

SHUTTERS
Impact Protection Systems

MAXIMUM PLAN SIZE 24" X 36"
NO HIGHLIGHTING

Town of Jupiter
Registration No: _____

DEFINITION:

Impact protection systems; such as panel shutters, rolling shutters, grid panels, etc. are designed to meet the wind loads and impact resistant standards as specified in Chapter 16, Florida Building Code 2010. Their purpose is to protect wall openings from high winds and windborne debris.

**Applicant must provide a completed application and the following items:
(one copy if items are 11" x 17" or smaller and two copies if larger)**

Please indicate items submitted with a checkmark (✓)

- | | | |
|----|---|-------|
| 1. | Permit application (check appropriate trade) completed and signed | _____ |
| 2. | Copy of complete contract signed by both parties | _____ |
| 3. | Product approvals: | |
| | a. Miami-Dade product approval report with referenced engineered plans | _____ |
| | b. State of Florida/DCA approval with referenced engineered drawing | _____ |
| | c. Engineer's signed/sealed plans and calculations for custom design | _____ |
| 4. | Foot print with schedule of openings identifying shutter locations and sizes; as well as means of egress | _____ |
| 5. | Identify details and options on engineered plans which apply to the project including anchor details, design loads, building height spans and fasteners | _____ |
| 6. | Identify details of support structure construction at window and door openings | _____ |
| 7. | An electrical permit will be required for motor-driven shutters | _____ |

NOTE:

Residential/Commercial buildings under construction do not require separate permits for impact protection systems. Submit as a revision to the building permit.

For more information, see Section 1609 FBC 2010 and Section 1609 "Wind Loads" in 2010 FBC-R301.2.

**IF RESIDENT LIVES IN A DEED RESTRICTED COMMUNITY,
OBTAIN HOMEOWNERS ASSOCIATION APPROVAL PRIOR TO COMMENCING WORK**

Building height Zone 4										
Area	15	20	25	30	35	40	45	50	55	60
10 pos				31.3	32.9	34.1	35.1	36.3	37.3	38.2
neg				34	35.7	37	38	39.4	40.4	41.5
20 pos				30	31.5	32.7	33.6	34.8	35.7	36.6
neg				32.6	34.2	35.5	36.5	37.8	38.8	39.7
50 pos				29.2	30.7	31.8	32.7	33.9	34.8	35.6
neg				30.7	32.2	33.4	34.3	35.6	36.5	37.4
100 pos				26.6	28	29	29.8	30.9	31.7	32.5
neg				29.3	30.7	31.9	32.8	34	34.8	35.7
500 pos				23.3	24.5	25.4	26.1	27.1	27.8	28.5
neg				26	27.3	28.3	29.1	30.1	30.9	31.7

Building height End zone 5										
	15	20	25	30	35	40	45	50	55	60
10 pos.				31.3	32.9	34.1	35.1	36.3	37.3	38.2
neg				41.9	44	45.7	47	48.7	49.9	51.2
20 pos				30	31.5	32.7	33.6	34.8	35.7	36.6
neg				39.1	41.1	42.6	43.8	45.4	46.6	47.7
50 pos				29.2	30.7	31.8	32.7	33.9	34.8	35.6
neg				35.3	37.1	38.5	39.6	41	42.1	43.1
100 pos				26.6	28	29	29.8	30.9	31.7	32.5
neg				32.6	34.2	35.5	36.5	37.8	38.8	39.7
500 pos				23.3	24.5	25.4	26.1	27.1	27.8	28.5
neg				26	27.3	28.3	29.1	30.1	30.8	31.7

Town of Jupiter

Wind design Pressure Chart for structures subject to Florida Residential Code 170 mph exposure B

Wall component and Cladding pressures from Table R302.2(2) modified by adjustment factors from R301.1(3). Converted to Vasd according to R302.1.2.1.1

Building height Zone 4										
Area	15	20	25	30	35	40	45	50	55	60
10 pos	37.9	40.4	42.3	43.8	45.4	46.7	47.9	48.9	49.8	50.7
neg	41.1	43.8	45.9	47.5	49.2	50.6	52	53	54	55
20 pos	36.3	38.7	40.5	42	43.5	44.7	45.9	46.8	47.7	48.6
neg	39.4	42	44	45.6	47.2	48.5	49.8	50.8	51.8	52.8
50 pos	35.4	37.7	39.4	40.9	42.4	43.5	44.7	45.6	46.5	47.3
neg	37.1	39.6	41.4	42.9	44.5	45.7	46.9	47.8	48.7	49.7
100 pos	32.2	34.4	36	37.3	38.6	39.7	40.8	41.6	42.4	43.2
neg	35.4	37.8	39.5	41	42.5	43.6	44.8	45.7	46.6	47.4
500 pos	28.2	30.1	31.5	32.7	33.8	34.8	35.7	36.4	37.1	37.8
neg	31.4	33.5	35.1	36.4	37.7	38.7	40.5	39.7	41.3	42.1

Building height End zone 5										
	15	20	25	30	35	40	45	50	55	60
10 pos.	37.9	40.4	42.3	43.8	45.4	46.7	47.9	48.9	49.8	50.7
neg	50.7	54.1	56.6	58.7	60.8	62.5	64.2	65.4	66.7	67.9
20 pos	36.3	38.7	40.5	42	43.5	44.7	45.9	46.8	47.7	48.6
neg	47.3	50.5	52.8	54.8	56.7	58.3	59.8	61	62.2	63.4
50 pos	35.4	37.7	39.4	40.9	42.4	43.5	44.7	45.6	46.5	47.3
neg	42.8	45.6	47.7	49.5	51.2	52.7	54.1	55.1	56.2	57.3
100 pos	32.2	34.4	36	37.3	38.6	39.7	40.8	41.6	42.4	43.2
neg	39.4	42	44	45.6	47.2	48.5	49.8	50.8	51.8	52.8
500 pos	28.2	30.1	31.5	32.7	33.8	34.8	35.7	36.4	37.1	37.8
neg	31.4	33.5	35.1	36.4	37.7	38.7	39.7	40.5	41.3	42.1

Town of Jupiter

Wind design Pressure Chart for structures subject to Florida Residential Code 170 mph exposure C

Wall component and Cladding pressures from Table R302.2(2) modified by adjustment factors from R301.1(3). Converted to Vasd according to R302.1.2.1.1

Building height Zone 4										
Area	15	20	25	30	35	40	45	50	55	60
10 pos	46	48.5	50.4	52	53.2	54.5	55.7	56.7	57.6	58.6
neg	49.9	52.6	54.7	56.4	57.7	59.1	60.4	61.5	62.5	63.5
20 pos	44.1	46.5	48.3	49.8	51	52.2	53.4	54.3	55.2	56.1
neg	47.9	50.5	52.5	54.1	55.4	56.7	58	59	60	60.9
50 pos	43	45.3	47	48.5	49.7	50.8	52	52.9	53.8	54.6
neg	45.1	47.5	49.4	50.9	52.1	53.3	54.6	55.5	56.4	57.3
100 pos	39.2	41.3	42.9	44.2	45.3	46.4	47.4	48.2	49	49.8
neg	43	45.4	47.1	48.6	49.8	50.9	52.1	53	53.9	54.8
500 pos	34.3	36.2	37.6	38.7	39.7	40.6	41.5	42.2	42.9	43.6
neg	38.2	40.3	41.8	43.1	44.2	45.2	46.2	47	47.8	48.6

Building height End zone 5										
	15	20	25	30	35	40	45	50	55	60
10 pos.	46	48.5	50.4	52	53.2	54.5	55.7	56.7	57.6	58.6
neg	61.7	65	67.5	69.6	71.3	73	74.7	75.9	77.2	78.4
20 pos	44.1	46.5	48.3	49.8	51	52.2	53.4	54.3	55.2	56.1
neg	57.5	60.6	63	64.9	66.5	68.1	69.6	70.8	72	73.2
50 pos	43	45.3	47	48.5	49.7	50.8	52	52.9	53.8	54.6
neg	51.9	54.8	56.9	58.7	60.1	61.5	62.9	64	65	66
100 pos	39.2	41.3	42.9	44.2	45.3	46.4	47.4	48.2	49	49.8
neg	47.9	50.5	52.5	54.1	55.4	56.7	58	59	59.9	60.9
500 pos	34.3	36.2	37.6	38.7	39.7	40.6	41.5	42.2	42.9	43.6
neg	38.2	40.3	41.8	43.1	44.2	45.2	46.2	47	47.8	48.6

Town of Jupiter

Wind design Pressure Chart for structures subject to Florida Residential Code 170 mph exposure D

Wall component and Cladding pressures from Table R302.2(2) modified by adjustment factors from R301.1(3). Converted to Vasd according to R302.1.2.1.1