



CARIBBEAN ROOF SYSTEM

BUILDER-READY CHECKLIST (HURRICANE + EARTHQUAKE)

A. ROOF TYPE & GEOMETRY (VERIFY FIRST)

- ☐ Roof type confirmed (Hip / Gable / Flat)
- ☐ Roof pitch appropriate for material
 - Metal roof: $\geq 20^\circ$ (**preferred**)
 - Tile roof: $\geq 30^\circ$
 - Flat roof: **Minimum slope 1:60 (never zero)**
- ☐ Overhangs designed, not decorative
- ☐ Large gables avoided or structurally braced

🚧 *If the roof shape is wrong, no fastener will save it.*

B. STRUCTURAL LOAD PATH (NON-NEGOTIABLE)

- ☐ Continuous load path verified:
 - Roof → rafters/trusses
 - Rafters/trusses → ring beam
 - Ring beam → columns/walls
 - Columns/walls → footings
- ☐ No “floating” roof elements
- ☐ No roof members relying on nails only

Rule: If uplift occurs, the roof must pull against the foundation—not air.

C. RAFTERS / TRUSSES

- ☐ Correct spacing (as per design / local code)
- ☐ All rafters/trusses seated properly
- ☐ No cracked, split, or undersized members
- ☐ Timber treated for termites and moisture
- ☐ Truss bracing installed (temporary AND permanent)
- ☐ No truss modifications without engineer approval

D. HURRICANE STRAPS & CONNECTIONS (CRITICAL)

- ☐ Hurricane straps/clips installed at **EVERY** rafter or truss
- ☐ Straps fixed with correct fasteners (not nails unless specified)
- ☐ Straps fully wrapped or properly seated (not “half-nailed”)
- ☐ Extra straps at:
 - Roof corners
 - Windward edges
 - Hip intersections
- ☐ Straps tied into **ring beam or wall plate**, not plaster or block only

🚒 *Missing straps = guaranteed roof loss.*

E. RING BEAM / WALL CONNECTION

- ☐ Continuous reinforced ring beam present
 - ☐ Rebar continuous through corners
 - ☐ Roof members anchored directly into ring beam
 - ☐ No gaps between beam and roof plate
-

F. PURLINS / BATTENS (METAL ROOFS)

- ☐ Correct purlin size and spacing
 - ☐ Purlins securely fixed to rafters/trusses
 - ☐ No untreated timber used
 - ☐ No loose or warped members
 - ☐ Extra purlins at:
 - Eaves
 - Ridges
 - Corners
-

G. ROOF SHEETING / COVERING

For Metal Roofs

- ☐ Sheets laid **against prevailing wind direction**
- ☐ Correct overlap (side + end laps)
- ☐ Fasteners placed on **crest**, not valley (unless specified)

- ☐ Neoprene washers used and seated correctly
 - ☐ No over-tightened or under-tightened screws
 - ☐ **Extra fasteners at:**
 - Windward edge
 - Corners
 - Eaves
 - Ridge
-

For Concrete / Flat Roofs

- ☐ Roof slope verified before waterproofing
 - ☐ Multiple drains provided (not one only)
 - ☐ Parapet edges reinforced
 - ☐ Waterproofing system installed in full (no shortcuts)
 - ☐ Overflow routes provided
-

H. EDGE, CORNER & RIDGE ZONES (HIGH RISK)

- ☐ Corners reinforced (highest suction zones)
- ☐ Eaves braced or shortened
- ☐ Fascia boards securely fixed
- ☐ Ridge cap securely anchored
- ☐ Ridge ventilation protected from wind-driven rain

 *Corners and edges fail first in hurricanes.*

I. ROOF VENTILATION & HEAT CONTROL

- ☐ Ridge ventilation provided (or equivalent)
 - ☐ Soffit vents installed and protected
 - ☐ Roof space ventilated evenly
 - ☐ Radiant barrier or insulation installed if specified
 - ☐ No ventilation paths blocked by insulation
-

J. DRAINAGE & WATER MANAGEMENT

- ☐ Gutters sized for tropical rainfall
- ☐ Gutters securely fixed (not decorative clips)
- ☐ Downpipes directed **away from foundations**
- ☐ Overflow paths provided for extreme rain

☐ No water discharged at wall base

K. MATERIALS & FASTENERS (HUMIDITY SAFE)

- ☐ Fasteners are stainless steel or hot-dip galvanized
 - ☐ No electro-plated screws used
 - ☐ No mixed metals causing corrosion
 - ☐ Roofing sheets suitable for coastal exposure (if applicable)
-

L. FINAL ROOF INSPECTION (BEFORE SIGN-OFF)

- ☐ All straps visually verified
- ☐ All fasteners checked
- ☐ No loose sheets or rattling
- ☐ No daylight visible at joints
- ☐ Photos taken of:

- Straps
 - Ridge
 - Corners
 - Eaves
-

M. STOP-WORK RED FLAGS

- ✗ Missing hurricane straps
- ✗ Nails used instead of specified fasteners
- ✗ Loose roof sheets
- ✗ No ring beam
- ✗ No drainage plan
- ✗ Decorative overhangs without structure

If any are present → STOP AND FIX.

BUILDER / SUPERVISOR SIGN-OFF

Builder: _____

Date: _____

Supervisor / Client: _____
