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# Residential Construction in One and Two Family Dwellings

Presented by:  
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Building Official, Town of Derby



## **Home Renovations and Code**

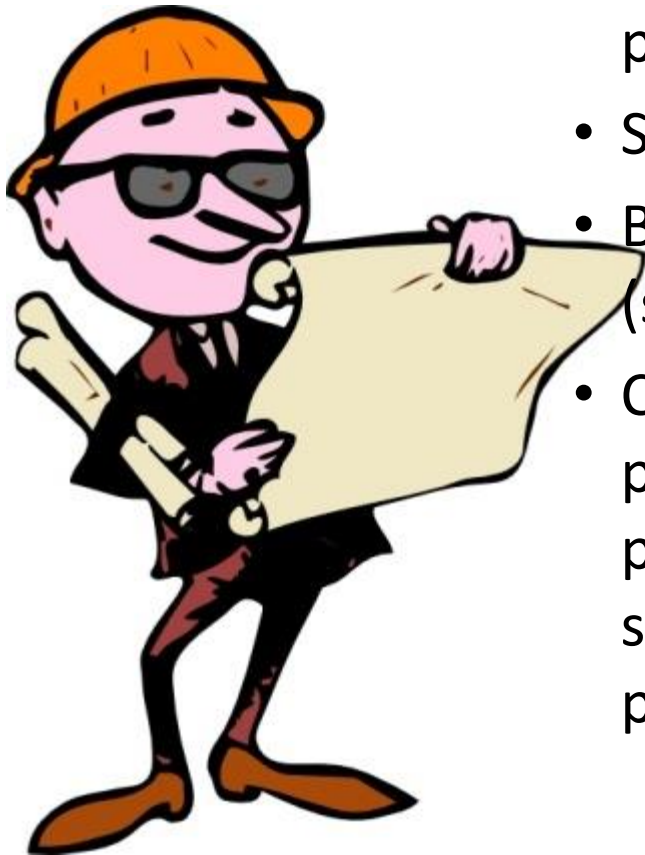
This seminar will address common Residential and Commercial renovation projects and the requirements of the Connecticut State Building Code. Topics reviewed will begin with the construction documents; the permit application process and permit exceptions; the items within a remodeling project, including code requirements associated with structures, electrical, plumbing, mechanical, ventilation, and energy conservation.

Please bring your 2012 IRC to class.

*Carlo Sarmiento, Building Official, City of Derby*

# IRC – Chapter 1

- R106.1 Construction documents



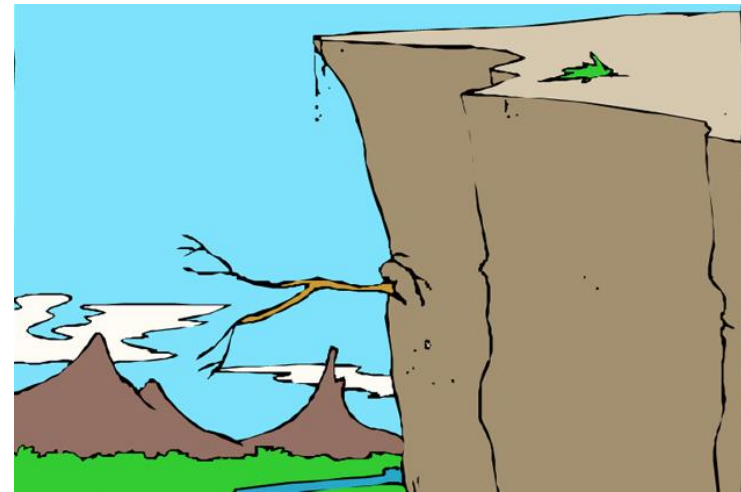
- 2 sets or more with each application for permit
- Satisfactory to the BO
- BO may waive submission of documents (see exception under R106.1)
- Construction documents shall be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed

# IRC – Chapter 1

- Section R106 Construction documents
  - R106.1.1 Information on construction documents
    - Electronic submission OK with BO approval
    - Clear & complete enough to determine compliance
    - BO may require specific details – All braced wall lines shall be identified on the construction documents and all pertinent information including, but not limited to, bracing methods, location and length of brace wall panels, foundation requirements of brace wall panels at top and bottom shall be provided.
  - R106.1.2 Manufacturer's Instructions
    - Available on-site at inspection
  - R106.1.3 Flood hazard areas
    - Special considerations based on hazard 'zone'

# IRC – Chapter 1

- Section R106 Construction documents
  - R106.2 Site or Plot Plan
    - Includes:
      - Size & location of new construction
      - Existing structures
      - Distance to lot lines
      - Location of private sewer system
    - May be waived at BO discretion
      - Refer to R302 (Fire-Resistant Construction) before waiving



# IRC – Chapter 1

- Section R106 Construction documents
  - R106.3 Examination of documents
    - BO shall examine or cause to be examined construction document for code compliance.
      - Plans technician
      - Consultant
  - R106.3.1 Approval of documents
    - Marked “REVIEWED FOR CODE COMPLIANCE”
    - 1 Set returned with permit
      - Maintained at job site for BO use
    - 1 set retained by BO

**REVIEWED FOR  
CODE  
COMPLIANCE**

# IRC – Chapter 1

- Section R106 Construction documents
  - R106.3.2 Previous approvals
    - Permit date determines code edition
      - With respect to R105.5 requirements
  - R106.3.3 Phased approval
    - OK at permit holder's risk



# IRC – Chapter 1

- Section R106 Construction documents
  - R106.4 Amended documents
    - Work shall be installed in accordance with approved construction documents
    - Changes require approval of amended plans
  - R106.5 Retention of documents
    - 1 set of approved construction documents should be retained by the BO for a period of no less than 180 days from date of completion of permitted work or as required by state and local laws



# IRC – Chapter 1

- R105.1 & R105.2

- Is a permit required for:

- 1) Construction of a 12' by 20' detached garage?
    - 2) Moving a two story, 12' by 16' accessory structure?
    - 3) A homeowner replacement of a single light switch?
    - 4) Installing a 8' high privacy fence?
    - 5) Snaking a replacement PEX cold water supply tube through framing cavities?
    - 6) Installing a woodstove into an existing chimney?
    - 7) Installing a very small (80 ft<sup>2</sup>) deck at an exterior door from a habitable attic?
    - 8) Installation of a 24" deep inflatable swimming pool?
    - 9) Converting an existing oil fired heating system to gas fuel?

# IRC – Chapter 1



- R105.1 REQUIRED – Who can apply for a building permit
  - Owner in fee
  - OR
  - Authorized agent of owner in fee
    - With written authorization of owner
  - OR
  - Affidavit of applicant, witness by BO or designee

# IRC – Chapter 1

- R105.2.1 Emergency repairs
  - Application shall be submitted within the next working business day
- R105.2.2 Repairs
  - Simple, common repairs exempted from permit
    - No cutting of walls
    - No cutting of structural supports
    - No change in egress
    - No messing with water, sewer, vent
    - No electrical, gas
    - No mechanical work
- R105.2.3 Public Service Agencies
  - A permit should not be required by agency by established right



# IRC – Chapter 1

- R105.3 Application for permit
  - Permit application form requirements
    - Scope of work
    - Location of work
    - Use & occupancy of the property
    - Construction documents and other information as required by R106.1
    - Validation of work
    - Signature
    - Additional data as required



**REQUIRED**

# IRC – Chapter 1



- R105.3.1 Action on application
  - 30 day ‘window’ to:
    - Issue a permit or deny a permit
      - Rejection shall be in writing
        - » Reason for rejection stated
  - BO shall issue permit as soon as practicable
- R105.3.1.1 Flood hazards
  - Special handling of flood damaged buildings
- R105.3.2 Time limitation of application
  - An application for a permit for any proposed work should be deemed to have been abandoned 180 days after the day of filing
  - BO is authorized to grant one or more extension for a time period not exceeding 180 days each

# IRC – Chapter 1

- R105.4 Validity of permit
  - Approval to proceed with work
    - BO can ask for corrections of errors on documents and other data received
    - BO is also authorized to prevent occupancy or use of a structure where in violation of this code or any other ordinance
- R105.5 Expiration of permit
  - 180 days from issue date
    - BO may grant up to 180 day extension
  - 180 days of work lapse
    - BO may grant up to 180 day extension

# IRC – Chapter 1

- R105.6 Suspension / Revocation of Permit
  - BO may ‘pull’ permit for:
    - Issuance in error
    - Incorrect, inaccurate, or incomplete information
    - Violation of this or municipal Codes
- R105.7 Placement of permit
  - On-site for duration
- R105.8 Responsibility
  - All trades must comply with Code
- R105.9 Preliminary inspection
  - BO may examine proposed work site

**REVOKED!**



# IRC – Chapter 1



- Section R108 Fees
  - R108.1 Payment
    - A permit shall not be valid until the fees described by law have been paid. Nor shall an amendment to a permit be released until the additional fee, if any, has been paid.
  - R108.2 Fee Schedule
    - On buildings, all trades requiring a permit, a fee for each permit shall be paid as required in accordance with the governing authority
  - R108.3 Building Permit Validations
    - Required estimate at time of application
    - Final value set by BO
  - R108.4 Related fees
    - Paid as required
  - R108.5 Refunds
    - Locally established policy
  - R108.6 Work commencing before permit issuance
    - Any work performed without a permit shall be subject to fees established by the applicable governing authority that shall be in addition to the required permit fees.



# IRC – Chapter 1

- Section R107 Temporary Structures
  - R107.1 General
    - 180 day - temporary use permit
      - Additional 180 days for cause
    - Several exceptions with specific limitations
      - Camp tents, shade tents, small event tents
  - R107.2 Conformance
    - Temporary structures and usage shall conform to the structure's strength, fire safety, means of egress, light, ventilation and sanitary requirements to ensure public health and safety and general welfare
  - R107.3 Temporary Power
    - The BO is authorized to give permission to temporarily supply and use power
  - R107.4 Termination of approval
    - Permit may be pulled for cause



# IRC – Chapter 1

- Section R109.1 Inspections
  - R109.1 Types of Inspections
    - R109.1.1 Foundation Inspection
    - R109.1.2 Plumbing, mechanical, gas, electrical
      - Exception – Backfilling of ground-source heat pumps in accordance with M2105
    - 109.1.3 Floodplain inspections
    - R109.1.4 Frame & masonry inspections
      - R109.1.4.1 Insulation inspection - REMOVED
    - R109.1.5 Other inspections
      - R109.1.5.1 Fire resistance construction inspection
    - R109.1.6 Final inspection
      - Shall be made after permitted work is complete and prior to occupancy
    - R109.1.6.1 Elevation documentation

# IRC – Chapter 1

- Section R109.1 Inspections
  - Based on section R109.1; develop a list of required inspections & documentation for each of the following:
    - 1) Electrical service change from 60A to 200A
    - 2) Oil to gas boiler conversion in a flood zone?
    - 3) 20' by 16' kitchen addition to existing structure?
    - 4) 24' by 24' detached garage adjacent to existing single family dwelling.
    - 5) 20 unit townhouse structure overlooking a river
    - 6) Ground source heat pump system

# IRC – Chapter 1

- Section R109 Inspections
  - R109.2 Inspection agencies
    - Inspections may be ‘jobbed out’
  - R109.3 Inspection requests
    - Duty of the permit holder or designee
    - Must allow access for inspection
  - R109.4 Approval required
    - Items must be available for inspection
    - Work may not be concealed until BO ‘OK’ of work
  - R109.5 Notification
    - BO will make written notice of inspection results





# IRC – Chapter 1

- Section R110 Certificate of Occupancy
  - R110.1 Use & Occupancy Certificate
    - Exceptions:
      - CO are not required for work exempt from permits under Section R105.2
      - Accessory buildings or structures
    - Requires R110.1.1 Zoning approval
  - R110.2 Change in Use
    - No changes shall be made to any structure except as specified in Section 3408 and 3409 IBC

# IRC – Chapter 1

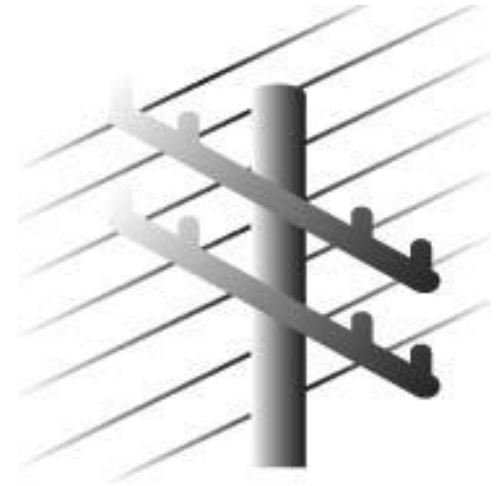
- Section R110.3 Certificate Issued
  - After the BO inspects the building and finds no violations the BO shall issue a CO which shall contain the follow:
    1. The building permit number
    2. The address of the structure
    3. The name and address of the owner
    4. A description of that portion of the structure for which the certificate is issued
    5. A statement that the described portion of the structure has been inspected for compliance with the requirements of this code.
    6. The name of the BO
    7. The addition of the code under which the permit was issued
    8. If an automatic sprinkler system is provided and whether the sprinkler system is required
    9. Any special stipulations and conditions of the building permit

# IRC – Chapter 1

- Section R110 Certificate of Occupancy
  - R110.4 Temporary Occupancy CO
    - Life safety must be ensured
    - The BO shall establish a time period where the TCO is valid
  - R110.5 Revocation
    - Procedure and cause for cancellation



# IRC – Chapter 1



- Section R111 Service Utilities
  - R111.1 Connection
    - Requires BO approval
  - R111.2 Temporary Connection to Utilities
    - May be approved by BO
  - R111.3 BO Authority to disconnect service utilities
    - To eliminate a serious hazard
    - Improper or illegal connections
    - Requires written notification



# IRC – Chapter 1

- Section R112 Board of Appeals
  - R112.1 General
    - BO decision can be appealed
  - R112.2 Limitations on Authority
    - Shall only be appealed if code has been misinterpreted by BO
    - However, the Board shall not have the authority to waive any requirements of this code
  - R112.2.1 Determination of Substantial Improvements in Flood Hazard Areas
    1. Improvements of building or structure requirements
    2. Alteration of historical building
      - 2.1. Listed
      - 2.2. Determined by Secretary of US Dept. of Interior
      - 2.3. Designated as historical under state or local code. Approved by Dept. of Interior

# IRC – Chapter 1

- Section R112 Board of Appeals
  - R112.2.2 Criteria for Issuance of a Variance for Flood Hazard Areas
    - A variance shall be issued only upon:
      1. A showing of a good, sufficient cause
      2. A determination that failure to grant the variance will result in exceptional hardship
      3. A determination that the granting of a variance will not result in increased flood heights
      4. A determination that the variance is the minimum necessary to afford relief
      5. Submission to the applicant of written notice specifying the difference between the design flood elevation

# IRC – Chapter 1

- Section R112.3 Qualifications
  - The Board of Appeals shall consist of members who are qualified by experience and training. They may not be employees of the jurisdiction.
- Section R112.4 Administration
  - The BO shall take immediate action in accordance with the decision of the Board.



# IRC – Chapter 1

- Section R113 Violations
  - R113.1 Unlawful Acts
    - Code must be followed
  - R113.2 Notice of violation
    - BO may issue orders based on Code violations
  - R113.3 Prosecution of violation
    - BO authorized to request legal assistance
  - R113.4 Violation penalties
    - Shall be subject to penalties as prescribed by law



# IRC – Chapter 1

- Section R114 Stop Work Order

- Based on:

- Non-Code compliant work
- Unsafe or dangerous condition
- Work outside confines of permit
- Working without a permit

- R114.1 Notice to Owner

- Work must immediately stop
- Written notice to:
  - Property owner, agent, person doing work

- R114.2 Unlawful continuance

- Loss of dollars & / or possible orange jumpsuit
- Work to correct the safety issue may be ordered



Is this legal? Do you need a permit?



# Here's the full picture!



Hmmmmmm....

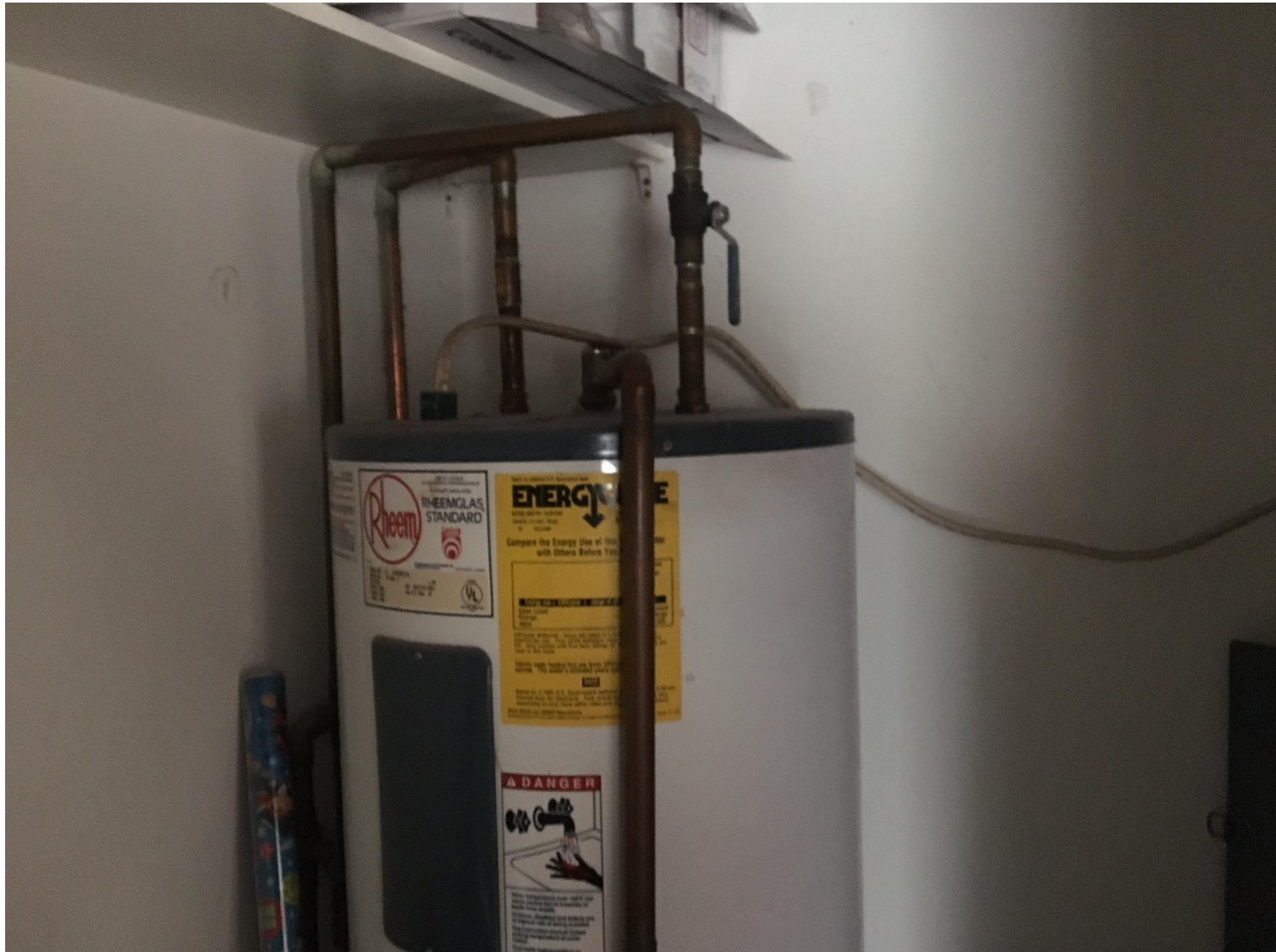




Is this legal?  
Do you need  
a permit?



Is this legal? Do you need a permit?



How about this one?





And...what  
about this  
one?



Legal?  
Do you need  
a permit?  
(These guys  
didn't think  
so.)

Homeowner special.



Legal? Permit required?



What about this one?





# Why label the panel when you can play “Is it this one?”



# Does this need a permit?





The End.  
(Literally)

Questions  
and/or  
comments?