PALM BEACH COUNTY AMENDMENTS TO THE WIND AND FLOOD PROVISIONS OF THE 2010 FLORIDA BUILDING CODES

FLORIDA BUILDING CODE - BUILDING 2010 EDITION

SECTION 1609 WIND LOADS

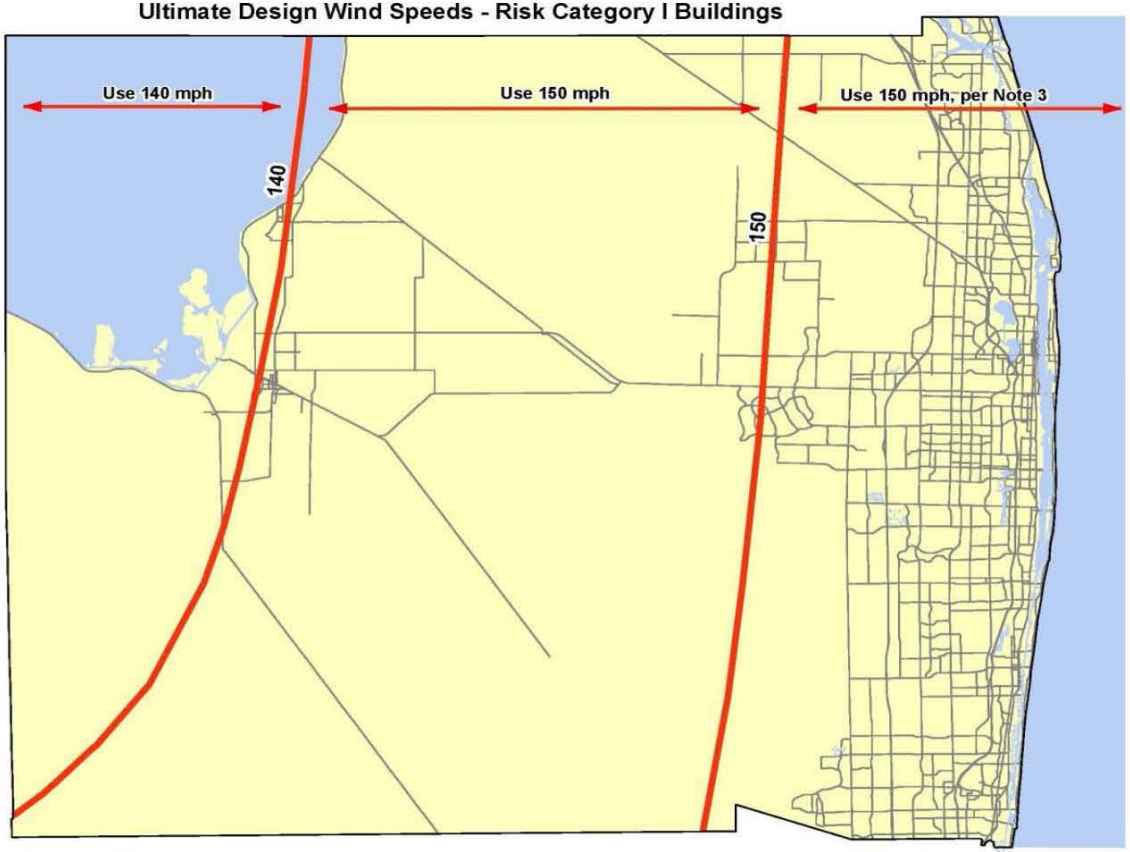
1609.1 Applications. Buildings, structures and parts thereof shall be designed to withstand the minimum wind loads prescribed herein. Decreases in wind loads shall not be made for the effect of shielding by other structures.

All exterior wall coverings and soffits shall be capable of resisting the design pressures specified for walls for components and cladding loads in accordance with Section 1609.1.1. Manufactured soffits shall be labeled in accordance with Section 1715.9 of this code.

Where reference is made to Figures 1609 A, B, or C, State of Florida Ultimate Design Wind Speed, V_{ult} (and Wind-Borne Debris Region) Maps for purposes of design basis, the specific information from Figures 1609.1 A, B, or C, Palm Beach County Ultimate Design Wind Speed V_{ult} (and Wind-Borne Debris Region) Maps shall be utilized. Ultimate Design Wind Speeds V_{ult} for Palm Beach County are dependent upon the Risk Category assigned to the building or structure, and range from 140 mph 3-second gust to 180 mph 3-second gust for Exposure Category C, in accordance with the American Society for Civil Engineer Standard ASCE/SEI (Structural Engineering Institute) 7-10, with the Exposure Category to be determined in accordance with Section 1609.4 of this code. Interpolation may be used to determine wind speeds, but not in the determination of the wind borne debris region. All of Unincorporated Palm Beach County is in the wind borne debris region.

Because of the many wind speed lines (8) 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 (where it is not immediately obvious), Palm Beach County has developed separate Geographic Information System (GIS) tools for each of the Risk Categories, available on the Building Division website at http://www.pbcgov.com/pzb/Building/Windspeed/index.htm

Figure 1609.1C - Palm Beach County
Ultimate Design Wind Speeds - Risk Category I Buildings



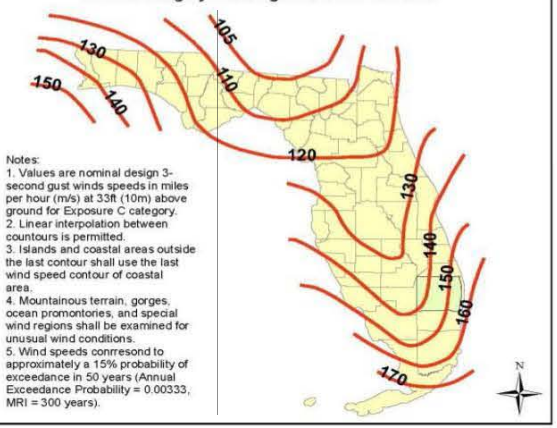
Sources: Florida Department of Community Affairs, Codes and Standards Division; Applied Research Associates, Inc; Florida Geographic Library

BASIC WIND SPEED. The basic wind speed in miles per hour, for the development of wind loads, shall be determined from Figures 1609.1 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 Vult is 130 mph (48 m/s) or greater; or
2. In areas where the ultimate design wind speed Vult is 140 mph (53m/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 1609.1A. For occupancy category IV buildings and structures and occupancy III health care facilities, the windborne debris region shall be based on Figure 1609.1B.

Figure 1609.1C Ultimate Design Wind Speeds, for Risk Category I Buildings and Other Structures



Notes:
1. Values are nominal design 3-second gust winds speeds in miles per hour (m/s) at 33ft (10m) above ground for Exposure C category.
2. Linear interpolation between countours 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 conrresond to approximately a 15% probability of exceedance in 50 years (Annual Exceedance Probability = 0.00333, MRI = 300 years).

PALM BEACH COUNTY AMENDMENTS TO THE 2010 FLORIDA BUILDING CODE, BUILDING

Exposure categories to be utilized for design shall be in accordance with Section 1609.4 of the Florida Building Code, Building.

Miles
0 5 10

January 30, 2012 UltimateDesignWindSpeedMaps.mxd/mg

Planning, Zoning and Building Department - GIS
2300 N. Jog Road
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(561) 233-5000
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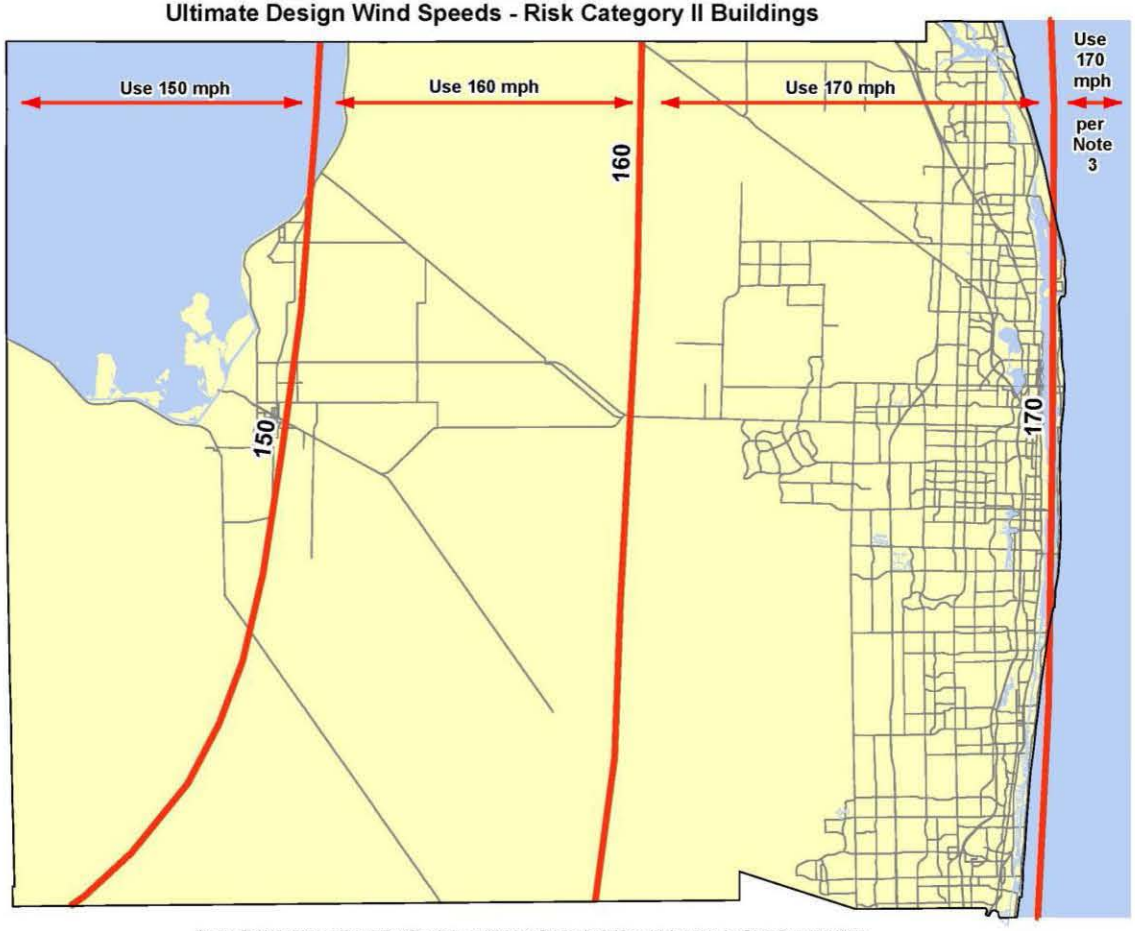
Figure 1609.1A - Palm Beach County
Ultimate Design Wind Speeds - Risk Category II Buildings



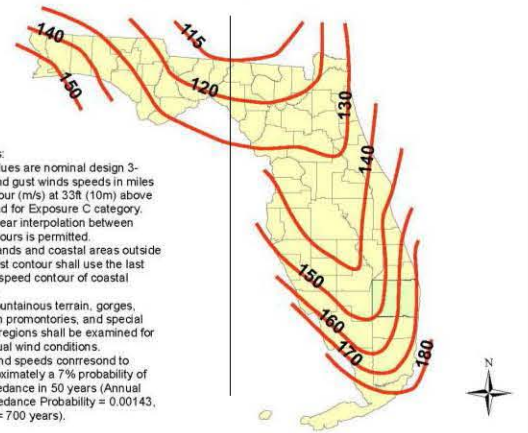
Sources: Florida Department of Community Affairs, Codes and Standards Division; Applied Research Associates, Inc; Florida Geographic Library

BASIC WIND SPEED. The basic wind speed in miles per hour, for the development of wind loads, shall be determined from Figures 1609.1 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 Vult is 130 mph (48 m/s) or greater; or
2. In areas where the ultimate design wind speed Vult is 140 mph (53m/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 1609.1A. For occupancy category IV buildings and structures and occupancy III health care facilities, the windborne debris region shall be based on Figure 1609.1B.

Figure 1609.1A Ultimate Design Wind Speeds, for Risk Category II Buildings and Other Structures



Notes:
1. Values are nominal design 3-second gust winds speeds in miles per hour (m/s) at 33ft (10m) above ground for Exposure C category.
2. Linear interpolation between countours 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 conrresond to approximately a 7% probability of exceedance in 50 years (Annual Exceedance Probability = 0.00143, MRI = 700 years).

PALM BEACH COUNTY AMENDMENTS TO THE 2010 FLORIDA BUILDING CODE, BUILDING

Exposure categories to be utilized for design shall be in accordance with Section 1609.4 of the Florida Building Code, Building.

N

Miles
0 5 10

January 30, 2012 UltimateDesignWindSpeedMaps.mxd/tng

Planning, Zoning and Building Department - GIS
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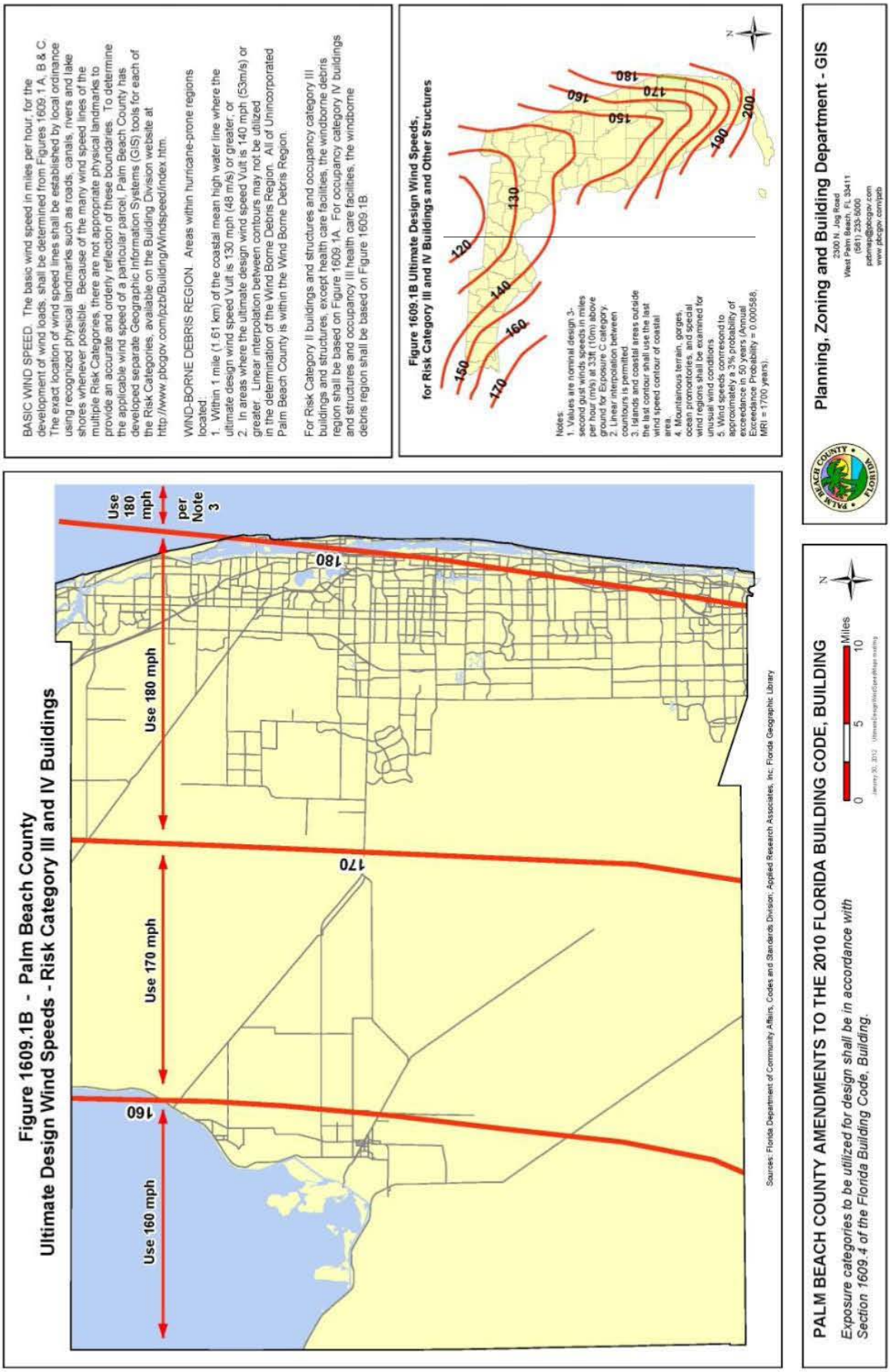
Ultimate Design Wind Speeds – Risk Category III & IV Buildings



FLORIDA BUILDING CODE - BUILDING 2010 EDITION

SECTION 1612 FLOOD LOADS

1612.3 Establishment of flood hazard areas. To establish flood hazard areas, the applicable governing authority shall, by local floodplain management ordinance, adopt a flood hazard map and supporting data. The first Unincorporated Palm Beach County Floodplain Management Ordinance became effective January 31, 1979, and regular entry into the National Flood Insurance Program was February 1, 1979. The flood hazard map shall include, at a minimum, areas of special flood hazard as identified by the Federal Emergency Management Agency in an engineering report entitled the "The Flood Insurance Study Wave Height Analysis for Palm Beach County, Florida Unincorporated Areas" dated April 15, 1982, as amended or revised with the accompanying Flood Insurance Rate Maps (FIRM) of Community Panels 1201920140A, 1201920150A, 1201920160A, 1201920170A, 1201920180A, 1201920185A, 1201920200A and 1201929215A and those areas developed into lots or building sites without minimum floor elevations engineered from a master storm water drainage network, and Flood Boundary and Floodway Map (FBFM) and related supporting data along with any revisions thereto. The adopted flood hazard map and supporting data are hereby adopted by reference and declared to be a part of this Section.

FLORIDA BUILDING CODE - RESIDENTIAL 2010 EDITION

SECTION R301 DESIGN CRITERIA

R301.1 Application. Buildings and structures, and all parts thereof, shall be constructed to safely support all loads, including dead loads, live loads, roof loads, flood loads and wind loads as prescribed by this code. The construction of buildings and structures in accordance with the provisions of this code shall result in a system that provides a complete load path that meets all requirements for the transfer of all loads from their point of origin through the load-resisting elements to the foundation. Buildings and structures constructed as prescribed by this code are deemed to comply with the requirements of this section. In TABLE R301.2 (1) and all other locations in this Code, where reference is made to Figure R301.2 (4) State of Florida Ultimate Design Wind Speeds, V_{ult} (and Wind-Borne Debris Region) Map for purposes of design basis, the specific information from Figure 1609.1 A Palm Beach County Ultimate Design Wind Speed, V_{ult} (and Wind-Borne Debris Region) Map Florida Building Code, Building shall be utilized.

TABLE R301.2 (1) CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA

g. The applicable governing body shall, by local floodplain management ordinance, specify (a) the date of the jurisdiction's entry into the National Flood Insurance Prog4ram (date of adoption of the first code or ordinance for management of flood hazard areas), (b) the date(s) of the Flood Insurance Study, and (c) the panel number and dates of all currently effective FIRM and FBFM, or other flood hazard map adopted by the authority having jurisdiction, as amended). The first Unincorporated Palm Beach County Floodplain Management Ordinance became effective January 31, 1979, and regular entry into the National Flood Insurance Program was February 1, 1979. The areas of special flood hazard are as identified by the Federal Emergency Management Agency in an engineering report entitled the "The Flood Insurance Study Wave Height Analysis for Palm Beach County, Florida Unincorporated Areas" dated April 15, 1982, as amended or revised with the accompanying Flood Insurance Rate Maps (FIRM) of Community Panels 1201920140A, 1201920150A, 1201920160A, 1201920170A, 1201920180A, 1201920185A, 1201920200A and 1201929215A and those areas developed into lots or building sites without minimum floor elevations engineered from a master storm water drainage network, and Flood Boundary and Floodway Map (FBFM) and related supporting data along with any revisions thereto. The adopted flood hazard map and supporting data are hereby adopted by reference and declared to be a part of this Section.