SUBJECT: PRODUCT APPROVAL PER RULE 61G20-3

AUTHORITY: Chapter 553.8425 Florida Statute; Local Product Approval - Rule 61G20-3 of the Florida Administrative Code; Building Division Construction Permit Fee Ordinance, as amended

PURPOSE: To detail local procedures for products without statewide approval, to issue Local Product Approvals on those products designated in Rule 61G20-3 following procedures and forms therein.

To establish local procedures for confirming limitations of use for products with statewide approval, in the applicable Wind Zones of Palm Beach County.

To provide a source of information on code compliant building products, for the eight product categories covered by 61G20-3.

To provide via Attachments:
(A) "Project Specific Approval" Application (Form #101)
(B) Palm Beach County basic wind speed maps showing designated Wind Zones in Palm Beach County.
(C) PBC Product Approval - Frequently Asked Questions

DEFINITIONS AND PROGRAM CRITERIA:

BASIC TERMS: SEE RULE 61G20-3 DEFINITIONS

Design Wind Speed: The wind speed to be used for design purposes based on the occupancy risk category and location of the structure as determined from the appropriate Ultimate Design Wind Speed maps in Chapter 16, Florida Building Code.

(Note: All of Palm Beach County is classified a "wind-borne debris region").
Risk Category: A categorization of buildings and other structures for determination of flood and wind loads based on the risk associated with unacceptable performance as determined per Chapter 16, Florida Building Code.

Exposure Category shall be determined per Chapter 16, Florida Building Code. Design Wind Speed of the site location, risk category, exposure category, building mean roof height, product proximity to the building corner, and effective wind area shall be considered in determining the Minimum Design Pressure which shall be met by the Limitations of Use of the product.

PROCEDURE:

1. PRODUCT USE WITH STATEWIDE APPROVAL:

   a. Permit application submittals shall include complete product identity including approval number. The product Limitations of Use shall be evaluated by a Plans Examiner to determine suitability of product performance in the site Wind Zone under Design Pressure loadings.

   b. Per Palm Beach County Amendments to the Florida Building Code, the Designer of Record shall review all Product Approvals and approve for use, prior to submittal.

   c. If the Product Approval is being submitted in lieu of detailed drawings, all applicable design and installation criteria shall be clearly identified in the Product Approval and keyed to the plan.

   d. A Revision shall be required to add a missing product approval, or to change a product selection, once the initial permit application is processed.

2. PROJECT SPECIFIC APPROVAL FOR USE OF PRODUCT WITHOUT STATEWIDE APPROVAL:

   a. Application submittal shall follow FS 553.8425 per Rule 61G20-3.

   b. Fees shall be determined per the current fee schedule, as amended.

   c. Project Specific Submittals shall include, but not be limited to:

      i. Application for Project Specific Approval form.

      ii. Engineered structural details for the product indicating all components and site specific conditions.
iii. Test Reports (if applicable) from a commission approved testing laboratory (per Rule 61G20-3), the Florida Building Commission shall make current lists of approved agencies available on its website, the Building Codes Information System, www.floridabuilding.org).

iv. Comparative and/or Rational Analysis developed and signed and sealed by a Florida professional engineer or Florida registered architect, and demonstrating that the product complies with the Code.

v. Certification of Compliance from the engineer or architect stating that based on the fabrication details, the installation proposed, the supporting documents, and subsequent calculations, the use of the product will comply with the structural requirements of the (current edition in effect) Florida Building Code.

vi. If there is a Designer of Record, he/she must also provide a similar certification letter stating they have reviewed the engineering and calculations and that the installation proposed will meet their design requirements and is in compliance with the FBC.

d. Final 'approval for use' shall be supplied in writing by PBC.

3. FIELD APPROVAL:

a. All Approved products shall be identifiable on job sites and installed per manufacturer instructions for inspector's examination.

b. In all cases, copies of manufacturers' installation instructions are required for inspectors in the field. The inspector must be able to clearly match the product identity and installation instructions with the product installed.

**Supersession History**

1. PPM# PBO-118, issued 09/30/03
2. PPM# PBO-118, issued 10/01/03
3. PPM# PBO-118, issued 04/30/12

Director

PPM# PBO-118/Page 3 of 3
APPLICATION FOR PROJECT SPECIFIC PRODUCT APPROVAL

DATE: ______________________

REVISION NUMBER: ___________ PERMIT/PR NUMBER: ______________________

NAME (COMPANY/CONTRACTOR): ____________________________________________

CONTACT PERSON: __________________________________________________________

CONTACT PHONE NUMBER: __________________________________________________

CONTACT FAX NUMBER: _____________________________________________________

CONTACT EMAIL ADDRESS: __________________________________________________

PRODUCT DESCRIPTION: _____________________________________________________

JOB SITE ADDRESS: _________________________________________________________

JOB SITE-SPECIFIC DESIGN CRITERIA:
1. Wind Zone of job site: ______________________
2. Exposure Category of job site: ______________________
3. "Components & Cladding Building Envelope Zone" of proposed installation: __________
4. Design Wind Load Pressures for product location and size: ____/____
5. Maximum Wind Load Capacity of proposed product: ____/____

REQUIRED ADDITIONAL SUBMITTAL DOCUMENTS (per FSS 553.8425):

1. Certification of Code Compliance from FL Professional Engineer or FL Registered Architect (based on the edition of the Florida Building Code currently adopted by Palm Beach County).
   a. The Certification shall be based on 'testing' or 'comparative analysis' or 'rational analysis', or any combination thereof developed and signed/sealed by the Design Professional on his/her official letterhead.
   b. The Certification shall clearly specify the Specific Job Site Address/ Location.
   c. The Certification shall clearly address the Fabrication and Installation of the product.
2. Test Reports and/or Structural Calculations used to substantiate Code Compliance.
3. Professional drawings and/or engineered structural details.
   a. Job site plan and/or building layout showing proposed installation locations.
   b. Professionally designed product Fabrication details and specifications.
   c. Professionally designed product Installation details and specifications.
4. If there is a Designer of Record, per Palm Beach County Amendments to the Florida Building Code, he/she must provide a similar certification letter stating that they have reviewed the engineering and calculations, and that the proposed installation will meet their design requirements, and is in compliance with the Florida Building Code.
5. If applicable, provide copies of any FL State Product Approvals or Miami-Dade NOA's used as supporting evidence of Code compliance.

FEES shall be assessed in compliance with the current Palm Beach County "Construction Permit Fee Schedule" PPM#-PBO-118-Form 101/Page 1 of 1

PBO-118-Revised PPM and Form 04/30/12
U:/Building Administration\badmin1\PPM Revisions – Florida Building Code\PPM's Under 2010 FBC\PBO-118
BASIC WIND SPEED. The basic wind speed in miles per hour, for the development of wind loads, shall be determined from Figures 1609 A, B & C. The exact location of wind speed lines shall be established by local ordinance using recognized physical landmarks such as roads, canals, rivers and lake shores whenever possible. Because of the many wind speed lines of the multiple Risk Categories, there are not appropriate physical landmarks to provide an accurate and orderly reflection of these boundaries. To determine the applicable wind speed of a particular parcel, Palm Beach County has developed separate Geographic Information Systems (GIS) tools for each of the Risk Categories, available on the Building Division website at http://www.pbcgov.com/pzb/Building/Windspeed/index.htm.

WIND-BORNE DEBRIS REGION. Areas within hurricane-prone regions located:
1. Within 1 mile (1.61 km) of the coastal mean high water line where the ultimate design wind speed \(v_{ult} \geq 130\) mph (48 m/s) or greater; or
2. In areas where the ultimate design wind speed \(v_{ult} \geq 140\) mph (53 m/s) or greater. Linear interpolation between contours may not be utilized in the determination of the Wind Borne Debris Region. All of Unincorporated Palm Beach County is within the Wind Borne Debris Region.

For Risk Category II buildings and structures and occupancy category III buildings and structures, except health care facilities, the windborne debris region shall be based on Figure 1609A. For occupancy category IV buildings and structures and occupancy III health care facilities, the windborne debris region shall be based on Figure 1609B.

Notes:
1. Values are nominal design 3-second gust winds speeds (in miles per hour (mph)) at 33 ft (10m) above ground for Exposure C category.
2. Linear interpolation between contours is permitted.
3. Islands and coastal areas outside the last contour shall use the last wind speed contour of coastal area.
4. Mountainous terrain, gorges, ocean shorelines, and special wind regions shall be examined for unusual wind conditions.
5. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (Annual Exceedance Probability = 0.00143, MRE = 700 years).
BASIC WIND SPEED. The basic wind speed in miles per hour, for the development of wind loads, shall be determined from Figures 1609 A, B & C. The exact location of wind speed lines shall be established by local ordinance using recognized physical landmarks such as roads, canals, rivers and lake shores wherever possible. Because of the many wind speed lines of the multiple Risk Categories, there are not appropriate physical landmarks to provide an accurate and orderly reflection of these boundaries. To determine the applicable wind speed of a particular parcel, Palm Beach County has developed separate Geographic Information Systems (GIS) tools for each of the Risk Categories, available on the Building Division website at http://www.pbcgov.com/pzb/Building/Windspeed/index.htm.

WIND-BORNE DEBRIS REGION. Areas within hurricane-prone regions located:
1. Within 1 mile (1.61 km) of the coastal mean high water line where the ultimate design wind speed $V_{ult}$ is 130 mph (48 m/s) or greater; or
2. In areas where the ultimate design wind speed $V_{ult}$ is 140 mph (53 m/s) or greater. Linear interpolation between contours may not be utilized in the determination of the Windborne Debris Region. All of Unincorporated Palm Beach County is within the Windborne Debris Region.

For Risk Category II buildings and structures and occupancy category III buildings and structures, except health care facilities, the windborne debris region shall be based on Figure 1609A. For occupancy category IV buildings and structures and occupancy category III health care facilities, the windborne debris region shall be based on Figure 1609B.

Notes:
1. Values are nominal design 3-second gust wind speeds in miles per hour (mph) at 33 ft (10m) above ground for Exposure C category.
2. Linear interpolation between contours is permitted.
3. Islands and coastal areas outside the last contour shall use the last wind speed contour of coastal area.
4. Mountainous terrain, gorges, ocean promontories, and special wind regions shall be examined for unusual wind conditions.
5. Wind speeds correspond to approximately a 3% probability of exceedance in 50 years (Annual Exceedance Probability = 0.000588, MRI = 1700 years).
BASIC WIND SPEED. The basic wind speed in miles per hour, for the development of wind loads, shall be determined from Figures 1609 A, B & C. The exact location of wind speed lines shall be established by local ordinance using recognized physical landmarks such as roads, canals, rivers and lake shores whenever possible. Because of the many wind speed lines of the multiple Risk Categories, there are not appropriate physical landmarks to provide an accurate and orderly reflection of these boundaries. To determine the applicable wind speed of a particular parcel, Palm Beach County has developed separate Geographic Information Systems (GIS) tools for each of the Risk Categories, available on the Building Division website at http://www.pbcgov.com/pzbbuilding/Buildingspeed/index.htm.

WIND-BORNE DEBRIS REGION. Areas within hurricane-prone regions located:
1. Within 1 mile (1.61 km) of the coastal mean high water line where the ultimate design wind speed Vult is 130 mph (48 m/s) or greater; or
2. In areas where the ultimate design wind speed Vult is 140 mph (53 m/s) or greater. Linear interpolation between contours may not be utilized in the determination of the Windborne Debris Region. All of Unincorporated Palm Beach County is within the Windborne Debris Region.

For Risk Category II buildings and structures and occupancy category III buildings and structures, except health care facilities, the windborne debris region shall be based on Figure 1609A. For occupancy category IV buildings and structures and occupancy III health care facilities, the windborne debris region shall be based on Figure 1609B.

Figure 1609C Ultimate Design Wind Speeds, for Risk Category I Buildings and Other Structures

Note:
1. Values are nominal design 3-second gust winds speeds in miles per hour (mph) at 33 ft (10 m) above ground for Exposure C category.
2. Linear interpolation between contours is permitted.
3. Islands and coastal areas outside the last contour shall use the last wind speed contour of coastal area.
4. Mountainous terrain, gorges, ocean penetration, and special wind regions shall be examined for unusual wind conditions.
5. Wind speeds correspond to approximately a 15% probability of exceedance in 50 years (Annual Exceedance Probability = 0.00333, MLE = 50 years).
1. Can a building permit be issued in unincorporated Palm Beach County without all the required products covered in Rule61G20-3 being approved prior to the permit issuance?

Under unique circumstances, yes, except products that are structural components **MUST** be approved before the permit is issued. The exterior skin “component and cladding” products may be submitted later as a formal revision, after the permit is issued. The revision must be approved before the product(s) are installed, to prevent replacement of unapproved products. Complete product selection information, by the Designer of Record, is required.

2. Can a permit be issued in unincorporated Palm Beach County with a product that has been submitted for Statewide Approval, but has not yet received final approval from the Florida Building Commission?

No, not unless it has received local project specific approval.

3. Does the existence of a Statewide Product Approval ensure that the product will be allowed by the Palm Beach County Building Division?

Yes, but **only if** the product approval’s ‘limitations of use’ are not exceeded by the proposed installation.

4. Can a State Approved product be used outside the structural “Limitation of Use” indicated in its approval, with specific engineering to modify the product or installation for one site?

   **FS 553.8425** provides that, under 104.11 “Alternate Materials & Methods” of the Florida Building Code, the Building Official may approve the use, **if** engineering calculations prove that the modification brings the product performance in conformance with the intent of the Florida Building Code.

5. If a State Approved product is not available, how would Project Specific Approval for use be obtained in unincorporated Palm Beach County?

   **Project Specific Approval maybe obtained**, by following the procedures outlined in PBO-118. Fees will be in accordance with the current Building Division fee schedule.

6. In addition to Product Approval, are there other requirements for acceptance?

   **YES**, the manufacturers’ installation instructions must be provided to the inspector in the field so proper installation can be confirmed. The inspector must be able to match the installation instructions with the approved products shown on plans or revisions. The installation instructions must include complete product identity to tie them to the approved products.
7. What prefabricated buildings or sheds are deemed compliant with Rule 61G20-3?

If the building is approved through the Department of Business and Professional Regulation Manufactured Building Program and for Palm Beach County applicable wind zones, the Department seal is evidence of Rule 61G20-3 compliance. However, products and procedures for tie-down, glazing protection, or other aspects that are not part of the DCA approval program are subject to Palm Beach County review.

8. Are Department of Highway Safety & Motor Vehicles manufactured homes (mobile) subject to additional review for product approval by the permitting office before placement on site?

All manufactured homes must be designed for Wind Zone III in order to be approved for use in unincorporated Palm Beach County.

Federal Register 3280.403(f) requires homes designed for use in Wind Zone III (PBC) to have all exterior openings framed to adequately support windborne debris protection.

9. Does the Florida Building Code (FBC), Existing Building allow EXISTING window or doors to be replaced with the same materials used in original construction EVEN if those do not have Product Approval under Rule 61G20-3?

Under limited conditions:

Per the FBC-Existing Building, replacement of doors and windows shall comply with Chapter 16 of the FBC-Building, including the provision for opening protection. One & Two Family Dwellings may replace up to 25% of the aggregate area of the glazed openings in the unit(s) without invoking the additional requirement for opening protection.

Per the FBC-Energy Conservation Code, replacement fenestrations must comply with the Energy Code requirements if the valuation of the work permitted over a 1-year cumulative period equals or exceeds 30 percent of the assessed value of the structure.

10. Are products approved under the 2007 FBC that have not surpassed their expiration date still ok to use?

Yes, but only until May 15, 2012.