | 3   | 29        | 26                        | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |     |    |
| 61-70 PSF                         | B                 | 7 to 20 Degrees   | 1         | 44                        | 44  | 44  | 44  | 44  | 44  | 44  | 44  | 41  | 35  | 31  | 28  |    |
|                                   |                   |   | 2         | 44                        | 44  | 44  | 44  | 44  | 44  | 41  | 35  | 30  | 26  | 23  | 20  |    |
|                                   |                   |   | 3         | 44                        | 44  | 44  | 44  | 44  | 44  | 37  | 32  | 28  | 24  | 21  | 19  |    |
|                                   |                   | 20 to 27 Degrees  | 1         | 46                        | 46  | 46  | 46  | 46  | 46  | 46  | 46  | 46  | 46  | 40  | 36  |    |
|                                   |                   |   | 2         | 46                        | 46  | 46  | 46  | 46  | 46  | 46  | 46  | 42  | 36  | 31  | 28  | 25 |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                                   |                   | 27 to 45 Degrees  | 1         | 56                        | 56  | 56  | 56  | 56  | 56  | 56  | 55  | 47  | 41  | 37  | 32  |    |
|                                   |                   |   | 2         | 56                        | 56  | 52  | 47  | 43  | 39  | 33  | 29  | 25  | 22  | 19  | 17  |    |
|                                   |                   |   | 3         | 49                        | 44  | 40  | 36  | 33  | 30  | 26  | 22  | 19  | 17  | 15  | 13  |    |
|                                   | C                 | 7 to 20 Degrees   | 1         | 44                        | 44  | 44  | 44  | 44  | 44  | 44  | 38  | 33  | 28  | 25  | 22  | 19 |
|                                   |                   |   | 2         | 44                        | 44  | 44  | 40  | 37  | 34  | 28  | 24  | 21  | 18  | 16  | 14  |    |
|                                   |                   |   | 3         | 44                        | 44  | 41  | 37  | 34  | 31  | 26  | 22  | 19  | 17  | 15  | 13  |    |
|                                   |                   | 20 to 27 Degrees  | 1         | 46                        | 46  | 46  | 46  | 46  | 46  | 46  | 46  | 42  | 37  | 32  | 28  | 25 |
|                                   |                   |   | 2         | 46                        | 46  | 46  | 46  | 44  | 40  | 34  | 29  | 25  | 22  | 19  | 17  |    |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                                   |                   | 27 to 45 Degrees  | 1         | 56                        | 56  | 56  | 56  | 56  | 53  | 45  | 38  | 33  | 29  | 26  | 23  |    |
|                                   |                   |   | 2         | 45                        | 40  | 37  | 33  | 30  | 28  | 24  | 20  | 18  | 15  | 14  | 12  |    |
|                                   |                   |   | 3         | 35                        | 31  | 28  | 26  | 23  | 21  | 18  | 16  | 13  | 12  | 10  | 9   |    |
|                                   | D                 | 7 to 20 Degrees   | 1         | 44                        | 44  | 44  | 44  | 42  | 38  | 32  | 28  | 24  | 21  | 18  | 16  |    |
|                                   |                   |   | 2         | 44                        | 41  | 37  | 34  | 31  | 28  | 24  | 20  | 18  | 15  | 13  | 12  |    |
|                                   |                   |   | 3         | 42                        | 38  | 34  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |    |
|                                   |                   | 20 to 27 Degrees  | 1         | 46                        | 46  | 46  | 46  | 46  | 46  | 42  | 36  | 31  | 27  | 24  | 21  |    |
|                                   |                   |   | 2         | 46                        | 46  | 45  | 41  | 37  | 34  | 29  | 24  | 21  | 18  | 16  | 14  |    |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
| 27 to 45 Degrees                  |                   | 1   | 56        | 56                        | 56  | 53  | 49  | 44  | 38  | 32  | 28  | 25  | 22  | 19  |     |    |
|                                   |                   | 2   | 38        | 34                        | 31  | 28  | 26  | 23  | 20  | 17  | 15  | 13  | 11  | 10  |     |    |
|                                   |                   | 3   | 29        | 26                        | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |     |    |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Hip Roof RT19                     |                   | RT-[E] Mount Mini OSB Only Installations Cont.<br>Maximum Mount Spacing in Inches |           |                           |     |     |     |     |     |     |     |     |     |     |     |
|-----------------------------------|-------------------|---|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Landscape Orientation - ASCE 7-16 |                   |   |           |                           |     |     |     |     |     |     |     |     |     |     |     |
| Snow Load                         | Exposure Category | Roof Angle  | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |
|                                   |                   |   |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |
| 0 PSF                             | B                 | 7 to 20 Degrees   | 1         | 94                        | 83  | 75  | 67  | 61  | 56  | 47  | 40  | 34  | 30  | 26  | 23  |
|                                   |                   |   | 2         | 68                        | 60  | 54  | 49  | 45  | 41  | 34  | 29  | 25  | 22  | 19  | 17  |
|                                   |                   |   | 3         | 62                        | 55  | 50  | 45  | 41  | 37  | 31  | 27  | 23  | 20  | 18  | 16  |
|                                   |                   | 20 to 27 Degrees  | 1         | 96                        | 96  | 96  | 87  | 79  | 72  | 60  | 51  | 44  | 39  | 34  | 30  |
|                                   |                   |   | 2         | 81                        | 72  | 65  | 59  | 53  | 49  | 41  | 35  | 30  | 26  | 23  | 21  |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                                   |                   | 27 to 45 Degrees  | 1         | 96                        | 91  | 83  | 75  | 68  | 63  | 53  | 46  | 40  | 35  | 31  | 27  |
|                                   |                   |   | 2         | 53                        | 48  | 43  | 40  | 36  | 33  | 28  | 24  | 21  | 18  | 16  | 14  |
|                                   |                   |   | 3         | 41                        | 37  | 34  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |
|                                   | C                 | 7 to 20 Degrees   | 1         | 64                        | 57  | 51  | 46  | 42  | 39  | 32  | 28  | 24  | 21  | 18  | 16  |
|                                   |                   |   | 2         | 47                        | 42  | 38  | 34  | 31  | 28  | 24  | 20  | 18  | 15  | 14  | 12  |
|                                   |                   |   | 3         | 43                        | 38  | 35  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |
|                                   |                   | 20 to 27 Degrees  | 1         | 82                        | 74  | 66  | 60  | 54  | 50  | 42  | 36  | 31  | 27  | 24  | 21  |
|                                   |                   |   | 2         | 56                        | 50  | 45  | 41  | 37  | 34  | 29  | 25  | 21  | 19  | 16  | 14  |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                                   |                   | 27 to 45 Degrees  | 1         | 72                        | 64  | 58  | 53  | 48  | 44  | 38  | 32  | 28  | 25  | 22  | 19  |
|                                   |                   |   | 2         | 38                        | 34  | 31  | 28  | 26  | 23  | 20  | 17  | 15  | 13  | 11  | 10  |
|                                   |                   |   | 3         | 29                        | 26  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |
|                                   | D                 | 7 to 20 Degrees   | 1         | 53                        | 48  | 43  | 39  | 35  | 32  | 27  | 23  | 20  | 17  | 15  | 14  |
|                                   |                   |   | 2         | 39                        | 35  | 31  | 29  | 26  | 24  | 20  | 17  | 15  | 13  | 11  | 10  |
|                                   |                   |   | 3         | 36                        | 32  | 29  | 26  | 24  | 22  | 18  | 16  | 14  | 12  | 10  | 9   |
|                                   |                   | 20 to 27 Degrees  | 1         | 69                        | 61  | 55  | 50  | 45  | 42  | 35  | 30  | 26  | 23  | 20  | 18  |
|                                   |                   |   | 2         | 47                        | 42  | 38  | 34  | 31  | 28  | 24  | 21  | 18  | 16  | 14  | 12  |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 27 to 45 Degrees                  |                   | 1   | 60        | 54                        | 49  | 45  | 41  | 37  | 32  | 27  | 24  | 21  | 18  | 16  |     |
|                                   |                   | 2   | 32        | 29                        | 26  | 24  | 21  | 20  | 17  | 14  | 12  | 11  | 10  | 8   |     |
|                                   |                   | 3   | 25        | 22                        | 20  | 18  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |     |
| 1-10 PSF                          | B                 | 7 to 20 Degrees   | 1         | 84                        | 83  | 75  | 67  | 61  | 56  | 47  | 40  | 34  | 30  | 26  | 23  |
|                                   |                   |   | 2         | 68                        | 60  | 54  | 49  | 45  | 41  | 34  | 29  | 25  | 22  | 19  | 17  |
|                                   |                   |   | 3         | 62                        | 55  | 50  | 45  | 41  | 37  | 31  | 27  | 23  | 20  | 18  | 16  |
|                                   |                   | 20 to 27 Degrees  | 1         | 86                        | 86  | 86  | 86  | 79  | 72  | 60  | 51  | 44  | 39  | 34  | 30  |
|                                   |                   |   | 2         | 81                        | 72  | 65  | 59  | 53  | 49  | 41  | 35  | 30  | 26  | 23  | 21  |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                                   |                   | 27 to 45 Degrees  | 1         | 92                        | 91  | 83  | 75  | 68  | 63  | 53  | 46  | 40  | 35  | 31  | 27  |
|                                   |                   |   | 2         | 53                        | 48  | 43  | 40  | 36  | 33  | 28  | 24  | 21  | 18  | 16  | 14  |
|                                   |                   |   | 3         | 41                        | 37  | 34  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |
|                                   | C                 | 7 to 20 Degrees   | 1         | 64                        | 57  | 51  | 46  | 42  | 39  | 32  | 28  | 24  | 21  | 18  | 16  |
|                                   |                   |   | 2         | 47                        | 42  | 38  | 34  | 31  | 28  | 24  | 20  | 18  | 15  | 14  | 12  |
|                                   |                   |   | 3         | 43                        | 38  | 35  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |
|                                   |                   | 20 to 27 Degrees  | 1         | 82                        | 74  | 66  | 60  | 54  | 50  | 42  | 36  | 31  | 27  | 24  | 21  |
|                                   |                   |   | 2         | 56                        | 50  | 45  | 41  | 37  | 34  | 29  | 25  | 21  | 19  | 16  | 14  |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                                   |                   | 27 to 45 Degrees  | 1         | 72                        | 64  | 58  | 53  | 48  | 44  | 38  | 32  | 28  | 25  | 22  | 19  |
|                                   |                   |   | 2         | 38                        | 34  | 31  | 28  | 26  | 23  | 20  | 17  | 15  | 13  | 11  | 10  |
|                                   |                   |   | 3         | 29                        | 26  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |
|                                   | D                 | 7 to 20 Degrees   | 1         | 53                        | 48  | 43  | 39  | 35  | 32  | 27  | 23  | 20  | 17  | 15  | 14  |
|                                   |                   |   | 2         | 39                        | 35  | 31  | 29  | 26  | 24  | 20  | 17  | 15  | 13  | 11  | 10  |
|                                   |                   |   | 3         | 36                        | 32  | 29  | 26  | 24  | 22  | 18  | 16  | 14  | 12  | 10  | 9   |
|                                   |                   | 20 to 27 Degrees  | 1         | 69                        | 61  | 55  | 50  | 45  | 42  | 35  | 30  | 26  | 23  | 20  | 18  |
|                                   |                   |   | 2         | 47                        | 42  | 38  | 34  | 31  | 28  | 24  | 21  | 18  | 16  | 14  | 12  |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 27 to 45 Degrees                  |                   | 1   | 60        | 54                        | 49  | 45  | 41  | 37  | 32  | 27  | 24  | 21  | 18  | 16  |     |
|                                   |                   | 2   | 32        | 29                        | 26  | 24  | 21  | 20  | 17  | 14  | 12  | 11  | 10  | 8   |     |
|                                   |                   | 3   | 25        | 22                        | 20  | 18  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |     |
| 11-20 PSF                         | B                 | 7 to 20 Degrees   | 1         | 59                        | 59  | 59  | 59  | 59  | 56  | 47  | 40  | 34  | 30  | 26  | 23  |
|                                   |                   |   | 2         | 59                        | 59  | 54  | 49  | 45  | 41  | 34  | 29  | 25  | 22  | 19  | 17  |
|                                   |                   |   | 3         | 59                        | 55  | 50  | 45  | 41  | 37  | 31  | 27  | 23  | 20  | 18  | 16  |
|                                   |                   | 20 to 27 Degrees  | 1         | 61                        | 61  | 61  | 61  | 61  | 61  | 60  | 51  | 44  | 39  | 34  | 30  |
|                                   |                   |   | 2         | 61                        | 61  | 61  | 59  | 53  | 49  | 41  | 35  | 30  | 26  | 23  | 21  |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                                   |                   | 27 to 45 Degrees  | 1         | 70                        | 70  | 70  | 70  | 68  | 63  | 53  | 46  | 40  | 35  | 31  | 27  |
|                                   |                   |   | 2         | 53                        | 48  | 43  | 40  | 36  | 33  | 28  | 24  | 21  | 18  | 16  | 14  |
|                                   |                   |   | 3         | 41                        | 37  | 34  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |
|                                   | C                 | 7 to 20 Degrees   | 1         | 59                        | 57  | 51  | 46  | 42  | 39  | 32  | 28  | 24  | 21  | 18  | 16  |
|                                   |                   |   | 2         | 47                        | 42  | 38  | 34  | 31  | 28  | 24  | 20  | 18  | 15  | 14  | 12  |
|                                   |                   |   | 3         | 43                        | 38  | 35  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |
|                                   |                   | 20 to 27 Degrees  | 1         | 61                        | 61  | 61  | 60  | 54  | 50  | 42  | 36  | 31  | 27  | 24  | 21  |
|                                   |                   |   | 2         | 56                        | 50  | 45  | 41  | 37  | 34  | 29  | 25  | 21  | 19  | 16  | 14  |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
|                                   |                   | 27 to 45 Degrees  | 1         | 70                        | 64  | 58  | 53  | 48  | 44  | 38  | 32  | 28  | 25  | 22  | 19  |
|                                   |                   |   | 2         | 38                        | 34  | 31  | 28  | 26  | 23  | 20  | 17  | 15  | 13  | 11  | 10  |
|                                   |                   |   | 3         | 29                        | 26  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |
|                                   | D                 | 7 to 20 Degrees   | 1         | 53                        | 48  | 43  | 39  | 35  | 32  | 27  | 23  | 20  | 17  | 15  | 14  |
|                                   |                   |   | 2         | 39                        | 35  | 31  | 29  | 26  | 24  | 20  | 17  | 15  | 13  | 11  | 10  |
|                                   |                   |   | 3         | 36                        | 32  | 29  | 26  | 24  | 22  | 18  | 16  | 14  | 12  | 10  | 9   |
|                                   |                   | 20 to 27 Degrees  | 1         | 61                        | 61  | 55  | 50  | 45  | 42  | 35  | 30  | 26  | 23  | 20  | 18  |
|                                   |                   |   | 2         | 47                        | 42  | 38  | 34  | 31  | 28  | 24  | 21  | 18  | 16  | 14  | 12  |
|                                   |                   |   | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |
| 27 to 45 Degrees                  |                   | 1   | 60        | 54                        | 49  | 45  | 41  | 37  | 32  | 27  | 24  | 21  | 18  | 16  |     |
|                                   |                   | 2   | 32        | 29                        | 26  | 24  | 21  | 20  | 17  | 14  | 12  | 11  | 10  | 8   |     |
|                                   |                   | 3   | 25        | 22                        | 20  | 18  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |     |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

| Hip Roof<br>RT19 | RT-[E] Mount Mini OSB Only Installations Cont.<br>Maximum Mount Spacing in Inches |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |
|------------------|---|------------------|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
|                  | Landscape Orientation - ASCE 7-16   |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |
| Snow Load        | Exposure Category   | Roof Angle       | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |    |
|                  |   |                  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |    |
| 21-30 PSF        | B   | 7 to 20 Degrees  | 1         | 50                        | 50  | 50  | 50  | 50  | 50  | 47  | 40  | 34  | 30  | 26  | 23  |    |
|                  |   |                  | 2         | 50                        | 50  | 50  | 49  | 45  | 41  | 34  | 29  | 25  | 22  | 19  | 17  |    |
|                  |   |                  | 3         | 50                        | 50  | 50  | 45  | 41  | 37  | 31  | 27  | 23  | 20  | 18  | 16  |    |
|                  |   | 20 to 27 Degrees | 1         | 53                        | 53  | 53  | 53  | 53  | 53  | 51  | 44  | 39  | 34  | 30  | 27  |    |
|                  |   |                  | 2         | 53                        | 53  | 53  | 53  | 53  | 49  | 41  | 35  | 30  | 26  | 23  | 21  |    |
|                  |   |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                  |   | 27 to 45 Degrees | 1         | 62                        | 62  | 62  | 62  | 61  | 60  | 53  | 46  | 40  | 35  | 31  | 27  |    |
|                  |   |                  | 2         | 53                        | 48  | 43  | 40  | 36  | 33  | 28  | 24  | 21  | 18  | 16  | 14  |    |
|                  |   |                  | 3         | 41                        | 37  | 34  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |    |
|                  | C   | 7 to 20 Degrees  | 1         | 50                        | 50  | 50  | 46  | 42  | 39  | 32  | 28  | 24  | 21  | 18  | 16  |    |
|                  |   |                  | 2         | 47                        | 42  | 38  | 34  | 31  | 28  | 24  | 20  | 18  | 15  | 14  | 12  |    |
|                  |   |                  | 3         | 43                        | 38  | 35  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |    |
|                  |   | 20 to 27 Degrees | 1         | 53                        | 53  | 53  | 53  | 52  | 50  | 42  | 36  | 31  | 27  | 24  | 21  |    |
|                  |   |                  | 2         | 53                        | 50  | 45  | 41  | 37  | 34  | 29  | 25  | 21  | 19  | 16  | 14  |    |
|                  |   |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                  |   | 27 to 45 Degrees | 1         | 62                        | 60  | 58  | 53  | 48  | 44  | 38  | 32  | 28  | 25  | 22  | 19  |    |
|                  |   |                  | 2         | 38                        | 34  | 31  | 28  | 26  | 23  | 20  | 17  | 15  | 13  | 11  | 10  |    |
|                  |   |                  | 3         | 29                        | 26  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |    |
|                  | D   | 7 to 20 Degrees  | 1         | 50                        | 48  | 43  | 39  | 35  | 32  | 27  | 23  | 20  | 17  | 15  | 14  |    |
|                  |   |                  | 2         | 39                        | 35  | 31  | 29  | 26  | 24  | 20  | 17  | 15  | 13  | 11  | 10  |    |
|                  |   |                  | 3         | 36                        | 32  | 29  | 26  | 24  | 22  | 18  | 16  | 14  | 12  | 10  | 9   |    |
|                  |   | 20 to 27 Degrees | 1         | 53                        | 53  | 52  | 50  | 45  | 42  | 35  | 30  | 26  | 23  | 20  | 18  |    |
|                  |   |                  | 2         | 47                        | 42  | 38  | 34  | 31  | 28  | 24  | 21  | 18  | 16  | 14  | 12  |    |
|                  |   |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
| 27 to 45 Degrees |   | 1                | 59        | 54                        | 49  | 45  | 41  | 37  | 32  | 27  | 24  | 21  | 18  | 16  |     |    |
|                  |   | 2                | 32        | 29                        | 26  | 24  | 21  | 20  | 17  | 14  | 12  | 11  | 10  | 8   |     |    |
|                  |   | 3                | 25        | 22                        | 20  | 18  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |     |    |
| 31-40 PSF        | B   | 7 to 20 Degrees  | 1         | 39                        | 39  | 39  | 39  | 39  | 39  | 39  | 39  | 34  | 30  | 26  | 23  |    |
|                  |   |                  | 2         | 39                        | 39  | 39  | 39  | 39  | 39  | 39  | 34  | 29  | 25  | 22  | 19  | 17 |
|                  |   |                  | 3         | 39                        | 39  | 39  | 39  | 39  | 37  | 31  | 27  | 23  | 20  | 18  | 16  |    |
|                  |   | 20 to 27 Degrees | 1         | 41                        | 41  | 41  | 41  | 41  | 41  | 41  | 41  | 41  | 39  | 34  | 30  |    |
|                  |   |                  | 2         | 41                        | 41  | 41  | 41  | 41  | 41  | 41  | 41  | 35  | 30  | 26  | 23  | 21 |
|                  |   |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                  |   | 27 to 45 Degrees | 1         | 52                        | 52  | 52  | 52  | 52  | 51  | 49  | 46  | 40  | 35  | 31  | 27  |    |
|                  |   |                  | 2         | 52                        | 48  | 43  | 40  | 36  | 33  | 28  | 24  | 21  | 18  | 16  | 14  |    |
|                  |   |                  | 3         | 41                        | 37  | 34  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |    |
|                  | C   | 7 to 20 Degrees  | 1         | 39                        | 39  | 39  | 39  | 39  | 39  | 39  | 39  | 34  | 30  | 26  | 23  |    |
|                  |   |                  | 2         | 39                        | 39  | 38  | 34  | 31  | 28  | 24  | 20  | 18  | 15  | 14  | 12  |    |
|                  |   |                  | 3         | 39                        | 38  | 35  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |    |
|                  |   | 20 to 27 Degrees | 1         | 41                        | 41  | 41  | 41  | 41  | 41  | 41  | 36  | 31  | 27  | 24  | 21  |    |
|                  |   |                  | 2         | 41                        | 41  | 41  | 41  | 37  | 34  | 29  | 25  | 21  | 19  | 16  | 14  |    |
|                  |   |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                  |   | 27 to 45 Degrees | 1         | 52                        | 51  | 50  | 49  | 48  | 44  | 38  | 32  | 28  | 25  | 22  | 19  |    |
|                  |   |                  | 2         | 38                        | 34  | 31  | 28  | 26  | 23  | 20  | 17  | 15  | 13  | 11  | 10  |    |
|                  |   |                  | 3         | 29                        | 26  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |    |
|                  | D   | 7 to 20 Degrees  | 1         | 39                        | 39  | 39  | 39  | 35  | 32  | 27  | 23  | 20  | 17  | 15  | 14  |    |
|                  |   |                  | 2         | 39                        | 35  | 31  | 29  | 26  | 24  | 20  | 17  | 15  | 13  | 11  | 10  |    |
|                  |   |                  | 3         | 36                        | 32  | 29  | 26  | 24  | 22  | 18  | 16  | 14  | 12  | 10  | 9   |    |
|                  |   | 20 to 27 Degrees | 1         | 41                        | 41  | 41  | 41  | 41  | 41  | 35  | 30  | 26  | 23  | 20  | 18  |    |
|                  |   |                  | 2         | 41                        | 41  | 38  | 34  | 31  | 28  | 24  | 21  | 18  | 16  | 14  | 12  |    |
|                  |   |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
| 27 to 45 Degrees |   | 1                | 50        | 49                        | 48  | 45  | 41  | 37  | 32  | 27  | 24  | 21  | 18  | 16  |     |    |
|                  |   | 2                | 32        | 29                        | 26  | 24  | 21  | 20  | 17  | 14  | 12  | 11  | 10  | 8   |     |    |
|                  |   | 3                | 25        | 22                        | 20  | 18  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |     |    |
| 41-50 PSF        | B   | 7 to 20 Degrees  | 1         | 32                        | 32  | 32  | 32  | 32  | 32  | 32  | 32  | 30  | 26  | 23  |     |    |
|                  |   |                  | 2         | 32                        | 32  | 32  | 32  | 32  | 32  | 32  | 29  | 25  | 22  | 19  | 17  |    |
|                  |   |                  | 3         | 32                        | 32  | 32  | 32  | 32  | 32  | 31  | 27  | 23  | 20  | 18  | 16  |    |
|                  |   | 20 to 27 Degrees | 1         | 34                        | 34  | 34  | 34  | 34  | 34  | 34  | 34  | 34  | 34  | 34  | 30  |    |
|                  |   |                  | 2         | 34                        | 34  | 34  | 34  | 34  | 34  | 34  | 34  | 30  | 26  | 23  | 21  |    |
|                  |   |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                  |   | 27 to 45 Degrees | 1         | 43                        | 43  | 43  | 43  | 43  | 43  | 43  | 41  | 40  | 35  | 31  | 27  |    |
|                  |   |                  | 2         | 43                        | 43  | 43  | 40  | 36  | 33  | 28  | 24  | 21  | 18  | 16  | 14  |    |
|                  |   |                  | 3         | 41                        | 37  | 34  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |    |
|                  | C   | 7 to 20 Degrees  | 1         | 32                        | 32  | 32  | 32  | 32  | 32  | 32  | 28  | 24  | 21  | 18  | 16  |    |
|                  |   |                  | 2         | 32                        | 32  | 32  | 32  | 31  | 28  | 24  | 20  | 18  | 15  | 14  | 12  |    |
|                  |   |                  | 3         | 32                        | 32  | 32  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 12  | 11  |    |
|                  |   | 20 to 27 Degrees | 1         | 34                        | 34  | 34  | 34  | 34  | 34  | 34  | 34  | 31  | 27  | 24  | 21  |    |
|                  |   |                  | 2         | 34                        | 34  | 34  | 34  | 34  | 34  | 29  | 25  | 21  | 19  | 16  | 14  |    |
|                  |   |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
|                  |   | 27 to 45 Degrees | 1         | 43                        | 43  | 43  | 43  | 42  | 41  | 38  | 32  | 28  | 25  | 22  | 19  |    |
|                  |   |                  | 2         | 38                        | 34  | 31  | 28  | 26  | 23  | 20  | 17  | 15  | 13  | 11  | 10  |    |
|                  |   |                  | 3         | 29                        | 26  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   |    |
|                  | D   | 7 to 20 Degrees  | 1         | 32                        | 32  | 32  | 32  | 32  | 32  | 27  | 23  | 20  | 17  | 15  | 14  |    |
|                  |   |                  | 2         | 32                        | 32  | 31  | 29  | 26  | 24  | 20  | 17  | 15  | 13  | 11  | 10  |    |
|                  |   |                  | 3         | 32                        | 32  | 29  | 26  | 24  | 22  | 18  | 16  | 14  | 12  | 10  | 9   |    |
|                  |   | 20 to 27 Degrees | 1         | 34                        | 34  | 34  | 34  | 34  | 34  | 34  | 30  | 26  | 23  | 20  | 18  |    |
|                  |   |                  | 2         | 34                        | 34  | 34  | 34  | 31  | 28  | 24  | 21  | 18  | 16  | 14  | 12  |    |
|                  |   |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   |    |
| 27 to 45 Degrees |   | 1                | 43        | 43                        | 42  | 41  | 40  | 37  | 32  | 27  | 24  | 21  | 18  | 16  |     |    |
|                  |   | 2                | 32        | 29                        | 26  | 24  | 21  | 20  | 17  | 14  | 12  | 11  | 10  | 8   |     |    |
|                  |   | 3                | 25        | 22                        | 20  | 18  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6   |     |    |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.



| Hip Roof<br>RT19 | RT-[E] Mount Mini OSB Only Installations Cont.<br>Maximum Mount Spacing in Inches |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |    |
|------------------|---|------------------|-----------|---------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|
|                  | Landscape Orientation - ASCE 7-16   |                  |           |                           |     |     |     |     |     |     |     |     |     |     |     |    |    |
| Snow Load        | Exposure Category   | Roof Angle       | Roof Area | Basic Wind Speed, V (mph) |     |     |     |     |     |     |     |     |     |     |     |    |    |
|                  |   |                  |           | 95                        | 100 | 105 | 110 | 115 | 120 | 130 | 140 | 150 | 160 | 170 | 180 |    |    |
| 51-60 PSF        | B   | 7 to 20 Degrees  | 1         | 27                        | 27  | 0   | 27  | 27  | 27  | 27  | 27  | 27  | 27  | 27  | 26  | 23 |    |
|                  |   |                  | 2         | 27                        | 27  | 0   | 27  | 27  | 27  | 27  | 27  | 27  | 27  | 25  | 22  | 19 | 17 |
|                  |   |                  | 3         | 27                        | 27  | 0   | 27  | 27  | 27  | 27  | 27  | 27  | 27  | 23  | 20  | 18 | 16 |
|                  |   | 20 to 27 Degrees | 1         | 29                        | 29  | 29  | 29  | 29  | 29  | 29  | 29  | 29  | 29  | 29  | 29  | 29 | 29 |
|                  |   |                  | 2         | 29                        | 29  | 29  | 29  | 29  | 29  | 29  | 29  | 29  | 29  | 29  | 26  | 23 | 21 |
|                  |   |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  |
|                  |   | 27 to 45 Degrees | 1         | 37                        | 37  | 37  | 37  | 37  | 37  | 37  | 37  | 37  | 37  | 36  | 34  | 31 | 27 |
|                  |   |                  | 2         | 37                        | 37  | 37  | 37  | 36  | 33  | 28  | 24  | 21  | 18  | 16  | 14  | 12 | 11 |
|                  |   |                  | 3         | 37                        | 37  | 34  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 12  | 11  | 10 | 9  |
|                  | C   | 7 to 20 Degrees  | 1         | 27                        | 27  | 27  | 27  | 27  | 27  | 27  | 27  | 24  | 21  | 18  | 15  | 14 | 12 |
|                  |   |                  | 2         | 27                        | 27  | 27  | 27  | 27  | 27  | 27  | 24  | 20  | 18  | 15  | 14  | 12 | 11 |
|                  |   |                  | 3         | 27                        | 27  | 27  | 27  | 27  | 26  | 22  | 19  | 16  | 14  | 12  | 11  | 10 | 9  |
|                  |   | 20 to 27 Degrees | 1         | 29                        | 29  | 29  | 29  | 29  | 29  | 29  | 29  | 29  | 29  | 29  | 27  | 24 | 21 |
|                  |   |                  | 2         | 29                        | 29  | 29  | 29  | 29  | 29  | 29  | 29  | 25  | 21  | 19  | 16  | 14 | 14 |
|                  |   |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  |
|                  |   | 27 to 45 Degrees | 1         | 37                        | 37  | 37  | 37  | 37  | 36  | 35  | 32  | 28  | 25  | 22  | 19  | 17 | 16 |
|                  |   |                  | 2         | 37                        | 34  | 31  | 28  | 26  | 23  | 20  | 17  | 15  | 13  | 11  | 10  | 9  | 8  |
|                  |   |                  | 3         | 29                        | 26  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   | 7  | 6  |
|                  | D   | 7 to 20 Degrees  | 1         | 27                        | 27  | 27  | 27  | 27  | 27  | 27  | 27  | 23  | 20  | 17  | 15  | 14 | 12 |
|                  |   |                  | 2         | 27                        | 27  | 27  | 27  | 26  | 24  | 20  | 17  | 15  | 13  | 11  | 10  | 9  | 8  |
|                  |   |                  | 3         | 27                        | 27  | 27  | 26  | 24  | 22  | 18  | 16  | 14  | 12  | 10  | 9   | 8  | 7  |
|                  |   | 20 to 27 Degrees | 1         | 29                        | 29  | 29  | 29  | 29  | 29  | 29  | 29  | 29  | 26  | 23  | 20  | 18 | 16 |
|                  |   |                  | 2         | 29                        | 29  | 29  | 29  | 29  | 29  | 28  | 24  | 21  | 18  | 16  | 14  | 12 | 12 |
|                  |   |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  |
| 27 to 45 Degrees |   | 1                | 37        | 37                        | 37  | 36  | 36  | 35  | 32  | 27  | 24  | 21  | 18  | 16  | 14  | 14 |    |
|                  |   | 2                | 32        | 29                        | 26  | 24  | 21  | 20  | 17  | 14  | 12  | 11  | 10  | 9   | 8   | 8  |    |
|                  |   | 3                | 25        | 22                        | 20  | 18  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6   | 6   | 6  |    |
| 61-70 PSF        | B   | 7 to 20 Degrees  | 1         | 23                        | 23  | 23  | 23  | 23  | 23  | 23  | 23  | 23  | 23  | 23  | 23  | 23 |    |
|                  |   |                  | 2         | 23                        | 23  | 23  | 23  | 23  | 23  | 23  | 23  | 23  | 23  | 22  | 19  | 17 | 17 |
|                  |   |                  | 3         | 23                        | 23  | 23  | 23  | 23  | 23  | 23  | 23  | 23  | 23  | 20  | 18  | 16 | 16 |
|                  |   | 20 to 27 Degrees | 1         | 25                        | 25  | 25  | 25  | 25  | 25  | 25  | 25  | 25  | 25  | 25  | 25  | 25 | 25 |
|                  |   |                  | 2         | 25                        | 25  | 25  | 25  | 25  | 25  | 25  | 25  | 25  | 25  | 25  | 25  | 23 | 21 |
|                  |   |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  |
|                  |   | 27 to 45 Degrees | 1         | 32                        | 32  | 32  | 32  | 32  | 32  | 32  | 32  | 32  | 31  | 28  | 25  | 22 | 19 |
|                  |   |                  | 2         | 32                        | 32  | 32  | 32  | 32  | 32  | 32  | 28  | 24  | 21  | 18  | 16  | 14 | 14 |
|                  |   |                  | 3         | 32                        | 32  | 32  | 31  | 28  | 26  | 22  | 19  | 16  | 14  | 12  | 11  | 10 | 10 |
|                  | C   | 7 to 20 Degrees  | 1         | 23                        | 23  | 23  | 23  | 23  | 23  | 23  | 23  | 23  | 23  | 21  | 18  | 16 | 16 |
|                  |   |                  | 2         | 23                        | 23  | 23  | 23  | 23  | 23  | 23  | 23  | 20  | 18  | 15  | 14  | 12 | 12 |
|                  |   |                  | 3         | 23                        | 23  | 23  | 23  | 23  | 23  | 23  | 22  | 19  | 16  | 14  | 12  | 11 | 11 |
|                  |   | 20 to 27 Degrees | 1         | 25                        | 25  | 25  | 25  | 25  | 25  | 25  | 25  | 25  | 25  | 25  | 24  | 21 | 21 |
|                  |   |                  | 2         | 25                        | 25  | 25  | 25  | 25  | 25  | 25  | 25  | 25  | 25  | 21  | 19  | 16 | 14 |
|                  |   |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  |
|                  |   | 27 to 45 Degrees | 1         | 32                        | 32  | 32  | 32  | 32  | 32  | 32  | 32  | 31  | 28  | 25  | 22  | 19 | 19 |
|                  |   |                  | 2         | 32                        | 32  | 31  | 28  | 26  | 23  | 20  | 17  | 15  | 13  | 11  | 10  | 9  | 10 |
|                  |   |                  | 3         | 29                        | 26  | 24  | 22  | 20  | 18  | 15  | 13  | 11  | 10  | 9   | 8   | 7  | 8  |
|                  | D   | 7 to 20 Degrees  | 1         | 23                        | 23  | 23  | 23  | 23  | 23  | 23  | 23  | 20  | 17  | 15  | 13  | 11 | 10 |
|                  |   |                  | 2         | 23                        | 23  | 23  | 23  | 23  | 23  | 23  | 20  | 17  | 15  | 13  | 11  | 10 | 9  |
|                  |   |                  | 3         | 23                        | 23  | 23  | 23  | 23  | 23  | 22  | 18  | 16  | 14  | 12  | 10  | 9  | 9  |
|                  |   | 20 to 27 Degrees | 1         | 25                        | 25  | 25  | 25  | 25  | 25  | 25  | 25  | 25  | 25  | 23  | 20  | 18 | 18 |
|                  |   |                  | 2         | 25                        | 25  | 25  | 25  | 25  | 25  | 25  | 24  | 21  | 18  | 16  | 14  | 12 | 12 |
|                  |   |                  | 3         | 0                         | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0  |
| 27 to 45 Degrees |   | 1                | 32        | 32                        | 32  | 32  | 32  | 32  | 32  | 30  | 27  | 24  | 21  | 18  | 16  | 16 |    |
|                  |   | 2                | 32        | 29                        | 26  | 24  | 21  | 20  | 17  | 14  | 12  | 11  | 10  | 9   | 8   | 8  |    |
|                  |   | 3                | 25        | 22                        | 20  | 18  | 17  | 15  | 13  | 11  | 9   | 8   | 7   | 6   | 6   | 6  |    |

Note: See SML "Roof Area" conversion chart and associated ASCE 7-16 Roof Zones on pages 4-10.

Table Notes for Tables RT1 to RT19 – Tabulated values are based on the following criteria:

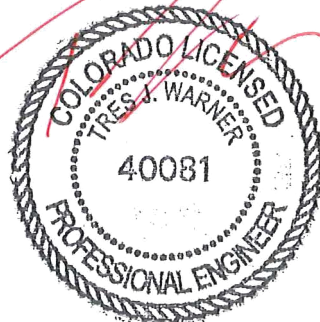
1. Building mean roof height = 30 ft maximum.
2. Risk Category = II.
3. Solar panel maximum allowable tributary (trib.) widths = 40 inches for Landscape tables, 68 inches for Portrait 60 Cell tables & 77.5 inches for Portrait 72 Cell tables.
  - a. Please note that other PV panels may be used, eg. 90 cell panels, provided they do not exceed the maximum allowable tributary width for the given table used for installation.
  - b. It is acceptable to reduce the maximum span shown in the tables for larger tributary widths by the following equation: “New Max. Span” = “Table Max. Span” x “Table Trib. Width” / “New Trib. Width”; eg. If “New Trib. Width” = 44 inches, you can use the Landscape Tables (40 inch Trib. Width), but you will need to reduce the span as follows: “New Max. Span” = “Table Max. Span” x “40 inches” / “44 inches”. So if the “Table Max. Span” = 96 inches the “New Max. Span” = “96 inches” x “40 inches” / “44 inches” = “87 inches”.
4. Solar panel & rail dead load = approximately 4.0 psf.
5. ASCE 7-16.
6.  $\gamma_E$  = edge array factor, has been taken as 1.5.
7.  $\gamma_a$  = solar panel pressure equalization factor, has been taken as 0.6 assuming a min. array area of 31.5 sq. ft.
8. OSB shall be 24/16 APA rated sheathing minimum (7/16” thick).
9. Plywood shall be 32/16 APA rated sheathing minimum (15/32” thick).
10. Sheathing shall be free of defects including, but not limited to water damage and delamination.
11. Roof rafters or trusses spaced at 24” on center maximum, and must be evaluated for structural integrity and capacity as required by the governing jurisdiction.
12. PV panels must be supported per the manufacturer’s required orientation, location and/or spacing.
13. The mounts may be installed through a maximum of 2 layers of composite asphalt roof shingles or maximum 20 gage metal decking provided the metal is predrilled as wood screws are not designed to penetrate the metal decking.
14. Maximum height from bottom of base mount to L-Foot attachment 3 1/4”. Ref. Exhibit ‘A’ detail 1.

Our analysis assumes that the connections and associated hardware are installed in a workmanlike manner in accordance with the RT-Mini Mount Installation Manual and generally accepted standards of construction practice. It is the responsibility of the contractor to verify that the strength of the roof framing meets the minimum properties used in the tests and can safely support the maximum imposed loads stated within this document. Starling Madison Lofquist, Inc. and Roof Tech assume no liability beyond what is specifically shown in this letter. Additional information is available at the Roof Tech web site, <http://www.roof-tech.us/>.

Please feel free to contact me at your convenience if you have any questions.

Respectfully yours,

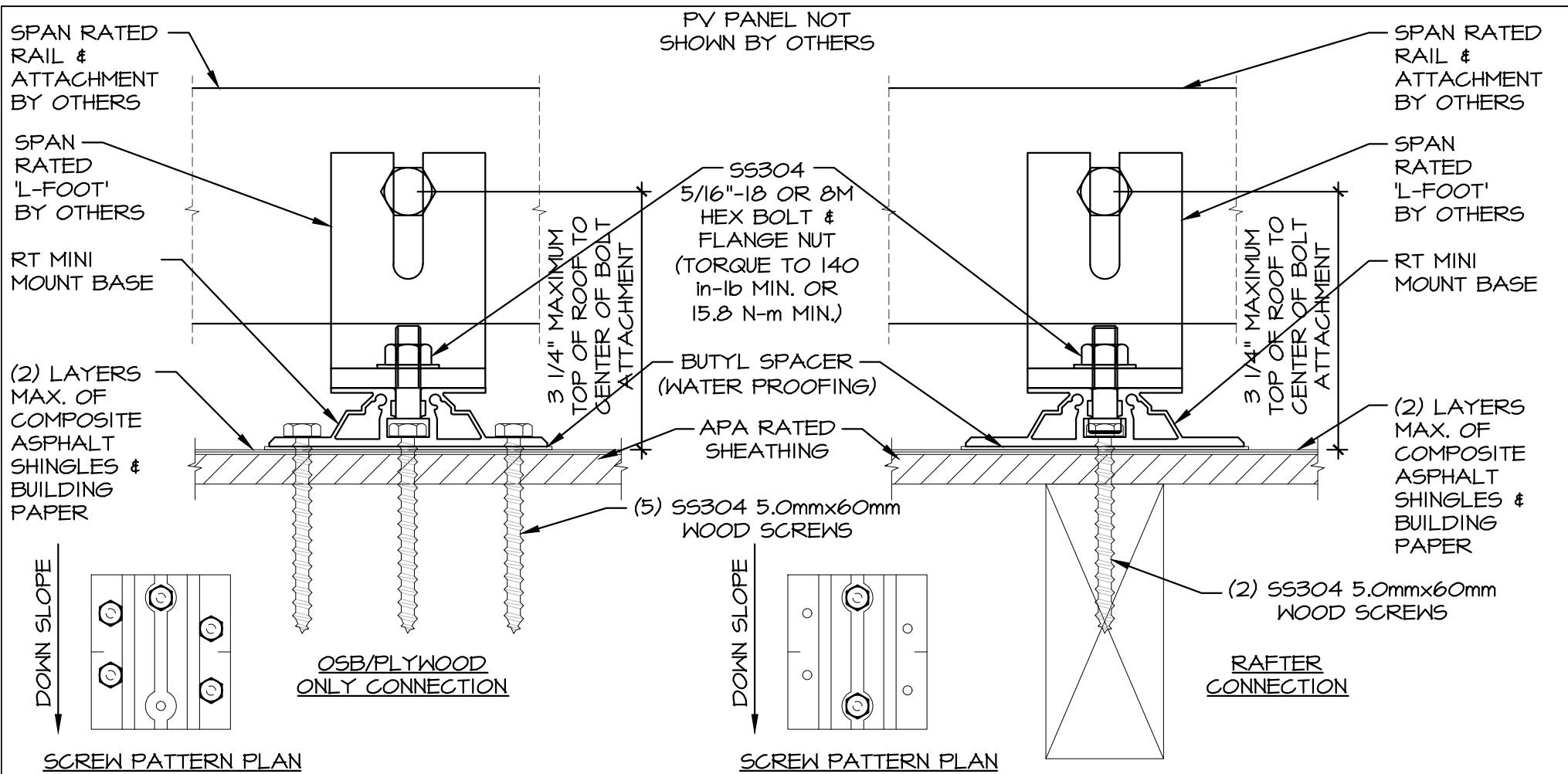
6-9-2022



Tres J. Warner, P.E.  
Design Division Manager

Jesse Light, S.E., P.E.  
Principal (VP) / Sr. Structural Engineer

Exp. 10-31-2023



① 'RAIL OPTION' - RAIL AND 'L-FOOT' ORIENTATION

SCALE: N.T.S.



Consulting Structural and Forensic Engineers

Starling Madison Lofquist, Inc.

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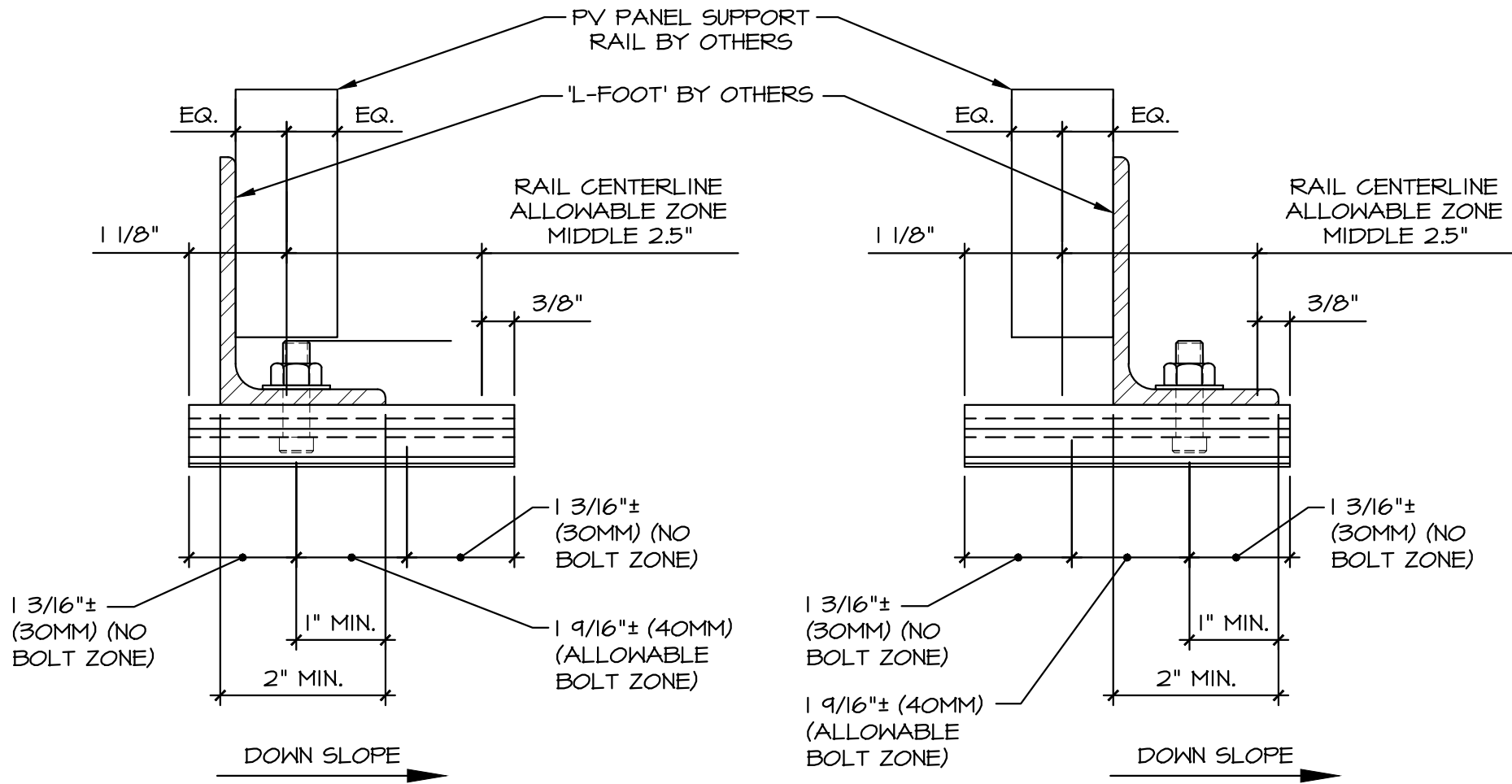
DRAWN BY: J.S.  
 DESIGNED BY: J.L.

DATE: 6-9-22  
 JOB NO: 471-22

ROOF TECH  
 RT-MINI MOUNT + RAIL  
 STRUCTURAL ANALYSIS

ROOF TECH, INC.  
 10620 TREENA ST., SUITE 230  
 SAN DIEGO, CA 92131

EXHIBIT A  
 1 OF 4



2
'RAIL OPTION' - RAIL AND 'L-FOOT' ORIENTATION  
 SCALE: N.T.S.



Consulting Structural and Forensic Engineers

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 fax. (602) 438-2505

DRAWN BY: J.S.  
 DESIGNED BY: J.L.

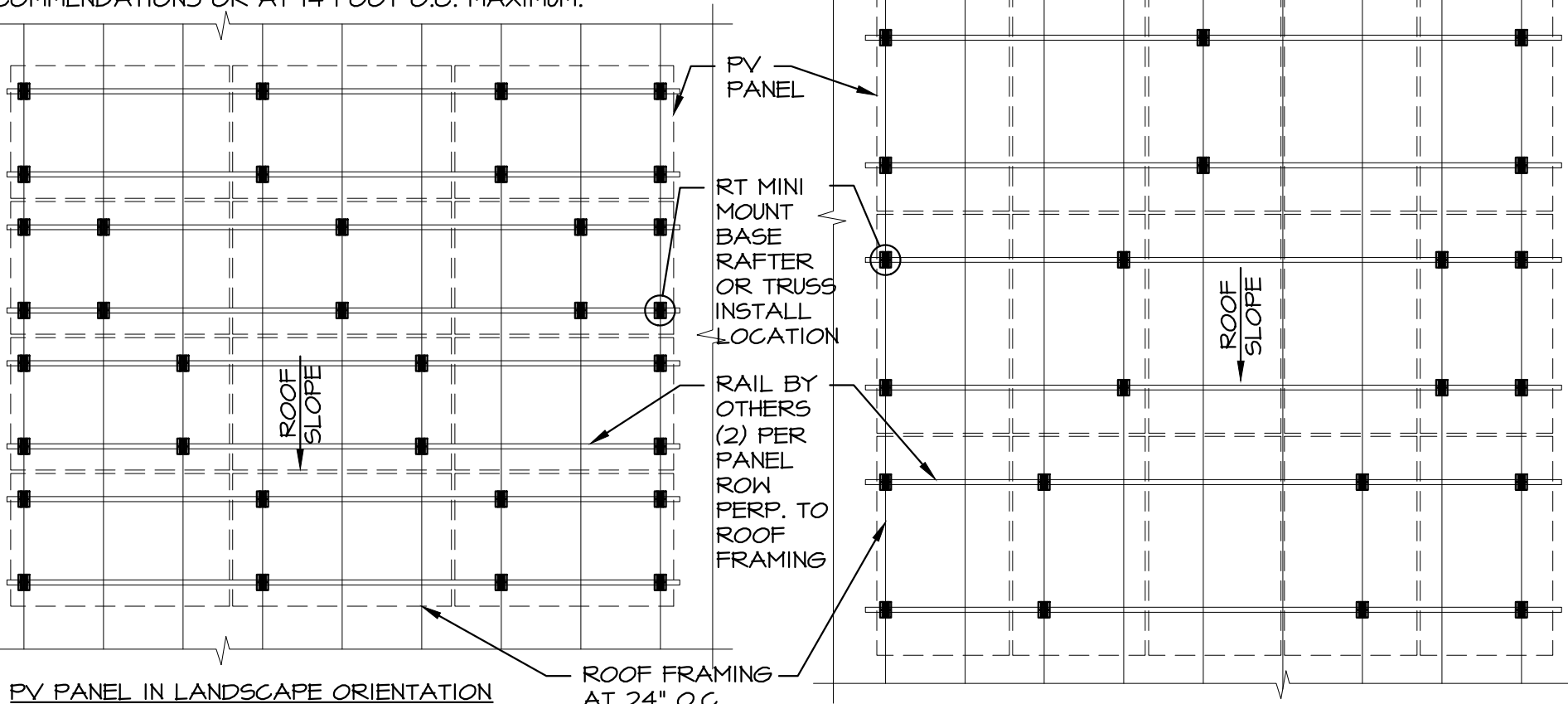
DATE: 6-9-22  
 JOB NO: 471-22

ROOF TECH  
 RT-MINI MOUNT + RAIL  
 STRUCTURAL ANALYSIS

ROOF TECH, INC.  
 10620 TREENA ST., SUITE 230  
 SAN DIEGO, CA 92131

**EXHIBIT A**  
**2 OF 4**

NOTE: RT MINI MOUNT BASE TO BE ORIENTED WITH LONG DIRECTION DOWN ROOF SLOPE AS SHOWN. SKIP LOAD ROOF WHERE POSSIBLE TO EVENLY DISTRIBUTE LOAD TO ROOF FRAMING. THERMAL EXPANSION RAIL SPLICES AT MANUFACTURER'S RECOMMENDATIONS OR AT 14 FOOT O.C. MAXIMUM.



**PARTIAL FRAMING PLAN (RAFTER INSTALLATION)**

3

SCALE: N.T.S.

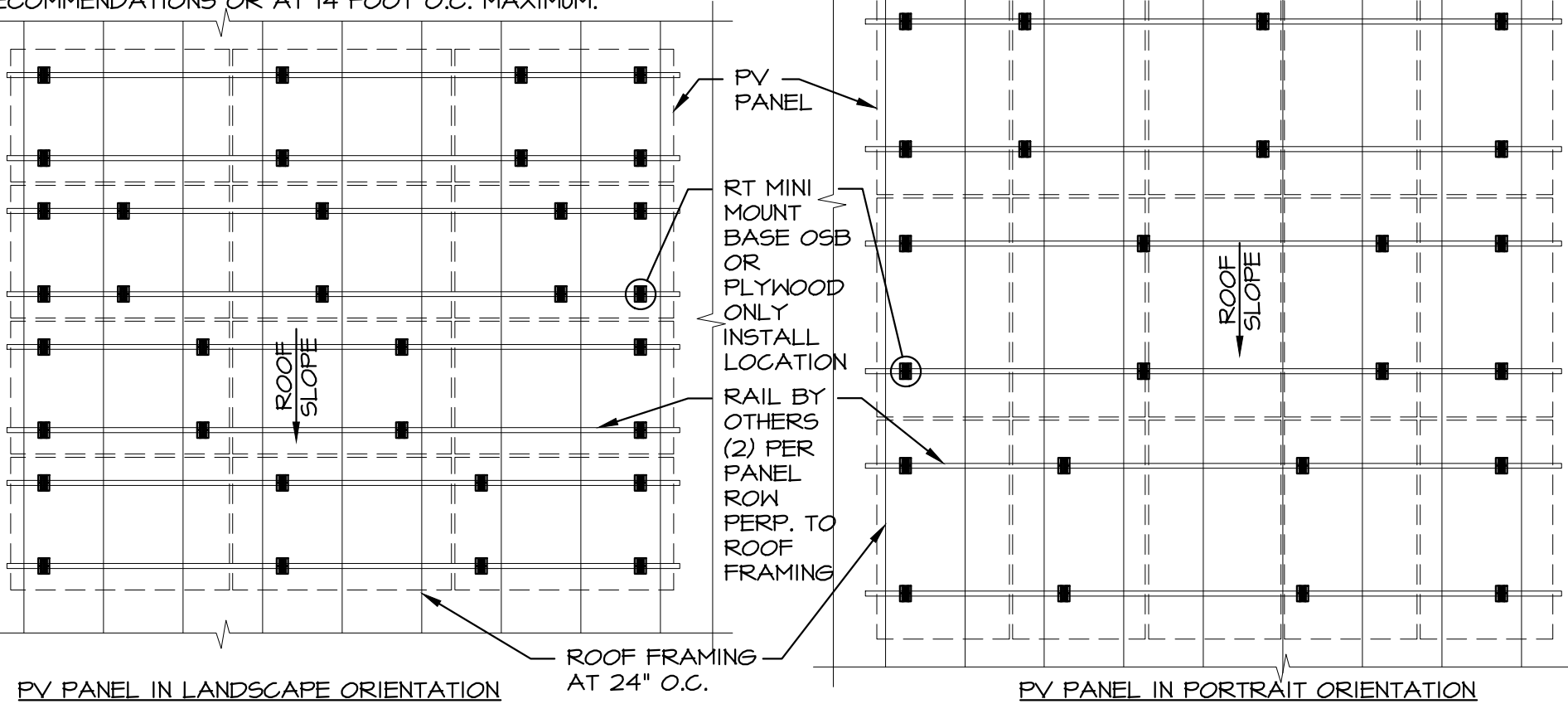


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 fax. (602) 438-2505

|  |      |   |        |
|--|------|---|--------|
| DRAWN BY:  | J.S. | DATE:   | 6-9-22 |
| DESIGNED BY:   | J.L. | JOB NO:   | 471-22 |
| ROOF TECH<br>RT-MINI MOUNT + RAIL<br>STRUCTURAL ANALYSIS |      | ROOF TECH, INC.<br>10620 TREENA ST., SUITE 230<br>SAN DIEGO, CA 92131 |        |

EXHIBIT A  
3 OF 4

NOTE: RT MINI MOUNT BASE TO BE ORIENTED WITH LONG DIRECTION DOWN ROOF SLOPE AS SHOWN. SKIP LOAD ROOF WHERE POSSIBLE TO EVENLY DISTRIBUTE LOAD TO ROOF FRAMING. THERMAL EXPANSION RAIL SPLICES AT MANUFACTURER'S RECOMMENDATIONS OR AT 14 FOOT O.C. MAXIMUM.



**PARTIAL FRAMING PLAN  
(OSB/PLYWOOD ONLY INSTALLATION)**

4

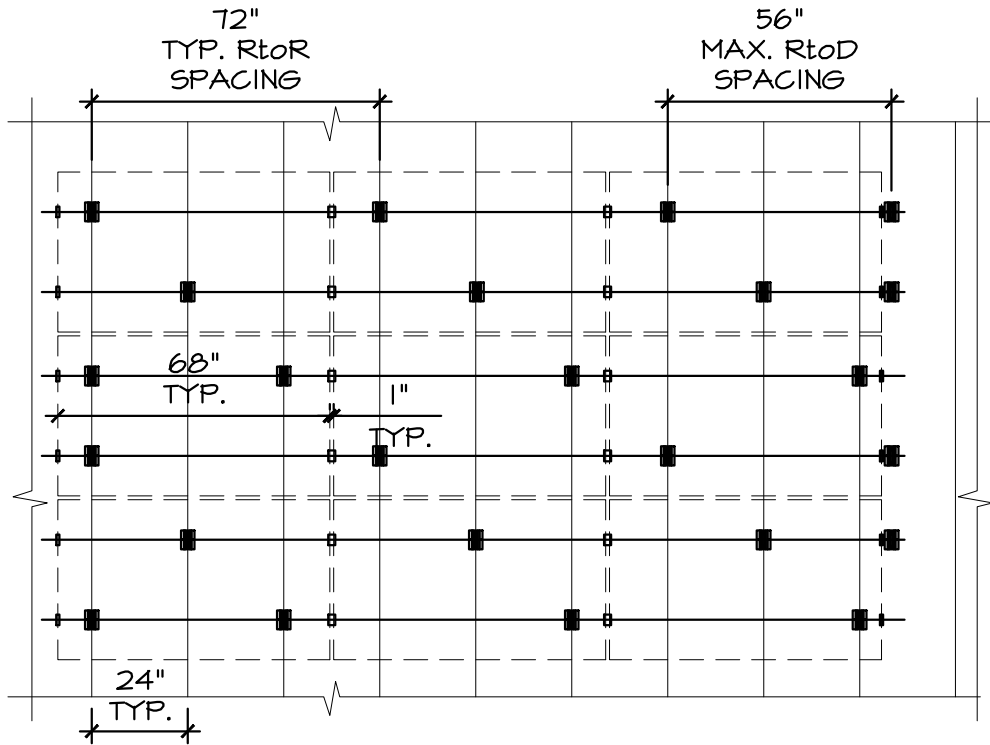
SCALE: N.T.S.



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Phoenix, Arizona 85034  
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|  |      |   |        |
|--|------|---|--------|
| DRAWN BY:  | J.S. | DATE:   | 6-9-22 |
| DESIGNED BY:   | D.H. | JOB NO:   | 471-22 |
| ROOF TECH<br>RT-MINI MOUNT + RAIL<br>STRUCTURAL ANALYSIS |      | ROOF TECH, INC.<br>10620 TREENA ST., SUITE 230<br>SAN DIEGO, CA 92131 |        |

EXHIBIT A  
4 OF 4



## LANDSCAPE EXAMPLE:

### DESIGN CRITERIA:

- ASCE 7-16
- 50 PSF GROUND SNOW LOAD
- 110 MPH WIND SPEED
- 7-27 DEGREE ROOF ANGLE
- WIND EXPOSURE 'C'
- ROOF ZONE 2
- 60 OR 72 CELL PV PANELS (60 CELL SHOWN)
- RAFTER AND PLYWOOD DECKING ONLY  
COMBINED INSTALLATION  
NOTE: SIMILAR PROCEDURE FOR OSB DECKING ONLY

RAFTER-TO-RAFTER (RtoR) = 79 (in)

DECKING-TO-DECKING (DtoD) = 32 (in)

$RtoD = \text{RAFTER-TO-DECKING} = [(RtoR)+(DtoD)]/2$

$RtoD = [79in+32in]/2=56in \text{ MAX.}$

PLEASE NOTE: CHECK WITH PV PANEL MANUFACTURER FOR ALLOWABLE SUPPORT LOCATIONS FOR THE PROJECT SPECIFIC DESIGN LOADS. SUPPORT LOCATIONS SHOWN MAY NOT BE ALLOWED FOR ALL PV PANELS.

## PARTIAL FRAMING PLAN AND EXAMPLE CALCULATION (COMBINED RAFTER-TO-DECKING ONLY LANDSCAPE INSTALL)

SCALE: 1/4"=1'-0"



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DRAWN BY: J.L.

DATE: 6-9-22

DESIGNED BY: J.L.

JOB NO: 471-22

ROOF TECH  
RT-MINI MOUNT + RAIL  
STRUCTURAL ANALYSIS

ROOF TECH, INC.  
10620 TREENA ST., SUITE 230  
SAN DIEGO, CA 92131

EXHIBIT B

1 OF 2



# PORTRAIT EXAMPLE:

## DESIGN CRITERIA:

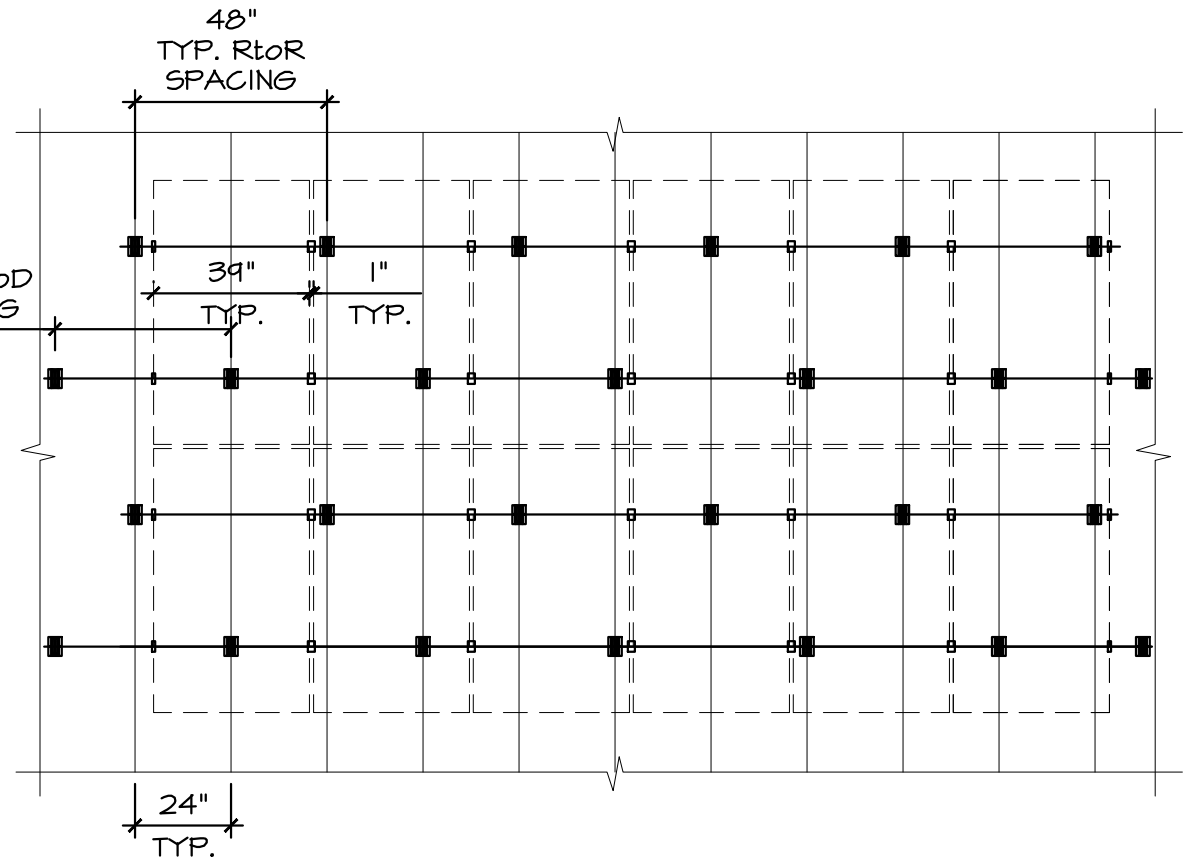
- ASCE 7-16
- 50 PSF GROUND SNOW LOAD
- 110 MPH WIND SPEED
- 7-27 DEGREE ROOF ANGLE
- WIND EXPOSURE 'C'
- ROOF ZONE I
- 72 CELL PV PANEL
- RAFTER AND PLYWOOD DECKING ONLY  
COMBINED INSTALLATION  
NOTE: SIMILAR PROCEDURE FOR  
OSB DECKING ONLY

RAFTER-TO-RAFTER (RtoR) = 62 (in)  
DECKING-TO-DECKING (DtoD) = 25 (in)

$$RtoD = \text{RAFTER-TO-DECKING} = [(RtoR)+(DtoD)]/2$$

$$RtoD = [62in+25in]/2=44in \text{ MAX.}$$

PLEASE NOTE: CHECK WITH PV PANEL  
MANUFACTURER FOR ALLOWABLE SUPPORT  
LOCATIONS FOR THE PROJECT SPECIFIC DESIGN  
LOADS. SUPPORT LOCATIONS SHOWN MAY NOT BE  
ALLOWED FOR ALL PV PANELS.



## PARTIAL FRAMING PLAN AND EXAMPLE CALCULATION (COMBINED RAFTER-TO-DECKING ONLY PORTRAIT INSTALL)

2

SCALE: 1/4"=1'-0"



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DRAWN BY: J.L.

DATE: 6-9-22

DESIGNED BY: J.L.

JOB NO: 471-22

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EXHIBIT B

2 OF 2