Town of East Lyme — Roofing Inspection Checklist

Project Address:	Permit #:
Name:	
Phone: ( )	**eMail:**

This is only a general list and is not intended to address all possible conditions
References are to the 2012 International Residential Code (IRC) Portion of the 2016 Connecticut State Building Code as amended

Status	Item	Reference
	General Conditions	
	Repairs limited to 25% of roofing surfaces within one (1) calander year are exempt from permits	**R105.2**
	Job address is posted in a visible location	-----
	Access to interior of structure, attic area and roof	**R109.3**
	Type 1A ladder set up in accordance with OSHA standards	**OSHA 1926.1053(a)**
	Ladder is undamaged, set level @ h/4 pitch, extending minimum 3' above roof surface	
	No overhead power lines or obstructions - Inspector will not move ladder	-----
	Multiple site inspections may be required for roofing projects; including decking inspection, nailing or progress inspection and final. ***Review necesarry inspections at time of permit application.***	**R109.1, R109.1.5**
	Attic Ventalation & Insulation	
	Cross ventilation provided in all enclosed attics and spaces	**R806.1**
	Aggregate area of openings shall total 1/150 of the area of the attic area, unless 40% and not more than 50% of openings are in the upper portion at least 3 feet or greater above level of eave vents, the above ratios can be reduced to 1/300	**R806.2**
	Each enclosed vented rafter or truss bay to have a minimum 1" air space between insulation and underside of roof sheathing. Insulation cannot block the air flow at vents	**R806.3**
	Unvented attic and unvented enclosed rafter assemblies are allowed if all of the following are met: 1) Attic space completely within building thermal envelope 2) No Class I vapor retarder installed on ceiling side of unvented attic 3) Wood shingles or shakes have minimum 1/4" vented air space above structural sheathing 4) Air-impermeable insulation shall be a Class II vapor retarder or have Class II vapor retarder applied directly to underside of roof sheathing 5) Minimum R-20 air-impermeable insulation or combination with rigid board sealed at perimeters	**R806.5** **Table R806.5**
	Above-deck thermal roof insulation shall be covered with an approved roof covering meeting the provisions of FM 4450 or UL 1256. Above deck thermal insulation shall comply with the standards listed in Table R906.2	**R906.1**
	Existing Conditions	
	New roof coverings shall not be installed without first removing all existing layers of roof coverings when any of the following conditions exist: 1) The existing roofing is water soaked or degraded to such a point that it cannot provide an acceptable base to the additional roofing 2) Where the existing roof covering is wood shake, slate, clay, or cement tile 3) Where the existing roof has 2 or more applications Exception: Where a complete and seperate roofing system designed to transmit all loads directly to the buildings structural system not relying on existing roofs and roof coverings for support *Note: Most asphalt shingle manufacturers instructions preclude installation over existing materials*	**R907.3**
	Structural framework must be capable of supporting additional loads ***Pre-inspection may be required to review existing structural conditions***	**R907.2**
	When the application of new roof covering over wood shingles or shakes creates a combustible concealed space, the entire existing surface shall be covered with gypsum board, mineral fiber, glass fiber or other approved material and securely fastened in place	**R907.4**

	Substrate Sheathing	
	Roof decks shall be covered with approved roof coverings secured to the building or structure in accordance with the provisions of Chapter 903.	**R903.1**
	Asphalt shingles and rolled roofing shall be installed on solidly sheathed decks ***Check for rot or delaminating of existing sheathing and/or framing***	**R905.2.1, R905.5.1**
	Wood shingles shall be installed on solid or spaced sheathing not less than 1" x 4" nominal centered on spacing equal the the weather exposure	**R905.7.1**
	Metal roofing shall be installed on solid or spaced sheathing as required by the manufacturer	**R905.10.1**
	Solid sheathing is required on portions requiring application of the ice and water barrier	**R905.7.1.1**
	Sheathing less than 1/2" thick placed over rafters which are spaced more than 20" o.c. require plywood clips or blocked edges. *Typical 7/16" OSB with a span rating of 24/16 will not require clips*	**Table R503.2.1.1(1)**
	Wood structural panels spans per Table R503.2.1.1(1) or APA E30	**R803.2, R803.2.2**
	Sheathing exposed to weather must have exterior grade glue (*marked as "Exterior" or "Exposure 1"*)	**R803.2.1.1**
	Fire-retardent plywood	**See Section R803.2.1.2**
	Joints staggered per APA E30	**R803.2.3**
	Minimum prescriptive nailing is 8d common (2.5" x 0.131") nails spaced @ 6" o.c. at supported edges and within 48" from ridges, eaves and gable end walls, and 12 " o.c. in the field	**Table R602.3(1)**
	Underlayment - Also see special installation requirements of manufacturer	
	An ice barrier shall be provided for shingles and rolled roofing Cover from eave to 24" horizontal from interior wall surface	**R905.2.7.1, R905.5.3.1, R905.7.3.1, R905.8.3.1**
	Underlayment with end laps offest by a minimum of 6 feet For slopes between 2:12 and 4:12 - Two (2) layers with a minimum overlap of 19" For slopes greater than 4:12 - One (1) layer with a minimum overlap of 2"	**R905.2.7, R905.5.3, R905.7.3, R905.8.3**
	Metal roof panel underlayment shall be in accordance with the manufacturers installation instructions	**R905.1.5**
	Flashings - Also see special installation requirements of manufacturer	
	Flashing shall be a minimum 0.019" corrosion resistant metal installed at all roof and wall intersections to prevent moisture from entering.	**R903.2, R907.6**
	Valley flashings - See specific roofing material section	**-----**
	Sidewall flashing shall be step or continuous minimum 4" high	**R905.2.8.3**
	Flashings against vertical front walls, soil stacks, vent pipes and chimneys shall be applied in accordance with the shingle manufaturers printed instructions	**R905.2.8.4**
	Flashings for skylights shall be applied in accordance with the skylight manufacturers instructions	**R903.2.2**
	Drip edge metal is required at all eaves and gables, extending minimum 1/4" below sheathing and up the roof deck 2" Adjacent pieces lapped minimum 2" fastened 12" o.c. Underlayment shall be installed over the drip edge on eaves and under the drip edge on gables	**R905.2.8.5**
	Kick-out flashing required at sidewalls	**R903.2.1**
	Crickets are required on all chimneys 30" or wider extending to full width of chimney at the same pitch as adjoining roof surface	**R903.2.2, R1003.20**
	Chimneys shall be flashed and counterflashed	**R1003.20**
	Drainage	
	Roofs shall be sloped to drain over roof edges as required, unless designed for water accumulation	**R903.4**
	Unless sloped to drain over roof edges, roof drains shall be installed at each low point of the roof	
	Secondary emergency overflow roof drains or scuppers shall be provided where the perimeter construction extends above the roof. Overflow drains the same size as roof drains, or scuppers three (3) times the size of the roof drains a minimum 4" high shall be installed in adjacent parapet walls. Inlets shall be located 2" above the low point of the roof being served. Installation and sizing of drains, leaders, and connectors shall be in accordance with Section 1108 of the International Plumbing Code. Overflow drains shall discharge to an approved location and not be connected to the roof drain lines.	**R903.4.1**
	Minimum Slopes - Also see special installation requirements of manufacturer	
	Minimum 2:12 for asphalt shingles Roof slopes between 2:12 and up to 4:12 require double underlayment	**R905.2.2**
	Minimum 1:12 for mineral surfaced rolled roofing	**R905.5.2**
	Minimum 3:12 for wood shingles or shakes	**R905.7.2, R905.8.2**
	Minimum 3:12 for lapped non-soldered, non-sealed metal roof panels	**R905.10**
	Minimum 1/2:12 for lapped non-soldered, sealed metal roof panels	
	Minimum 1/4:12 for standing-seam roof systems	
	For other types of roofing applications	**See Section R905**

	Roofing - Also see special installation requirements of manufacturer	
	Roofs shall be covered with materials as set forth in Sections R904 and R905	**R902.1**
	Roof coverings shall be Class A, B or C listed in accordance with UL 790 or ASTM E 108 where the edge of the roof is within 3 feet of a property line, unless the deck or covering is non combustible.	
	Roof covering materials and assemblies shall be applied in accordance with Chapter 9 and the manufacturer's installation instructions. Materials shall be compatible with other applied materials.	**R904.1, R904.2, R905.1**
	Roof coverings shall be delivered in packages bearing the manufacturer's identifying marks and approved testing agency labels	**R904.4**
	Roof coverings including fasteners shall be installed as required per manufacturer's instructions	**R905.1**
Asphalt Shingles		**R905.2**
	Asphalt shingles shall comply with ASTM D225 or D3462, and be tested in accordance with ASTM D 7158 Class G or H or per ASTM 3161 Class F. The packaging shall bear a label to compliance.	**R905.2.4, R905.2.4.1 Table R905.2.4.1(1), R905.2.4.1(2)**
	Shingle overhang per manufacturer specification, or none if not specified	**R905.2.8.5**
	Proper starter course and attatchment. *Typically nailed within 3" of edge.*	**Manufacturers Instructions**
	Proper shingle layout and weather exposure	**Manufacturers Instructions**
	Fasteners shall meet ASTM F 1667 with a length to penetrate 3/4" into roof sheathing	**R905.2.5**
	Minimum four (4) fasteners per strip shingle or two (2) per individual shingle For slopes in excess of 21:12 install per manufacturers requirements *(typically requires hand sealing)*	**R905.2.6**
	Valley flashings: Open valleys - corrosion resistant metal per Table R905.2.8.2, minimum 24" wide or two (2) plies of mineral surfaced rolled roofing Closed valleys - one (1) ply of smooth surfaced rooled roofing or self-adhering underlayment	**R905.2.8.2**
Wood Shingles or Shakes		**R905.7, R905.8**
	Fire-retardant shingles or shakes treated in accordance with AWPA C1, with each bundle marked to identify manufacturer and labeled to identify the material classification	**R902.2, R905.8.9**
	Wood shingles shall be a naturally durable wood grade 1, 2 or 3 Weather exposure for wood shingles shall not exceed the provisions of Table R905.7.5	**R905.7.4** **R905.7.5**
	Wood shakes shall comply with the requirements of Table R905.8.5 Weather exposure for wood shakes shall not exceed the provisions of Table R905.8.6 and installed in accordance with Section R905.8.7	**R905.8.5** **R905.8.6, R905.8.7**
	Install wood roofing with a minimum side lap of 1-1/2 inches, and two (2) fasteners per shingle	**R905.7.5, R905.8.6**
	Valley flashings: Minimum 0.019 inch corrosion resistant metal, minimum 4" overlaps For wood shingles - Minimum 20" wide for slopes < 12:12 or 14" wide when > than 12:12 For wood shakes - Minimum 22"	**R905.7.6** **R905.8.8**
Metal Roofing Panels		**R905.10**
	Self-supporting metal roofing systems shall be designed per the International Building Code (IBC)	**R905.10.3**
	Metal roofing panels installed over structural decking shall comply with Table R905.10.3(1)	
	Metal roof panels shall be corrosion resistant of a minimum thickness per Table R905.10.3(2)	
	Metal roof panels shall be attatched in accordance with the manufacturers installation instructions	**R905.10.4**
For other types of roofing applications:		**-----**
	Clay and/or concrete tile roofing	**R905.3**
	Metal roof shingles	**R905.4**
	Mineral-surfaced rolled roofing	**R905.5**
	Slate and slate-like shingles	**R905.6**
	Built-up roofs	**R905.9**
	Thermoset single-ply roofing	**R905.12**
	Thermoplastic single-ply roofing	**R905.13**
	Modified bitumen roofing	**R905.11**
	Liquid applied roofing	**R905.15**
	Photovoltaic shingles and/or modules	**R905.16**

Additional Notes: