



# CITY OF COOPER CITY BUILDING DEPARTMENT

PHONE: 954-434-4300  
EXT. #230, #227, #279  
FAX: 954-680-1439

## SHUTTER DETAIL INFORMATION CHECKLIST & DIRECTIONS

### WHAT TO INCLUDE WITH THE SHUTTER DETAIL INFORMATION SHEET

- COMPLETED NOTARIZED PERMIT APPLICATION
- TWO (2) COPIES** OF THE HOMEOWNER ASSOCIATION AUTHORIZATION LETTER (If applicable)
- NOTICE OF COMMENCEMENT (**Certified Copy or Electronic Copy** (If Applicable))
- TWO (2) COPIES** OF THE PRODUCT APPROVAL AND A DESIGN PRESSURES CHART.  
ON THE PRODUCT APPROVAL, YOU WILL NEED TO HIGHLIGHT THE MAX. SPAN, GLASS SEPARATION, EDGE DISTANCE, FASTENER SPACING AND EACH MOUNTING OPTION TO BE USED. WRITE THE OPENING NUMBER NEXT TO EACH OPTION. WRITE THE OPENING NUMBERS THAT APPLY, NEXT TO THOSE OPTIONS.
- TWO (2) COPIES** FLOOR PLAN  
SHOW THE LOCATION OF EACH OPENING TO BE SHUTTERED. EACH OPENING SHOULD HAVE A NUMBER THAT CORRESPONDS TO THE SHUTTER DETAILED INFORMATION SHEET.
- TWO (2) COPIES** DESIGN CRITERIA – FBC 2010 ASCE7-10 FIG 6-3 FBC170 MPH (3 SEC GUST) EXP. C
- PLEASE IDENTIFY** ON LAYOUT SHEET WHICH OPENING SHALL BE DESIGNATED AS MEANS OF ESCAPE FBC R310.4

### DIRECTION ON FILLING OUT THE SHUTTER DETAIL INFORMATION SHEET

**COLUMN #1 (OPENING #)** THESE NUMBERS SHOULD CORRESPOND TO A FLOOR PLAN (You must provide)

**COLUMN #2 (SHUTTER TYPE)** PROVIDE THE TYPE OF SHUTTER TO BE USED FOR EACH OPENING, P-PANEL, A-ACCORDION, W-WROLL-UP, O-OTHER.

**COLUMN #3 (NOA OR SHUTTER PRODUCT APPROVAL #)** PROVIDE THE **PRODUCT APPROVAL** NUMBER. TYPICALLY FOUND ON **PAGE 1** OF THE **PRODUCT APPROVAL**. EXAMPLE (01-0131.02)

**COLUMN #4 (SHUTTER LENGTH / SPAN)** PROVIDE THE **TOTAL** LENGTH / SPAN OF THE SHUTTER ACROSS THE OPENING FROM FASTENER TO FASTENER, INCLUDING THE EDGE DISTANCES.

**COLUMN #5 (TRIBUTARY AREA OF OPENING)** THIS IS DETERMINED USING THE SPAN OF EACH OPENING- Example- If the opening measures 54" from fastener to fastener then:

$$H \text{ (sq)} / 3 = 54 \text{ (sq)} / 3$$
$$2916 / 3 = 972 \text{ sq.in./144}$$

**TRIBUTARY AREA = 6.75 sq.ft. (10 S.F. MAX)**



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- COLUMN #6** (*INTERIOR OR EXTERIOR ZONE CONDITION*) EXTERIOR OR ZONE 5 = 10% OF LEAST HORIZONTAL DIMENSION OR 0.4 TIMES EAVE HEIGHT, WHICHEVER IS SMALLER, BUT NOT LESS THAN HORIZONTAL DIMENSION OF 3ft TO THE OUTSIDE EDGE OF THE OPENING FROM ANY OUTSIDE CORNER. ALL OTHER OPENING WILL BE **INTERIOR OR ZONE 4**. **SHOW DISTANCE TO ALL CORNER WINDOWS.**
- COLUMN #7** (*FASTENER EDGE, DISTANCE*) FIND THIS IN THE FASTENER SCHEDULES IN THE **PRODUCT APPROVAL (NOA)**. IT IS THE DISTANCE FROM THE EDGE OF THE OPENING TO THE CENTER OF THE FASTENER TO BE USED TO INSTALL THE SHUTTER.
- COLUMN #8** (*OPENING DESIGN LOAD CHART*) SEE ASCE7-05 DESIGN CHART PROVIDED, OTHERWISE A **SIGNED AND SEALED CHART** IS REQUIRED. BASED ON ROOF HEIGHT, OPENING LOCATION AND THE TRIBUTARY AREA OF THE OPENINGS, FIND THE PRESSURES COLUMN THAT APPLIES TO YOUR PROJECT.
- COLUMN #9** (*GLASS DISTANCE SEPARATION*) FIND THIS IN THE **PRODUCT APPROVAL (NOA)**. IT IS THE DISTANCE FROM THE BACK OF THE SHUTTER TO THE GLASS.
- COLUMN #10** (*ANCHOR TYPE AND SPACING*) FIND THIS IN THE FASTENER SCHEDULES OF THE **PRODUCT APPROVAL (NOA)**. YOU NEED TO INDICATE THE TYPE OF FASTENER TO BE USED AND THE SPACING BETWEEN THE FASTENERS.
- NOTE: HIGHLIGHT ALL MOUNTING DETAILS ON THE PRODUCT APPROVAL & INDICATE THE NUMBER OF THE OPENING THAT APPLIES NEXT TO EACH DETAIL.**

# BROWARD COUNTY UNIFORM BUILDING PERMIT APPLICATION

Select One Trade:  Building     Electrical     Plumbing     Mechanical     Other \_\_\_\_\_

Application Number: \_\_\_\_\_

Application Date: \_\_\_\_\_

|                          |  |  |                  |                          |                                     |                        |
|--------------------------|--|--|------------------|--------------------------|-------------------------------------|------------------------|
| 1                        | Job Address: _____   |  | Unit: _____      |                          | City: _____                         |                        |
|                          | Tax Folio No.: _____   |  | Flood Zn: _____  |                          | BFE: _____                          |                        |
|                          | Floor Area: _____  |  | Job Value: _____ |                          |                                     |                        |
|                          | Building Use: _____  |  |                  | Construction Type: _____ |                                     | Occupancy Group: _____ |
|                          | Present Use: _____   |  |                  | Proposed Used: _____     |                                     |                        |
|                          | Description of Work:   |  |                  |                          |                                     |                        |
|                          | <input type="checkbox"/> New <input type="checkbox"/> Addition <input type="checkbox"/> Repair <input type="checkbox"/> Alteration <input type="checkbox"/> Demolition <input type="checkbox"/> Revision <input type="checkbox"/> Other: _____ |  |                  |                          |                                     |                        |
| Legal Description: _____ |  |  |                  |                          | <input type="checkbox"/> Attachment |                        |

|   |                        |  |              |             |              |                         |
|---|------------------------|--|--------------|-------------|--------------|-------------------------|
| 2 | Property Owner: _____  |  | Phone: _____ |             | Email: _____ |                         |
|   | Owner's Address: _____ |  |              | City: _____ |              | State: _____ Zip: _____ |

|   |                         |  |   |             |                       |                         |
|---|-------------------------|--|---|-------------|-----------------------|-------------------------|
| 3 | Contracting Co.: _____  |  | Phone: _____                            |             | Email: _____          |                         |
|   | Company Address: _____  |  |   | City: _____ |                       | State: _____ Zip: _____ |
|   | Qualifier's Name: _____ |  | Owner-Builder: <input type="checkbox"/> |             | License Number: _____ |                         |

|                                  |   |  |              |             |                         |                         |
|----------------------------------|---|--|--------------|-------------|-------------------------|-------------------------|
| 4                                | Architect/Engineer's Name: _____                              |  | Phone: _____ |             | Email: _____            |                         |
|                                  | Architect/Engineer's Address: _____                           |  |              | City: _____ |                         | State: _____ Zip: _____ |
|                                  | Bonding Company: _____  |  |              |             |                         |                         |
|                                  | Bonding Company Address: _____                                |  |              | City: _____ |                         | State: _____ Zip: _____ |
|                                  | Fee Simple Titleholder's name (if other than owner): _____    |  |              |             |                         |                         |
|                                  | Fee Simple Titleholder's Address (if other than owner): _____ |  |              | City: _____ |                         | State: _____ Zip: _____ |
|                                  | Mortgage Lender's Name: _____                                 |  |              |             |                         |                         |
| Mortgage Lender's Address: _____ |   |  | City: _____  |             | State: _____ Zip: _____ |                         |

Application is hereby made to obtain a permit to do the work and installations as indicated. I certify that no work or installation has commenced prior to the issuance of a permit and that all work will be performed to meet the standards of all laws regulating construction in this jurisdiction. I understand that a separate permit must be secured for ELECTRICAL WORK, PLUMBING, SIGNS, WELLS, POOLS, FURNACES, BOILERS, HEATERS, TANKS, and AIR CONDITIONERS, etc.

**OWNER'S AFFIDAVIT:** I certify that all the foregoing information is accurate and that all work will be done in compliance with all applicable laws regulating construction and zoning.

**WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOUR PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. A NOTICE OF COMMENCEMENT MUST BE RECORDED AND POSTED ON THE JOB SITE BEFORE THE FIRST INSPECTION. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR AN ATTORNEY BEFORE COMMENCING WORK OR RECORDING YOUR NOTICE OF COMMENCEMENT.**

X \_\_\_\_\_  
Signature of Property Owner or Agent

X \_\_\_\_\_  
Signature of Qualifier

STATE OF FLORIDA  
COUNTY OF BROWARD

STATE OF FLORIDA  
COUNTY OF BROWARD

Sworn to (or affirmed) and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ by \_\_\_\_\_

Sworn to (or affirmed) and subscribed before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ by \_\_\_\_\_

\_\_\_\_\_  
(Type / Print Property Owner or Agent Name)

\_\_\_\_\_  
(Type / Print Qualifier's Name)

\_\_\_\_\_  
NOTARY'S SIGNATURE as to Owner or Agent's Signature

\_\_\_\_\_  
NOTARY'S SIGNATURE as to Qualifier's Signature

Notary Name \_\_\_\_\_  
(Print, Type or Stamp Notary's Name)

Notary Name \_\_\_\_\_  
(Print, Type or Stamp Notary's Name)

Personally Known \_\_\_\_\_ or Produced Identification \_\_\_\_\_

Personally Known \_\_\_\_\_ or Produced Identification \_\_\_\_\_

Type of Identification Produced \_\_\_\_\_

Type of Identification Produced \_\_\_\_\_

APPROVED BY: \_\_\_\_\_ Permit Officer    Issue Date: \_\_\_\_\_ Code in Effect: \_\_\_\_\_

**A jurisdiction may use a supplemental page requesting additional information and citing other conditions, please inquire.**  
Note: If any development work as described in FS 380.04 Sec. 2 a-g is to be performed, a development permit must be obtained prior to the issuance of a building permit.

THE CITY OF



BROWARD COUNTY, FLORIDA

P.O. BOX 290910  
9090 Southwest 50<sup>th</sup> Place  
Cooper City, Florida 33329-0910  
(954) 434-4300 Ext#230 • Fax (954) 680-1439  
www.coopercityfl.org

PERMIT NUMBER:

PLAN REVIEW NUMBER:

| TYPE              | FEE | ADDTL FEES |
|-------------------|-----|------------|
| PERMIT            |     |            |
| EDUCATION         |     |            |
| COUNTY            |     |            |
| BCPSF             |     |            |
| TECH FEE          |     |            |
| BOND              |     |            |
| PARKS             |     |            |
| PUBLIC SAFETY     |     |            |
| PUBLIC BLDGS      |     |            |
| FIRE              |     |            |
| ADDTL PERMIT FEES |     |            |
| SUB TOTAL         |     |            |
| NOTARY FEE        |     |            |
| TOTAL             |     |            |
| INVOICE #         |     |            |
| RECEIPT #         |     |            |

| OFFICE USE ONLY |          |      |        |      |
|-----------------|----------|------|--------|------|
| DIVISION        | APPROVED | DATE | REJECT | DATE |
| STRUCTURAL      |          |      |        |      |
| ELECTRICAL      |          |      |        |      |
| PLUMBING        |          |      |        |      |
| MECHANICAL      |          |      |        |      |
| UTILITES/ENGIN  |          |      |        |      |
| FIRE            |          |      |        |      |
| ZONING          |          |      |        |      |

**NOTICE: IN ADDITION TO THE REQUIREMENTS OF THIS PERMIT, THERE MAY BE ADDITIONAL RESTRICTIONS APPLICABLE TO THIS PROPERTY THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THIS COUNTY AND THERE MAY BE ADDITIONAL PERMITS REQUIRED FROM OTHER GOVERNMENT ENTITIES SUCH AS WATER MANAGEMENT DISTRICTS, STATE AGENCIES OR FEDERAL AGENCIES.**

**THE ISSUANCE OF A BUILDING PERMIT DOES NOT GIVE YOU PERMISSION TO VIOLATE DEED RESTRICTION AND/OR HOMEOWNER'S REGULATIONS. PLEASE CHECK DEED RESTRICTIONS BEFORE COMMENCING ANY CONSTRUCTION**

**OWNER'S AFFIDAVIT: I CERTIFY THAT ALL FOREGOING INFORMATION IS ACCURATE AND THAT ALL WORK WILL BE DONE IN COMPLIANCE WITH ALL APPLICABLE LAWS REGULATING CONSTRUCTION AND ZONING. FURTHERMORE, I AUTHORIZE THE ABOVE NAMED CONTRACTOR TO DO THE WORK STATED.**

**NOTICE OF COMMENCEMENT, CLERK OF COURTS, BROWARD COUNTY GOVERNMENTAL CENTER  
RECORDING SECTION. ROOM 114. 115 S. ANDREWS AVENUE. FORT LAUDERDALE. FL 33302 PHONE: 954-357-7283**

URBAN PLANNING AND REDEVELOPMENT DEPARTMENT (D.P.E.P)  
WWW.BROWARD.ORG/DEVELOPMENT  
STATE OF FLORIDA DIVISION OF HOTELS AND RESTAURANT  
PHONE: 954-956-5692

CITY OF COOPER CITY, FLORIDA • DEVELOPMENT SERVICES • BUILDING DIVISION  
P.O. BOX 290910  
9090 SOUTHWEST 50<sup>th</sup> PLACE  
COOPER CITY, FLORIDA 33329-0910  
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BUILDING DEPARTMENT**

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**SHUTTER DETAIL INFORMATION  
BASED ON ASCE 7-10 FIG 6-3 170 MPH WIND LOAD EXPOSURE C**

| OPENING NUMBER | SHUTTER TYPE P/A/W | SHUTTER PRODUCT APP. # | SHUTTER LENGTH/SPAN=(h) | TRIBUTARY AREA =10 S.F. | ZONE LOCATION *CORNER OR INTERIOR | FASTENER EDGE DISTANCE (NOA) | OPENING DESIGN WIND LOAD PER CHART | GLASS DISTANCE SEPERATION (NOA) | INFORMATION FROM PRODUCT APPROVALS |        |      |             | BUILD OUT TRACK |
|----------------|--------------------|------------------------|-------------------------|-------------------------|-----------------------------------|------------------------------|------------------------------------|---------------------------------|------------------------------------|--------|------|-------------|-----------------|
|                |                    |                        |                         |                         |                                   |                              |                                    |                                 | ANCHOR TYPE AND SPACING            |        |      |             |                 |
|                |                    |                        |                         |                         |                                   |                              |                                    |                                 | TOP                                | BOTTOM | SIDE | FLOOR MOUNT |                 |
| 1              |                    |                        |                         |                         |                                   |                              |                                    |                                 |                                    |        |      |             |                 |
| 2              |                    |                        |                         |                         |                                   |                              |                                    |                                 |                                    |        |      |             |                 |
| 3              |                    |                        |                         |                         |                                   |                              |                                    |                                 |                                    |        |      |             |                 |
| 4              |                    |                        |                         |                         |                                   |                              |                                    |                                 |                                    |        |      |             |                 |
| 5              |                    |                        |                         |                         |                                   |                              |                                    |                                 |                                    |        |      |             |                 |
| 6              |                    |                        |                         |                         |                                   |                              |                                    |                                 |                                    |        |      |             |                 |
| 7              |                    |                        |                         |                         |                                   |                              |                                    |                                 |                                    |        |      |             |                 |
| 8              |                    |                        |                         |                         |                                   |                              |                                    |                                 |                                    |        |      |             |                 |
| 9              |                    |                        |                         |                         |                                   |                              |                                    |                                 |                                    |        |      |             |                 |
| 10             |                    |                        |                         |                         |                                   |                              |                                    |                                 |                                    |        |      |             |                 |
| 11             |                    |                        |                         |                         |                                   |                              |                                    |                                 |                                    |        |      |             |                 |
| 12             |                    |                        |                         |                         |                                   |                              |                                    |                                 |                                    |        |      |             |                 |
| 13             |                    |                        |                         |                         |                                   |                              |                                    |                                 |                                    |        |      |             |                 |
| 14             |                    |                        |                         |                         |                                   |                              |                                    |                                 |                                    |        |      |             |                 |
| 15             |                    |                        |                         |                         |                                   |                              |                                    |                                 |                                    |        |      |             |                 |

**THE INFORMATION CONTAINED HEREIN WILL BE USED TO CONDUCT INSPECTIONS.**

**WALL CONSTRUCTION:** 1<sup>st</sup> FLOOR  MASONRY  WOOD 2<sup>nd</sup> FLOOR  MASONRY  WOOD

\*Corner Zone=40% of roof eave height- **BUT NOT LESS THAN 4%** of Least horizontal dimension (Never less than 3 ft.)  
Shutter type-P=Panel A= Accordion W= Roll up Tributary Area= Sq.Ft. of opening

### Broward County Fenestration Voluntary Wind Load Chart\*

Per ASCE 7-10 Method 1, Part 1 and FBC 5th Edition (2014) for Retrofitting in Accordance with Formal Interpretation #..

For Detached One-and Two family dwellings and Multiple Single-Family Dwellings ( Townhouses ) with Mean Roof Height ≤ 30 feet

Wind 170 mph (3-second gust) / Exposure C\*\* / Kd=0.85 / Kzt= 1.0

\* Using Allowable Stress Design methodology (P=0.6w) / \*\* Exposure shall be determined according to ASCE 7-10 Section 26.7.3 (Exposure Categories)

| Effective Wind Area (ft <sup>2</sup> ) | Location:<br>Gable or Hip Roof    | Mean Roof Height of 15 feet |       |      |       |      |       | Mean Roof Height of 20 feet |       |      |       |      |        | Mean Roof Height of 25 feet |       |      |       |      |        | Mean Roof Height of 30 feet |       |      |       |      |        |
|--|-----------------------------------|-----------------------------|-------|------|-------|------|-------|-----------------------------|-------|------|-------|------|--------|-----------------------------|-------|------|-------|------|--------|-----------------------------|-------|------|-------|------|--------|
|  |                                   | Zone                        |       |      |       |      |       | Zone                        |       |      |       |      |        | Zone                        |       |      |       |      |        | Zone                        |       |      |       |      |        |
|  |                                   | 1                           |       | 2    |       | 3    |       | 1                           |       | 2    |       | 3    |        | 1                           |       | 2    |       | 3    |        | 1                           |       | 2    |       | 3    |        |
|  |                                   | +                           | -     | +    | -     | +    | -     | +                           | -     | +    | -     | +    | -      | +                           | -     | +    | -     | +    | -      | +                           | -     | +    | -     | +    | -      |
| 10                                     | Gable/Hip Roof<br>θ ≤ 7°          | 16.0                        | -37.8 | 16.0 | -63.4 | 16.0 | -95.4 | 16.3                        | -40.2 | 16.3 | -67.4 | 16.3 | -101.4 | 17.1                        | -42.1 | 17.1 | -70.6 | 17.1 | -106.3 | 17.8                        | -43.7 | 17.8 | -73.4 | 17.8 | -110.4 |
| 20                                     |                                   | 16.0                        | -36.8 | 16.0 | -56.7 | 16.0 | -79.1 | 16.0                        | -39.1 | 16.0 | -60.2 | 16.0 | -84.0  | 16.0                        | -41.0 | 16.0 | -63.1 | 16.0 | -88.0  | 16.7                        | -42.6 | 16.7 | -65.6 | 16.7 | -91.5  |
| 50                                     |                                   | 16.0                        | -35.6 | 16.0 | -47.7 | 16.0 | -57.4 | 16.0                        | -37.8 | 16.0 | -50.7 | 16.0 | -61.0  | 16.0                        | -39.6 | 16.0 | -53.2 | 16.0 | -63.9  | 16.0                        | -41.1 | 16.0 | -55.2 | 16.0 | -66.4  |
| 100                                    |                                   | 16.0                        | -34.6 | 16.0 | -41.0 | 16.0 | -41.0 | 16.0                        | -36.8 | 16.0 | -43.6 | 16.0 | -43.6  | 16.0                        | -38.5 | 16.0 | -45.7 | 16.0 | -45.7  | 16.0                        | -40.0 | 16.0 | -47.4 | 16.0 | -47.4  |
| 10                                     | Gable/Hip Roof***<br>7° < θ ≤ 27° | 21.8                        | -34.6 | 21.8 | -60.2 | 21.8 | -89.0 | 23.1                        | -36.8 | 23.1 | -64.0 | 23.1 | -94.6  | 24.3                        | -38.5 | 24.3 | -67.1 | 24.3 | -99.2  | 25.2                        | -40.0 | 25.2 | -69.7 | 25.2 | -103.0 |
| 20                                     |                                   | 19.9                        | -33.6 | 19.9 | -55.4 | 19.9 | -83.3 | 21.1                        | -35.7 | 21.1 | -58.9 | 21.1 | -88.5  | 22.1                        | -37.4 | 22.1 | -61.7 | 22.1 | -92.7  | 23.0                        | -38.9 | 23.0 | -64.1 | 23.0 | -96.3  |
| 50                                     |                                   | 17.3                        | -32.4 | 17.3 | -49.0 | 17.3 | -75.6 | 18.4                        | -34.4 | 18.4 | -52.1 | 18.4 | -80.3  | 19.3                        | -36.0 | 19.3 | -54.6 | 19.3 | -84.2  | 20.0                        | -37.4 | 20.0 | -56.7 | 20.0 | -87.5  |
| 100                                    |                                   | 16.0                        | -31.4 | 16.0 | -44.2 | 16.0 | -69.8 | 16.3                        | -33.3 | 16.3 | -47.0 | 16.3 | -74.2  | 17.1                        | -35.0 | 17.1 | -49.2 | 17.1 | -77.8  | 17.8                        | -36.3 | 17.8 | -51.1 | 17.8 | -80.8  |
| 10                                     | Gable Roof<br>27° < θ ≤ 45°       | 34.6                        | -37.8 | 34.6 | -44.2 | 34.6 | -44.2 | 36.8                        | -40.2 | 36.8 | -47.0 | 36.8 | -47.0  | 38.5                        | -42.1 | 38.5 | -49.2 | 38.5 | -49.2  | 40.0                        | -43.7 | 40.0 | -51.1 | 40.0 | -51.1  |
| 20                                     |                                   | 33.6                        | -35.9 | 33.6 | -42.3 | 33.6 | -42.3 | 35.7                        | -38.1 | 35.7 | -44.9 | 35.7 | -44.9  | 37.4                        | -39.9 | 37.4 | -47.1 | 37.4 | -47.1  | 38.9                        | -41.5 | 38.9 | -48.9 | 38.9 | -48.9  |
| 50                                     |                                   | 32.4                        | -33.3 | 32.4 | -39.7 | 32.4 | -39.7 | 34.4                        | -35.4 | 34.4 | -42.2 | 34.4 | -42.2  | 36.0                        | -37.1 | 36.0 | -44.2 | 36.0 | -44.2  | 37.4                        | -38.6 | 37.4 | -46.0 | 37.4 | -46.0  |
| 100                                    |                                   | 31.4                        | -31.4 | 31.4 | -37.8 | 31.4 | -37.8 | 33.3                        | -33.3 | 33.3 | -40.2 | 33.3 | -40.2  | 35.0                        | -35.0 | 35.0 | -42.1 | 35.0 | -42.1  | 36.3                        | -36.3 | 36.3 | -43.7 | 36.3 | -43.7  |

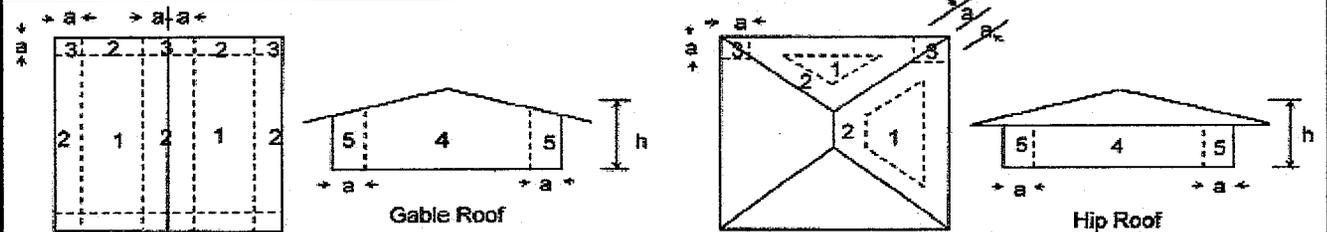
\*\*\* For Hip Roofs with angle > 7 degrees (1.5:12) and ≤ 25 degrees (5.5:12), Zone 3 shall be treated as Zone 2 (Figure 30.4-2B, Note 7, p. 337)

| Effective Wind Area (ft <sup>2</sup> ) | Location | Mean Roof Height of 15 feet |       |      |       | Mean Roof Height of 20 feet |       |      |       | Mean Roof Height of 25 feet |       |      |       | Mean Roof Height of 30 feet |       |      |       |
|--|----------|-----------------------------|-------|------|-------|-----------------------------|-------|------|-------|-----------------------------|-------|------|-------|-----------------------------|-------|------|-------|
|  |          | Zone                        |       |      |       | Zone                        |       |      |       | Zone                        |       |      |       | Zone                        |       |      |       |
|  |          | 4                           |       | 5    |       | 4                           |       | 5    |       | 4                           |       | 5    |       | 4                           |       | 5    |       |
|  |          | +                           | -     | +    | -     | +                           | -     | +    | -     | +                           | -     | +    | -     | +                           | -     | +    | -     |
| 10                                     | Wall     | 37.8                        | -41.0 | 37.8 | -50.6 | 40.2                        | -43.6 | 40.2 | -53.8 | 42.1                        | -45.7 | 42.1 | -56.4 | 43.7                        | -47.4 | 43.7 | -58.6 |
| 20                                     |          | 36.1                        | -39.3 | 36.1 | -47.2 | 38.3                        | -41.7 | 38.3 | -50.1 | 40.2                        | -43.8 | 40.2 | -52.6 | 41.8                        | -45.5 | 41.8 | -54.6 |
| 50                                     |          | 33.8                        | -37.0 | 33.8 | -42.7 | 36.0                        | -39.4 | 36.0 | -45.4 | 37.7                        | -41.3 | 37.7 | -47.5 | 39.2                        | -42.9 | 39.2 | -49.4 |
| 100                                    |          | 32.1                        | -35.3 | 32.1 | -39.3 | 34.1                        | -37.5 | 34.1 | -41.7 | 35.8                        | -39.4 | 35.8 | -43.8 | 37.2                        | -40.9 | 37.2 | -45.5 |
| 500                                    |          | 28.2                        | -31.4 | 28.2 | -31.4 | 29.9                        | -33.3 | 29.9 | -33.3 | 31.4                        | -35.0 | 31.4 | -35.0 | 32.6                        | -36.3 | 32.6 | -36.3 |

#### Garage Door Wind Loads

for a Building with 30-foot Mean Roof Height  
Exposure C  
Tables 1609.7(1) & (2), and Section 1609.3.1

| Effective Wind Area |        | Roof Angle    | Wind Load |       |
|---------------------|--------|---------------|-----------|-------|
| Width               | Height |               | +         | -     |
| 8                   | 8      | 0- 10 degrees | 35.2      | -39.8 |
| 10                  | 10     |               | 34.1      | -38.2 |
| 14                  | 14     |               | 32.3      | -36.1 |
| 9                   | 7      | > 10 degrees  | 38.4      | -43.4 |
| 16                  | 7      |               | 36.8      | -41.0 |



For Effective Wind Areas between those given, values may be interpolated. Otherwise use the value associated with the lower Effective Wind Area.

End Zone (a) shall be the smaller of 10% of Least Hor. Dist. or 40% of Mean Roof Height, but not less than 4% of Least Hor. Dist. or 3 ft.

Identify the zone per the figure or information by others. Any questionable zone is to be considered the more critical zone.

Design is based on the 3-second gust (wind velocity) for Risk Category II (general residential & commercial construction) per FBC 1620.2 Broward. These tables not for use with essential facilities or assembly occupancies.