CHAPTER 23.85 LOCAL AMENDMENTS TO THE INTERNATIONAL RESIDENTIAL CODE 2009 EDITION.

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23.85.R100 Local amendments to the 2009 International Residential Code.

The amendments to the 2009 International Residential Code are listed hereafter by section. The last digits of the number (after the title and chapter digits) are the section of the 2009 International Residential Code to which the amendments refers, i.e., 23.85.R310 refers to amendments to Section R310 of the 2009 International Residential Code.

23.85.R100.1 Administrative.
Delete Sections R103 through R114. See Anchorage Administrative Code Chapter 23.10 for Administrative Provisions, Fees, and Special Inspections.

In last sentence, change "120" to "130".

23.85.R301.2.1 Wind limitations.
Delete the words "EXTERIOR DOORS" from the third sentence.

23.85.Table R301.2(1) Climatic and Geographic Design Criteria.
Add the following information in the table:
Ground snow load 50 PSF
Equates to 40 psf roof snow load
<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wind Speed</td>
<td>23.85 (Figure R301.2 (4) per site)</td>
</tr>
<tr>
<td>Topographic effects</td>
<td>D2</td>
</tr>
<tr>
<td>Seismic Design Category</td>
<td></td>
</tr>
<tr>
<td>Subject to damage from:</td>
<td></td>
</tr>
<tr>
<td>Weathering</td>
<td>Yes, severe</td>
</tr>
<tr>
<td>Frost Line Depth</td>
<td>42&quot; for warm foundation, 60&quot; for cold foundation</td>
</tr>
<tr>
<td>Termite</td>
<td>No</td>
</tr>
<tr>
<td>Winter Design Temperature-25 deg F</td>
<td></td>
</tr>
<tr>
<td>Ice Shield Underlayment Required</td>
<td>Yes</td>
</tr>
<tr>
<td>Flood Hazards</td>
<td>Yes, see flood hazard maps</td>
</tr>
<tr>
<td>Air Freezing Index</td>
<td>3500</td>
</tr>
<tr>
<td>Mean Annual Temperature</td>
<td>35°F</td>
</tr>
</tbody>
</table>
23.85. Figure R301.2(4) Basic wind speeds for 50-year mean recurrence interval.

Amend by deleting Figure R301.2(4) and replace with the following:

Anchorage Bowl “Three Second Gust” Wind Zone Map:

![Anchorage Bowl Three Second Gust Wind Zones Map](image-url)
23.85.R301.2.1.1 Design criteria.
Add to Section R301.2.1.1:

Exception: Accessory structures 600 square feet or less, consisting of one-story.

23.85.R301.2.2.1.1 Alternate determination of seismic design category.
Delete paragraphs R301.2.2.1.1, R301.2.2.1.2, and table R301.2.2.1.1 and replace with the following:

The seismic design category for Anchorage shall be D2.

23.85.Table R302.1 Exterior walls.
In the "minimum fire separation distance" column, under "Projections", revise the 5 to a 3 in the "1 hour on the under side" row. In the "0 hours" row, delete the 5 feet and replace with 3 feet. Add footnote at the bottom of table: Projections shall not extend closer than 2' to the property line.

23.85.R302.2 Townhouses.
In the exception add to the beginning of the paragraph:

If building is not constructed utilizing an approved fire-suppression system, a common 2 hour fire-resistance-rated wall shall be used. If it is constructed with an approved fire-suppression system a common 1-hour...

23.85.R302.2.1 Continuity.
Delete the last sentence in paragraph.

23.85.R302.2.1.1 Horizontal continuity.
Add the following subsection:

The fire resistance rated dwelling unit separation wall or walls shall be continuous from exterior wall to exterior wall and shall terminate at the interior surface of the exterior sheathing or siding.

23.85.R302.2.1.2 Exterior walls.
Add the following subsection:

Where the fire resistance rated wall assembly separating townhouses intersects the exterior wall, an (assumed) imaginary lot line shall extend outward from the intersection. The location of the imaginary lot line in relation to the exterior walls shall be such that the exterior wall fire resistance rating and opening protection meet the requirements set forth in section R302.1. Where the exterior walls on each side of the townhouse separation wall form an angle equal to or greater than 180 degrees, exterior wall and opening protection is not required.

23.85.R302.2.1.3 Horizontal projecting elements.
Add the following subsection:

The fire resistance rated dwelling unit separation wall or walls shall extend to the outer edge of horizontal projecting elements such as balconies, roof overhangs, canopies, marquees, and similar projections that are within 4 feet
of the separation wall.

Exceptions:
1. Horizontal projecting elements without concealed spaces.
2. Noncombustible horizontal projecting elements.

23.85.R302.2.4 Structural independence.
In exception #5, remove the wording "1-hour".
Add to the end of the sentence in exception #5:
…and of which will not be a bearing wall (walls) supporting any floor or roof.

23.85.R302.2.5 Common wall insulation.
Add new subsection:
The portion of the common wall(s) between dwelling units located in the attic space shall be fireblocked at ceiling line(s) and insulated equivalent to the attic space directly above the fireblocking.

23.85.R302.3 Two-family dwellings.
Delete exception 2 and add the following exception in its place:
2. A one-hour fire-resistant separation shall not be required between an Accessory Dwelling Unit (ADU), as defined under MOA Title 21 – section 21.45.035, and its primary residence.

23.85.R302.3.2 Common wall insulation.
Add new subsection:
The portion of the common wall(s) between dwelling units located in the attic space shall be fireblocked at ceiling line(s) and insulated equivalent to the attic space directly above the fireblocking.

23.85.R302.5.1 Opening protection.
Add to the end of the paragraph:
Access to the crawlspace from garage, shall have the same door as mentioned above. All doors shall be self-closing and have smoke gaskets at top and sides of doors and adjustable threshold or sweep. Access from garage to crawlspace shall be in a wall and not through a floor.

23.85.Table R302.6 Dwelling/garage separation.
Amend table by replacing ½ inch gypsum board with 5/8 inch Type X gypsum board in all locations within the table.

23.85.R302.10.2 Loose-fill insulation.
Add the following paragraph after exception:
Depth gages or truss markings shall be provided for blown-in insulation to allow for verification of depth throughout the attic space.

23.85.R303.1 Habitable rooms.
Under exceptions add item 4:
4. Theater rooms are exempt from ventilation requirements of this
23.85.R307.1 Space required.
Delete paragraph and figure R307.1 and replace with:
Reference the current adopted plumbing and mechanical codes.

23.85.R308.6.9 Testing and labeling.
Add sentence to end of paragraph:
Will accept literature provided on site to show skylights meet criteria of section, in lieu of label adhered to skylight.

23.85.R310.1 Emergency escape and rescue required.
Number the exception 1, and add exception number 2:
2. Where windows are provided as a means of escape or rescue in a basement, they shall have a finished sill height of not more than forty-eight (48) inches above the finished floor.

23.85.R313 Automatic fire sprinkler systems.
Delete section.

23.85.R315.1 Carbon monoxide alarms.
Delete the information in section and replace with:
At least one carbon monoxide detector shall be installed on each floor level. If a floor level contains bedrooms, at least one detector shall be located in the immediate vicinity but outside of the bedrooms. Carbon monoxide detectors shall be listed and installed in accordance with their listing. Combination carbon monoxide/smoke detectors are acceptable as long as they meet all requirements. Exceptions:
1. Carbon monoxide detectors are not required in dwelling units that have no combustion appliances and that do not have an attached garage.
2. Carbon monoxide detectors are not required in dwelling units that have only direct vent combustion appliances and that do not have an attached garage.

23.85.R315.2 Interconnection.
Delete title of section and rename as noted. Delete the information in section and replace with:
In new construction, carbon monoxide detectors shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual dwelling unit.

23.85.R315.3 Power source.
Delete title of section and rename as noted. Delete the information in section and replace with:
In new construction, carbon monoxide detectors shall receive their primary power from the building wiring where such wiring is served from a commercial source and shall be equipped with a battery back-up. Wiring shall be permanent and without
disconnecting switch other than those required for overcurrent protection. In existing construction, carbon monoxide detectors shall be permitted to be battery powered or cord-and-plug type with battery back-up.

23.85.R317.1 Location required.
Amend first sentence by deleting the words “naturally durable wood or”.

23.85.R317.1(5) Location required.
Add the following sentence to the end of number 5 in this section:
  Measures should be taken to mitigate frost heaving if wood siding or sheathing has less than six inch clearance.

Add the following sentence to the end of the paragraph:
  This requirement only applies to exposed glue-laminated timbers in section R317.1.5 and AWW foundation walls.

23.85.R317.3.1 Fasteners for preservative-treated wood.
Add Exception 3:
  ¼" steel (red iron) designed brackets, may be used with treated lumber providing a 10 mil polyethylene plastic barrier, two layers, is placed between surface of wood and surface of steel.

23.85.R401.1 Application.
Add the following item No. 3 to the exception:
  3. Wood foundations shall be per 23.85.Figure R403-34.

23.85.R401.3 Drainage.
Add the following sentence to the end of the paragraph:
  There shall not be a net increase in surface drainage across property lines. Approved discharge locations shall include street gutters, drainage easements, ditches, or other approved locations. Surface runoff may be retained on site to prevent impacts to neighboring properties.

23.85.R401.4 Soil tests.
Add the following:
  Special site investigations shall be performed in potentially hazardous areas as follows:
  1. Special site investigations are required in delineated seismic hazard zones after consideration of the proposed location, use, and building type. The required level of documentation is specified in the following paragraphs according to designations in 23.85.Table R401.4.
     a. For site investigation requirement "A", submit geotechnical information sufficient for the Building Official to verify that the assumed hazard zonation is consistent with known site conditions.
     b. For site investigation requirement "B", provide all information
described above; plus submit geotechnical investigation per 2009 IBC 1803 prepared by a professional engineer registered in the State of Alaska. It may be necessary to extend the investigation beyond the immediate site boundaries in order to evaluate applicable hazards. The structure shall be designed and sealed by a structural engineer registered in the State of Alaska.

2. Where the soil investigation section of the Anchorage Administrative Code requires a geotechnical investigation to be performed, the potential for isolated permafrost shall be addressed in the geotechnical report. 23.85.Table R401.4 Hazard zone.

<table>
<thead>
<tr>
<th>OCCUPANCY</th>
<th>SITE INVESTIGATION REQUIREMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HAZARD ZONE (SEE NOTES)</td>
</tr>
<tr>
<td>Residential</td>
<td>B 4 3 2 1</td>
</tr>
</tbody>
</table>

NOTES: For details and descriptions of site investigation requirements, see IBC Chapter 18.

Hazard Zones*
1. Lowest Ground Failures Susceptibility
2. Moderately Low Ground Failure Susceptibility
3. Moderate Ground Failure Susceptibility
4. High Ground Failure Susceptibility
5. Very High Ground Failure Susceptibility


23.85.R403.1 General.
Delete the last two sentences of R403.1 and figures R403.1(1), R403.1(2), and R403.1(3) and Table R403.1, and add or replace with the following:
1. Definitions:
   a. **Warm foundation:** Any foundation where the temperature of the bearing soils are normally maintained above freezing;
   b. **Cold foundation:** Any foundation where the temperature of the bearing soils are normally subjected to freezing.
2. Foundations shall be constructed as shown in Table 23.85.R403-16 and Figures 23.85.R403-25, 23.85.R403-29, 23.85.R403-31, 23.85.R403-34, and 23.85.R403-37 or foundations designed under the provisions of the IBC. Footings and foundations shall be constructed of masonry, concrete, or treated wood. Footings of concrete and masonry shall be of solid material. Foundations supporting wood shall extend at least six (6) inches above the adjacent grade. Unless other recommendations are provided by a foundation investigation report, footings shall meet the following requirements:
   a. Minimum footing depths shall be indicated in 23.85.Table R403.1. Footings shall bear on undisturbed natural inorganic soil, or suitably compacted fill.
b. Cast-in place concrete piers shall be founded at a depth suitable for structural support or as indicated in 23.85.Table R403.1, whichever is greater. Connecting grade beams between piers on perimeter walls of warm buildings shall extend at least 36 inches below ground surface and shall be protected from frost heave. The potential for frost heave below grade beams of cold structure shall be accounted for in the design of these elements.

23.85.Table R403-16 Reinforced concrete.
1. Reinforced concrete walls shall be anchored to all floors and roofs in accordance with section 1604.8.2 of the International Building Code.
2. All intersecting reinforced concrete walls shall be tied together. (IBC 1907.13).
3. All interior and exterior concrete walls shall be reinforced. (ACI-08 14.3.1).
4. All structural members framing into or supported on concrete walls or columns shall be anchored. (ASCE 7-05 1211).
5. All deformed reinforcing bars shall meet or exceed ASTM A615 requirements. (ACI-08 3.5.3).
6. Concrete in seismic zone D shall have a minimum compressive strength of 3000 psi for severe exposure. (See IBC 1808.8.6 and table 1904.3).
7. The following minimum reinforcement requirements shall apply to all below grade concrete walls (i.e. basement walls and crawlspace walls). This reinforcing does not apply to above grade walls, which must be designed in accordance with the requirements of IBC.

MINIMUM REINFORCEMENT FOR CONCRETE WALLS
(Horizontal and Vertical Spacing)

<table>
<thead>
<tr>
<th>Width of Wall</th>
<th>#5 Bar</th>
<th>#4 Bar</th>
</tr>
</thead>
<tbody>
<tr>
<td>6&quot; Walls</td>
<td>#5 @ 18&quot; O.C. hor.</td>
<td>#4 @ 16&quot; O.C. hor.</td>
</tr>
<tr>
<td></td>
<td>#5 @ 18&quot; O.C. vert.</td>
<td>#4 @ 18&quot; O.C. vert.</td>
</tr>
<tr>
<td>8&quot; Walls</td>
<td>#5 @ 18&quot; O.C. hor.</td>
<td>#4 @ 12&quot; O.C. hor.</td>
</tr>
<tr>
<td></td>
<td>#5 @ 18&quot; O.C. vert.</td>
<td>#4 @ 18&quot; O.C. vert.</td>
</tr>
<tr>
<td>10&quot; Walls</td>
<td>#5 @ 15&quot; O.C. hor.</td>
<td>#4 @ 10&quot; O.C. hor.</td>
</tr>
<tr>
<td></td>
<td>#5 @ 18&quot; O.C. vert.</td>
<td>#4 @ 16&quot; O.C. vert.</td>
</tr>
</tbody>
</table>

Page 11 of 28
23.85. Figure R403-25  Typical foundation and footing details.
23.85. Figure R403-29  Typical step footing.

NOTE: Minimum steel cover when concrete is in permanent contact with earth as on bottom of footings is 3 inches. Minimum steel cover when concrete is exposed to weather is 2 inches.

3 - #5 Rebar continuous through steps.

Steps less than 24" do not require third member.

Minimum lap of Rebar, 30 dia., or 18.75 inches.
Figure R403-31   Typical pony wall for split level.
23.85. **Figure R403-34**  All weather wood foundation.
23.85. Figure R403-37  

Typical basement foundation wall.

DO NOT BACKFILL ABOVE 4' UNTIL BLOCKING, FRAMING ANCHORS & PLYWOOD NAILS ARE INSTALLED.
23.85.Table R403.1 Footing depths.

<table>
<thead>
<tr>
<th>Foundation Type</th>
<th>Minimum Footing Depth (Inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perimeter Footing (1)</td>
<td></td>
</tr>
<tr>
<td>Interior or Interior Isolated Spread Footings (2)</td>
<td></td>
</tr>
<tr>
<td>Cast-in-Place Concrete Pier</td>
<td></td>
</tr>
<tr>
<td><strong>Warm Foundation</strong></td>
<td><strong>Cold Foundation (3)(4)</strong></td>
</tr>
<tr>
<td>all measurements are from top of finished grade</td>
<td>60</td>
</tr>
<tr>
<td>42</td>
<td>60</td>
</tr>
<tr>
<td>42</td>
<td>120 (5)</td>
</tr>
</tbody>
</table>

NOTES TO TABLE:
(1) Dimension indicated is from bottom of footing to adjacent exterior grade. Basements or crawlspace walls supporting more than five feet differential fill on opposite faces shall be restrained as necessary against lateral movement.
(2) Dimension indicated is from bottom of footing to nearest adjacent grade.
(3) Exterior decks, landings, and platforms not rigidly attached to the building and not greater than 30 inches above grade may bear directly on the ground. Bearing materials must meet other portions of this code.
(4) The minimum footing depths may not be adequate for frost susceptible soils. Cold footings shall be founded below the frost line, or be protected from freezing with insulation or other appropriate means. In addition, provisions shall be made to resist uplift forces due to frost jacking on the side of cold foundations.
(5) Cast-in-place concrete piers installed in non-frost-susceptible material may be 60 inches (five feet).

23.85.R403.1.1 Minimum size.
Delete section – see 23.85.R403.1.

23.85.R403.1.3 Seismic reinforcing.
Delete exception.

23.85.R403.1.4.1 Frost protection.
Change method #1 to reference 23.85.Table R403.1, not Table R301.2(1).

23.85.R403.2 Footings for wood foundations.
Delete entire paragraph and replace with the following:
Wood foundations shall be per 23.85.Figure R403-34.

23.88.Table.R403.3(2) Air-freezing index for U.S. locations by county.
Add Anchorage to the "3500" column in the Alaska row.
23.85.R404.1  Concrete and masonry foundation walls.
Delete subsections R404.1.1 through R404.1.8.
Delete Tables R404.1.1(1) - R404.1.1(4), and R404.1.2(1) – R404.1.2(9), and Figure R404.1.5(1).
See 23.85.R403.1.

23.85.R404.2  Wood foundation walls.
Delete section in its entirety; reference 23.85.Figure R403-34 All Weather Wood Foundation.

23.85.R404.3  Wood sill plates.
Delete paragraph and substitute with the following:
Wood sill plates shall be minimum 2-inch x by 6-inch and shall be bolted to the foundation or foundation wall with not less than ten (10) inch by one half (1/2) inch nominal diameter galvanized steel bolts embedded at least seven (7) inches into the concrete or in fully grouted cells of reinforced masonry and spaced not more than six (6) feet zero (0) inches apart. There shall be a minimum of two bolts per piece with one bolt located within 12 inches of each end of each piece. Wood sill plates must be treated material specified in Section R317.1.

23.85.R404.6  Insulating concrete form foundation walls.
Add new section:
Only flat insulating concrete form wall systems shall be used with reinforcement per 23.85.Table R403-16.

23.85.R405.1.1  Precast concrete foundation.
Delete this subsection.

23.85.R406.1  Concrete and masonry foundation dampproofing.
Substitute with the following:
In the first sentence beginning with the word “enclose”, replace the wording in the rest of the sentence with the following:
…crawl space walls 40 inches or less in height shall be damp-proofed from above grade to 6” below the top of the footing.
Number the exception to 1 and add exception 2:
2. Foundation walls backfilled on both sides, such as those used in conjunction with a “slab on grade”, do not require damp-proofing.

23.85.R406.2  Concrete and masonry foundation waterproofing.
Delete the first sentence and replace with the following:
Exterior foundation walls that retain earth and enclose habitable or usable interior spaces and floors below grade shall be waterproofed from above grade to 6” below the top of the footing.
Number the exception to 1 and add exception 2:
2. Foundation walls backfilled on both sides, such as those used in
conjunction with a “slab on grade” do not require waterproofing.

23.85.R406.3  **Dampproofing for wood foundations.**
Delete the word “dampproofing” in heading and body of section and replace with “waterproofing”.

23.85.R406.3.2  **Below grade moisture barrier.**
Delete paragraph and replace with the following:
Approved waterproofing shall be applied over the below-grade portion of exterior basement and crawlspace walls prior to backfilling. A treated lumber or plywood strip shall be attached to the wall to cover the top edge of the approved waterproofing. The wood strip shall extend at least two (2) inches above and five (5) inches below finish grade level to protect the approved waterproofing from exposure to light and from mechanical damage at or near grade. The joint between the strip and the wall shall be caulked full length prior to fastening the strip to the wall. Alternatively, brick, stucco, or other covering appropriate to the architectural treatment may be used in place of the wood strip. The approved waterproofing shall extend down from above grade to 6” below the top of the footing.

23.85.R406.4  **Precast concrete foundation system dampproofing.**
Delete paragraph, replace with: See Section 23.85.R406.1 and 23.85.R406.2 for requirements.

23.85.R407.2  **Steel column protection.**
Delete paragraph and replace with:
Exterior surface of steel columns exposed to the elements shall be protected with a rust inhibitive paint except for corrosive-resistant steel and steel treated with coatings to provide corrosion resistance.

23.85.R602.3.2  **Top plate.**
Delete exception.

23.85.R602.6  **Drilling and notching – studs.**
Amend section by adding item 3:
3. All studs in walls containing plumbing drains and vents shall be a minimum of 6” nominal width or structurally sheath one side when 4” nominal width studs are used.

23.85.R703.2  **Water-resistive barrier.**
Amend the first sentence of the section to begin as follows:
Though not required by the Municipality of Anchorage, when installed or when required by the manufacturer, apply….
Amend the first sentence by adding the word “permeable” between the “of” and “No. 15”.

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23.85.R703.3.1 Panel siding.
Add the following to the end of the paragraph:
   Exterior type plywood siding with a grooved pattern shall not be installed horizontally and used as the weather resistant siding.

23.85.Table R703.4 Water-resistant siding attachment and minimum thickness.
In the fourth column, Water resistive barrier required, add a note after heading to see local amendment 23.85.R703.2.

23.85.R703.8 Flashing.
Amend section by deleting items 1 and 4 and substitute with:
   Edges of all exterior openings and all horizontal joints of exterior trim shall be caulked and sealed with exterior grade, paintable caulk, a minimum of a 3/8" bead.

23.85.R802.2 Design and construction.
Add the following sentence to end of paragraph:
   Minimum depth from roof sheathing to wall plate at exterior side of exterior wall shall be 11 ¼ inches.

23.85.R802.10.1 Truss design drawings.
Amend first sentence by deleting the following words:
   …and approved prior to installation.

23.85.R802.10.2 Design.
Add the following sentence to end of paragraph:
   Minimum depth of truss at exterior wall plate shall be 11 ¼ inches at exterior side plate.

23.85.R802.10.3 Bracing.
Add the following details and verbiage to section:

OPTION 1: FULL HEIGHT BLOCK IN EVERY SPACE WITH 3 OR MORE 2" DIAMETER OR LARGER HOLES AT TOP OF BLOCK.

OPTION 2: ALTERNATE FULL HEIGHT BLOCK WITH 3 OR MORE 2" DIAMETER HOLES AT TOP OF BLOCK AND PARTIAL HEIGHT BLOCK EVERY OTHER SPACE WITH AN AIR GAP BETWEEN 1"-2" FROM ROOF SHEATHING TO TOP OF PARTIAL HEIGHT BLOCK - MIN. 2X10 BLOCK.
OPTIONS 3 & 4: THESE CONFIGURATION MAY BE USED IN LIEU OF
FULL HEIGHT BLOCKS ABOVE EXTERIOR WALLS FOR TRUSSES WITH
HEELS OF 11 1/4”.

Other configurations may be deemed acceptable when supported by calculations.
23.85.R806.1 Ventilation required.
Add the following sentence to end of paragraph:
   A non-ventilated roof system may be allowed as an alternate method when the design is approved by the building official.

23.85.R806.2 Minimum area.
Revise the first sentence of paragraph by replacing the phrase:
   …except that reduction of the total area to 1 to 300, is permitted, provided that…
With the word "and".
Delete the last sentence of paragraph.

23.85.R806.4 Unvented attic assemblies.
Delete section.

23.85.R807.1 Attic access.
Add the following paragraph to the end of the section:
   Attic access shall not be located in a room containing bathing facilities. Access may be located in closets with minimum depth of 23 inches and minimum width of 48 inches.

23.85.R903.1 General.
Add the following paragraph and detail to the end of section:
   1. All valleys shall have a modified bitumen ice barrier lapped eighteen inches minimum each side of valley centerline. No penetrations shall be located in required valley ice barrier.
   2. All roof penetrations shall be located a minimum of six feet from valley centerline and four feet from the exterior wall line measured on a horizontal plane, excluding attic ventilation.
   3. All roof penetrations shall extend above the roof surface a minimum of 24 inches, except attic ventilation.
   4. Type B gas vents may penetrate the eave ice barrier area if installed within a 24 inches, wood framed, R-19 insulated curb, measured on the ridge side of the roof. The ice barrier must extend up the curb a minimum of 12 inches on all sides. See detail below.
23.85.R903.4  Roof drainage.
Add the following sentence to end of the last paragraph:
   Roofs and gutter downspouts shall not create a water flow that damages neighboring properties.

23.85.R903.4.2  Snow impact on neighboring lot.
Add the following subsection:
   Snow from a structure shall not shed across a property line.

23.85.R905.1.1  Sheathing and deck requirements.
Add the following subsection:
   Spaced sheathing is not permitted.

23.85.R905.1.2  Underlayment.
Add the following subsection:
   Underlayment shall comply with ASTM D 226 Type I (No. 15 Asphalt Felt). For slopes 4V:12H and steeper underlayment shall be at least one layer installed with a 4 inch lap over the ice barrier. Each subsequent layer shall be lapped 4 inches vertically and two inches horizontally to shed water, continuing to the ridge, fastened sufficiently to hold in place. See 23.85.R905.1.3 for ice barriers used as underlayment.
23.85.R905.1.3 Ice barrier.
Add the following subsection.
An ice barrier shall be a self-adhering polymer modified bitumen sheet complying with ASTM D 1970. For slopes less steep than, but not including, 4V:12H, an ice barrier shall be used over the entire surface of the roof. No additional normal underlayment is required. For slopes 4V:12H and steeper an ice barrier shall extend from the lowest edges of all roof surfaces to a point at least 36 inches inside the exterior wall line of the building. The remainder of the roof surfaces may be covered with normal underlayment.

23.85.R905.2.7 Underlayment application (asphalt shingles).
Delete this subsection in its entirety, except for 23.85.R905.2.7.2. Refer to 23.85.R905.1.2 and 23.85.R905.1.3.

23.85.R905.2.8.2 Valleys (asphalt shingles).
Delete items 2 and 3. Refer to 23.85.R903.1, #1.

23.85.R905.3.1 Deck requirements (clay and concrete tile).
Delete all reference to spaced sheathing, as spaced sheathing is not permitted; refer to 23.85.R905.1.1.

23.85.R905.3.3.1 Low slope roofs (clay and concrete tile).
Delete this subsection in its entirety; refer to 23.85.R905.1.3.

23.85.R905.3.3.2 High slope roofs (clay and concrete tile).
Delete this subsection in its entirety; refer to 23.85.R905.1.2.

23.85.R905.4.1 Deck requirements (metal roof shingles).
Delete all reference to spaced sheathing, as spaced sheathing is not permitted; refer to 23.85.R905.1.1.

23.85.R905.4.3 Underlayment (metal roof shingles).
Delete this subsection in its entirety; refer to 23.85.R905.1.2 and 23.85.R905.1.3.

23.85.R905.5.3 Underlayment (mineral-surfaced roll roofing).
Delete this subsection in its entirety; refer to 23.85.R905.1.2 and 23.85.R905.1.3.

23.85.R905.6.3. Underlayment (slate and slate-type shingles).
Delete this subsection; refer to 23.85.R905.1.2 and 23.85.R905.1.3.

23.85.R905.7.1 Deck requirements (wood shingles).
Delete all reference to spaced sheathing, as spaced sheathing is not permitted; refer to 23.85.R905.1.1.

23.85.R905.7.3 Underlayment (wood shingles).
Delete this subsection in its entirety; refer to 23.85.R905.1.2 and 23.85.R905.1.3.
23.85.R905.8.1 Deck requirements (wood shakes).
Delete all reference to spaced sheathing, as spaced sheathing is not permitted; refer to 23.85.R905.1.1.

23.85.R905.8.3 Underlayment (wood shakes).
Delete this subsection in its entirety; refer to 23.85.R905.1.2 and 23.85.R905.1.3.

23.85.R905.9.1 Slope (built-up roofs).
Delete the following words:
...except for coal-tar built-up roofs, which shall have a design slope of a minimum one-eight unit vertical in 12 units horizontal (1-percent slope).

23.85.R905.10.1 Deck requirements (metal roof panels).
Delete all reference to spaced sheathing; as spaced sheathing is not permitted; refer to 23.85.R905.1.1.

23.85.R905.14 Sprayed polyurethane foam roofing.
Delete paragraph and all subsections.

23.85.Chapter 11 Energy efficiency
Chapter 11 Energy Efficiency. The building thermal envelope shall comply with the minimum insulation requirements in 23.85.Table R11 or the International Energy Conservation Code as adopted under AMC Title 23.60. When the area of the exterior wall glazing exceeds 18 percent of the conditioned floor area, the building thermal envelope shall be verified at plan review that a minimum AHFC 4-star plus rating can be achieved.

23.85.Table R11 Minimum Insulation R-Value [(hrft2degF)/Btu]

<table>
<thead>
<tr>
<th>Glazing a</th>
<th>Ceilings</th>
<th>Walls</th>
<th>Basement Walls</th>
<th>Crawlspace Walls</th>
<th>Exposed Floors Above Grade (Cantilevered Floors)</th>
<th>Foundation Walls with Slab Floors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum R-Value</td>
<td>R-2.85</td>
<td>R-38</td>
<td>R-19</td>
<td>R-19</td>
<td>R-19</td>
<td>R-30</td>
</tr>
</tbody>
</table>

a. The maximum allowable U Factor is 0.35.

23.85.Chapters 12-42.
Amend by deleting in their entirety Mechanical, Plumbing and Electrical.

23.85. Appendix.
Adopt Appendices E and K.

23.85.AE101.1 General.
Amend the first sentence to read:
These provisions shall apply to manufactured homes, mobile homes, campers, and travel trailers serving as detached single-family dwelling units placed either on private (nonrental) lots or within mobile home parks licensed by the Municipality, and shall apply to the following:

Add the following section:

23.85.AE102.7 Mobile homes, campers, and travel trailers.

23.85.AE102.7.1 Mobile homes.

Every mobile home built prior to June 15, 1976, shall be labeled as required in Section A201, and shall conform to all of the following:

1. FIRE WARNING SYSTEM - Smoke detectors shall be provided with in accordance with R317.

2. FIRE PROTECTION – Each mobile home shall be equipped with at least one 2-A rated portable fire extinguisher installed in accordance with NFPA 10-98.

3. ELECTRICAL SYSTEM - All electrical equipment, wiring, and appliances shall be installed per Building Safety Handout No. R.10 Mobile Home Set-Up and Permit Requirements, as maintained by the Building Official.


5. PLUMBING SYSTEM - All plumbing facilities shall be maintained in a safe and sanitary condition. Additions, alterations, repairs and replacements shall comply with manufacturer’s instructions and the currently adopted edition of the Uniform Plumbing Code.

6. EXIT FACILITIES - Mobile homes shall have a minimum of two external doors located remotely from each other and so arranged as to provide means of unobstructed travel to the outside of the mobile home.

7. GROUND FAULT INTERRUPTER CIRCUIT - Every mobile home shall have every electrical circuit serving bathroom, kitchen, and ground level service outlets protected by a ground fault interrupter circuit I, as required by Article 550-8(b) of the National Electrical Code.

23.85.AE102.7.2 Campers and travel trailers.

Campers and travel trailers moved into or relocated within the Municipality shall comply with:


2. Items 1 through 6 of AMC 23.85.A102.7.1.

23.85.AE201 Definitions.

Add the following:


**Camper park** - a tourist facility approved by the Municipality for use by dependent and independent recreational vehicles, including motor homes, pickup campers, travel trailers, tent campers and similar recreational vehicles as opposed to a mobile home park which is licensed to accommodate mobile homes.

**Mobile home park** - any parcel or adjacent parcels of land in the same ownership which is utilized for occupancy by more than two mobile homes. This term shall not be construed to mean tourist facilities for parking of travel trailers or campers.

Add the following at the end of the first paragraph in the definition of **Manufactured home**:

Each manufactured home shall bear a certification label in accordance with the Manufactured Home Standards.

Add the following at the end of the first sentence of the second paragraph in the definition of **Manufactured home**:

…, and the mobile home shall conform to AMC section 23.85.A102.7.

Add the following to the definition of **Manufactured home standards**: Every manufactured home installed in the Municipality must be certified for the “North Zone” (40 pounds per square foot) for snow load and heat loss “Comfort Zone 3” in accordance with HUD standards.

23.85.AE301.1 Initial installation.

Add the following after the word “be” in the first sentence of the first paragraph:

…relocated, moved,…

23.85.AE301.5 Gas and plumbing service.

Add a new section:

The owner of a manufactured home or a licensed mobile home contractor may install or retrofit gas piping, gas appliances, or plumbing only under the following conditions:

1. The owner performing such work shall be a current occupant of the manufactured home and shall personally perform all work.
2. A licensed mobile home contractor may perform work on gas and plumbing utility connections only by use of a licensed journeyman plumber or journeyman gas fitter who is an employee of the contractor. All such work shall bear a tag with the identification number of the journeyman plumber or journeyman gas fitter who performs the work.
3. Except as provided in items 1 and 2 of this section, all plumbing, gas piping, or gas appliance retrofit work shall be performed by a licensed plumbing or gas contractor.
4. No person may pipe natural gas to service gas fired equipment unless
   a. Such equipment has been certified by the manufacturer as being suitable to that use and
   b. Such equipment has first been converted for use of natural gas.
23.85.AE302.4  Who may apply.
Only the owner of a manufactured home or a licensed mobile home contractor may apply for a permit under this section.

23.85.AE307  Utility service.
Add the following sentence:
All sewer, electricity, gas, and water services shall be installed and maintained in a safe manner in accordance with the appropriate adopted codes.

23.85.AE502.3  Footings and foundations.
Replace the last sentence of the first paragraph with the following:
Footings shall have a minimum depth of 42 inches below exterior grade on privately owned (nonrental) lots, unless a greater depth is required by the building official based on a foundation investigation or other information. Footings or piers in mobile home parks may be placed at surface grade, provided all other requirements are met.

23.85.AE502.6  Under-floor clearances-ventilation and access.
Add to the second paragraph the following:
Where combustion air is not taken from the crawl space, and where the floor area of the home does not exceed 800 square feet, the ventilation requirement may be met by operable vents of 8 inches by 16 inches installed in skirting not less than 18 inches above exterior grade at opposite ends of the manufactured home.

23.85.AE503.1  Skirting and permanent perimeter enclosures.
Replace the first sentence of the first paragraph with the following:
Every manufactured home shall be skirted around its perimeter from the floorline to exterior grade with a skirting material having an insulation value of R-19 as published by the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE). A minimum of 6 mil polyethylene film vapor retarder shall entirely cover the soil surface of the crawl space.

23.85.AE604.1  Ground anchors.
Replace the first sentence of the first paragraph with the following:
Ground anchors shall be designed and installed to resist overturning and lateral movement of the manufactured home, and shall extend at least 60 inches below exterior grade, or deeper if required by the building official because of poor soils. Ground anchors shall be installed for every manufactured home, except where a permanent foundation bearing at least 42 inches below grade is demonstrated by calculation to resist the forces as determined by Chapter 16 of the International Building Code.