Residential Inspection High Impact Checklist

Determine the Compliance Path for the project:

- Projects using the Prescriptive Path and using the U-factor alternative or Total UA alternative (R402.1.4 (5) must have documentation in the project file that provides the calculated insulation and window efficiencies.
- Projects using the R405 Simulated Performance Path or the R406 Energy Rating Index path must have a Compliance Report including Performance Path or ERI inspection checklists in the project files.
- If the alternative compliance documentation was not submitted and approved at Plan Review, the inspector must inspect the project as a prescriptive compliance project using the checklist below.

<table>
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<tr>
<th>Phase</th>
<th>Code Requirement</th>
<th>What to look for</th>
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| 1. Plan Review | Construction drawings and documentation demonstrate energy code compliance for the building envelope, lighting and mechanical systems. | • For the correct code edition.  
• Review for unusual items like unusually high SEER ratings and HVAC efficiencies, wall and ceiling R-values over 15 & 38 respectively, unusually low SGHC and U-factors, unusually low duct leakage and blower door leakage values, <800 sq. ft. per ton of cooling, or other irregularities. |
| 2. Plumbing Rough-in | Hot water lines insulated with minimum R-3. N1103.5/R403.5 | • Inspect for insulation on hot water lines - 3/4" in diameter or larger, or any lines buried, under slab, supplying a recirculation system, piping to a manifold, or outside conditioned space. |
• In Climate Zone 2 you are looking for a U-factor ≤.40 and a SHGC ≤.25.  
• In Climate Zone 3 -U-factor ≤.35 and a SHGC ≤.25.  
• In Climate Zone 4 - U-factor ≤.35 and a SHGC ≤.40. |
| | Air and thermal barrier installed correctly and as per Table N1102.4.1.1/R402.4.1.1 | • Air barrier must be continuous, with all penetrations sealed. If you can see daylight through the wall from the inside of the house, the air barrier is not sealed.  
• Attic "hot/knee walls" must have an approved air barrier on the attic side.  
• Base plates must be sealed to the floor, with foam used in headers, penetrations through top plate sealed, and gaps around the perimeter of windows sealed.  
• Can lights must be gasketed, air-tight and IC rated.  
• Corners and Ts must allow for insulation (California corners and ladder framed T's) |
| Insulation installed correctly. Table N1102.4.1.1/R402.4.1.1 | • Check for proper R-value, no gaps, voids, compression of batts or misalignment.  
• Double check insulation is properly cut around wiring and other obstacles.  
• Blown-in fiberglass in walls should be firm to the touch.  
• HVAC walkways and other ceiling areas where blown may not reach are properly insulated.  
• Rim joists must be insulated, baffles installed at soffit vents.  
• Check that attic access hatches are sealed and insulated.  
• See this video for proper batt insulation installation: [https://www.youtube.com/watch?v=OXSV1Ws-HCc](https://www.youtube.com/watch?v=OXSV1Ws-HCc) |
| Supply duct at least R-8, return duct at least R-6 | • See that ducts are properly sealed, supported and installed per manufacturer’s instructions  
• See this for more info: [http://www.flexibleduct.org/images/ADC~IR5E.pdf](http://www.flexibleduct.org/images/ADC~IR5E.pdf) |
| Combustion air IRC G2407 | • Check for outdoor combustion air to all fuel burning appliances and fireplaces. |
| 4. Final Ceiling insulation R-values and depth markers N1103.1.1/R303.1.1 Table N1102.1.2/R402.1.2 | Confirm that the insulation corresponds with the R-value listed on permit documents:  
• In Climate Zones 2 & 3 R-38 minimum.  
• In Climate Zone 4 – R49 minimum.  
• Confirm eave baffles at vented rafter bays  
• Check for insulation certificate. |
| Envelope and Duct Leakage Tests N1102.4/R402.4 Table N1103.3.3/R403.3.3 | • Testing for leakage to outside is not acceptable for code compliance.  
• Envelope Leakage – Code requires ≤5ACH 50 in CZ 2, and 3 ACH50 in CZ 3&4.  
• Duct leakage – Code requires total leakage ≤4 cfm per 100 square feet of conditioned floor area. |
| Lighting N1104.1.1/R404.1.1 | • At least 75% installed lighting high efficacy. |
| HVAC and Water Heating Efficiency N1103.7?R403.7 | • Check that HVAC and Water Heating equipment meets minimum national standards.  
• Confirm that installed equipment efficiency is the same as on plan submittal documents and on the mandatory posted certificate. |
| Slab edge Insulation Table N1102.1.2/R402.1.2 | • Climate Zone 4 requires a minimum R10 to depth of 2 feet. |
| Energy Certificate N1103.1/R403.1 | • Confirm that an Energy Certificate, completed and signed by builder or registered design professional, is posted. |