BUILDING DIVISION

BUILDING INSPECTION CHECK-OFF
RESIDENTIAL

This is a typical sample list of what will be observed and inspected, during a typical field inspection of a residential construction project for minimum code compliance.

**FOUNDATION**

- FOOTINGS - PROPER DEPTH OF 42” BELOW FROST LINE
- MONOLITHIC SLAB - PROPER DESIGN FOR FROST PROTECTION
- SOILS – PROPER LOAD BEARING (min 2,500 psf)
- MINIMUM WIDTH OF FTG (2 x wall)
- REINFORCING WALLS
- FOOTING DRAINS
- FOUNDATION WALL – ANCHOR BOLTS PROPERLY SPACED
- BULKHEAD – SECOND MEANS OF EGRESS
- NATURAL VENTILATION/ LIGHTING
- DAMPROOFING / DRAINAGE
- INTERIOR FOOTINGS
- CRAWL SPACE – VENTILATION (When required)

**CODE REFERENCE:**

**IRC**

<table>
<thead>
<tr>
<th>IRC</th>
<th>Code Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>R403.1.4</td>
<td>FOOTINGS - PROPER DEPTH OF 42” BELOW FROST LINE</td>
</tr>
<tr>
<td>R403.3</td>
<td>MONOLITHIC SLAB - PROPER DESIGN FOR FROST PROTECTION</td>
</tr>
<tr>
<td>R403.3</td>
<td>SOILS – PROPER LOAD BEARING</td>
</tr>
<tr>
<td>R403.3</td>
<td>MINIMUM WIDTH OF FTG (2 x wall)</td>
</tr>
<tr>
<td>R403.3</td>
<td>REINFORCING WALLS</td>
</tr>
<tr>
<td>R403.3</td>
<td>FOUNDATION WALL – ANCHOR BOLTS PROPERLY SPACED</td>
</tr>
<tr>
<td>R403.3</td>
<td>BULKHEAD – SECOND MEANS OF EGRESS</td>
</tr>
<tr>
<td>R303.1</td>
<td>NATURAL VENTILATION/ LIGHTING</td>
</tr>
<tr>
<td>R403.3</td>
<td>DAMPROOFING / DRAINAGE</td>
</tr>
<tr>
<td>R403.8</td>
<td>INTERIOR FOOTINGS</td>
</tr>
<tr>
<td>R408.1</td>
<td>CRAWL SPACE – VENTILATION (When required)</td>
</tr>
</tbody>
</table>

**ROUGH’S**

<table>
<thead>
<tr>
<th>IRC</th>
<th>Code Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>R602.1</td>
<td>STUD GRADE # 2 OR BETTER</td>
</tr>
<tr>
<td>R602.3</td>
<td>BEARING WALLS – PROPER LOAD DISTRIBUTION</td>
</tr>
<tr>
<td>R602.4</td>
<td>POINT LOADS</td>
</tr>
<tr>
<td>TABLE R502.3(1)</td>
<td>FLOOR JOISTS – PROPER SPAN LENGTH</td>
</tr>
<tr>
<td>TABLE R502.5(1)</td>
<td>GIRDERS</td>
</tr>
<tr>
<td>TABLE R502.5(2)</td>
<td>BEAMS</td>
</tr>
<tr>
<td>R602.7</td>
<td>HEADERS</td>
</tr>
<tr>
<td>TABLE R802.4(1)</td>
<td>CEILING JOISTS</td>
</tr>
<tr>
<td>R502.10</td>
<td>STAIR STRINGERS</td>
</tr>
<tr>
<td>R305.1</td>
<td>HEADROOM</td>
</tr>
<tr>
<td>R311.7.4</td>
<td>TREADS &amp; RISERS</td>
</tr>
<tr>
<td>R310</td>
<td>EGRESS WINDOWS – 5.7 sf/2nd – 5.0 sf/1st (821 si)</td>
</tr>
<tr>
<td>R311.7.7</td>
<td>BLOCKING – GAUDS &amp; RAILS</td>
</tr>
<tr>
<td>R802.2</td>
<td>ROOF RAFTERS – COLLAR TIES</td>
</tr>
<tr>
<td>TABLE 602.3(1)</td>
<td>NAILING/ FASTENERS</td>
</tr>
<tr>
<td>FIG. R502.8</td>
<td>DRILLING &amp; NOTCHINGS</td>
</tr>
<tr>
<td>R302.4.1</td>
<td>FIREBLOCKING/ FIRESTOPS</td>
</tr>
<tr>
<td>R302.12</td>
<td>DRAFT STOPPING</td>
</tr>
<tr>
<td>R602</td>
<td>ROOF &amp; WALL SHEATHING</td>
</tr>
<tr>
<td>R905</td>
<td>ROOF VENTILATION/ RIDGE VENTS</td>
</tr>
<tr>
<td>R903.2</td>
<td>ROOF PENATRATIONS</td>
</tr>
</tbody>
</table>

Revised 04/06/2020
INSULATION

- WALLS - R-21
- CEILINGS (FLAT) - R-38
- CEILINGS (CATHEDRAL) - R-30
- FLOORS - UNHEATED BELOW - R-19
- WALLS - BASEMENT/ UNHEATED ROOM - R-13
- DUCTS & HW PIPING - R-6

ELECTRICAL

- WIRING METHODS
- ELECTRICAL CONNECTIONS
- KITCHEN APPLIANCE CIRCUIT – MIN (2) – 20A
- LAUNDRY APPLIANCE CIRCUIT – MIN (1) – 20A
- BATHROOM CIRCUIT – 20A
- ARC- FAULT BRANCH CIRCUITS
- GFCI PROTECTION
  - ISLAND OR PENNINCILA - 20A
  - DWELLING UNIT RECEPTICLES
  - WR/TP DAMP LOCATIONS
  - WP/TP WET LOCATIONS
- CARBON MONOXIDE DETECTORS
- SMOKE DETECTORS – IRC
- CONDUCTOR SPACE IN WORK BOXES
- RECEPTICLE SPACING – 6'-0” & 12'-0” @ WALLS
- 3 WAY SWITCH STAIR LIGHTING
- CABLE SUPPORTS/ STAPLES
- MOUNTING SCREWS/ NAILS
- STEEL PLATES < 1 ¼ “
- FIXTURE LOCATIONS
- LUMINAIR LOCATIONS
- CLOSET SPACE
- RATED CEILING FAN BOXES
  - CEILING – SUSPENDED (Paddle Fan)
- I.C. RATING FOR CEILING FIXTURES
- CLOTHES DRYERS #10 - 3 AWG

ELECTRICAL SERVICE

- PSNH WORK ORDER #
- SERVICE ENTRANCE – Overhead clearances
- SERVICE DROP - MAST – (When PSNH requires)
- GROUNDING ELECTRODES - @ FTGS/ FND Rebar
  - COMMON BONDING – Bldg Steel/ Separate Derived Systems
- SECONDARY GROUNDING – 2 - 8'-0” ½” rod @ 6'-0” / #6 AWG
- SERVICE LATERAL - SIZE & RATING
  - MINIMUM CONDUCTOR SIZE
  - SERVICE ENTRANCE CONDUCTORS
- DISCONNECTING MEANS
- AVAILABLE FAULT CURRENT – FUSES
- EXPANSION FITTING @ RISER
- MINIMUM FROST PROTECTION
- DIRECT BURIAL
- SPLICING
- PROTECTION FROM DAMAGE

MAIN SERVICE PANEL

NFPA-70

PSNH WORK ORDER # ____________________
SERVICE ENTRANCE – Overhead clearances
SERVICE DROP - MAST – (When PSNH requires)
GROUNDING ELECTRODES - @ FTGS/ FND Rebar
COMMON BONDING – Bldg Steel/ Separate Derived Systems
SECONDARY GROUNDING – 2 - 8'-0” ½” rod @ 6'-0” / #6 AWG
SERVICE LATERAL - SIZE & RATING
MINIMUM CONDUCTOR SIZE
SERVICE ENTRANCE CONDUCTORS
DISCONNECTING MEANS
AVAILABLE FAULT CURRENT – FUSES
EXPANSION FITTING @ RISER
MINIMUM FROST PROTECTION
DIRECT BURIAL
SPLICING
PROTECTION FROM DAMAGE

- 2 -

Revised 04/06/2020
- LOCATION – WORKING SPACE 110.26
- CLEARANCES – 30” MIN @ 36” IN FRONT 110.26(A)1 & 2
- BONDING – H2O & GAS PIPING 250.104(B)
- SUB PANELS – ISOLATE NEUTRAL 4 WIRE
- PROPER LIGHTING @ PANEL 110.26(D)
- LABELING OF CURCUITS 408.4
- AVAILABLE GUTTER SPACE 312.11
- PROPER TERMINATION GROUNDED CONDUCTORS 200.3
- LISTED BREAKERS/ RATED DISCONNECT 225.39

**PLUMBING**

- MAIN STACK VENT 910.3
- WET VENTING 909.1
- FIXTURE VENTS TABLE 906.1
- COMBINATION DRAIN & VENT SYSTEM TABLE 912.3
- DEVELOPED LENGTH TABLE 916.1
- HANGERS TABLE 308.5
- RISER CLAMPS TABLE 308.5
- STEEL PLATES < 1 ¼ ” 305.8
- FIXTURE UNITS / TRAPS TABLE 709.1
- LENGTH OF TRAP TO VENT TABLE 906.1
- WET VENTING 909.1
- WET VENT SIZE TABLE 909.3
- SANITARY DRAINAGE – MATEREIAL 702
- ABOVE GRADE TABLE 702.1
- UNDERGROUND TABLE 702.2
- SEWER TABLE 702.3
- FITTINGS TABLE 702.4
- ISLAND VENTING 913
- AIR ADMITTENCE VENT – (Where applicable) 917.1
- CLEANOUTS – Min 18” 708.8
- BASE STACK – Accessible 708.3.4
- INDIRECT WASTE 802.1
- WATER SUPPLY & DISTRIBUTION 604
- POTABLE WATER 602.2
- HOT WATER – MAX 130* NH Amendment 501.6
- WATER PIPE & SEWER SEPERATION – 5’-0” 603.2
- DESIGN - FLOW RATE & PRESSURE TABLE 604.3
- MAX - FIXTURE FITTINGS TABLE 604.4
- PIPE – MIN SIZE TABLE 604.5
- MANIFOLD SIZES TABLE 604.10
- MATERIAL – STANDARDS TABLE 605.3
- BUILDING WATER SUPPLY – Full Open valve 606.1.
- SHUT OFF VALVES 606.2
- BACKFLOW PROTECTION 608.13
- Backflow Preventers – Devise Applications TABLE 608.1
- LOCATION – Protection from freezing 608.14
- CROSS-CONNECTION CONTROLS 608.16
- EQUIPMENT GRND – SUBMERSIBLE WELL PUMP/ CASING NEC 250.112(M)
- SILL COCK – Hose Connected outlets 424.6
- ANTI-SYPHON VALVE/ BACKFLOW 608.15.4.2
- SYSTEM TESTING – WATER OR AIR 107.2

**HVAC SYSTEMS**

- IMC

Revised 04/06/2020

- 3 -
GENERAL REQUIREMENTS
- APPLIANCES – (UL LISTED & APPROVED)
- MANUFACTURES SPECS
- APPROVED USE FOR APPLIANCE
- PROPER INSTALLATION
- CLEARENCES REDUCTION METHODS
- CONFLICTS
- ACCESS – ATTIC UNITS
- VENTALATION
- EXHAUST SYSTEMS
- COMMERCIAL KITCHEN HOODS
- HEATING SYSTEMS – Warm Air
- DUCT WORK
- INSULATION
- PLENUMS
- DAMPERS - Installations
- FIRE/ SMOKE DAMPERS
- FIRE PARTITIONS/ Penetrations
- COMBUSTION AIR
- AIR CONDITIONING UNIT
- LABEL IDENTIFICATION
- ACCESS/ CLEARANCES
- REFRIGERANT LINES
- MATERIAL TYPES
- CONDENSATION

HEATING SYSTEMS
- HYDRONIC SYSTEMS
- PIPING MATERIALS
- INSTALLATION
- EXPANSION TANK
- PRESSURE RELIEF VALVES
- VENTING
- CUMBUSTION AIR
- SPRINKLER HEAD
- FUEL LINE PROTECTION
- EMERGENCY SWITCH
- VENT CONNECTION

GAS PIPING
- ENTRANCE LOCATION
- REGULATOR
- VENTING
- PIPE SIZING
- LISTED MATERIALS
- HANGERS
- DRIP LOOP
- IN-WALL PROTECTION
- SHUT OFF VALVES
- FLOOR & WALL TERMINATIONS
- BONDING to H2O PIPING

CHIMNEY

- NFPA 54
- IRC

Revised 04/06/2020
- MASONRY
  - 8” SOLID WALLS
  - FIRE BRICK
  - SMOKE CHAMBER – PARGED
  - CLEARANCES TO COMBUSTABLES
  - FLUE SEPARATION WALL
  - FRESH AIR SUPPLY – EXTERNAL
    - Combustible Air
  - DAMPER
  - CLEAN OUTS
  - ROOF CLEARANCES
  - HEARTH EXTENSIONS
  - MANTLE – Combustible Clearances

- MANUFACTURED
  - UL LISTED & APPROVED
  - MANUFACTURES SPECIFICATIONS
  - VENT TERMINATION
    - HORIZONTAL – Direct Vent
    - VERTICAL – Roof Penetration
  - VENT PIPE LABEL
  - FIRESTOPS
  - CLEARANCES
  - DAMPER

- LP GAS INSERT
  - SHUT OFF VALVE
  - BLACK IRON PIPE
  - VENTILATION
## FINAL INSPECTION CHECK LIST

### TOWN OF MERRIMACK

NEW HAMPSHIRE

<table>
<thead>
<tr>
<th>ADDRESS ________________________</th>
<th>MAP/LOT ____________</th>
<th>DATE ________________</th>
</tr>
</thead>
</table>

- House # posted at driveway and on house (min 4”) contrast colors
- Deck, Landings & Stairs - Max riser height 7 ¾” min tread 10”
- Handrails & guardrails min 36” height with 4” space max balusters
- Kitchen & bathroom floors finished with cleanable surface
- Kitchen Countertop – nonporous, cleanable surface
- Min 2 “GFCI” protected countertop appliance circuits, includes island
- Microwave circuit “GFCI” protected
- Dishwasher “GFCI” protected – cord and plug connection under sink
- Bathroom outlets “GFCI” protected
- Hot Water – Temperature at sink faucets – 120* F max
- All outlets in habitable space to be “AFCI” protected – check panel CB
  All AFCI circuit breakers to be tested – * To test - press test button on breaker (circuit should trip)
  to reset turn off completely then switch breaker on
- An Egress windows in each bedroom – Min 5.7 sf operable window
- Grade level windows min (5.0 sf) - bedrooms below grade require egress to grade level with (44”) max
  opening height from fin floor
- All habitable rooms to have a switched outlet or light fixture
- At least (1) 3 - way switch at each stairway – top and bottom of stair
- All outlets in garage to “GFCI” protected including overhead door – Min (1) outlet per garage bay
- Gas furnace, HW heater and boiler – installed to manufacturer’s instructions - all require ½ sheetrock or
  sprinkler head
- Smoke detector in each bedrooms, CO/ smoke detectors on each level – hard wired – battery backup and
  interconnected
- All circuits in electrical panels are to labeled and identified
- Hydro massage / Hot Tubs – “GFCI” protected – disconnect in site
- A/C condensers Disconnect at unit and service outlet within 25’
- Pools – In ground require 4'-0” fence enclosure & AG – 48” barrier

Inspector ________________________   Approved      Yes      No
**TOWN OF MERRIMACK**  
Certificate of Occupancy/  
Certificate of Unit Completion  
Check List  
BLD - FRM - 014

**Property Owner:** ____________________________  
**Phone:** ____________________

**Job Location:** ____________________________  
**Tax Map/ Lot:** ____________________

**Applicant:** ____________________________________  
**Phone:** ____________________

**Address:** ____________________________  
**City:** ____________________________  
**State:** _____  
**Zip:** __________

A Certificate of Occupancy (CO) or Certificate of Unit Completion shall only be issued upon the completion of the following check list and signatures, of the applicable Town of Merrimack Departments, certifying that the property is in compliance with all Town adopted Codes, Regulations and Ordinances.

**Authorized Department Signatures**

<table>
<thead>
<tr>
<th>Town Departments (Call to schedule appointments)</th>
<th>Date approved</th>
<th>Signature of Authorizing Person</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sanitary/ Sewer</strong></td>
<td>Waste Water 36 Mast Road</td>
<td>883-8196</td>
<td></td>
</tr>
<tr>
<td><strong>Water Department Village District</strong></td>
<td>Merrimack Village District 2 Greens Pond Road</td>
<td>424-7171</td>
<td></td>
</tr>
<tr>
<td><strong>PWD Highway Division</strong></td>
<td>Merrimack Public Works 76 Turkey Hill Road</td>
<td>423-8551</td>
<td></td>
</tr>
<tr>
<td><strong>Planning &amp; Zoning</strong></td>
<td>Community Development 6 Baboosic Lake Road</td>
<td>424-3531</td>
<td></td>
</tr>
<tr>
<td><strong>Fire Department Building Division</strong></td>
<td>Fire Sprinkler/Alarms</td>
<td>424-3690</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Building Department</td>
<td>420-1730</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Health Department</td>
<td>420-1730</td>
<td></td>
</tr>
<tr>
<td></td>
<td>432 Daniel Webster Highway</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Prior to the town granting a Certificate of Occupancy or Certificate of Unit Completion, the Applicant, General Contractor and or Property Owner is solely responsible for obtaining all applicable signatures and fulfilling all conditions of approvals, pertaining to the property, and to submit this completed form to the Building Department.

**Occupancy and Unit Certificate Conditions:**

1. The construction has met all adopted State of New Hampshire Building Codes and local regulations.
2. Certificate of Unit Completion must receive final inspection, from the Fire Marshal prior to opening to the general public. All food service licensed uses require Final inspection from the Health Officer.
3. Development Conditions of Approval, Subdivisions, Planning and Zoning.
4. It is the responsibility of the Owner to collect and obtain ALL Approvals and Signatures listed above:

*I agree to comply with the provisions of the applicable Building Code, and the requirements of the Authority Having Jurisdiction. And that the information on this form is accurate and has been completed to the best of my knowledge.*

____________________________________  
Applicant/ Owner  
____________________________  
Date
RESIDENTIAL CERTIFICATE OF OCCUPANCY INSPECTION REPORT

Inspection Date: ___________________ Time: ___________ Contact: ___________________
Re-Inspection Date: ________________ Time: ___________ Contact: ___________________
Street Address: ____________________ Construction Type: _____________________
Owners Name: ______________________ Construction Site: _______________________
                    □ New □ Existing

RESIDENTIAL CERTIFICATE OF OCCUPANCY CHECK LIST

Check Box if Complete

1 □ House Number attached to the structure minimum of 4 inches high in a contrasting color to the background. (NFPA 1 3.7.1)
2 □ Emergency Shut-off for all oil fired furnaces and heating systems.
3 □ Emergency Shut-off for gas, external to the building in an easily accessible area.
4 □ Smoke Detectors and/or CO Detectors (110 Volts AC, Battery Back-up and Interconn
   (NH State Fire Code, 1999ed. Sec. 6018.03)
5 □ All Detectors (Heat & Smoke) Shall be on the nearest electrical lighting circuit
6 □ Basement (Smoke Detector(s) / CO Detectors are Present and Tested)
7 □ First Floor (Smoke Detector(s) / CO Detectors are Present and Tested)
8 □ Second Floor (Smoke Detector(s) / CO Detectors are Present and Tested)
9 □ Each Bedroom (Smoke Detectors /CO detectors are Present and Tested)
    Bedroom 1          Bedroom 2          Bedroom 3          Bedroom 4          Bedroom 5
10 □ Ceiling Protection over Furnaces, Boilers and Solid Fuel Burning Equipment

"The area over all furnaces, boilers, and solid fuel burning equipment shall be fireproofed with no less
than ½" drywall extended three feet beyond the unit, and any combustible wall within the perimeter of
said fireproofed ceiling area shall be so fireproofed. All joints shall be sealed." Alternative: A 175°
upright sprinkler head directly over the burner. Head may be piped off the domestic water system. If
appliances are further than 5’ apart each unit shall have separate protection.

If there are any questions, concerns or comments with the inspection please list them below and
refer them to the Fire Prevention Bureau.

Comments:

_________________________________________________________________________________
_________________________________________________________________________________
_________________________________________________________________________________

Inspection Performed By: _______________________________ ID # ________ Shift: ____________
Re-Inspection Performed By: __________________________ ID # ________ Shift: ____________

Please complete the proper documentation with Community Development and return this
form to the Fire Marshal's office. Thank-you

- 8 -

Revised 04/06/2020