[MP] DRAFT. The pressure difference existing between the *appliance* or any component part and the atmosphere, that causes a continuous flow of air and products of combustion through the gas passages of the *appliance* to the atmosphere.

Induced draft. The pressure difference created by the action of a fan, blower or ejector, that is located between the *appliance* and the chimney or vent termination.

Natural draft. The pressure difference created by a vent or chimney because of its height, and the temperature difference between the flue gases and the atmosphere.

[MP] DRAFT HOOD. A device built into an *appliance*, or a part of the vent connector from an *appliance*, that is designed to provide for the ready escape of the flue gases from the *appliance* in the event of no draft, backdraft or stoppage beyond the draft hood; prevent a backdraft from entering the *appliance*; and neutralize the effect of stack action of the chimney or gas vent on the operation of the *appliance*.

[MP] DRAFT REGULATOR. A device that functions to maintain a desired draft in the *appliance* by automatically reducing the draft to the desired value.

[RB] DRAFT STOP. A material, device or construction installed to restrict the movement of air within open spaces of concealed areas of building components such as crawl spaces, floor-ceiling assemblies, roof-ceiling assemblies and *attics*.

[MP] DRAIN. Any pipe that carries soil and waterborne wastes in a building drainage system.

[MP] DRAIN-BACK SYSTEM. A solar thermal system in which the fluid in the solar collector loop is drained from the collector into a holding tank under prescribed circumstances.

[MP] DRAINAGE FITTING. A pipe fitting designed to provide connections in the drainage system that have provisions for establishing the desired slope in the system. These fittings are made from a variety of both metals and plastics. The methods of coupling provide for required slope in the system.

[S][RE] DUCT. For the definition applicable ((in Chapter 11)) to the *Seattle Residential Energy Code*, see ((Section N1101.6)) Section R202 in the residential section of the *Seattle Energy Code*.

[S][MP] DUCT SYSTEM. A continuous passageway for the transmission of air that, in addition to ducts, includes duct fittings, dampers, plenums, fans and accessory air-handling *equipment* and *appliances*.

For the definition applicable ((in Chapter 11)) to the *Seattle Residential Energy Code*, see ((Section N1101.6)) Section R202 in the residential section of the *Seattle Energy Code*.

[RB] DWELLING. Any building that contains one or two *dwelling units* used, intended, or designed to be built, used, rented, leased, let or hired out to be occupied, or that are occupied for living purposes.

[W][S][RB] DWELLING UNIT. A single unit providing complete independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking and sanitation. <u>Dwelling units may also include the following uses:</u>

- 1. Adult family homes, foster family care homes and family day care homes licensed by the Washington State Department of Social and Health Services.
- 2. Offices, mercantile, food preparation for off-site consumption, personal care salons or similar uses which are conducted primarily by the occupants of the dwelling unit and are secondary to the use of the unit for dwelling purposes, and which do not exceed 500 square feet (46.4 m²). For the definition applicable ((in Chapter 11)) to the Seattle Residential Energy Code, see ((Section N1101.6)) Section R202 in the residential section of the Seattle Energy Code.

[MP] DWV. Abbreviated term for drain, waste and vent piping as used in common plumbing practice.

[MP] EFFECTIVE OPENING. The minimum cross-sectional area at the point of water-supply discharge, measured or expressed in terms of diameter of a circle and if the opening is not circular, the diameter of a circle of equivalent cross-sectional area. (This is applicable to air gap.)

[W] EGRESS ROOF ACCESS WINDOW. A skylight or roof window designed and installed to satisfy the *emergency escape* and rescue opening requirements of Section R310.2.

[MP] ELBOW. A pressure pipe fitting designed to provide an exact change in direction of a pipe run. An elbow provides a sharp turn in the flow path (see "Bend" and "Sweep").

[RB] EMERGENCY ESCAPE AND RESCUE OPENING. An operable exterior window, door or similar device that provides for a means of escape and access for rescue in the event of an emergency. (See also "Grade floor opening.")

[S][RE] ENERGY ANALYSIS. For the definition applicable ((in Chapter 11)) to the Seattle Residential Energy Code, see ((Section N1101.6)) Section R202 in the residential section of the Seattle Energy Code.

[S][RE] ENERGY COST. For the definition applicable ((in Chapter 11)) to the *Seattle Residential Energy Code*, see ((Section N1101.6)) Section R202 in the residential section of the *Seattle Energy Code*.

[S][RB] JURISDICTION. The ((governmental unit that has adopted this code)) City of Seattle.

[RB] KITCHEN. Kitchen shall mean an area used, or designated to be used, for the preparation of food.

[RB] LABEL. An identification applied on a product by the manufacturer that contains the name of the manufacturer, the function and performance characteristics of the product or material, and the name and identification of an *approved agency* and that indicates that the representative sample of the product or material has been tested and evaluated by an *approved agency*. (See also "Manufacturer's designation" and "Mark.")

[S][RB] LABELED. *Equipment*, materials or products to which have been affixed a *label*, seal, symbol or other identifying *mark* of a nationally recognized testing laboratory, approved agency or other organization concerned with product evaluation that maintains periodic inspection of the production of such *labeled* items and whose labeling indicates either that the *equipment*, material or product meets identified standards or has been tested and found suitable for a specified purpose. For the definition applicable ((in Chapter 11)) to the *Seattle Residential Energy Code*, see ((Section N1101.6)) Section R202 in the residential section of the *Seattle Energy Code*.

[S] LAND-DISTURBING ACTIVITY. Any activity that results in a movement of earth, or a change in the existing soil cover, both vegetative and nonvegetative, or the existing topography. Land-disturbing activities include, but are not limited to, clearing, grading, filling, excavation or addition of new or the replacement of impervious surface. Compaction, excluding hot asphalt mix, that is associated with stabilization of structures and road construction shall also be considered a land-disturbing activity. Vegetation maintenance practices are not considered land-disturbing activities.

[W] LANDING PLATFORM. A landing provided as the top step of a stairway accessing a *sleeping loft*.

[S] LANDMARK. A building or structure that is subject to a requirement to obtain a certificate of approval from the City Landmarks Preservation Board before altering or making significant changes to specific features or characteristics, that has been nominated for designation and the City Landmarks Preservation Board has not issued a determination regarding designation, that has been designated for preservation by the City Landmarks Preservation Board, that has been designated for preservation by the State of Washington, that has been listed or determined eligible to be listed in the National Register of Historic Places, or that is located in a landmark or special review district subject to a requirement to obtain a certificate of approval before making a change to the external appearance of a structure.

[RB] LIGHT-FRAME CONSTRUCTION. Construction whose vertical and horizontal structural elements are primarily formed by a system of repetitive wood or cold-formed steel framing members.

[S][RB] LISTED. *Equipment*, materials, products or services included in a list published by an organization acceptable to the code official and concerned with evaluation of products or services that maintains periodic inspection of production of *listed equipment* or materials or periodic evaluation of services and whose listing states either that the *equipment*, material, product or service meets identified standards or has been tested and found suitable for a specified purpose. For the definition applicable ((in Chapter 11)) to the *Seattle Residential Energy Code*, see ((Section N1101.6)) Section R202 in the residential section of the *Seattle Energy Code*.

[RB] LIVE LOADS. Those loads produced by the use and occupancy of the building or other structure and do not include construction or environmental loads such as wind load, snow load, rain load, earthquake load, flood load or dead load.

[MP] LIVING SPACE. Space within a *dwelling unit* utilized for living, sleeping, eating, cooking, bathing, washing and sanitation purposes.

[W][MP] LOCAL EXHAUST. An exhaust system that uses one or more fans to exhaust air from a specific room or rooms within a <u>residential</u> dwelling <u>or sleeping unit</u>.

[MP] LOCKING-TYPE TAMPER-RESISTANT CAP. A cap designed to be unlocked by a specially designed tool or key to prevent removal of the cap by means of hand-loosening or by commonly available tools.

[RB] LODGING HOUSE. A one-family dwelling where one or more occupants are primarily permanent in nature, and rent is paid for guestrooms.

[W][RB] LOT. A measured portion or parcel of land considered as a unit having fixed boundaries.

[W][RB] LOT LINE. ((A)) <u>The</u> line ((dividing one)) which bounds a plot of ground described as a lot ((from another, or from a street or any public place)) in the title to the property.

[S][RE] LOW-VOLTAGE LIGHTING. For the definition applicable ((in Chapter 11)) to the Seattle Residential Energy Code, see ((Section N1101.6)) Section R202 in the residential section of the Seattle Energy Code.

[MP] MACERATING TOILET SYSTEMS. A system comprised of a sump with macerating pump and with connections for a water closet and other plumbing fixtures, that is designed to accept, grind and pump wastes to an *approved* point of discharge.

[MP] MAIN. The principal pipe artery to which branches may be connected.

[MP] MAIN SEWER. See "Public sewer."

[S][RB] ROOF RECOVER. The process of installing an additional *roof covering* over a prepared existing roof covering without removing the existing roof covering. For the definition applicable ((in Chapter 11)) to the Seattle Residential Energy Code, see ((Section N1101.6)) Section R202 in the residential section of the Seattle Energy Code.

[S][RB] ROOF REPAIR. Reconstruction or renewal of any part of an existing roof for the purposes of its maintenance. For the definition applicable ((in Chapter 11)) to the *Seattle Residential Energy Code*, see ((Section N1101.6)) Section R202 in the residential section of the *Seattle Energy Code*.

[S][RB] ROOF REPLACEMENT. The process of removing the existing *roof covering*, repairing any damaged substrate and installing a new *roof covering*. For the definition applicable ((in Chapter 11)) to the *Seattle Residential Energy Code*, see ((Section N1101.6)) Section R202 in the residential section of the *Seattle Energy Code*.

[MP] ROOM HEATER. A free-standing heating appliance installed in the space being heated and not connected to ducts.

[MP] ROUGH-IN. The installation of the parts of the plumbing system that must be completed prior to the installation of fixtures. This includes DWV, water supply and built-in fixture supports.

[RB] RUNNING BOND. The placement of masonry units such that head joints in successive courses are horizontally offset not less than one-quarter the unit length.

[S][RE] *R*-VALUE (THERMAL RESISTANCE). For the definition applicable ((in Chapter 11)) to the Seattle Residential Energy Code, see ((Section N1101.6)) Section R202 in the residential section of the Seattle Energy Code.

[MP] SANITARY SEWER. A sewer that carries sewage and excludes storm, surface and groundwater.

[RB] SCUPPER. An opening in a wall or parapet that allows water to drain from a roof.

[RB] SEISMIC DESIGN CATEGORY (SDC). A classification assigned to a structure based on its occupancy category and the severity of the design earthquake ground motion at the site.

[MP] SEPTIC TANK. A water-tight receptor that receives the discharge of a building sanitary drainage system and is constructed so as to separate solids from the liquid, digest organic matter through a period of detention, and allow the liquids to discharge into the soil outside of the tank through a system of open joint or perforated piping or a seepage pit.

[S][RE] SERVICE WATER HEATING. For the definition applicable ((in Chapter 11)) to the Seattle Residential Energy Code, see ((Section N1101.6)) Section R202 in the residential section of the Seattle Energy Code.

[S][MP] SEWAGE. ((Any liquid waste containing animal matter, vegetable matter or other impurity in suspension or solution.)) All water-carried waste discharged from the sanitary facilities of buildings occupied or used by people.

[MP] SEWAGE PUMP. A permanently installed mechanical device for removing sewage or liquid waste from a sump.

[RB] SHALL. The term, where used in the code, is construed as mandatory.

[RB] SHEAR WALL. A general term for walls that are designed and constructed to resist racking from seismic and wind by use of masonry, concrete, cold-formed steel or wood framing in accordance with Chapter 6 of this code and the associated limitations in Section R301.2 of this code.

[RB] SHINGLE FASHION. A method of installing roof or wall coverings, water-resistive barriers, flashing or other building components such that upper layers of material are placed overlapping lower layers of material to provide drainage and protect against water intrusion at unsealed penetrations and joints or in combination with sealed joints.

[RB] SINGLE-PLY MEMBRANE. A roofing membrane that is field applied using one layer of membrane material (either homogeneous or composite) rather than multiple layers.

[RB] SINGLE-STATION SMOKE ALARM. An assembly incorporating the detector, control *equipment* and alarm sounding device in one unit that is operated from a power supply either in the unit or obtained at the point of installation.

[S][RE] SKYLIGHT. For the definition applicable ((in Chapter 11)) to the Seattle Residential Energy Code, see ((Section N1101.6)) Section R202 in the residential section of the Seattle Energy Code.

[RB] SKYLIGHT, UNIT. A factory assembled, glazed fenestration unit, containing one panel of glazing material, that allows for natural daylighting through an opening in the roof assembly while preserving the weather-resistant barrier of the roof.

[S][RB] SKYLIGHTS AND SLOPED GLAZING. Glass or other transparent or translucent glazing material installed at a slope of 15 degrees (0.26 rad) or more from vertical. Unit skylights, tubular daylighting devices and glazing materials in solariums, sunrooms, roofs and sloped walls are included in this definition. For the definition applicable ((in Chapter 11)) to the Seattle Residential Energy Code, see ((Section N1101.6)) Section R202 in the residential section of the Seattle Energy Code.

[W] <u>SLEEPING LOFT.</u> A sleeping space on a floor level located more than 30 inches (726 mm) above the main floor and open to the main floor on one or more sides with a ceiling height of less than 6 feet 8 inches (2032 mm).

[MP] SLIP JOINT. A mechanical-type joint used primarily on fixture traps. The joint tightness is obtained by compressing a friction-type washer such as rubber, nylon, neoprene, lead or special packing material against the pipe by the tightening of a (slip) nut.



Basis for Calculating Allowable Mezzanine Area With Other Conditions

R325.4 Means of egress. The means of egress for mezzanines shall comply with the applicable provisions of Section R311.

[W] R325.5 Openness. Mezzanines shall be open and unobstructed to the room in which they are located except for walls not more than 36 inches (914 mm) in height, columns and posts.

Exceptions:

- 1. Mezzanines or portions thereof are not required to be open to the room in which they are located, provided that the aggregate floor area of the enclosed space is not greater than 10 percent of the mezzanine area.
- 2. ((In buildings)) Mezzanines that are not more than two stories above *grade plane* and equipped throughout with an automatic sprinkler system in accordance with Section R313, a mezzanine shall not be required to be open to the room in which the mezzanine is located.

[W] SECTION R326 HABITABLE ATTIC

R326.1 General. Habitable attics shall comply with Sections R326 through R326.4.

R326.2 Minimum Dimensions. A *habitable attic* shall have a minimum floor area in accordance with R304 and a ceiling height in accordance with R305.

R326.3 Story Above Grade Plane. A habitable attic shall be considered a story above grade plane.

Exception: A *habitable attic* shall not be considered a story above grade plane provided that the *habitable attic* meets all the following requirements:.

- 1. The aggregate area of the *habitable attic* is not greater than one-half of the floor area of the story below.
- 2. The habitable attic is located within a dwelling unit equipped with a fire sprinkler system in accordance with Section P2904 or NFPA 13D.

- 3. The occupiable space is enclosed by the roof assembly above, knee walls (if applicable) on the sides and the floorceiling assembly below.
- 4. The floor of the *habitable attic* shall not extend beyond the exterior walls of the story below.

[W] SECTION R327 SLEEPING LOFTS

R327.1 General. Sleeping lofts shall comply with Sections R327 through R327.5.

R327.2 Sleeping loft area and dimensions. Sleeping lofts shall meet the minimum area and dimension requirements of Sections R327.2.1 through R327.2.3.

R327.2.1 Area. Sleeping lofts shall have a floor area of not less than 35 square feet (3.25 m²) and less than 70 square feet (6.5 \underline{m}^2).

R327.2.2 Minimum horizontal dimensions. Sleeping lofts shall be not less than 5 feet (1524 mm) in any horizontal dimension.

R327.2.3 Height effect on sleeping loft area. Portions of a sleeping loft with a sloped ceiling measuring less than 3 feet (914 mm) from the finished floor to the finished ceiling shall not be considered as contributing to the minimum required area for the loft but shall contribute to the maximum allowable area.

Exception: Under gable roofs with a minimum slope of 6 units vertical in 12 units horizontal (50-percent slope), portions of a sleeping loft with a sloped ceiling measuring less than 16 inches (406 mm) from the finished floor to the finished ceiling shall not be considered as contributing to the minimum required area for the sleeping loft but shall contribute to the maximum allowable area.

R327.3 Sleeping loft access and egress. The access to and primary egress from sleeping lofts shall be of any type described in Sections R327.3.1 through R327.3.5 and shall meet the sleeping loft where the sleeping loft's ceiling height is not less than 3 feet (914 mm) along the entire width of the access and egress component.

R327.3.1 Stairways. Stairways accessing sleeping lofts shall comply with Sections R327.3.1.1 through R327.3.1.7.

R327.3.1.1 Headroom. The headroom above the sleeping loft access and egress shall be not less than 6 feet 2 inches (1880 mm), as measured vertically, from a sloped line connecting the tread, landing, or landing platform nosing's in the center of their width, and vertically from the landing or landing platform along the center of its width.

R327.3.1.2 Width. Stairways accessing a sleeping loft shall not be less than 17 inches (432 mm) in clear width at or above the handrail. The width below the handrail shall be not less than 20 inches (508 mm).

R327.3.1.3 Treads and risers. Risers for stairs accessing a sleeping loft shall be not less than 7 inches (178 mm) and not more than 12 inches (305 mm) in height. Tread depth and riser height shall be calculated in accordance with one of the following formulas:

- 1. Under gable roofs with a minimum slope of 6 units vertical in 12 units horizontal (50-percent slope), portions of a sleeping loft with a sloped ceiling measuring less than 16 inches (406 mm) from the finished floor to the finished ceiling shall not be considered as contributing to the minimum required area for the sleeping loft but shall contribute to the maximum allowable area.
- 2. The tread depth shall be 20 inches (508 mm) minus four-thirds of the riser height.

R327.3.1.4 Landings. Intermediate landings and landings at the bottom of stairways shall comply with Section R311.7.6, except that the depth in the direction of travel shall be not less than 24 inches (508 mm).

R327.3.1.5 Landing platforms. The top tread and riser of stairways accessing sleeping lofts shall be constructed as a landing platform where the loft ceiling height is less than 6 feet 2 inches (1880 mm) where the stairway meets the sleeping loft. The landing platform shall be not less than 18 inches (508 mm) in width and in depth measured horizontally from and perpendicular to the nosing of the landing platform. The landing platform riser height to the edge of the sleeping loft floor, shall not be greater than 18 inches (406 to 457 mm) in height.

R327.3.1.6 Handrails. Handrails shall comply with Section R311.7.8.

R327.3.1.7 Stairway guards. Guards at open sides of stairways, landings, and landing platforms shall comply with Section R312.1. R327.3.2 Ladders. Ladders accessing sleeping lofts shall comply with Sections R327.3.2.1 and R327.3.2.2.

R327.3.2 Ladders. Ladders accessing sleeping lofts shall comply with Sections R327.3.2.1 and R327.3.2.2.

R327.3.2.1 Size and capacity. Ladders accessing sleeping lofts shall have a rung width of not less than 12 inches (305 mm), and 10-inch (254 mm) to 14-inch (356 mm) spacing between rungs. Ladders shall be capable of supporting a 300 pound (136 kg) load on any rung. Rung spacing shall be uniform within 3/8 inch (9.5 mm).

R327.3.2.2 Incline. Ladders shall be installed at 70 to 80 degrees from horizontal.

R327.3.3 Alternating tread devices. Alternating tread devices accessing sleeping lofts shall comply with Sections R311.7.11.1 and R311.7.11.2. The clear width at and below the handrails shall be not less than 20 inches (508 mm).

R327.3.4 Ships ladders. Ships ladders accessing sleeping lofts shall comply with Sections R311.7.12.1 and R311.7.12.2. The clear width at and below handrails shall be not less than 20 inches (508 mm).

R327.4 Sleeping loft guards. Sleeping loft guards shall be located along the open side(s) of sleeping lofts. Sleeping loft guards shall be not less than 36 inches (914 mm) in height or one-half of the clear height to the ceiling, whichever is less. Sleeping loft guards shall comply with Section R312.1.3 and Table R301.5 for their components.

R327.5 Emergency escape and rescue openings. An egress roof access window shall be installed in each sleeping loft and shall be deemed to meet the requirements of Section R310 where installed such that the bottom of the opening is not more than 44 inches (1118 mm) above the sleeping loft floor, provided the egress roof access window complies with the minimum opening area requirements of Section R310.2.1.

[W] SECTION ((R326)) <u>R328</u> SWIMMING POOLS, SPAS AND HOT TUBS

((R326.1)) R328.1 General. The design and construction of pools and spas shall comply with the 2018 International Swimming Pool and Spa Code ((-)) if the facility is one of the following:

- 1. For the sole use of residents and invited guests at a single-family dwelling;
- 2. For the sole use of residents and invited guests of a duplex owned by the residents; or
- 3. Operated exclusively for physical therapy or rehabilitation and under the supervision of a licensed medical practitioner.

[W] SECTION ((R327)) <u>R329</u> ((STATIONARY)) <u>ENERGY</u> STORAGE ((BATTERY)) SYSTEMS

((R327.1)) R329.1 General. ((Stationary storage battery system)) Energy Storage Systems (ESS) shall comply with the provisions of this section.

((R327.2)) <u>R329.2</u> Equipment listings. ((*Stationary storage battery systems*)) *ESS* shall be *listed* and *labeled* for residential use in accordance with UL 9540.

Exceptions:

- 1. Where *approved*, repurposed unlisted battery systems from electric vehicles are allowed to be installed outdoors or in detached sheds located not less than 5 feet (1524 mm) from exterior walls, property lines and public ways.
- 2. *Battery systems* that are an integral part of an electric vehicle are allowed provided that the installation complies with Section 625.48 of NFPA 70.
- 3. Battery systems less than 1 kWh (3.6 megajoules).

((**R327.3**)) **R329.3 Installation.** ((*Stationary storage battery systems*)) <u>ESS</u> shall be installed in accordance with the manufacturer's instructions and their *listing*, if applicable, and shall not be installed within the habitable space of a dwelling unit.

((R327.4)) <u>R329.4</u> Electrical installation. ((*Stationary storage battery systems*)) *ESS* shall be installed in accordance with NFPA 70. Inverters shall be *listed* and *labeled* in accordance with UL 1741 or provided as part of the UL 9540 listing. Systems connected to the utility grid shall use inverters listed for utility interaction.

 $((\mathbf{R327.5}))$ **<u>R329.5</u>** Ventilation. Indoor installations of ((stationary storage battery systems)) <u>ESS</u> that include batteries that produce hydrogen or other flammable gases during charging shall be provided with ventilation in accordance with Section M1307.4.

((R327.6)) <u>R329.6</u> Protection from impact. ((*Stationary storage battery systems*)) *ESS* installed in a location subject to vehicle damage shall be protected by approved barriers.

R329.7 Commissioning. ESS shall be commissioned as follows:

- 1. Verify that the system is installed in accordance with the approved plans and manufacturer's instructions and is operating properly.
- 2. Provide a copy of the manufacturer's installation, operation, maintenance, and decommissioning instructions provided with the listed system.
- 3. Provide a label on the installed system containing the contact information for the qualified maintenance and service providers.

R329.7.1 Installation prior to closing. Where the system is installed in a one- or two-family dwelling or townhouse that is owned by the builder and has yet to be sold, commissioning shall be conducted as outlined in Section R329.7, and the builder

APPENDIX Q

This provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.

User note:

About this appendix: Appendix Q relaxes various requirements in the body of the code as they apply to houses that are 400 square feet in area or less. Attention is specifically paid to features such as compact stairs, including stair handrails and headroom, ladders, reduced ceiling heights in lofts and guard and emergency escape and rescue opening requirements at lofts.

SECTION AQ101 GENERAL

AQ101.1 Scope. This appendix shall be applicable to *tiny houses* used as single *dwelling units*. *Tiny houses* shall comply with this code except as otherwise stated in this appendix.

SECTION AQ102 DEFINITIONS

AQ102.1 General. The following words and terms shall, for the purposes of this appendix, have the meanings shown herein. Refer to Chapter 2 of this code for general definitions.

[W] ((EGRESS ROOF ACCESS WINDOW. A *skylight* or roof window designed and installed to satisfy the emergency escape and rescue opening requirements of Section R310.2.))

[W] ((LANDING PLATFORM. A landing provided as the top step of a stairway accessing a loft.))

[W] ((LOFT. A floor level located more than 30 inches (762 mm) above the main floor, open to the main floor on one or more sides with a ceiling height of less than 6 feet 8 inches (2032 mm) and used as a living or sleeping space.))

[W] TINY HOUSE. A dwelling unit that is 400 square feet (37 m²) or less in floor area excluding <u>sleeping</u> lofts.

SECTION AQ103 CEILING HEIGHT

[W] AQ103.1 Minimum ceiling height. *Habitable space* ((and hallways)) in *tiny houses* shall have a ceiling height of not less than 6 feet 8 inches (2032 mm). Bathrooms, toilet rooms and kitchens shall have a ceiling height of not less than 6 feet 4 inches (1930 mm). Obstructions including, but not limited to, beams, girders, ducts and lighting, shall not extend below these minimum ceiling heights.

Exception: Ceiling heights in <u>sleeping</u> lofts ((are permitted to)) <u>shall</u> be ((less than 6 feet 8 inches (2032 mm))) in accordance with Section R326.

[W] SECTION AQ104 ((LOFTS)) ENERGY CONSERVATION

((AQ104.1 Minimum loft area and dimensions. *Lofts* used as a sleeping or living space shall meet the minimum area and dimension requirements of Sections AQ104.1.1 through AQ104.1.3.

AQ104.1.1 Minimum area. Lofts shall have a floor area of not less than 35 square feet (3.25 m²).

AQ104.1.2 Minimum dimensions. Lofts shall be not less than 5 feet (1524 mm) in any horizontal dimension.

AQ104.1.3 Height effect on loft area. Portions of a *loft* with a sloped ceiling measuring less than 3 feet (914 mm) from the finished floor to the finished ceiling shall not be considered as contributing to the minimum required area for the loft.

Exception: Under gable roofs with a minimum slope of 6 units vertical in 12 units horizontal (50-percent slope), portions of a *loft* with a sloped ceiling measuring less than 16 inches (406 mm) from the finished floor to the finished ceiling shall not be considered as contributing to the minimum required area for the *loft*.

AQ104.2.4. The access to and primary egress from *lofts* shall be of any type described in Sections AQ104.2.1 through AQ104.2.4.

AQ104.2.1 Stairways. Stairways accessing *lofts* shall comply with this code or with Sections AQ104.2.1.1 through AQ104.2.1.5.

AQ104.2.1.1 Width. Stairways accessing a *loft* shall not be less than 17 inches (432 mm) in clear width at or above the handrail. The width below the handrail shall be not less than 20 inches (508 mm).

AQ104.2.1.2 Headroom. The headroom in stairways accessing a *loft* shall be not less than 6 feet 2 inches (1880 mm), as measured vertically, from a sloped line connecting the tread or landing platform nosings in the middle of their width.

AQ104.2.1.3 Treads and risers. Risers for stairs accessing a *loft* shall be not less than 7 inches (178 mm) and not more than 12 inches (305 mm) in height. Tread depth and riser height shall be calculated in accordance with one of the following formulas:

1. The tread depth shall be 20 inches (508 mm) minus four-thirds of the riser height.

2. The riser height shall be 15 inches (381 mm) minus three-fourths of the tread depth.

AQ104.2.1.4 Landing platforms. The top tread and riser of stairways accessing *lofts* shall be constructed as a *landing platform* where the *loft* ceiling height is less than 6 feet 2 inches (1880 mm) where the stairway meets the *loft*. The *landing platform* shall be 18 inches to 22 inches (457 to 559 mm) in depth measured from the nosing of the landing platform to the edge of the *loft*, and 16 to 18 inches (406 to 457 mm) in height measured from the *landing platform* to the *loft* floor.

AQ104.2.1.5 Handrails. Handrails shall comply with Section R311.7.8.

AQ104.2.1.6 Stairway guards. Guards at open sides of stairways shall comply with Section R312.1.

AQ104.2.2 Ladders. Ladders accessing lofts shall comply with Sections AQ104.2.1 and AQ104.2.2.

AQ104.2.2.1 Size and capacity. Ladders accessing *lofts* shall have a rung width of not less than 12 inches (305 mm), and 10-inch (254 mm) to 14-inch (356 mm) spacing between rungs. Ladders shall be capable of supporting a 200-pound (75 kg) load on any rung. Rung spacing shall be uniform within $\frac{3}{8}$ inch (9.5 mm).

AQ104.2.2.2 Incline. Ladders shall be installed at 70 to 80 degrees from horizontal.

AQ104.2.3 Alternating tread devices. Alternating tread devices accessing *lofts* shall comply with Sections R311.7.11.1 and R311.7.11.2. The clear width at and below the handrails shall be not less than 20 inches (508 mm).

AQ104.2.4 Ship's ladders. Ship's ladders accessing *lofts* shall comply with Sections R311.7.12.1 and R311.7.12.2. The clear width at and below handrails shall be not less than 20 inches (508 mm).

AQ104.2.5 Loft Guards shall be located along the open side of *lofts*. Loft guards shall be not less than 36 inches (914 mm) in height or one half of the clear height to the ceiling, whichever is less.))

AQ104.1 Air leakage testing. The air leakage rate for tiny houses shall not exceed 0.30 cfm at 50 Pascals of pressure per feet of the dwelling unit enclosure area. Testing shall be conducted in accordance with RESNET/ICC 380, ASTM E 779 or ASTM E 1827 and reported at a pressure of 0.2 inch w.g. (50 Pascals). Where required by the code official, testing shall be conducted by an approved third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the code official. Testing shall be performed after the continuous air barrier, including all penetrations, is completed and sealed.

During testing:

- 1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed, beyond the intended weather stripping or other infiltration control measures.
- 2. Dampers including exhaust, intake, makeup air, backdraft and flue dampers shall be closed, but not sealed beyond intended infiltration control measures.
- 3. Interior doors, if installed at the time of the test, shall be open.
- 4. Exterior louvers for continuous ventilation systems and heat recovery ventilators shall be closed and sealed.
- 5. Heating and cooling systems, if installed at the time of the test, shall be turned off.
- 6. Supply and return registers, if installed at the time of the test, shall be fully open.

[W] AQ104.1.1 Whole house mechanical ventilation. Where an air leakage rate not exceeding 0.30 cfm per ft of the dwelling unit enclosure area in accordance with Section AQ106.1 is provided, the tiny house shall be provided with whole house mechanical ventilation in accordance with Section M1505.4.

[W] ((SECTION AQ105 EMERGENCY ESCAPE AND RESCUE OPENINGS

AQ105.1 General. Tiny houses shall meet the requirements of Section R310 for emergency escape and rescue openings.

Exception: Egress roof access windows in lofts used as sleeping rooms shall be deemed to meet the requirements of Section R310 where installed such that the bottom of the opening is not more than 44 inches (1118 mm) above the *loft* floor, provided the egress roof access window complies with the minimum opening area requirements of Section R310.2.1.)

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