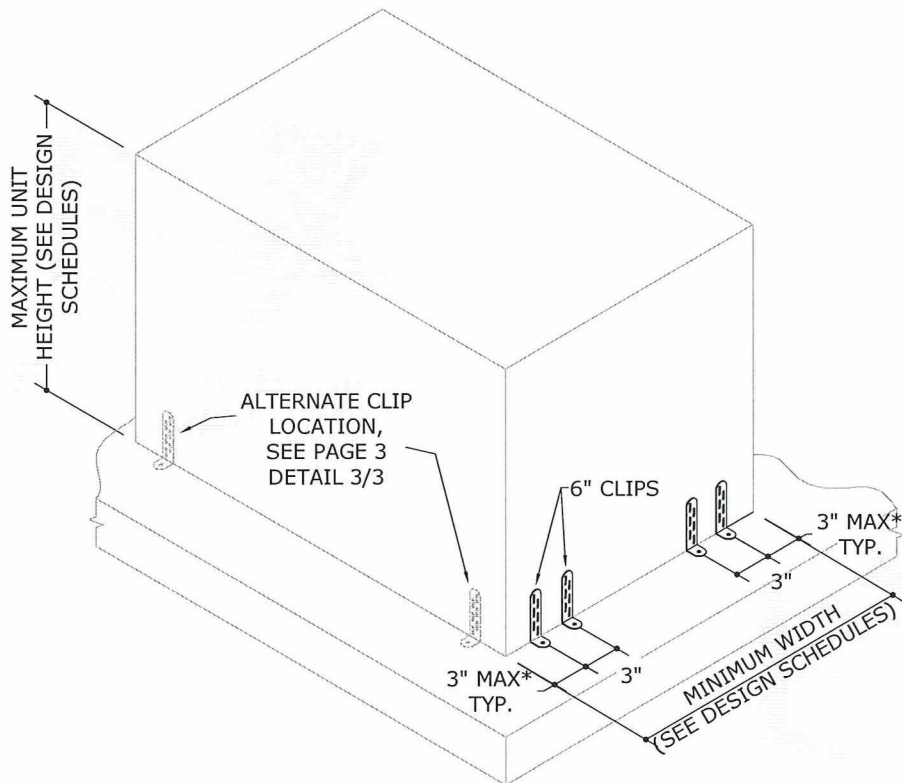
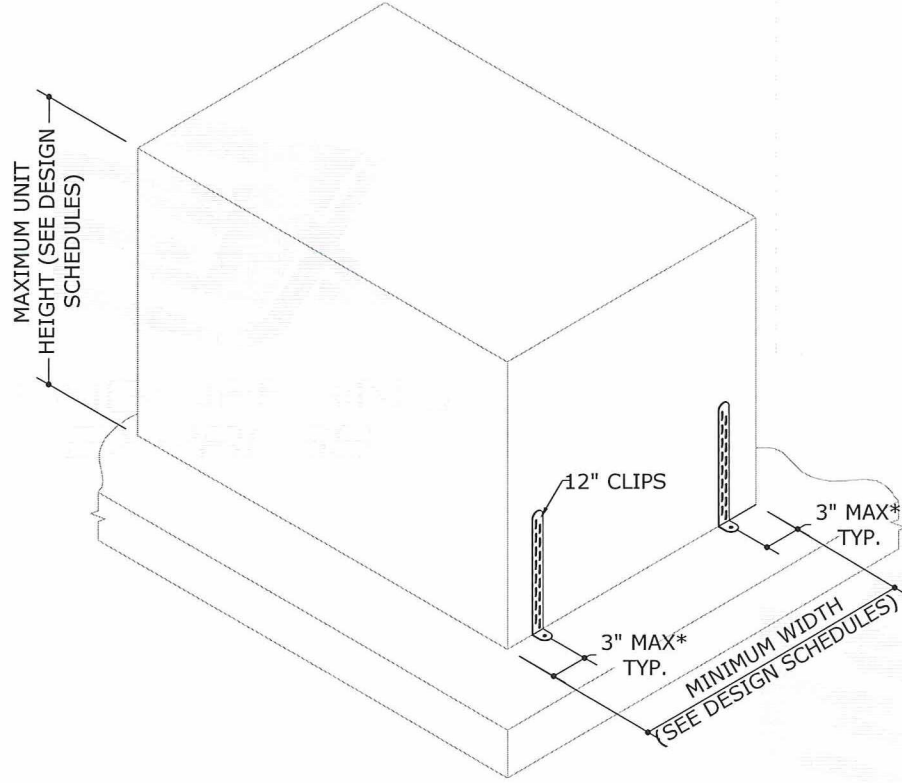


C1 CONNECTION TYPE C1
1"X6" CLIP - UTILIZE (1) AT EACH CORNER FOR A TOTAL OF (4) PER UNIT
NOTE: ALSO APPLICABLE FOR CLIP 4" LONG

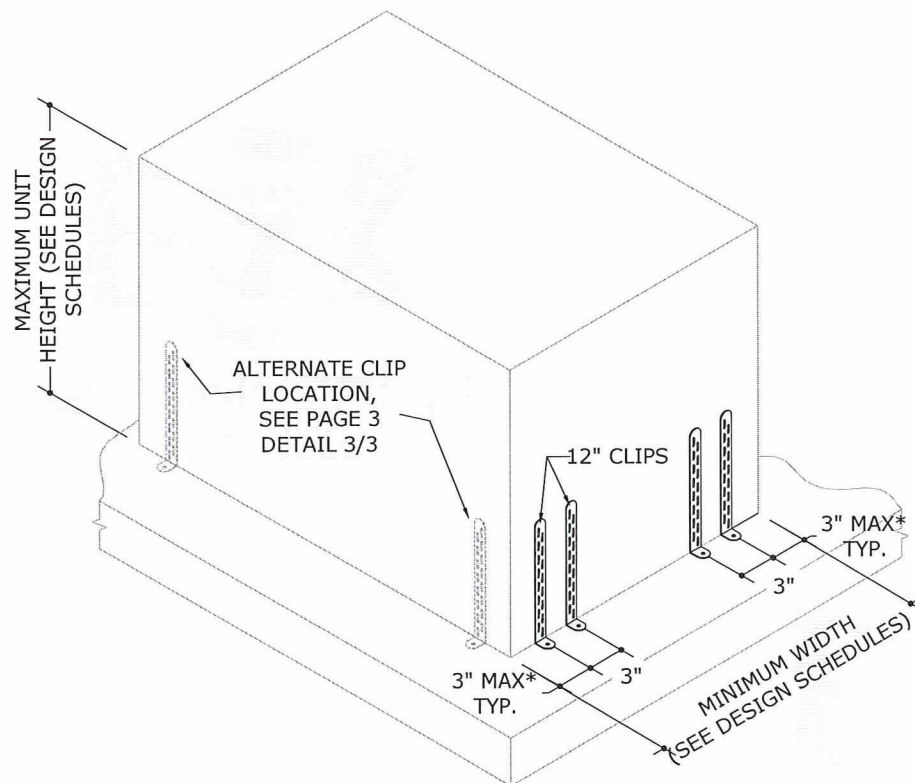


C2 CONNECTION TYPE C2
1"X6" CLIP - UTILIZE (2) AT EACH CORNER FOR A TOTAL OF (8) PER UNIT
NOTE: ALSO APPLICABLE FOR CLIP 4" LONG

*NOTE: SEE ANCHOR TO HOST SCHEDULE FOR ALL EDGE DISTANCE TO ANCHOR SPACING LIMITATIONS. SEE PAGE 3.



C3 CONNECTION TYPE C3
1"X12" CLIP - UTILIZE (1) AT EACH CORNER FOR A TOTAL OF (4) PER UNIT
NOTE: ALSO APPLICABLE FOR CLIPS 8" & 10" LONG



C4 CONNECTION TYPE C4
1"X12" CLIP - UTILIZE (2) AT EACH CORNER FOR A TOTAL OF (8) PER UNIT
NOTE: ALSO APPLICABLE FOR CLIPS 8" & 10" LONG

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02/11/2016

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MIAMI TECH CUTD TIE-DOWN CLIP CERTIFICATIONS

FBC 5TH EDITION (2014) PRODUCT APPROVAL FL#19731

REMARKS	DRWN	CHKD	DATE
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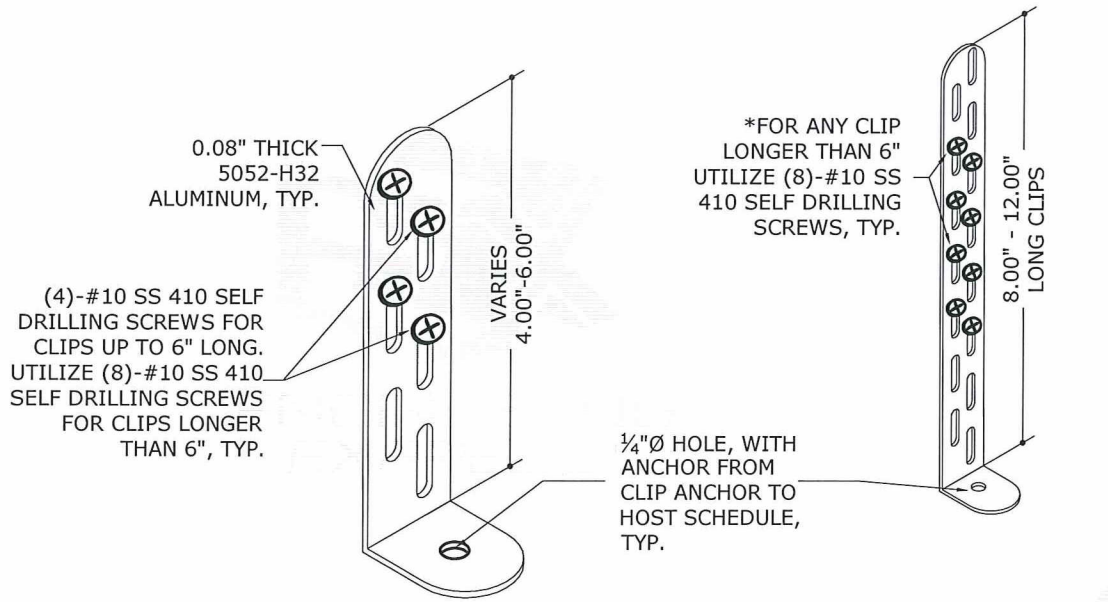
luiso

02/11/2016 - 12:04pm

ANCHOR TO HOST SCHEDULE:

SUBSTRATE	DESCRIPTION
CONCRETE: (4" THICK MIN, 3000 PSI MIN.)	(1)-1/4"Ø STAINLESS STEEL 410 ELCO ULTRACON, 1 3/4" FULL EMBED TO CONCRETE, 2 1/2" MIN. EDGE DISTANCE, 3" MIN. SPACING TO ANY ADJACENT ANCHOR.
ALUMINUM: (0.125" MIN. THICK, 6061-T6 MIN. ALUMINUM)	(1)-#14 SAE STAINLESS STEEL BOLT 410 WITH NUT AND WASHER TOP & BOTTOM SS OD 1", 1/2" MINIMUM EDGE DISTANCE TO METAL EDGE
STEEL: (0.125" MIN. THICK, 50 KSI MIN. STEEL)	(1)-#14 SAE STAINLESS STEEL BOLT 410 WITH NUT AND WASHER TOP & BOTTOM SS OD 1", 1/2" MINIMUM EDGE DISTANCE TO METAL EDGE

1. EMBEDMENT AND EDGE DISTANCE EXCLUDES FINISHES, IF APPLICABLE.
2. ENSURE MINIMUM EDGE DISTANCE AS NOTED IN ANCHOR SCHEDULE.
3. ENSURE MINIMUM SPACING TO ANY ADJACENT ANCHORS.
4. SEE DETAILS ON SHEET 3 FOR ANCHORS ATTACHING TO MECHANICAL UNIT.
5. PROTECT ALL METALS FROM DISSIMILAR METALS GENERAL NOTE #5

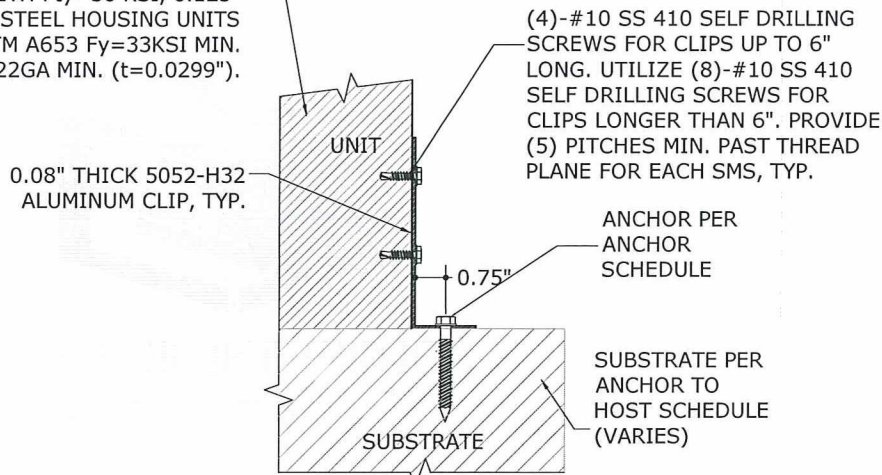


1 1" CLIP ISOMETRIC DETAIL

3 N.T.S.

ISOMETRIC

MECHANICAL UNIT BY OTHERS. ALUMINUM HOUSING UNITS SHALL BE 6063-T6 MIN. ALUMINUM SHEET WITH Fty=30 KSI, 0.125" MIN. THICKNESS, STEEL HOUSING UNITS SHALL BE ASTM A653 Fy=33KSI MIN. STEEL, GRADE 33, 22GA MIN. (t=0.0299").

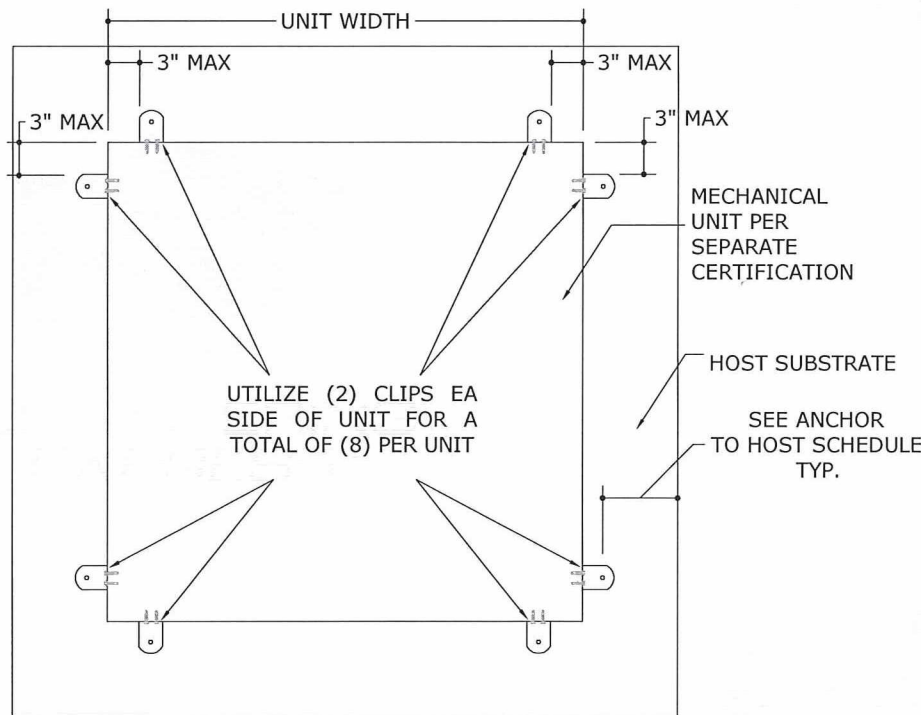


1" TIE-DOWN CLIP ANCHOR DETAIL

3" = 1'-0"

DETAIL

CLIP IS DESIGNED FOR FULL CONTACT WITH THE BASE OF EACH MECHANICAL UNIT, TYP.



3 ALTERNATE (8) CLIP DETAIL

N.T.S.

PLAN VIEW

THIS DETAIL MAY BE USED AS AN ALTERNATE GEOMETRIC PATTERN FOR ALL CONNECTION TYPES THAT UTILIZE (2) CLIPS AT EACH CORNER FOR A TOTAL OF (8) CLIPS PER UNIT.

ALUMINUM TIE-DOWN CLIP

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TABLE 1 PERMISSIBLE INSTALLATION HEIGHTS: Vult=175 MPH, EXPOSURE C

(FOR USE WITH A RISK CATEGORY II STRUCTURE IN THE HIGH VELOCITY HURRICANE ZONE (HVHZ)*)
RISK CATEGORY II IS PER ASCE 7-10

MAXIMUM SURFACE AREA OF UNIT'S LARGEST FACE	UNIT HEIGHT	UNIT WIDTH	ALLOWABLE ROOF-TOP HEIGHT (H) TIE-DOWN CONFIGURATION TYPE			
			C1	C2	C3	C4
6 FT²	29" MAX	15" MIN	N/A	AT GRADE	N/A	AT GRADE
9 FT²	36" MAX	27" MIN	N/A	AT GRADE	N/A	AT GRADE
4 FT²	48" MAX	36" MIN	AT GRADE	H ≤ 140FT	AT GRADE	H ≤ 160 FT
6 FT²			AT GRADE	H ≤ 15 FT	AT GRADE	H ≤ 15 FT
9 FT²			N/A	AT GRADE	N/A	AT GRADE
12 FT²			N/A	AT GRADE	N/A	AT GRADE
16 FT²	60" MAX	48" MIN	N/A	AT GRADE	N/A	AT GRADE
20 FT²			N/A	N/A	N/A	N/A
25 FT²			N/A	N/A	N/A	N/A
30 FT²			N/A	N/A	N/A	N/A
36 FT²			N/A	N/A	N/A	N/A

*THIS TABLE IS PERMISSIBLE TO BE USED WITHIN THE HVHZ WHICH CONTAINS BROWARD AND MIAMI-DADE COUNTIES. CHECK WITH LOCAL AUTHORITY HAVING JURISDICTION FOR THE APPLICABILITY OF THIS TABLE WITHIN CERTAIN FLORIDA COUNTIES.

TABLE 2 PERMISSIBLE INSTALLATION HEIGHTS: Vult=175 MPH, EXPOSURE D

(FOR USE WITH A RISK CATEGORY II STRUCTURE IN THE HIGH VELOCITY HURRICANE ZONE (HVHZ)*)
RISK CATEGORY II IS PER ASCE 7-10

MAXIMUM SURFACE AREA OF UNIT'S LARGEST FACE	UNIT HEIGHT	UNIT WIDTH	ALLOWABLE ROOF-TOP HEIGHT (H) TIE-DOWN CONFIGURATION TYPE			
			C1	C2	C3	C4
6 FT²	29" MAX	15" MIN	N/A	AT GRADE	N/A	AT GRADE
9 FT²	36" MAX	27" MIN	N/A	AT GRADE	N/A	AT GRADE
4 FT²	48" MAX	36" MIN	AT GRADE	H ≤ 80 FT	AT GRADE	H ≤ 80 FT
6 FT²			N/A	AT GRADE	N/A	AT GRADE
9 FT²			N/A	AT GRADE	N/A	AT GRADE
12 FT²			N/A	AT GRADE	N/A	AT GRADE
16 FT²	60" MAX	48" MIN	N/A	N/A	N/A	N/A
20 FT²			N/A	N/A	N/A	N/A
25 FT²			N/A	N/A	N/A	N/A
30 FT²			N/A	N/A	N/A	N/A
36 FT²			N/A	N/A	N/A	N/A

*THIS TABLE IS PERMISSIBLE TO BE USED WITHIN THE HVHZ WHICH CONTAINS BROWARD AND MIAMI-DADE COUNTIES. CHECK WITH LOCAL AUTHORITY HAVING JURISDICTION FOR THE APPLICABILITY OF THIS TABLE WITHIN CERTAIN FLORIDA COUNTIES.

TABLE 3 PERMISSIBLE INSTALLATION HEIGHTS: Vult=170 MPH, EXPOSURE C

(FOR USE WITH A RISK CATEGORY II STRUCTURE**)
RISK CATEGORY II IS PER ASCE 7-10

MAX SURFACE AREA OF UNIT'S LARGEST FACE	UNIT HEIGHT	UNIT WIDTH	ALLOWABLE ROOF-TOP HEIGHT (H) TIE-DOWN CONFIGURATION TYPE			
			C1	C2	C3	C4
6 FT²	29" MAX	15" MIN	N/A	H ≤ 200 FT	N/A	H ≤ 200 FT
9 FT²	36" MAX	27" MIN	N/A	H ≤ 15 FT 60 FT < H ≤ 200 FT	N/A	H ≤ 15 FT 60 FT < H ≤ 200 FT
4 FT²	48" MAX	36" MIN	H ≤ 15 FT 60 FT < H ≤ 200 FT	H ≤ 200 FT	H ≤ 15 FT 60 FT < H ≤ 200 FT	H ≤ 200 FT
6 FT²			AT GRADE	H ≤ 200 FT	AT GRADE	H ≤ 200 FT
9 FT²			N/A	H ≤ 15 FT 60 FT < H ≤ 200 FT	N/A	H ≤ 200 FT
12 FT²			N/A	AT GRADE 60 FT < H ≤ 80 FT	N/A	AT GRADE 60 FT < H ≤ 80 FT
16 FT²	60" MAX	48" MIN	N/A	N/A	N/A	N/A
20 FT²			N/A	N/A	N/A	N/A
25 FT²			N/A	N/A	N/A	N/A
30 FT²			N/A	N/A	N/A	N/A
36 FT²			N/A	N/A	N/A	N/A

LEGEND:

H ≤ 15 FT
60 FT < H ≤ 200 FT

IN THIS EXAMPLE, THE PRODUCT CAN BE INSTALLED ON A BUILDING ROOF HEIGHT (H) LESS THAN OR EQUAL TO 15 FEET, OR ON A BUILDING ROOF HEIGHT THAT IS BETWEEN 60 TO 200 FEET (FT) ABOVE GRADE. SEE DESIGN NOTE 1

TABLE 4 PERMISSIBLE INSTALLATION HEIGHTS: Vult=170 MPH, EXPOSURE D

(FOR USE WITH A RISK CATEGORY II STRUCTURE**)
RISK CATEGORY II IS PER ASCE 7-10

MAX SURFACE AREA OF UNIT'S LARGEST FACE	UNIT HEIGHT	UNIT WIDTH	ALLOWABLE ROOF-TOP HEIGHT (H) TIE-DOWN CONFIGURATION TYPE			
			C1	C2	C3	C4
6 FT²	29" MAX	15" MIN	AT GRADE	H ≤ 200 FT	AT GRADE	H ≤ 200 FT
9 FT²	36" MAX	27" MIN	N/A	H ≤ 200 FT	AT GRADE	H ≤ 200 FT
4 FT²	48" MAX	36" MIN	H ≤ 200 FT	H ≤ 200 FT	H ≤ 200 FT	H ≤ 200 FT
6 FT²			AT GRADE 60 FT < H ≤ 200 FT	H ≤ 200 FT	H ≤ 15 FT 60 FT < H ≤ 200 FT	H ≤ 200 FT
9 FT²			N/A	H ≤ 200 FT	AT GRADE	H ≤ 200 FT
12 FT²			N/A	H ≤ 40 FT 60 FT < H ≤ 200 FT	N/A	H ≤ 200 FT
16 FT²	60" MAX	48" MIN	N/A	AT GRADE 60 FT < H ≤ 180 FT	N/A	AT GRADE 60 FT < H ≤ 200 FT
20 FT²			N/A	AT GRADE	N/A	AT GRADE 60 FT < H ≤ 100 FT
25 FT²			N/A	N/A	N/A	N/A
30 FT²			N/A	N/A	N/A	N/A
36 FT²			N/A	N/A	N/A	N/A

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ALUMINUM TIE-DOWN CLIP

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TABLE 5 PERMISSIBLE INSTALLATION HEIGHTS: Vult=140 MPH, EXPOSURE B

(FOR USE WITH A RISK CATEGORY II STRUCTURE***)
RISK CATEGORY II IS PER ASCE 7-10

MAXIMUM SURFACE AREA OF UNIT'S LARGEST FACE	UNIT HEIGHT	UNIT WIDTH	ALLOWABLE ROOF-TOP HEIGHT (H) TIE-DOWN CONFIGURATION TYPE			
			C1	C2	C3	C4
6 FT²	29" MAX	15" MIN	H ≤ 15 FT 60 FT < H ≤ 120 FT	H ≤ 200 FT	H ≤ 15 FT 60 FT < H ≤ 120 FT	H ≤ 200 FT
9 FT²	36" MAX	27" MIN	AT GRADE 60 FT < H ≤ 80 FT	H ≤ 200 FT	AT GRADE 60 FT < H ≤ 80 FT	H ≤ 200 FT
4 FT²	48" MAX	36" MIN	H ≤ 200 FT	H ≤ 200 FT	H ≤ 200 FT	H ≤ 200 FT
6 FT²			H ≤ 40 FT 60 FT < H ≤ 200 FT	H ≤ 200 FT	H ≤ 200 FT	H ≤ 200 FT
9 FT²			AT GRADE 60 FT < H ≤ 80 FT	H ≤ 200 FT	AT GRADE 60 FT < H ≤ 80 FT	H ≤ 200 FT
12 FT²			AT GRADE	H ≤ 200 FT	AT GRADE	H ≤ 200 FT
16 FT²	60" MAX	48" MIN	N/A	H ≤ 40 FT 60 FT < H ≤ 200 FT	N/A	H ≤ 40 FT 60 FT < H ≤ 200 FT
20 FT²			N/A	H ≤ 15 FT 60 FT < H ≤ 160 FT	N/A	H ≤ 15 FT 60 FT < H ≤ 160 FT
25 FT²			N/A	AT GRADE	N/A	AT GRADE
30 FT²			N/A	AT GRADE	N/A	AT GRADE
36 FT²			N/A	N/A	N/A	N/A

TABLE 6 PERMISSIBLE INSTALLATION HEIGHTS: Vult=140 MPH, EXPOSURE C

(FOR USE WITH A RISK CATEGORY II STRUCTURE***)
RISK CATEGORY II IS PER ASCE 7-10

MAXIMUM SURFACE AREA OF UNIT'S LARGEST FACE	UNIT HEIGHT	UNIT WIDTH	ALLOWABLE ROOF-TOP HEIGHT (H) TIE-DOWN CONFIGURATION TYPE			
			C1	C2	C3	C4
6 FT²	29" MAX	15" MIN	AT GRADE	H ≤ 200 FT	AT GRADE	H ≤ 200 FT
9 FT²	36" MAX	27" MIN	N/A	H ≤ 200 FT	AT GRADE	H ≤ 200 FT
4 FT²	48" MAX	36" MIN	H ≤ 200 FT	H ≤ 200 FT	H ≤ 200 FT	H ≤ 200 FT
6 FT²			AT GRADE 60 FT < H ≤ 200 FT	H ≤ 200 FT	AT GRADE 60 FT < H ≤ 200 FT	H ≤ 200 FT
9 FT²			AT GRADE	H ≤ 200 FT	AT GRADE	H ≤ 200 FT
12 FT²			N/A	H ≤ 40 FT 60 FT < H ≤ 200 FT	N/A	H ≤ 40 FT 60 FT < H ≤ 200 FT
16 FT²	60" MAX	48" MIN	N/A	AT GRADE 60 FT < H ≤ 140 FT	N/A	AT GRADE 60 FT < H ≤ 140 FT
20 FT²			N/A	AT GRADE	N/A	AT GRADE
25 FT²			N/A	N/A	N/A	N/A
30 FT²			N/A	N/A	N/A	N/A
36 FT²			N/A	N/A	N/A	N/A

TABLE 7 PERMISSIBLE INSTALLATION HEIGHTS: Vult=140 MPH, EXPOSURE D

(FOR USE WITH A RISK CATEGORY II STRUCTURE***)
RISK CATEGORY II IS PER ASCE 7-10

MAXIMUM SURFACE AREA OF UNIT'S LARGEST FACE	UNIT HEIGHT	UNIT WIDTH	ALLOWABLE ROOF-TOP HEIGHT (H) TIE-DOWN CONFIGURATION TYPE			
			C1	C2	C3	C4
6 FT²	29" MAX	15" MIN	N/A	H ≤ 200 FT	N/A	H ≤ 200 FT
9 FT²	36" MAX	27" MIN	N/A	H ≤ 200 FT	N/A	H ≤ 200 FT
4 FT²	48" MAX	36" MIN	H ≤ 40 FT 60 FT < H ≤ 200 FT	H ≤ 200 FT	H ≤ 40 FT 60 FT < H ≤ 200 FT	H ≤ 200 FT
6 FT²			AT GRADE 60 FT < H ≤ 100 FT	H ≤ 200 FT	AT GRADE 60 FT < H ≤ 120 FT	H ≤ 200 FT
9 FT²			N/A	H ≤ 200 FT	N/A	H ≤ 200 FT
12 FT²			N/A	H ≤ 15 FT 60 FT < H ≤ 200 FT	N/A	H ≤ 15 FT 60 FT < H ≤ 200 FT
16 FT²	60" MAX	48" MIN	N/A	AT GRADE	N/A	AT GRADE 60 FT < H ≤ 80 FT
20 FT²			N/A	N/A	N/A	N/A
25 FT²			N/A	N/A	N/A	N/A
30 FT²			N/A	N/A	N/A	N/A
36 FT²			N/A	N/A	N/A	N/A

LEGEND:

H ≤ 15 FT
60 FT < H ≤ 200 FT

IN THIS EXAMPLE, THE PRODUCT CAN BE INSTALLED ON A BUILDING ROOF HEIGHT LESS (H) THAN OR EQUAL TO 15 FEET, OR ON A BUILDING ROOF HEIGHT THAT IS BETWEEN 60 TO 200 FEET (FT) ABOVE GRADE. SEE DESIGN NOTE 1

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