

**HAZUS Building Attribute Rulesets - Flood - All Classes**

**Note: Defaults should be assigned to all building classes as defined below; then rulesets should be applied to override those defaults as informed by available data.**

Attribute	Valid Entries	Input Variable	Ruleset	Default	Notes
FloodType	Choices: Riverine/A-Zone, Coastal/A-Zone, Coastal/V-Zone	FloodZone	IF FloodZone=(6105 or 6108), FloodType = Riverine/A-Zone ELSEIF FloodZone (6103 or 6104 or 6106 or 6107 or 6109), FloodType = Coastal/A-Zone ELSEIF FloodZone= (6101 or 6102), FloodType = Coastal/V-Zone	Coastal/A-Zone	Consistent with assumed default Occpancy Type
FirstFloorElev	Floating Point Number	FloodType, FirstFloorHt1	IF FloodType = (Riverine/A-Zone or Coastal/A-Zone), FirstFloorElev=FirstFloorHt1 IF FloodType = Coastal/V-Zone, FirstFloorHt1 - 1	1	For A Zone, top of finished floor; for V Zone, bottom of floor beam of lowest floor; define X based on typical depth of girders assuming bottom of door is used to estimate first floor ht ( <a href="https://www.apawood.org/Data/Sites/1/documents/raised-wood-floor-foundations-guide.pdf">https://www.apawood.org/Data/Sites/1/documents/raised-wood-floor-foundations-guide.pdf</a> ) -- take X=1 ft as average value of different options (depths)
PostFIRM	Choices: Yes, No	YearBuiltNJDEP, City	IF City=Absecon & YearBuilt>1976, PostFIRM=yes IF City=Atlantic City & YearBuilt>1971, PostFIRM=yes IF City=Brigantine & YearBuilt>1971, PostFIRM=yes IF City=Buena & YearBuilt>1983, PostFIRM=yes IF City=Buena Vista & YearBuilt>1979, PostFIRM=yes IF City=Corbin City & YearBuilt>1981, PostFIRM=yes IF City=Egg Harbor City & YearBuilt>1982, PostFIRM=yes IF City=Egg Harbor & YearBuilt>1983, PostFIRM=yes IF City=Estell Manor & YearBuilt>1978, PostFIRM=yes IF City=Folsom & YearBuilt>1982, PostFIRM=yes IF City=Galloway & YearBuilt>1983, PostFIRM=yes IF City=Hamilton & YearBuilt>1977, PostFIRM=yes IF City=Hammonton & YearBuilt>1982, PostFIRM=yes IF City=Linwood & YearBuilt>1983, PostFIRM=yes IF City=Longport & YearBuilt>1974, PostFIRM=yes IF City=Margate City & YearBuilt>1974, PostFIRM=yes IF City=Mullica & YearBuilt>1982, PostFIRM=yes IF City=Northfield & YearBuilt>1979, PostFIRM=yes IF City=Pleasantville & YearBuilt>1983, PostFIRM=yes IF City=Port Republic & YearBuilt>1983, PostFIRM=yes IF City=Somers Point & YearBuilt>1982, PostFIRM=yes IF City=Ventnor City & YearBuilt>1971, PostFIRM=yes IF City=Weymouth & YearBuilt>1979, PostFIRM=yes	No	Based on FEMA FLOOD INSURANCE STUDY NUMBER 34001CV000A (Atlantic County, NJ ) Version Number 2.1.1.1 (See Table 9) Yes=Post-FIRM, No=Pre-FIRM
NumberofStories	integer	NumberofStories1	N/A	2	Consistent with assumed default Occpancy Type
BasementType	Choices: Basement, Split-Level Basement, No Basement	FoundationType, SplitLevel	IF SplitLevel=Yes & FoundationType=3504 , FoundationType=Split-Level Basement ELSEIF FoundationType =(3501 or 3502 or 3503 or 3505 or 3506 or 3507), BasementType=No Basement ELSEIF SplitLevel=No & FoundationType=3504, FoundationType=Basement	Basement	Consistent with assumed default Occpancy Type
OccupancyType	Choices: SF1XA, SF1XV, SF2XA, SF2XV, SF2BA, SF2BV, SF2SA, SF2SV, MH, APT, HOT, NURSE, RETAIL, WHOLE, SERVICE, OFFICE, BANK, HOSP, MED, REC, THEAT, GARAGE, INDH, INDL, CHEM, PROC, CONST, AGRI, RELIG, CITY, EMERG, SCHOOL	HazusClass-IN	N/A	SF2BA	see: HAZUS Building Class Rulesets - Flood
Duration	Short Long	None	Short	Short	The New Orleans District has developed expert opinion damage functions for the flood control feasibility study in Jefferson and Orleans Parishes (GEC, 1996), and for the Lower Atchafalaya Re-evaluation (GEC, 1997). Depth-damage functions include residential and non-residential structure and contents damage for four types of flooding: • Hurricane flooding, long duration (one week), salt water • Hurricane flooding, short duration (one day), salt water So everything we do in NJ is short duration according to the damage curves.

Wave Velocity	[Floating Point Number]	SurgeDepth	$\text{WaveVel} = (32.2 * \text{SurgeDepth})^{0.5}$	2	Appears to be used only for riverine; also no need to differentiate values below 2 ft/s; assumes SurgeHt is reported in feet
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