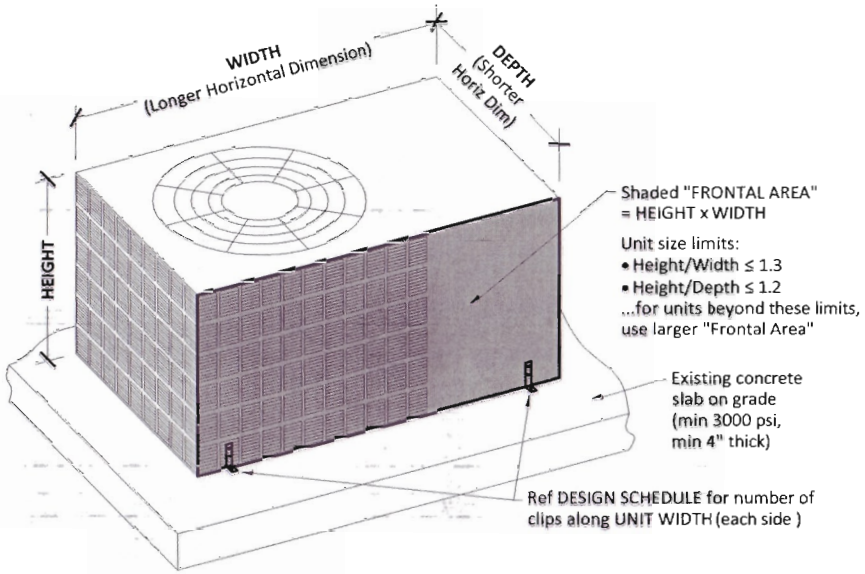
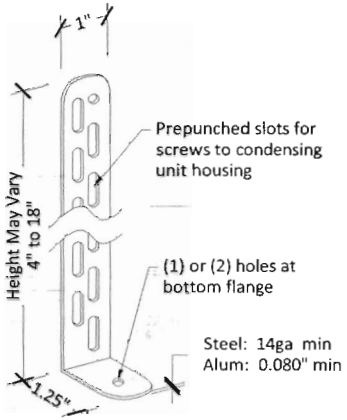


1 / 1 Central A/C System Condensing Unit Tie-Down Clip Diagram

Scale: $\frac{3}{8}$" = 1'-0" Isometric



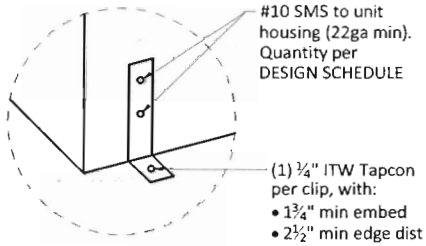
2 / 1 Tie-Down Clip

Scale: 3" = 1'-0" Isometric

DESIGN SCHEDULE:

Schedule gives minimum number of tie-down clips required along each side of condensing unit - see diagram.

	CENTRAL A/C SYSTEM CONDENSING UNITS															
	120 mph Exp 'C' + 'D' 24.7 psf		130 mph Exp 'C' + 'D' 29.0 psf		140 mph Exp 'C' + 'D' 33.6 psf		150 mph Exp 'C' + 'D' 38.6 psf		156 mph Exp 'C' + 'D' 41.7 psf		160 mph Exp 'C' + 'D' 43.9 psf		165 mph Exp 'C' + 'D' 46.7 psf		170 mph Exp 'C' + 'D' 49.6 psf	
Frontal Area Up To:	#10 SMS per Clip: (1)	(2)	#10 SMS per Clip: (1)	(2)	#10 SMS per Clip: (1)	(2)	#10 SMS per Clip: (1)	(2)	#10 SMS per Clip: (1)	(2)	#10 SMS per Clip: (1)	(2)	#10 SMS per Clip: (1)	(2)	#10 SMS per Clip: (1)	(2)
8 ft²	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
10 ft²	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2
12 ft²	2	2	2	2	2	2	2	2	3	2	3	2	3	2	3	2
16 ft²	2	2	2	2	3	2	3	2	3	2	3	2	4	2	4	3
20 ft²	3	2	3	2	3	2	4	3	4	3	4	3	4	3	5	3
25 ft²	3	2	4	2	4	3	5	3	5	3	5	3	5	4	6	4
30 ft²	4	2	4	3	5	3	5	4	6	4	6	4	6	4	7	4
35 ft²	4	3	5	3	5	4	6	4	7	4	7	5	7	5	8	5
40 ft²	5	3	5	4	6	4	7	5	8	5	8	5	8	5	9	6



3 / 1 Clip Fastener Detail

Scale: 1½" = 1'-0" Isometric

DESIGN NOTES:

Wind loads per ASCE 7-10 for solid freestanding structures at grade:
ASD Loads coeff = 0.6
Wind Speed & Exposure as noted in design schedules.
Condensing unit height: 15 ft max above grade
Kzt=1.0, Kd=0.85, G=0.85
Cf=1.55 (H/W ratio ≤ 1.3)

GENERAL NOTES:

1. Design is in accordance with the requirements of the 2010 Florida Building Code for use within & outside the High Velocity Hurricane Zone (HVHZ).
2. This engineering certifies only the structural integrity of those systems, components, and/or other construction explicitly specified herein.
3. The existing host structure must be capable of supporting the loaded system as verified by building department or architect / engineer of record. No warranty, either expressed or implied, is contained herein.
4. Systems shall be as noted herein. All references to components, extrusions, & other installation criteria shall conform to that of applicable product approval &/or mfr's specs.
5. Where site conditions deviate from those shown in this plan, revisions may be required or a separate site-specific engineering evaluation performed.
6. Engineer seal affixed hereto validates structural design as shown only. Use of this specification by contractor, et. al. indemnifies & saves harmless this engineer for all costs & damages including legal fees & appellate fees resulting from deviations from this plan.
7. Any modifications or additions to this document will invalidate engineer's certification.
8. Except as expressly provided herein, no additional certifications or affirmations are intended.

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Certification valid for one (1) unit for residence
Nov 4 2014
CHRISTIAN LANGLEY, PE
FL PE #67382 CA#29531

TIE-DOWN CLIPS FOR CENTRAL A/C SYSTEM CONDENSING UNITS ON GRADE
- 14ga Steel - 0.080" Aluminum

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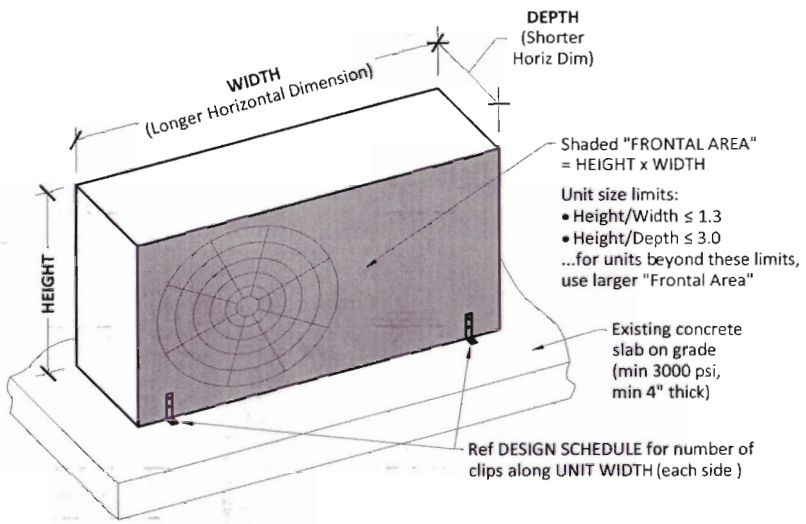
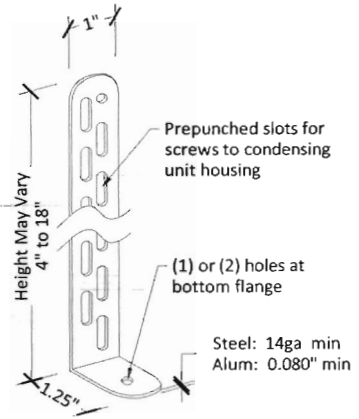
2360 N Federal Hwy, #230
Boca Raton, Florida 33432

Drawing No.
E10TD1



1 / 1 Mini-Split A/C System Condensing Unit Tie-Down Clip Diagram

Scale: 3/8" = 1'=0" Isometric



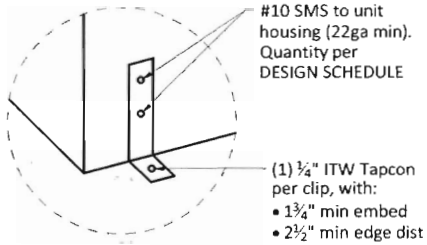
2 / 1 Tie-Down Clip

Scale: 3" = 1'-0" Isometric

DESIGN SCHEDULE:

Schedule gives minimum number of tie-down clips required along each side of condensing unit - see diagram.

	MINI-SPLIT A/C SYSTEM CONDENSING UNITS															
	120 mph Exp 'C' + 'D' 24.7 psf		130 mph Exp 'C' + 'D' 29.0 psf		140 mph Exp 'C' + 'D' 33.6 psf		150 mph Exp 'C' + 'D' 38.6 psf		156 mph Exp 'C' + 'D' 41.7 psf		160 mph Exp 'C' + 'D' 43.9 psf		165 mph Exp 'C' + 'D' 46.7 psf		170 mph Exp 'C' + 'D' 49.6 psf	
Frontal Area Up To:	#10 SMS per Clip:		#10 SMS per Clip:		#10 SMS per Clip:		#10 SMS per Clip:		#10 SMS per Clip:		#10 SMS per Clip:		#10 SMS per Clip:		#10 SMS per Clip:	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
3 ft²	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
4 ft²	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2
5 ft²	2	2	2	2	2	2	3	2	3	2	3	2	3	2	3	2
6 ft²	2	2	2	2	3	2	3	2	3	2	3	2	3	2	4	2
7 ft²	2	2	3	2	3	2	3	2	4	2	4	2	4	2	4	2
8 ft²	3	2	3	2	3	2	4	2	4	2	4	2	4	2	5	3
9 ft²	3	2	3	2	4	2	4	2	4	2	5	3	5	3	5	3
10 ft²	3	2	4	2	4	2	5	3	5	3	5	3	5	3	6	3
12 ft²	4	2	4	2	5	3	5	3	6	3	6	3	6	3	7	4



3 / 1 Clip Fastener Detail

Scale: 1½" = 1'-0" Isometric

DESIGN NOTES:

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Kzt=1.0, Kd=0.85, G=0.85
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GENERAL NOTES:

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4. Systems shall be as noted herein. All references to components, extrusions, & other installation criteria shall conform to that of applicable product approval &/or mfr's specs.
5. Where site conditions deviate from those shown in this plan, revisions may be required or a separate site-specific engineering evaluation performed.
6. Engineer seal affixed hereto validates structural design as shown only. Use of this specification by contractor, et. al. indemnifies & saves harmless this engineer for all costs & damages including legal fees & appellate fees resulting from deviations from this plan.
7. Any modifications or additions to this document will invalidate engineer's certification.
8. Except as expressly provided herein, no additional certifications or affirmations are intended.

Easy Seals
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Certification valid for one (1) unit or residence

May 14, 2013

CHRISTIAN LAGLEY, PE
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TIE-DOWN CLIPS FOR MINI-SPLIT A/C SYSTEM
CONDENSING UNITS ON GRADE
- 14ga Steel - 0.080" Aluminum

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Drawing No.
E10TD2