TOWN OF CHARLESTOWN

REQUIREMENTS FOR BUILDING PERMITS
RESIDENTIAL SINGLE FAMILY

ACCESSORY STRUCTURES

BUILDING PERMIT APPLICATIONS FOR ACCESSORY STRUCTURES MUST BE ACCOMPANIED BY THE FOLLOWING ITEMS, PRIOR TO ACCEPTANCE OF THE APPLICATION FOR PLAN REVIEW.

1. **Own the property.**

2. **Contractor Verification or Owner Affidavit**

3. **Signed Affidavit recorded in the Charlestown Land Evidence Records stating the total square footage of the accessory structure and its use.**

4. **Three (3) sets of building plans to scale, to include:**

a. foundation plan	d. framing plan
b. existing floor plan	e. cross sections
c. proposed floor plan	f. elevations

5. **A Plot Plan** - To scale, showing distance of foundation, overhangs, decks, and septic system from all property lines and the survey markers on all corners of said lot.

6. **Wind Design**

R301.2.1.1 **Design Criteria.** Construction in regions where the basic wind speeds from Figure R301.2(1) equal or exceed 110 miles per hour (177.1 km/h) shall be designed in accordance with one of the following. (Note: Charlestown is in a 110 and 120 mile per hour zone. South of Route 1 is the 120 zone, remainder is the 110 zone.)

1. American Forest and Paper Association (AF&PA) Wood Frame Construction Manual for One and Two Family Dwellings (WFCM); or

2. Southern Building Code Congress International Standard for Hurricane Resistant Residential Construction (SSTD 10); or

3. International Code Council (ICC) Standard for Residential Construction in High Wind Regions (ICC-600); or

4. Hurricane Resistant Residential Construction (SSTD 10); or Minimum Design Loads for Buildings and Other Structures (ASCE-7);

5. Cold-formed steel construction shall be designed in accordance with the provisions of this code. (SBC-2-2013)

6. Concrete construction shall be designed in accordance with the provisions of this code. (SBC-2-2013)

7. Structural insulated panel (SIP) walls shall be designed in accordance with the provisions of this code. (SBC-2-2013)

8. For all communities located in the 110 MPH and 120 MPH wind zones, the prescriptive criteria in Appendix AA may be used for buildings and structures in lieu of items 1-3 above:
(see Appendix AA pages 4-8)

Your building plans must indicate how Appendix AA is being met with materials or sections noted on your building plan.

7. Engineered Lumber, Beams & Trusses

If the plans have trusses (floor or roof), micro lam LVL beams, steel girders or other engineered beams, <u>all calculations and plans must be submitted with the building permit application</u>.

If plans have unusual structural design, an Engineer or Architect must stamp said plans.

8. **Flood Zone Engineering** – All construction in a Flood Zone must comply with section R322 of the SBC-2-2013. A registered Design Professional shall prepare and seal documentation of the elevations. If located in a high-velocity flood zone (V Zone), your application must include a certificate prepared by a registered design professional that the building is designed in accordance with ASCE 24-05.

9. **DEM/Coastal**

   I. System Suitability Determination from DEM may be required for your septic system if plumbing is to be installed.

   II. If your construction is near a fresh water stream, pond, swamp or other fresh water wetland, you must obtain a Fresh Water Wetlands Determination. (222-6820)

   III. If your construction is within 200 feet of a coastal feature, you must obtain a Coastal Resources Management Assent. (783-3370)

10. **Zoning Board**

   I. **Accessory Structures and Uses** must comply with the requirements of Section 218-37 B of the Zoning Ordinance.

   II. **Accessory Family Dwelling Units** must comply with the requirements of Section 218-53 of the Zoning Ordinance.

   III. **Income Restricted Accessory Dwelling Units** must comply with Section 218-53.1 of the Zoning Ordinance.

   IV. If your building request requires a Variance or Special Use Permit from the Zoning Board, this approval must be acquired prior to acceptance of your application for plan review.

ALL OF THE ABOVE ARE GENERAL REQUIREMENTS. OTHER APPROVALS OR SPECIFICATIONS MAY BE REQUIRED FOR CERTAIN SITUATIONS.

IF YOU HAVE ANY ADDITIONAL QUESTIONS, PLEASE FEEL FREE TO CALL US AT 364-1215.

Appendix AA

AA101.1 **General.** This appendix contains prescriptive solutions for compliance on wind path load transfer requirements, and shall be used only within the limitations of Section AA101.2.

AA101.2 **Conditions of Use.** The prescriptive solutions specified in the following sections shall not be permitted to be used in the following conditions:

1. Buildings and structures of any size in 110 MPH or 120 MPH wind zones located in a V zone as determined by community FIRMS.

2. Two or more story buildings and structures of any size located in 120-MPH wind zone with more than 20% exterior fenestration. [Fenestration – Skylights, roof windows, vertical windows (whether fixed or moveable); opaque doors; glazed doors; glass block; and combination opaque/glazed doors.]

3. Two or more story structures with a building height greater than 33' as measured from Grade Plane to the average height of the highest roof surface.

4. Any two or more story structure or building with opening fenestration greater than 40% on any one wall.

AA202 Roofs

AA202.1 **Scope.** The following applies to structures conventionally framed or to truss-type roofs.

AA202.2 **Roof Sheathing.** Roof Sheathing shall be not less than 7/16" finished thickness.

AA202.3 **Roof Nailing.** Roof attachment shall be accomplished with minimum 8d nails as follows:

1. In the 4-foot perimeter edge zone along the edges: 6" o/c.

2. To the intermediate supports within the 4-foot perimeter edge zone: 6" o/c.

3. Along the gable end wall or rake: 4" o/c.

4. All other areas: 6" o/c edge; 12" o/c intermediate.

All Sheathing edges within the 4-foot perimeter edge zone shall be blocked with 2x3 minimum including the ridge line and soffit/fascia area. Provisions for ventilation air shall be maintained.

Exception: 2 x 3 intermediate blocking can be eliminated provided all sheathing is 5/8" nominal tongue and grove structural panels (Blocking is still required at the ridge & soffit.)

AA202.4 **Ridge Straps.** Ridge straps 1-1/4" x 20 gauge shall be attached to each pair of opposing rafters with 5-8d nails at each end into the framing member.

Exceptions:

1. Ridge straps are not required when collar ties of nominal 1 x 6 or 2 x 4 lumber are located within the upper third of the attic space and attached to each rafter with 3-10d nails.

2. Trusses without a framed ridge connection.

3. Plywood gussets of equivalent cross-section.

4. Other engineered connections.

5. At hips, straps shall be installed so each hip jack is connected across the hip line with at least 1-8d into an opposite framing member.

AA202.5 **Rake and Eave Overhangs.** Overhangs shall be limited to 24". Ladder style rake overhangs attached to the gable end walls shall be limited to 12". Cantilevered rake overhangs at gable end walls shall be limited to 24".

AA202.6 **Roof Assembly to Wall Assembly.** A design wind load suction of 25 psf shall be used in conjunction with Table R802.11 to establish the required strength of rafter tie-down connections to withstand wind uplift forces.

Exception: Roof truss to wall connection shall be designed to withstand either the load requirements of Table R802.11 or the connection loads indicated on the truss design shop drawings, whichever is greater.

AA203 Walls

AA203.1 **Wall Sheathing.** Wall Sheathing shall be a minimum 7/16" structural panel. Nailing shall be in accordance with Table R602.3(1) and the following:

1. At the top plate or plates, the sheathing shall extend from the top of the top plate to a minimum of 16" beyond the stud-to-bottom of the top plate connection. A minimum of 4 nails shall be used at each stud fastening and edge-nailed to each plate at 6" o/c.

   Alternate: Prefabricated and pre-engineered connection straps approved by the Building Official.

2. If the studs are not continuous to the foundation plate such as at an intermediate floor, the wall sheathing shall be continuous and uninterrupted for a distance of 16" beyond from top of bottom wall plate to 16" beyond bottom of bottom wall top plate below, with a minimum of 4 nails at each stud, and field-nailed at 6" o/c to floor joist header framing.

   Alternate: Prefabricated and pre-engineered connection anchors or fasteners approved by the Building Official.

3. At the bottom of the wall assembly to the foundation sill plate, the wall sheathing shall be continuous from a point 16" above the top of the bottom wall plate to the bottom of the foundation sill, with a minimum of 4 nails at each stud, 6" field nailed and edge nailed to the foundation sill plate at 6" o/c.

   Alternate: Prefabricated pre-engineered connection anchors or fasteners approved by the Building Official.

AA203.2 **Shear Walls.** A 4' segment of wall sheathing shall be designated as a shear wall at each corner of the structure at each floor, and no more than 24' apart along a wall length. The following additional requirements apply:

1. No openings are permitted within this 4' section.

   Exception: Window openings are allowed no closer than 2' to corner providing the length of that shear panel is increased to 8'.

2. All edges shall be blocked and nailed at 6" o/c and field nailed at 6" o/c.

3. Studs shall be doubled at each end of the shear wall panel.

AA203.2.1 **Shear Wall Hold-downs.** 1st story shear walls shall be connected to the foundation below with connection anchoring capable of 3500 lb. hold-down capacity in addition to conventional foundation anchor bolt requirements in the remainder of the panel. The hold-downs shall be fastened to each end of the shear wall at the double stud.

Exceptions:

1. Shear wall hold-downs shall not be required in wind zones I or II (100 mph or 110 mph). (See attached map)

2. Shear wall anchors shall not be required provided ½" anchor bolts at 48" o/c max are installed with the top of the bolts anchored through the floor system to the bottom plate of the exterior wall frame for the entire foundation perimeter.

AA203.3 **Foundation Anchor Bolts.** Anchor bolts shall be installed in accordance with Section R403.1.6 and the following:

1& 2 story buildings: ½" @ 48" o/c or
5/8" @ 72" o/c

3 story building: ½" @ 24" o/c or
5/8" @ 36" o/c

Alternate: Prefabricated and pre-engineered connections in design and quantity sufficient to equal strength of anchor bolt specifications above.

Exception: See exception #2 to AA203.2.1 above.

AA203.4 Wall Framing.

AA203.4 1. For wind zone 2 (110 mph) and zone 3 (120 mph) the following conditions apply:

1. Exterior bearing and non-bearing walls greater than 10' in height shall be 2 x 6 @ 16" o/c min.
2. Walls with a total height greater than 10' shall be permitted to use 2 x 4 @ 16" o/c providing the wall is limited to 10' in length and the individual studs are not greater than 9' in length.

AA203.4.2. Garage doors. In wind zone 3 (120) mph garage doors shall be limited to 9' x 8' nominal.

AA 204 Deviations.

AA204.1 **Deviations**. Deviations from the above prescriptive requirements shall only be permitted if stamped calculations and drawings are provided by a Rhode Island registered professional engineer for alternative connections.

Town of Charlestown Inspection Requirements

The following is a summary of the inspection requirements for the Town of Charlestown.

- All inspections must be coordinated with the Building Inspectors Office at least twenty four (24) hours in advance.
- Electrical Inspections are done on Monday and Thursday morning.
- Framing, Plumbing and Mechanical Inspections are done Tuesday, Wednesday and Friday mornings.
- The Building Permit DOES NOT cover any electrical, plumbing, or mechanical work. This requires separate permits, which must be obtained at the Building Inspectors Office.
- Failure on the part of the owner or contractor to notify the Building Inspectors Office for a required inspection will result in a STOP WORK ORDER that may cause delay in construction.
- The Building Inspector will affix a sticker approving the inspection or leave a field correction notice pointing out any deficiencies, which will require re-inspection prior to proceeding.

Inspections for New Structures, Additions & Renovations:

1. **Excavation** (When foundation hole is excavated & prior to any crushed stone or concrete being installed for footings or foundation)
2. **Foundation Rebar** (Prior to pouring concrete)
3. **Rebar Grounding Electrode Conductor and Connection** per NEC 250-52A3 (**Required** when 20' or more of conductive steel is encased by concrete)
4. **Foundation Coating & Foundation Insulation** (prior to backfilling)
5. **Footing Inspection for Decks/Porches** (after forms or sonotube are installed and prior to pouring concrete)
6. **Modular Dwelling Attachment** (to foundation and each level/section)
7. **Fireplace Throat**
8. **Electric Trenches, Gas Line Trenches, and Underground LPG Tanks and Lines** (Prior to backfilling)
9. **Gas Line Pressure Test** (If line is connected to more than 1 appliance)
10. **Under Slab Plumbing** (Prior to covering)
11. **Shear Walls, roof blocking, special nailing schedules, and hurricane ties** (Prior to covering -generally, this inspection will be done at the Rough Framing Inspection)
12. **Roughs - Framing, Electrical, Plumbing, & Mechanical** (Prior to insulation and interior covering)
13. **Insulation & Energy Code Inspection for Air Leakage** (Prior to covering with wallboard)
14. **Final Inspection for Certificate of Use and Occupancy** (Prior to use and occupancy of the structure or addition)

NOTE: A CERTIFICATE ILLUSTRATING COMPLIANCE WITH THE BLOWER DOOR TEST MUST BE SUBMITTED TO VERIFY COMPLIANCE WITH THE 2013 ENERGY CODE.

Requirements for Certificate of Occupancy:

- Final Inspection by this office
- Fire Chief/Marshal final inspection (Charlestown Fire District 364-9117, Dunn's Corner 322-0577)
- Certificate of Conformance from DEM (C.O.C)
- Elevation Certificate (If in a Flood Zone)
- Well Water Test (new wells only)
- Posting of Energy Certificate

If there are any questions pertaining to the inspection procedures, please contact the Building Inspector's Office at (401)-364-1215.