

MIAMI TECH, INC.

MECHANICAL UNIT STEEL TIE-DOWN CLIP: AT GRADE & ROOF-TOP MOUNTED APPLICATIONS

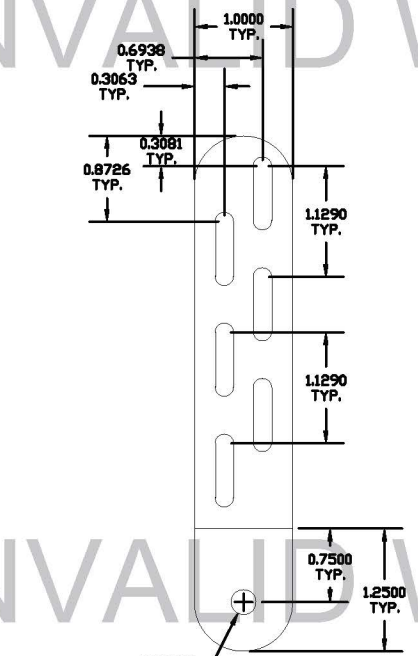
FRANK BENNARDO, PE  
PE# 0046549 CA# 9885

01/21/2021

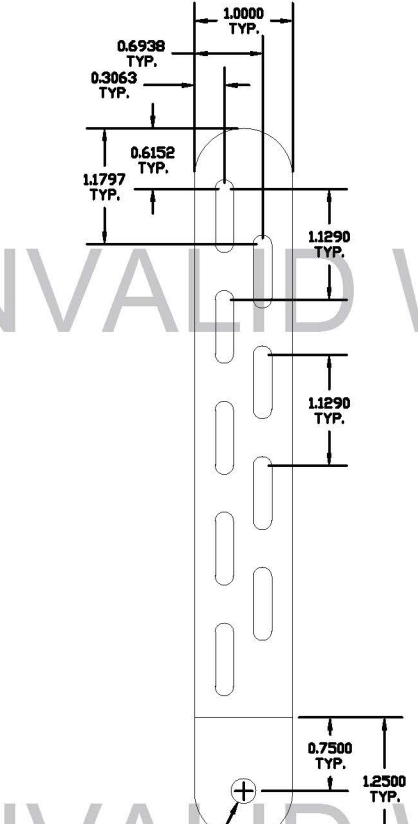
STEEL TIE-DOWN CLIP

SIDE VIEW TYP.

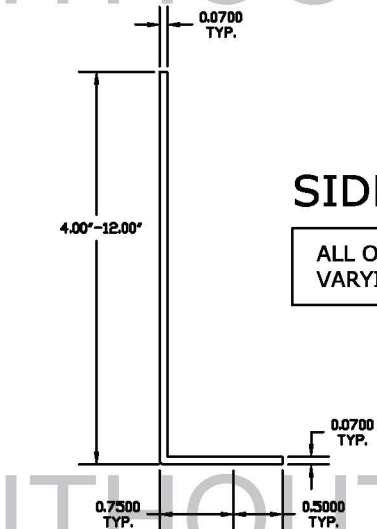
ALL OTHER CLIPS SIMILAR  
VARYING LENGTH ONLY



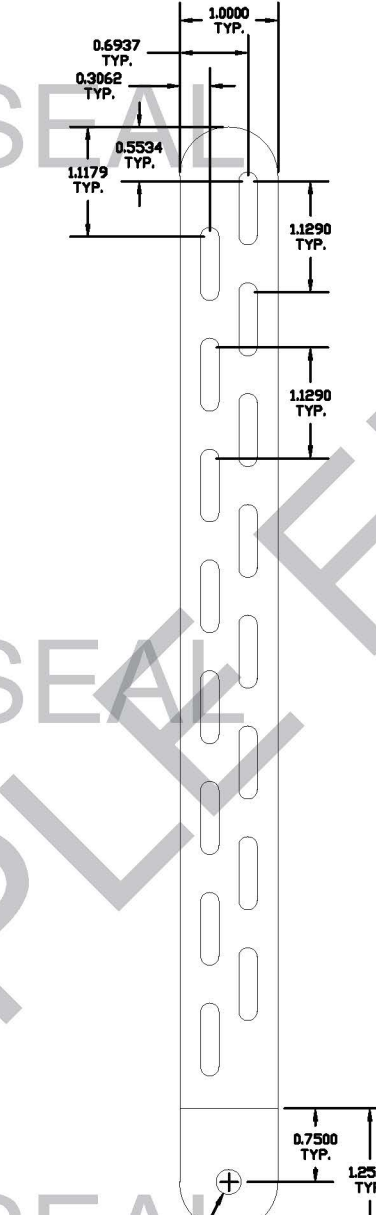
1 4" LONG CLIP  
1 N.T.S. FLATTENED



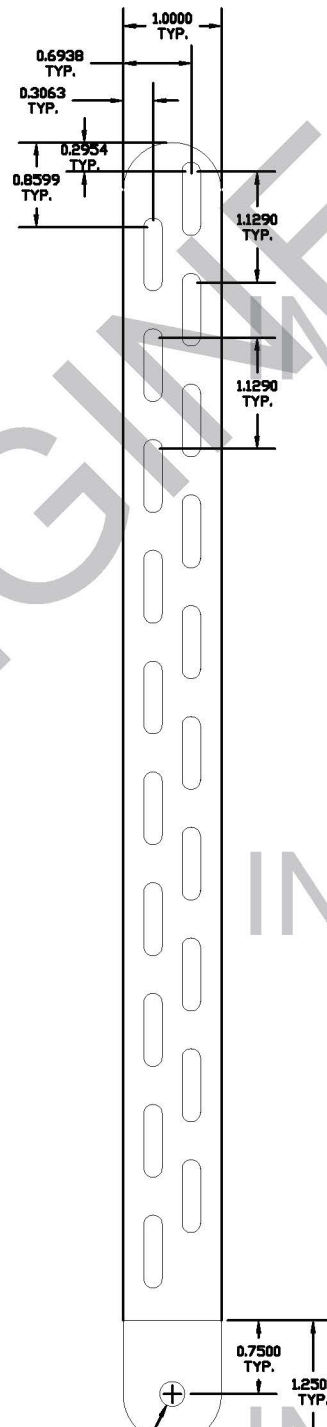
2 6" LONG CLIP  
1 N.T.S. FLATTENED



3 8" LONG CLIP  
1 N.T.S. FLATTENED



4 10" LONG CLIP  
1 N.T.S. FLATTENED



5 12" LONG CLIP  
1 N.T.S. FLATTENED

DESIGN NOTES:

1. THIS PRODUCT HAS BEEN DESIGNED IN ACCORDANCE WITH ASCE 7-16 AND THE FLORIDA BUILDING CODE SEVENTH EDITION (2020) AND THE INTERNATIONAL BUILDING CODE (2018). FOR USE WITHIN AND OUTSIDE THE HIGH VELOCITY HURRICANE ZONE AS INDICATED IN THE ACCOMPANYING DESIGN SCHEDULES. THE DESIGN CRITERIA USED TO CALCULATE THE ALLOWABLE ROOF-TOP HEIGHTS CONSIDERS FBC CHAPTER 16:  $(G C_p)_{\text{Lateral}} = 1.90$  WITHIN THE HVHZ & OUTSIDE THE HVHZ,  $(G C_p)_{\text{Uplift}} = 1.5$  FOR ALL LOCATIONS (CONCURRENT).
2. ALL OTHER DESIGN VARIABLES ARE IN ACCORDANCE WITH ASCE 7 CHAPTERS 26 & 29.
3. THE HEIGHTS LISTED IN THE DESIGN SCHEDULES REPRESENT THE ALLOWABLE HEIGHT OF THE BUILDING.
4. THIS PRODUCT APPROVAL ALLOWS FOR EACH UNIT TO BE INSTALLED ON A MAXIMUM 30" TALL A/C STAND (CERTIFICATION BY OTHERS) ON TOP OF THE HEIGHTS LISTED IN THE DESIGN SCHEDULES.
5. NO 33-1/3% INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS SYSTEM.
6. DESIGN IS BASED ON CLIENT PROVIDED PRODUCT AND DIE SHEETS FROM TEST REPORT PROJECT #15-6206 BY FENESTRATION TESTING LABORATORY, INC.. NO SUBSTITUTIONS WITHOUT WRITTEN APPROVAL BY THIS ENGINEER SHALL BE PERMITTED.
7. STEEL CLIPS SHALL BE ASTM A653 STEEL WITH  $F_y = 33$  KSI OR BETTER. STEEL MEMBERS SHALL BE PROTECTED AGAINST CORROSION WITH AN APPROVED COAT OF PAINT, ENAMEL OR OTHER APPROVED PROTECTION. G90-RATED COATING REQUIRED FOR COASTAL INSTALLATIONS.

GENERAL NOTES:

1. THIS PRODUCT HAS BEEN DESIGNED AND SHALL BE FABRICATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE & ASCE 7. THIS PRODUCT MAY BE USED WITHIN AND OUTSIDE THE HIGH VELOCITY HURRICANE ZONE.
2. MAXIMUM & MINIMUM DIMENSIONS AND MINIMUM WEIGHT OF MECHANICAL UNIT SHALL CONFORM TO SPECIFICATIONS STATED HEREIN. ALL MECHANICAL SPECIFICATIONS (CLEAR SPACE, TONNAGE, ETC.) SHALL BE AS PER MANUFACTURER RECOMMENDATIONS AND ARE THE EXPRESS RESPONSIBILITY OF THE CONTRACTOR.
3. FASTENERS TO BE #10 X 3/4" OR GREATER STAINLESS STEEL 410 UNLESS NOTED OTHERWISE. ANCHORS REFERRED TO HEREIN SHALL BE ELCO BRAND, STAINLESS STEEL ONLY, INSTALLED TO 3000 PSI MIN CONCRETE. SEE ANCHOR TO HOST SCHEDULE FOR ANCHOR REQUIREMENTS. ALL FASTENERS SHALL HAVE APPROPRIATE CORROSION PROTECTION TO PREVENT ELECTROLYSIS.
4. ALL CONCRETE SPECIFIED HEREIN IS NOT PART OF THIS CERTIFICATION. AS A MINIMUM, ALL CONCRETE SHALL BE STRUCTURAL CONCRETE 4" MIN. THICK AND SHALL HAVE MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI, UNLESS NOTED OTHERWISE.
5. THE CONTRACTOR IS RESPONSIBLE TO INSULATE ALL MEMBERS FROM DISSIMILAR MATERIALS TO PREVENT ELECTROLYSIS.
6. ELECTRICAL GROUND, WHEN REQUIRED, TO BE DESIGNED & INSTALLED BY OTHERS.
7. THE ADEQUACY OF ANY EXISTING STRUCTURE TO WITHSTAND SUPERIMPOSED LOADS SHALL BE VERIFIED BY THE ONSITE DESIGN PROFESSIONAL AND IS NOT INCLUDED IN THIS CERTIFICATION. EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED.
8. THE SYSTEM DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE. FOR SITE CONDITIONS DIFFERENT FROM THE CONDITIONS DETAILED HEREIN, A LICENSED ENGINEER OR REGISTERED ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE IN CONJUNCTION WITH THIS DOCUMENT.
9. WATER-TIGHTNESS OF EXISTING HOST SUBSTRATE SHALL BE THE FULL RESPONSIBILITY OF THE INSTALLING CONTRACTOR. CONTRACTOR SHALL ENSURE THAT ANY REMOVED OR ALTERED WATERPROOFING MEMBRANE IS RESTORED AFTER FABRICATION AND INSTALLATION OF STRUCTURE PROPOSED HEREIN. THIS ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY WATERPROOFING OR LEAKAGE ISSUES WHICH MAY OCCUR AS WATER-TIGHTNESS SHALL BE THE FULL RESPONSIBILITY OF THE INSTALLING CONTRACTOR.
10. FOR AN EXPLANATION OF EXPOSURE AND RISK CATEGORIES THAT ACCOMPANY THE VULT WIND SPEEDS USED IN THIS APPROVAL, SEE ASCE 7.

VISIT [ECALC.IO/26324](https://ecalculator.com/26324)

FOR SITE SPECIFIC DEVIATIONS  
& MORE INFORMATION ABOUT THIS DOCUMENT  
OR SCAN THIS QR CODE

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REMARKS	DRWN	CHKD	DATE
INIT ISSUE	LAO	TSB	02/05/16
REV (ADD DETAILS)	RWN	FLB	07/08/16
REV 2017 FBC UPDATE	LAO	FLB	08/14/17
REV 2020 FBC UPDATE	CB	RWN	6/9/20

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**MIAMI TECH, INC.**  
3611 NW 74TH ST  
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MIAMI TECH CUTD TIE-DOWN CLIP CERTIFICATIONS  
FBC 7TH EDITION (2020) PRODUCT APPROVAL  
FL#19731.2

REMARKS	DRWN	CHKD	DATE
INIT ISSUE	LAO	TSB	02/05/16
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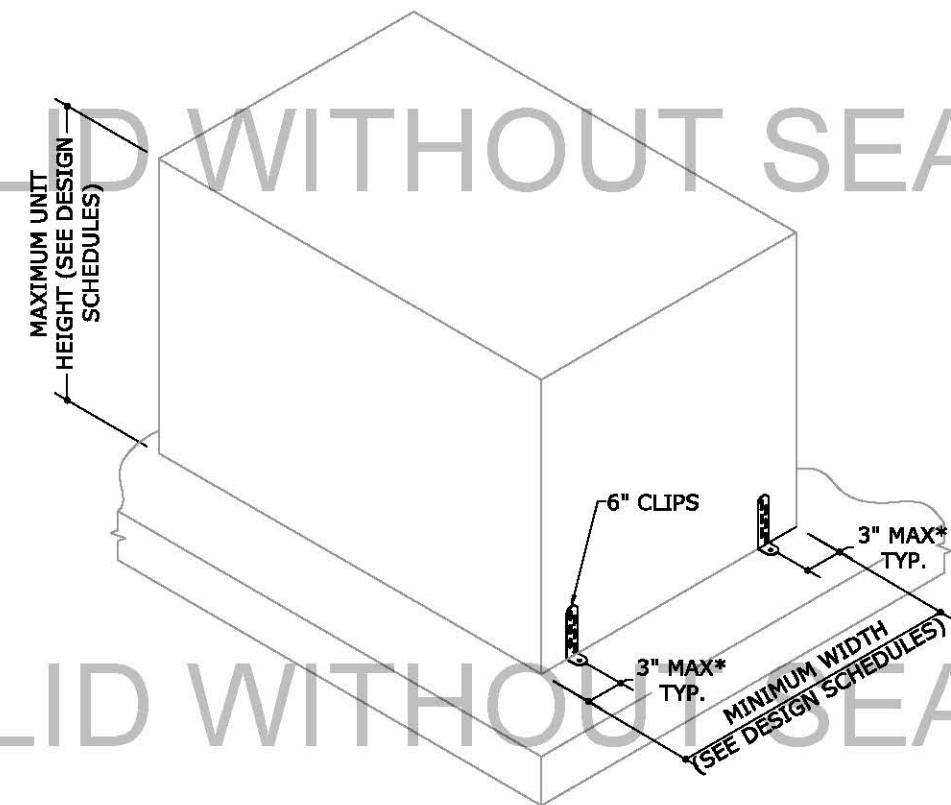
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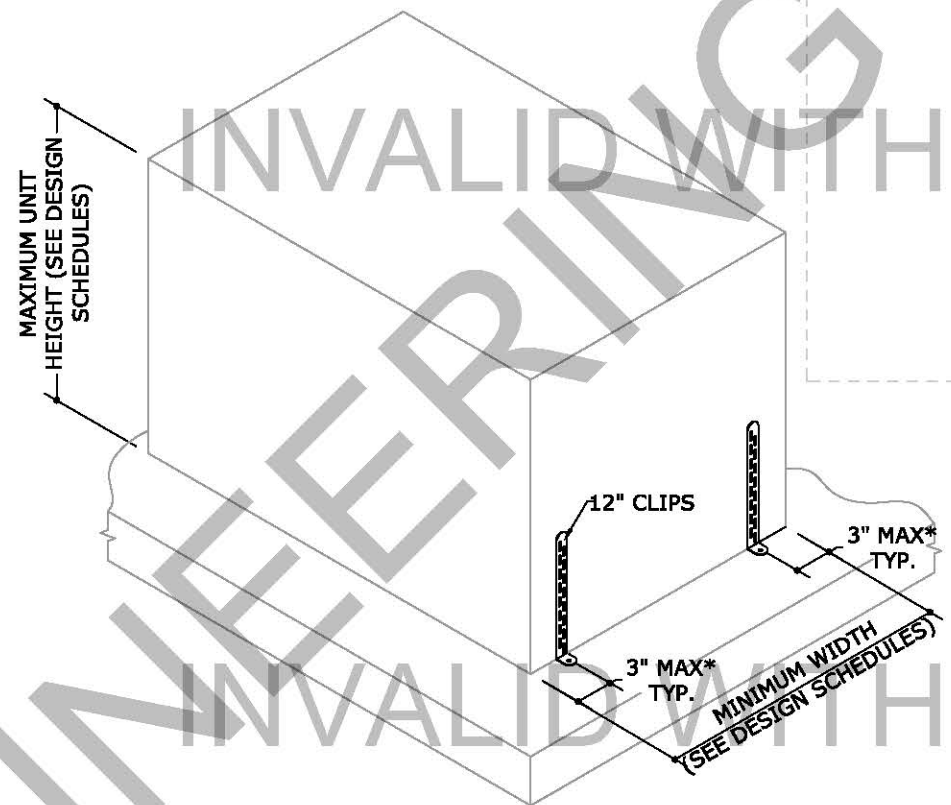
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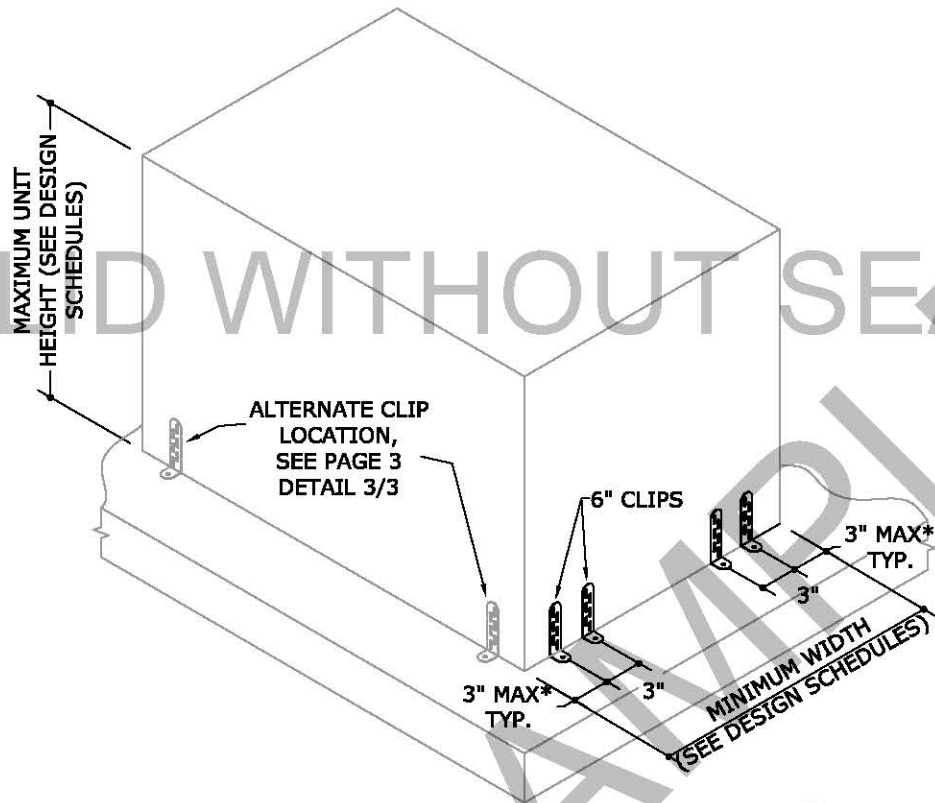


**C1 CONNECTION TYPE C1**  
1"X6" CLIP - UTILIZE (1) AT EACH CORNER FOR A TOTAL OF (4) PER UNIT  
NOTE: ALSO APPLICABLE FOR CLIP 4" LONG

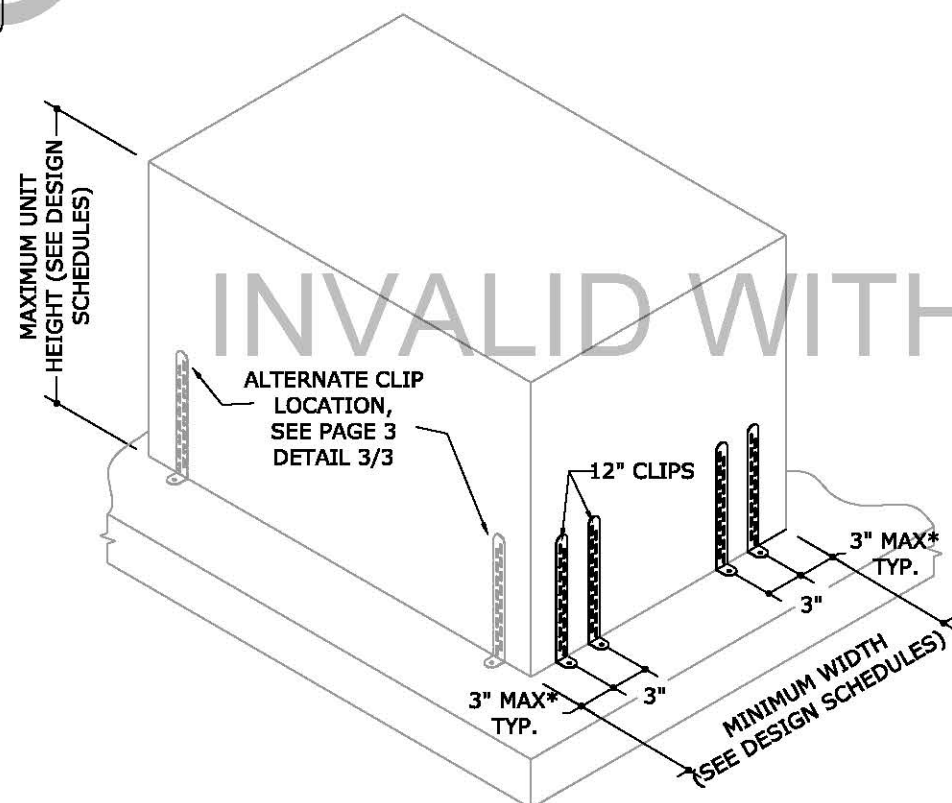
\*NOTE: SEE ANCHOR TO HOST SCHEDULE FOR ALL EDGE DISTANCE TO ANCHOR SPACING LIMITATIONS. SEE PAGE 4.



**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



**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



**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

STEEL TIE-DOWN CLIP