CHAPTER 23.15 LOCAL AMENDMENTS TO THE INTERNATIONAL BUILDING CODE 2012 EDITION

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The amendments to the 2012 Edition of the International Building Code are listed hereafter by section. The last digits of the number (after the title and chapter digits) are the sections of the International Building Code to which the amendments refer.

23.15.103-116 Delete.

Delete sections 103 through 116; refer to the Anchorage Administrative Code.

23.15.202 Definitions.

Add the following definition:

**USABLE SPACE** is space in a structure used for utility or equipment placement, storage, or building service, such as laundry and maintenance areas, and not defined as habitable space. Space used for ducts, water and sewer lines, and electrical wiring is not considered usable space.

23.15.310.5.2 Bed and breakfast establishments.

Revise section 310.5 Residential group R-3 by adding the following section.

**310.5.2 Bed and breakfast establishments.** A single family dwelling containing not more than five sleeping rooms, where guests pay rent in money, goods, labor,
or otherwise shall be classified as a Group R-3 occupancy, or shall comply with the International Residential Code.

23.15.406.3.4 Separation.

Amend by changing all references to “1/2-inch (12.7mm)” in item #1 to “5/8-inch Type X”.

23.15.412.4.1 Exterior walls.

Revise section 412.4.1 by adding the following exception:

Exception: Group III hangars.

23.15.425 Special security requirements for group E buildings.

Amend Chapter 4 by adding the following section:

SECTION 425
SPECIAL SECURITY REQUIREMENTS FOR GROUP E BUILDINGS

425.1 General. All Group E buildings with the lower floor level above grade and open on the sides shall be fenced around the building exterior or have skirting below the exterior walls to prevent unauthorized access.

23.15.426 Licensed residential care/assisted living facilities.

Amend Chapter 4 by adding the following section:

SECTION 426
LICENSED RESIDENTIAL CARE/ASSISTED LIVING FACILITIES

426.1 Scope. The provisions of this section apply to licensed residential care/assisted living facilities providing accommodations for 3 to 16 residents.

426.1.1 Multiple facilities within a single structure. Where more than one licensed residential care/assisted living facility is located within a single structure, the combined occupant load of all facilities shall be used to determine the occupancy classification.

Exceptions:

1. Facilities separated by fire barriers constructed in accordance with section 707 and horizontal assemblies constructed in accordance with section 711, or both, having a minimum two hour fire resistance rating so as to completely separate the facility from adjacent occupancies and facilities.
2. Townhouses where each townhouse is separated from adjacent dwelling units with either (two) one hour fire resistance rated walls or (one) two hour fire resistance rated wall, constructed in accordance with the IRC.

426.2 Facilities in new buildings and additions. Facilities located in new buildings and additions shall comply with this code.

426.2.1 Mixed use and occupancy. Residential care/assisted living facilities shall be separated from other occupancies and uses by fire barriers constructed in accordance with section 707 or horizontal assemblies constructed in accordance with section 711, or both, having a minimum 2 hour fire resistive rating, so as to completely separate adjacent occupancies. Egress from residential care/assisted living facilities shall not pass through other occupancies.

426.3 Existing facilities. Existing facilities shall comply with the International Fire Code as amended under AMC 23.45.

426.3.1 Expiration or lapse of Licensure. A facility whose license lapses by more than 180 days is no longer considered an existing facility. Establishment of a new facility in the existing structure requires a change of use permit in accordance with this section.

426.3.2 Increase in the number of residents. An increase in the number of residents that results in a change of occupancy classification requires a change of use permit in accordance with this code.

426.3.3 Modification of license. For facilities housing more than 5 residents, a license modification from individuals capable of self-preservation to individuals who may be incapable of self-preservation requires a change of use permit in accordance with this code.

426.4 Change of use. Conversion of an existing building or portion thereof to a residential care/assisted living facility shall comply with sections 426.4.1 through 426.4.10.

426.4.1 Permit required. Conversion of an existing building or portion thereof to a residential care/assisted living facility shall require a change of use permit in accordance with the Anchorage Administrative Code, AMC 23.10.

426.4.2 Residents incapable of self-preservation. Facilities housing 6 or more residents, any number of which may be incapable of self-preservation, are classified as Group I-2 and shall comply with the applicable provisions of this code.

426.4.3 Automatic sprinkler system. An automatic sprinkler system shall be provided in accordance with section 903. NFPA 13D systems require a minimum 30 minute water supply, or minimum 20 minute supply with a fire department connection.
426.4.4 **Fire and smoke alarms.** Fire and smoke alarms shall be installed in accordance with section 907 based on the occupancy classification.

426.4.5 **Fire resistive construction.** All walls and partitions shall qualify as ½ hour fire resistive construction. Floor assemblies, excluding floors over unusable crawl spaces, shall be protected on the underside with ½ inch thick gypsum wall board, or equivalent. All structural elements shall be separated from the interior of the building by ½ inch thick gypsum wall board, or equivalent, or shall qualify as ½ hour fire resistive structural elements in accordance with chapter 7.

426.4.6 **Sleeping rooms.** Sleeping rooms shall be separated from adjacent spaces by construction capable of resisting the passage of smoke. Air transfer openings and louvers between sleeping rooms and adjacent spaces are prohibited. Sleeping rooms may be served by HVAC metallic duct systems constructed in accordance with the International Mechanical Code. Sleeping room doors shall be 1-3/4 solid wood core or 20 minute fire rated, and shall be provided with latches suitable for keeping the doors closed.

426.4.7 **Interior egress stairs.** Interior egress stairs serving sleeping rooms and living areas located above or below the level of exit discharge shall comply with sections 426.4.7.1 through 426.4.7.3.

426.4.7.1 Stairs serving a maximum of two stories shall be permitted to be unenclosed.

426.4.7.2 Stairs serving a maximum of three stories shall be enclosed with ½ hour rated fire barriers and/or horizontal assemblies. Doors shall be self or automatic closing and shall be 20 minute rated.

426.4.7.3 Stairs serving more than three stories shall be enclosed in accordance with this code.

426.4.8 **Protection of vertical openings.** A maximum of 2 stories may communicate through unprotected openings. Additional stories shall be separated from communicating stories by ½ hour fire resistive assemblies constructed to resist the passage of smoke. Openings, other than metallic HVAC ducts and vents, shall be protected with 20 minute fire rated self or automatic closing doors.

426.4.9 **Accessibility.** Accessibility shall be provided in accordance with Chapter 11.

426.4.10 **Mixed use and occupancy.** Residential care/assisted living facilities shall be separated from other occupancies and uses by fire barriers constructed in accordance with section 707 or horizontal assemblies constructed in accordance with section 711, or both, having a minimum 2 hour fire resistive rating, so as to
completely separate adjacent occupancies. Egress from residential care/assisted living facilities shall not pass through other occupancies.

23.15.427 Child care facilities.

Amend Chapter 4 by adding the following section:

SECTION 427
CHILD CARE FACILITIES

427.1 Scope. Child care facilities shall comply with this code.

Exception: Child care facilities are permitted to comply with the International Residential Code provided all of the following requirements are met:

1. The facility is located in a detached one or two family dwelling or townhouse (as defined in the International Residential Code).

2. Day care: The facility is limited to a maximum of eight (8) children of any age, including children related to staff, between the hours of 6:00 a.m. and 10:00 p.m.

3. Night care: The facility is limited to a maximum of five (5) children of any age, including children related to staff, between the hours of 10:00 p.m. and 6:00 a.m.

4. The facility shall comply with AMC Chapter 16.55 Child Care and Education Facilities – Centers and Homes.

5. Smoke alarms and carbon monoxide detectors are provided in accordance with the International Residential code.

6. Means of egress and emergency escape and rescue openings comply with the International Residential code.

7. Fire extinguishers are provided in accordance with the International Fire Code as required for a group E occupancy.

8. Child care is limited to the basement, first and second stories.

9. Child care facilities located in a basement or second story shall have access to not less than two means of egress separated by a minimum of ½ the maximum overall diagonal of the area served. One of the required means of egress may consist of a code compliant emergency escape and rescue opening. When child care facilities are located in a basement, at least one exit
or emergency escape and rescue opening shall discharge directly to the exterior of the building at or near grade.

23.15.718.4.2 Groups R-1 and R-2.

Amend Exception 3 to read as follows:

Exception 3: The attic space may be subdivided by draftstops into areas not exceeding 3000 square feet, or above every two dwelling units, whichever is smaller. When draftstopping is installed to separate every two dwelling units and each of these units is separated by a corridor, draftstopping is not required at the corridor wall. Where required, all subdivided areas shall be ventilated in accordance with Section 1203.2.

23.15.903.2.3 Group E.

Delete 903.2.3 and replace with the following:

An automatic sprinkler system shall be provided throughout all buildings that contain a Group E occupancy and for every portion of educational buildings below the level of exit discharge. The use of a fire wall does not establish a separate building for purposes of this section.

Exception: Buildings with Group E occupancies having an occupant load of 49 or less.

Daycare uses licensed to care for more than five (5) persons between the hours of 10 p.m. and 6 a.m. shall be equipped with an automatic sprinkler system designed and installed in accordance with subsection 903.3.1 or an approved equivalent system.

23.15.903.2.11 Specific building areas and hazards.

Amend by adding the following sections:

903.2.11.7 Pit sprinklers. Sprinklers shall be installed in the bottom of all new elevator pits below the lowest projection of the elevator car but no higher than 24” (609.6 mm) from the bottom of the pit when the building has a sprinkler system.

903.2.11.8 Sprinkler systems shall not be allowed in elevator machine rooms/spaces or control room/spaces and at the tops of hoist ways, except as required by NFPA13 8.15.5.6

903.2.11.8.1 Sprinklers shall be required in all spaces where combustible elevator belts are present.
23.15.903.3.1.3   NFPA 13D sprinkler systems.

Amend section by adding the following sentence:

All required automatic sprinklers systems installed in accordance with NFPA 13D shall have a minimum 30 minute water supply or a minimum 20 minute water supply with a FDC for Group R-3 and R-4 occupancies.

23.15.903.3.5   Water supplies.

Amend by adding new Section 903.3.5.3 as follows:

903.3.5.3 Fire sprinkler hydraulic water flow design.

Fire sprinkler hydraulic water flow design shall be by one of the following methods.

1. Preferred method. Fire sprinkler hydraulic design water supply shall be from AWWU computer model Max Day demand.

2. Alternate method. Can only be used if AWWU computer model cannot be obtained. Fire sprinkler system being designed with water supply data from a hydrant flow test shall have a 10 percent minimum flow rate safety factor at the water source. Hydrant flow test shall be witnessed by the fire code official or their designee.

23.15.907.1.2   Fire alarm shop drawings.

Amend section by adding the following construction drawing to the list of those required to be submitted:


23.15.907.2.1   Group A.

Delete Exception.

23.15.907.2.2   Group B.

Delete Exception.

23.15.907.2.3   Group E.

Amend 907.2.3 (Group E) by adding a second paragraph to read:
"Rooms used for sleeping or napping purposes within a day care use of a Group E occupancy must be provided with smoke alarms that comply with Section 907.2.11.2"

Delete Exceptions #2 & #3.

23.15.907.2.4 Group F.
Delete Exception.

23.15.907.2.6.1 Group I-1
Delete Exception #1

23.15.907.2.7 Group M.
Delete Exception #2.

23.15.907.2.8.1 Group R-1: Manual fire alarm system.
Delete Exception #2.

23.15.907.2.9.1 Group R-2: Manual fire alarm system.
Amend section 907.2.9.1 by deleting first sentence and replacing it with:

A manual fire alarm system and an automatic fire detection system with smoke detection in the public and common use areas shall be installed in Group R-2 occupancies where:

907.2.9.1: Amend by deleting Exception # 2.

23.15.907.2.10.1 Manual fire alarm system
Delete Exception # 2

23.15.907.5.2.1.1 Average Sound Pressure
Add the following sentence:

The minimum sound pressure level in every occupiable space shall be 75 dBA in Group R occupancies and 60 dBA in all other occupancies.

23.15.907.5.2.3 Visible alarms
Amend 907.5.2.3 by adding the following to exception 1.
An upgrade shall be the replacement of a fire alarm panel, or fire system components providing improved functional performance or capabilities. (A software upgrade is exempt from this requirement.)

23.15.908.7 Carbon monoxide alarms.

Amend section 908.7 as follows:

908.7 Carbon monoxide alarms. The provisions of this section apply to Group I-1, R-2, R-3 and R-4 occupancies, and Group A and E occupancies where individuals sleep on a periodic basis. At least one (1) carbon monoxide alarm shall be installed on each floor level. If a floor level contains bedrooms or sleeping rooms, at least one (1) alarm shall be located in the immediate vicinity of the sleeping area, outside of the bedrooms/sleeping rooms. Carbon monoxide alarms shall be listed as complying with UL 2034 and be installed and maintained in accordance with NFPA 720 and the manufacturer's instructions. The alarm shall be clearly audible in all sleeping rooms with intervening doors closed as required by NFPA 720.

Exceptions:
1. Carbon monoxide alarms are not required in dwelling units and structures with no combustion appliances and that do not have an attached enclosed garage.
2. Carbon monoxide alarms are not required in dwelling units and structures with only direct vent combustion appliances and that do not have an attached enclosed garage.
3. Carbon monoxide alarms are not required in Group A, E, I-1, and R-2 occupancies where all combustion equipment is located within a mechanical room separated from the rest of the building by construction capable of resisting the passage of smoke. If the structure has an attached enclosed parking garage, the garage shall be ventilated by an approved automatic carbon monoxide exhaust system designed in accordance with the mechanical code.

908.7.1 Interconnection. In new construction, all carbon monoxide alarms located within a single dwelling unit shall be interconnected in such a manner that actuation of one alarm shall activate all of the alarms within the individual dwelling unit.

908.7.2 Power source. In new construction, carbon monoxide alarms 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 backup. 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 backup.
908.7.3 Carbon monoxide detection systems. Carbon monoxide detection systems, which include carbon monoxide detectors and audible notification appliances, installed and maintained in accordance with this section for carbon monoxide alarms and NFPA 720 shall be permitted. The carbon monoxide detectors shall be listed as complying with UL 2075.

23.15.1008.1.9.7 Delayed egress locks.

Revise item number 3 to read as follows:

3. The door locks shall have the capability of being unlocked by a signal from an approved location.

23.15.1015.2.2 Three or more exits or exit access doorways.

Amend section 1015.2.2 to read as follows:

Where access to three or more exits is required, three exits shall be separated from each other by a minimum distance of one-third the maximum overall diagonal dimension of the area served.

23.15.1102 Definitions.

Revise section 1102.1 by adding the following definition:

CONVENTIONAL INDUSTRY TOLERANCES. In reference to ICC A117.1-2009, section 104.2 Dimensions, convention industry tolerances shall be one percent or one-half inch, which ever results in the lesser tolerance.

23.15.1106 Parking and passenger loading facilities.

Revise section 1106.1 Required by adding the following:

In the event of a conflict between this section and AMC Title 21, the more restrictive requirement shall apply.

23.15.1110.1 Signs.

Delete Items 1 and 2 and replace with the following:

1. Accessible parking spaces required by Title 21.
2. Accessible passenger loading zones required by Title 21.

23.15.1203.2 Attic spaces.

Amend section 1203.2 as follows:
In the first sentence, add the words “insulation and” before the word “ceilings”.
Amend the third sentence by changing “1 inch” to “1 ½ inch”.
Delete all 3 exceptions.

23.15.1209.2 Attic spaces.

Add a sentence at the end of the paragraph to read as follows:

Attic access shall not be located in a room containing bathing facilities.

23.15.1211 Moisture control in insulated assemblies.

Amend Chapter 12 by adding the following section:

SECTION 1211
MOISTURE CONTROL IN INSULATED ASSEMBLIES

1211.1 Moisture control strategies. The building design shall incorporate both interior and exterior moisture control strategies to prevent the accumulation of moisture within insulated assemblies. Exterior moisture control shall comply with Chapters 14 and 15. Interior moisture control shall comply with section 1211.1.1. Should insulated assemblies become wet or start out wet, the design strategy shall allow the assembly to dry to either the exterior or interior. Materials shall be allowed to dry prior to enclosure.

1211.1.1 Interior moisture control in insulated assemblies. Methods to control moisture accumulation within insulated assemblies from the building interior shall address both vapor diffusion and air leakage. Vapor diffusion shall be controlled by the installation of a class I vapor retarder on the warm-in-winter side of the insulation. The vapor retarder shall be continuous and seams shall be lapped 6 inches minimum. Penetrations and seams shall be sealed with approved tape or sealant to control air leakage.

Exceptions:

1. A vapor retarder is not required in construction where moisture or its freezing will not damage materials.
2. A vapor retarder is not required on crawlspace walls designed to dry to the interior.
3. A vapor retarder is not required on basement walls designed to dry to the interior. Such walls shall be insulated as follows:
   a. Two inches minimum of EPS or XPS foam plastic insulation applied directly against the exterior of the foundation wall, and one inch of EPS, XPS or polyisocyanurate (PIR) applied between the interior surface of the foundation wall and framing. The framing cavity may be insulated with any type of approved insulation.
b. Three inches minimum of two pound density closed cell foam plastic insulation applied to the interior side of the foundation wall with one inch minimum of insulation between any wall framing and the foundation wall.

c. Equivalent moisture resistant system approved by the building official.

4. A vapor retarder is not required at cantilevered floor assemblies where the floor decking consists of nominal ¾ inch OSB or other approved material having a perm rating of less than one. Joints shall be sealed in an approved manner. Joint sealing is not required where the deck is covered with concrete or a gypsum based floor topping.

5. The rim joist does not require a vapor retarder when insulated to a minimum value of R-21 with spray foam having a minimum density of 2 pounds per cubic foot.

6. A class III vapor retarder may be used on walls and roof insulated to a minimum value of R-21 with spray foam having a minimum density of 2 pounds per cubic foot.

7. Up to one-third of the total installed insulation R-value may be installed on the warm side of the vapor retarder. This exception applies only when the daily average indoor relative humidity is maintained below 35 percent during the heating months of November through March.

8. Factory manufactured insulated panels consisting of a metal skin encapsulating and bonded to a foam plastic core do not require a vapor retarder.

23.15.1403.2 Weather protection.

Amend third sentence by adding the words “vapor permeable” after “water-resistive.”

23.15.1405.3 Vapor retarders.

Amend section 1405.3 by deleting subsection 1405.3.1 Class III vapor retarders. Refer to section 23.15.1211.

23.15.1503 Weather protection.

Add the following section:

1503.7 Protection from falling ice and snow. Buildings and structures shall be designed and constructed to minimize a hazardous accumulation of snow and ice on downward sloped eaves, roof surfaces and architectural projections. Where the accumulation of snow and/or ice creates a hazardous condition, the areas below the accumulation shall be protected from falling snow and/or ice. These areas include (but are not limited to) building entrances and exits, pedestrian areas, parking lots, driveways, public right-of-way, children’s play areas and utility locations for fire department connections, gas meters, and electrical meters, services and disconnects.

23.15.1507.2 Asphalt shingles.
Amend the first sentence in subsection 1507.2.8 Underlayment application, to read as follows:

For roof slopes from 2 units vertical in 12 units horizontal up to, but not including 4 units vertical in 12 units horizontal, underlayment shall consist of self-adhering polymer-modified bitumen sheet complying with ASTM D 1970.

Delete subsection 1507.2.8.1 High wind attachment.

23.15.1507.3 Clay and concrete tile.

Revise subsection 1507.3.3 Underlayment, to read as follows:

Underlayment shall be self-adhering polymer modified bitumen sheet complying with ASTM D 1970. The underlayment shall cover the entire roof surface.

Delete subsection 1507.3.3.1 Low slope roofs.

Delete subsection 1507.3.3.2 High slope roofs.

Delete subsection 1507.3.3.3 High wind attachment.

Delete the column titled "Roof slope up to < 3:12" in Table 1507.3.7 Clay and concrete tile attachment.

23.15.1507.4 Metal panel roofs.

Delete subsection 1507.4.5 Underlayment and high wind.

23.15.1507.5 Metal roof shingles:

Add the following sentence to section 1507.5.3 Underlayment:

For roof slopes from 3 units vertical in 12 units horizontal up to, but not including 4 units vertical in 12 units horizontal, underlayment shall consist of self-adhering polymer-modified bitumen sheet complying with ASTM D 1970.

Delete subsection 1507.5.3.1 Underlayment and high wind.

23.15.1507.6 Mineral-surfaced roll roofing:

Add the following sentence to subsection 1507.6.3 Underlayment:
For roof slopes from 1 unit vertical in 12 units horizontal up to, but not including 4 units vertical in 12 units horizontal, underlayment shall consist of self-adhering polymer-modified bitumen sheet complying with ASTM D 1970.

Delete subsection 1507.6.3.1 Underlayment and high wind.

23.15.1507.7 Slate shingles.

Delete subsection 1507.7.3.1 Underlayment and high wind.

23.15.1507.8 Wood shingles:

Add the following sentence to subsection 1507.8.3 Underlayment:

For roof slopes from 3 units vertical in 12 units horizontal up to, but not including 4 units vertical in 12 units horizontal, underlayment shall consist of self-adhering polymer-modified bitumen sheet complying with ASTM D 1970.

Delete subsection 1507.8.3.1 Underlayment and high wind.

23.15.1507.9 Wood Shakes

Delete subsection 1507.9.3.1 Underlayment and high wind.

23.15.1508.3 Vapor retarders.

Amend section 1508 by adding the following subsection:

1508.3 Vapor retarders. Refer to section 23.15.1211.

23.15.1603.1.10 Live loads posted

Add a new subsection to read as follows:

Where the design live load is unusual, and is located on a floor not directly supported by ground, the design live load shall be posted in a conspicuous location.

23.15.1604.4 Analysis.

Add the following paragraph at the end of the section:

Exterior walls and cladding of building and interior partitions shall accommodate gravity system deflections or be capable of resisting loads imposed by vertical movement of the gravity system.
23.15.1608.1 General.

Add the following sentence at the end of the paragraph:

Greenhouses heated year round may be designed for 10 psf (0.48 kN/m²) roof live load without considering roof snow loads.

23.15.1608.4 Flat roof snow loads.

Add the following subsection 1608.4:

1608.4 Flat roof snow loads. The minimum flat roof snow load, $P_f$, shall be 40 psf (1.92 kN/m²).

23.15.1609.3 Basic wind speed.

Delete this section and replace with the following:

The basic wind speed, in miles per hour (mph), for the determination of the wind loads shall be determined in accordance with the Anchorage “Three Second Gust” Wind Zone Map.

23.15. Figure 1609 Anchorage “Three Second Gust” Wind Zone Map

Delete the first paragraph and replace with the following:

The ultimate design wind speed, $V_{ult}$, in mph, for the determination of the wind loads shall be determined in accordance with the 2013 Anchorage “Three Second Gust” Wind Zone Map and associated tables.

Delete Figures 1609A, 1609B, and 1609C and replace with the following:
## Minimum "Three Second Gust" Design Wind Speeds

<table>
<thead>
<tr>
<th>Zone</th>
<th>IBC Risk Category</th>
<th>IRC RAV (V)&lt;br&gt;(m/s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>120</td>
<td>120</td>
</tr>
<tr>
<td>II</td>
<td>135</td>
<td>145</td>
</tr>
<tr>
<td>III</td>
<td>145</td>
<td>165</td>
</tr>
<tr>
<td>IV</td>
<td>150</td>
<td>165</td>
</tr>
</tbody>
</table>

Risk category examples (refer to IBC Table 1604-1):
- I - Low occupancy structures (storage sheds, agricultural facilities, etc.)
- II - Typical structures (all structures not meeting Risk Categories I, III, or IV)
- III - High occupancy structures, schools, places of public assembly, etc.
- IV - Essential facilities, critical infrastructure, emergency response, etc.

Note: Refer to the SEI/ASCE 7-10 for calculation of wind pressure using the above wind speeds. For additional information about commercial or residential design requirements, contact Building Safety at (907) 345-8201.
23.15.1609.4 Exposure categories.

Add the following definitions to Exposure D:

**SHORELINE.** The high tide line, as indicated by the edge of vegetation on the most recent Municipality base aerial photograph set.

**UNOBSTRUCTED.** Any site not sheltered from the shoreline by vegetation or other impediments at least 4 feet high and covering a minimum of 60 percent of an area extending a minimum of 30 feet perpendicular to a line connecting the building to any point of the shoreline.

23.15.1610.1 Soil lateral loads.

Add the following sentence at the end of the paragraph:

Design lateral pressure shall consider the effects of seasonal frost penetration.

23.15.1613.1 Scope.

Revise the first sentence to read as follows:

Every structure, and portion thereof, including nonstructural components that are permanently attached to structures and their supports and attachments, shall be designed and constructed to resist the effects of earthquake motions in accordance with ASCE 7, excluding Chapter 14, Appendices 11A and 11B.

23.15.1613.2 Definitions.

Add the following definition:

**SEISMICALLY-INDUCED GROUND FAILURE ZONES.** For the various mapped ground failure zones, see the Anchorage Coastal Resource Atlas, Vol. 1: The Anchorage Bowl. For the purposes of these amendments the following numbers are assigned to the various mapped areas:

Zone 1 – “Lowest ground failure susceptibility.”
Zone 2 – “Moderately low ground failure susceptibility.”
Zone 3 – “Moderate ground failure susceptibility.”
Zone 4 – “High ground failure susceptibility.”
Zone 5 – “Very high ground failure susceptibility.”

23.15.1703.7 Special inspector pre-approval program

Add the following subsection to read as follows:
Unless otherwise approved by the building official, special inspectors shall be pre-qualified and approved by the building official before performing special inspection activities on any project within the Municipality. Special inspectors shall obtain pre-approval for each category of inspection they wish to perform.

23.15.1703.7.1 Special inspector intern program

Add the following subsection to read as follows:

The Special Inspection firm proposing to use an intern for part of a Special Inspection shall submit to the building official a written Special Inspector Intern Program for approval. The program shall define:

1. Minimum pre-qualifying experience required for the proposed intern to participate as a Special Inspector Intern. Minimum qualifications to begin the Special Inspector Program shall be defined by the building official.
2. The Special Inspection Intern shall be supervised as described by the written Special Inspector Intern Program. Individuals designated as supervisors shall be preapproved Special Inspectors in the discipline the Intern is training for. Special Inspection reports and documents shall be signed by the intern and countersigned by the supervisor prior to being submitted to the Contractor, the Engineer of Record, and the building official.
3. Completion of Special Inspector Intern training in a particular category of Inspection shall be demonstrated by application for pre-approval as a Special Inspector and acceptance by the building official.
4. Should an Intern fail to perform, the building official may require additional training, additional supervision, or removal from the project.

23.15.1703.7.2 Application

Add the following subsection to read as follows:

Applicants for pre-approval as special inspectors shall submit an application describing documentable qualifications for each category of inspection(s) to be performed, with years of experience, project references, certifications where appropriate, and references with contact information. Once qualifications are accepted by the building official, an applicant special inspector shall be issued a unique special inspector number. Provisions may be made for pre-qualification of special inspector interns not meeting the basic requirements of a special inspector in a certain category, but who are supervised by a pre-qualified special inspector or design professional.

23.15.1703.7.3 Special inspector approval

Add the following subsection to read as follows:
Approval shall be by letter from the Municipality and shall include a pocket or wallet card defining special inspector’s information and the categories the special inspector has been pre-approved. Special inspectors shall carry the wallet card on their person when performing inspections and show the card upon request of building official’s representative or designated design professional. Special inspector approvals shall be renewed every two (2) years by reapplication of the special inspector.

23.15.1703.7.3.1 Approval suspension

Add the following subsection to read as follows:

The building official may suspend an individual’s approval as a special inspector for a project where the special inspector demonstrates a lack of knowledge, neglects duties due to the special inspector’s own fault or falsifies documents. The special inspector shall be provided written notification and shall be afforded the opportunity by the building official to be heard. Decisions may be appealed to the Building Board of Examiners and Appeals.

23.15.1703.7.3.2 Removal of pre-approval status

Add the following subsection to read as follows:

The building official may revoke or suspend an individual’s pre-approval status when a special inspector neglects duties, demonstrates a lack of knowledge, falsifies documents or misrepresents qualifications. Pre-approved status may be reinstated on recommendation of the Special Inspector Peer Committee or after 365 days and upon submission of proof of additional training or certifications. The special inspector shall be provided written notification and shall be afforded the opportunity by the building official to be heard. Pre-approval status decisions may be appealed to the Building Board of Examiners and Appeals.

23.15.1703.8 Ad hoc special inspector peer committee

Add a new subsection to read as follows:

An advisory committee of special inspection peers may meet to provide guidance on special inspection matters including but not necessarily limited to, special inspector qualifications, special inspection related code issues, special inspection requirements, remedies to disputes regarding special inspection duties and procedures, and special inspector approval program issues. The Ad Hoc Special Inspection Committee shall be comprised of a balanced membership of peers and shall include a balanced representation of the special inspection profession, design professionals, and public officials. The committee shall meet as required and shall be chaired by the building official or designee. Decisions by the building official may be appealed to the Building Board of Examiners and
Appeals. For a quorum, a peer committee requires attendance of individuals from four (4) businesses performing similar special inspections, and the building official.

23.15.1704.2.4 Report requirement

Delete the fourth and fifth sentence and replace with the following:

All discrepancies shall be brought to the immediate attention of the contractor for correction, and shall be documented in a Special Inspection Report. If action is not taken immediately or within an agreed time frame to correct the nonconformance, the Special Inspector shall promptly inform the registered design professional and the building official, verbally and in writing through a Special Inspection Report. Discrepancies discovered by the special inspector after the fact shall be reported to the registered design professional and the building official in writing. Copies of inspection reports shall be available at the construction site for review by Municipality Building Safety Personnel.

23.15.1705.2.2.1 Welding.

Add the following exception:

Special inspection of welds under this section shall not be required where $R_u \leq 0.5 \phi R_n$ for LRFD or $R_a \leq 0.5 R_n/\Omega$ for ASD, and where welds are placed by AWS certified welders. The registered design professional in responsible charge shall indicate on the drawings which welds do not require special inspection under this chapter.

23.15.1705.3 Concrete construction.

Add the following exception:

6. Shotcrete work not of a structural nature or not for water retention structures, are fully supported on earth, are for minor repairs, or when no special hazard exist, where approved by the building official.

23.15.1705.18 Post-installed concrete and masonry anchors

Add the following section to read as follows:

Post-installed concrete and masonry anchors do not require special inspection where all of the following are met:

1. The building Risk Category is I, II, or III;
2. The building is not classified as a high-rise;
3. The non-structural component importance factor, $I_p$, is 1.0;
4. The tension/shear interaction demand/capacity ratio is less than 0.50.
23.15.1802.1  Definitions

Add the following definitions:

**COLD FOUNDATION.** Any foundation where the temperature of the bearing soil is normally subject to freezing.

**REGISTERED DESIGN PROFESSIONAL.** For purposes of this chapter, a civil engineer licensed in the State of Alaska.

**WARM FOUNDATION.** Any foundation where the temperature of the bearing soil is normally maintained.

23.15.1803.5.4  Groundwater table

Delete the section and replace with the following:

Any subsurface soil investigation completed in accordance with this chapter shall identify the location and elevation of any ground water found within the limits explored.

23.15.1803.5.10  Alternate setback and clearance

Delete the section and replace with the following:

A geotechnical investigation shall be conducted to demonstrate the stability of any slope supporting or adjacent to a foundation. The investigation shall include consideration of the geotechnical conditions, slope geometry, load intensity, erosion characteristics of the materials, and potential reduction in soil strength due to cyclic loading or liquefaction. Evaluation of the slope stability shall be performed by a registered design professional in accordance with Section 23.15.1803.5.12.

23.15.1803.5.12  Seismic Design Categories D through F

Add the following items:

5. A slope shall be considered stable if, based on a limit equilibrium analysis, the minimum factor of safety:
   a. Equals or exceeds 1.50 under static and post-earthquake loading conditions, and;
   b. Equals or exceeds 1.10 under earthquake loading conditions using a horizontal seismic coefficient of 0.30 in Seismically-Induced Ground Failure Zones 1, 2, and 3; and 0.20 in Seismically-Induced Ground Failure Zones 4 and 5.
For slopes that do not satisfy all of the above criteria, the building official may approve an evaluation of the slope performance using a displacement-based method, including methods derived from the Newmark sliding block model, or more advanced numerical modeling. Evaluations of slopes using any displacement-based method shall be based on site-specific probabilistic or deterministic ground motions predicted in accordance with Section 21.1 of ASCE 7, with a 2 percent probability of exceedence within a 50-year period.

6. It may be necessary to extend the geotechnical investigation beyond the immediate site boundaries in order to evaluate the applicable hazard.

7. For Risk Category I and II structures that are located in Seismically-Induced Ground Failure Zones 1, 2, or 3, it is permitted to evaluate the potential for, and consequences of, liquefaction and soil strength loss described above may be determined using simplified screening methods based on historic records, surficial geology, a minimum peak ground acceleration of 0.4 times the design short period spectral acceleration ($S_{DS}$), and magnitudes of the characteristic earthquakes on all known active faults with the site region.

23.15.1803.5.13 Permafrost

Add a new subsection to read as follows:

A subsurface investigation shall be performed to evaluate whether permafrost exists at any building site located within areas delineated on the Mass Wasting map (Anchorage Coastal Resources Atlas, Vol. 1: The Anchorage Bowl, 1980) as having a high potential for isolated permafrost conditions.

23.15.1803.6 Reporting

Add the following to the end of Item 5:

“…, and mitigation of the effects of seasonal freezing and thawing, and permafrost.”

23.15.1804.3 Site grading

Add the following paragraph at the end of the section:

There shall not be an increase in surface drainage to adjacent properties. Approved drainage locations shall conform to Title 21 requirements for stormwater treatment and discharge.

23.15.1804.5 Compacted fill material
Replace “90 percent” in the exception with “95 percent”.

23.15.1805.1.3 Ground-water control

Add the following sentence at the end of the paragraph:

The space between the side of a basement excavation and the exterior of a basement wall shall be backfilled for half the height of the excavation with the same material (Type GW, GP, SW, or SP soils) on which the footing is placed.

23.15.1805.3 Waterproofing

Add the following paragraph to the end of the section:

All exterior below grade walls enclosing habitable spaces shall be waterproofed in accordance with Section 1805.3.2.

23.15.1807.1.4 Permanent wood foundation systems

Add the following sentence to the beginning of the first paragraph:

All footings shall be concrete. Permanent wood foundation systems may only be installed in Type GW, GP, SW, or SP soils unless a complete geotechnical investigation and foundation design, prepared by a registered design professional, is submitted for review.

Add the following paragraph at the end of the section:

Hot dipped zinc-coated fasteners may not be used for basement or crawlspace construction. Fasteners and anchor bolts used in concrete footings shall be stainless steel. Anchor bolts shall be a minimum of 10 inch (254 mm) length by 5/8 inch (16 mm) nominal diameter with a minimum embedment of 7 inches (178 mm) into the concrete. Treated wood foundation plates and sills shall be installed in accordance with Section 2308.6.

23.15.1807.3.1 Limitations

Add the following item at the end of the section:

The embedment depth to least dimension shall be less than or equal to 12.

23.15.1808.1 General

Add the following to the beginning of the first paragraph:
Shallow foundations shall be constructed of masonry, concrete, or treated wood. Footings of concrete or masonry shall be of solid material. Foundations supporting wood shall extend a minimum of 6 inches (152 mm) above the adjacent grade. Unless other recommendations are provided in a foundation investigation report the upper 12 inches (305 mm), peat or organic silts (Pt., OL, or OH soils as defined by the Unified Soil Classification System) shall not be used for backfill within 18 inches (457 mm) of the foundation.

23.15.1808.7 Foundations on or adjacent to slopes

Add the following to the end of the first sentence:

“…, or 15 feet (4,572 mm) beyond the surface projection of the most critical theoretical failure surface plane determined from the slope stability analysis in accordance with Section 23.15.1803.5.10, whichever is greater.”

23.15.1809.5 Frost protection

Delete the first sentence and replace with the following:

Foundations and other permanent supports of buildings and structures shall be protected from frost by one or more of the following methods:

Delete Item 2 and replace with the following:

Designing in accordance with ASCE 32, using a Design Air-Freeze Index (F100) of 3,340 F-Days; or

Add the following at the end of the section:

Minimum footing depths shall be as indicated in Table 23.15.1809.5. Footings shall bear on undisturbed natural inorganic soil, or suitably compacted fill.

Add the following table:

Table 23.15.1809.5 Minimum footing depths

<table>
<thead>
<tr>
<th>Foundation Type</th>
<th>Minimum Footing Depth (inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Warm Foundation</td>
</tr>
<tr>
<td>Perimeter footing</td>
<td>42</td>
</tr>
<tr>
<td>Interior continuous or isolated spread footing</td>
<td>8</td>
</tr>
<tr>
<td>Cast-in-place concrete pier</td>
<td>42</td>
</tr>
<tr>
<td>Exterior isolated foundation</td>
<td>N/A</td>
</tr>
</tbody>
</table>

For SI: 1 inch = 25.4 mm

Notes:
1. Dimension indicated is from bottom of footing to adjacent exterior grade. Required depth to bottom of footing within a crawlspace shall not be less than 8 inches (203 mm). Basements or crawl space walls supporting more than 5 feet (1,524 mm) of 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 attached to the building and not greater than 72 inches (1,829 mm) above grade may bear directly on ground. Bearing material shall meet other provisions of this code. The potential for and the effects of seasonal freeze and thaw shall be considered.

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 appropriate means. The effects of seasonal freeze and thaw shall be considered.

5. The minimum footing depth for foundations installed in non-frost susceptible soils may be 60 inches (1,524 mm).

6. Non-load bearing site structures not attached to the building, such as fences, light poles, and sign posts, shall have a footing depth based on analysis of the vertical and lateral loads on the structure, and shall consider the effects of seasonal freeze and thaw.

23.15.1810.3.1 Design conditions

Add the following at the end of the sentence:

“..., with consideration of the effects of seasonal freeze and thaw.”

23.15.1810.3.2.3 Structural steel

Add the following exception:

Exception:

The building official may approve alternate material specifications where documentation is provided showing the specified material meets or exceeds the requirements for stress, ductility, weldability, and corrosion resistance of any of the listed specifications.

23.15.1810.3.5.3.2 Steel pipes and tubes

Add the following exception:

The building official may permit smaller diameter piles provided that an analysis is submitted indicating that the piles have sufficient capacity to transfer the required gravity and lateral loads. The safe installation of the piles of smaller diameter is the responsibility of the contractor.
Delete the section in its entirety and replace with the following:

**1905.1 General.** The text of ACI 318 shall be modified as indicated in Sections 1905.1.1 through 1905.1.10.

**1905.1.1 ACI 318, Section 2.2.** Modify existing definitions and add the following definitions to ACI 318, Section 2.2.

**DESIGN DISPLACEMENT.** Total lateral displacement expected for the design-basis earthquake, as specified by Section 12.8.6 of ASCE 7.

**DETAILED PLAIN CONCRETE STRUCTURAL WALL.** A wall complying with the requirements of Chapter 22, including 22.6.7.

**FREEZING/NEAR FREEZING WEATHER.** A period when, for more than 3 consecutive days, the following conditions exist: (1) the average daily air temperature is less than 40 degrees F; and (2) the air temperature is not greater than 50 degrees F for more than one-half of any 24-hour period. The average daily air temperature is the average of the highest and lowest temperatures occurring during the period from midnight to midnight.

**ORDINARY PRECAST STRUCTURAL WALL.** A precast wall complying with the requirements of Chapters 1 through 18.

**ORDINARY REINFORCED CONCRETE STRUCTURAL WALL.** A cast-in-place wall complying with the requirements of Chapters 1 through 18.

**ORDINARY STRUCTURAL PLAIN CONCRETE WALL.** A wall complying with the requirements of Chapter 22, excluding 22.6.7.

**SPECIAL STRUCTURAL WALL.** A cast-in-place or precast wall complying with the requirements of 21.1.3 through 21.1.7, 21.9 and 21.10, as applicable, in addition to the requirements for ordinary reinforced concrete structural walls or ordinary precast structural walls, as applicable. Where ASCE 7 refers to a “special reinforced concrete structural wall,” it shall be deemed to mean a “special structural wall.”

**1905.1.2 ACI 318, Section 6.3.** Modify ACI 318, Section 6.3, by adding new Section 6.3.13.

6.3.13 - Except where approved by the registered design professional, anchors shall be tied in place prior to placing concrete.
**Exception:**
Anchors for light-framed construction having a required embedment length of 7 inches (178 mm) or less may be field placed while the concrete is in plastic condition.

**1905.1.3 ACI 318, Section 21.1.1.** Modify ACI 318 Sections 21.1.1.3 and 21.1.1.7 to read as follows:

21.1.1.3 - Structures assigned to Seismic Design Category A shall satisfy requirements of Chapters 1 to 19 and 22; Chapter 21 does not apply. Structures assigned to Seismic Design Category B, C, D, E or F also shall satisfy 21.1.1.4 through 21.1.1.8, as applicable. Except for structural elements of plain concrete complying with Section 1905.1.8 of the International Building Code, structural elements of plain concrete are prohibited in structures assigned to Seismic Design Category C, D, E or F.

21.1.1.7 - Structural systems designated as part of the seismic-force-resisting system shall be restricted to those permitted by ASCE 7. Except for Seismic Design Category A, for which Chapter 21 does not apply, the following provisions shall be satisfied for each structural system designated as part of the seismic force-resisting system, regardless of the Seismic Design Category:
(a) Ordinary moment frames shall satisfy 21.2.
(b) Ordinary reinforced concrete structural walls and ordinary precast structural walls need not satisfy any provisions in Chapter 21.
(c) Intermediate moment frames shall satisfy 21.3.
(d) Intermediate precast structural walls shall satisfy 21.4.
(e) Special moment frames shall satisfy 21.5 through 21.8.
(f) Special structural walls shall satisfy 21.9.
(g) Special structural walls constructed using precast concrete shall satisfy 21.10.

All special moment frames and special structural walls shall also satisfy 21.1.3 through 21.1.7.

**1905.1.4 ACI 318, Section 21.4.** Modify ACI 318, Section 21.4, by adding new Section 21.4.3 and renumbering existing Sections 21.4.3 and 21.4.4 to become 21.4.4 and 21.4.5, respectively.

21.4.3 - Connections that are designed to yield shall be capable of maintaining 80 percent of their design strength at the deformation induced by the design displacement or shall use Type 2 mechanical splices.

21.4.4 - Elements of the connection that are not designed to yield shall develop at least 1.5 $S_y$. 
21.4.5 – In structures assigned to SDC D, E, or F, wall piers shall be designed in accordance with 21.9 or 21.13 in ACI 318.

1905.1.5 ACI 318, Section 21.10. Modify ACI 318, Section 21.10.2, to read as follows:

21.10.2 - Special structural walls constructed using precast concrete shall satisfy all the requirements of 21.9 for cast-in-place special structural walls in addition to Sections 21.4.2 through 21.4.4.

1905.1.6 ACI 318, Section 21.12.1.1. Modify ACI 318, Section 21.12.1.1, to read as follows:

21.12.1.1 - Foundations resisting earthquake-induced forces or transferring earthquake-induced forces between a structure and ground shall comply with the requirements of Section 21.12 and other applicable provisions of ACI 318 unless modified by Chapter 18 of the International Building Code.

1905.1.7 ACI 318, Section 22.6. Modify ACI 318, Section 22.6, by adding new Section 22.6.7 to read as follows:

22.6.7 - Detailed plain concrete structural walls.

22.6.7.1 - Detailed plain concrete structural walls are walls conforming to the requirements of ordinary structural plain concrete walls and 22.6.7.2.

22.6.7.2 - Reinforcement shall be provided as follows:

(a) Vertical reinforcement of at least 0.20 square inch (129 mm\(^2\)) in cross-sectional area shall be provided continuously from support to support at each corner, at each side of each opening and at the ends of walls. The continuous vertical bar required beside an opening is permitted to substitute for one of the two No. 5 bars required by 22.6.6.5.

(b) Horizontal reinforcement at least 0.20 square inch (129 mm\(^2\)) in cross-sectional area shall be provided:

1. Continuously at structurally connected roof and floor levels and at the top of walls;
2. At the bottom of load-bearing walls or in the top of foundations where doweled to the wall; and
3. At a maximum spacing of 120 inches (3048 mm).

Reinforcement at the top and bottom of openings, where used in determining the maximum spacing specified in Item 3 above, shall be continuous in the wall.
1905.1.8 ACI 318, Section 22.10. Delete ACI 318, Section 22.10, and replace with the following:

22.10 - Plain concrete in structures assigned to Seismic Design Category C, D, E or F.

22.10.1 - Structures assigned to Seismic Design Category C, D, E or F shall not have elements of structural plain concrete, except as follows:

(a) Structural plain concrete basement, foundation or other walls below the base are permitted in detached one- and two-family dwellings three stories or less in height constructed with studbearing walls. In dwellings assigned to Seismic Design Category D or E, the height of the wall shall not exceed 8 feet (2438 mm), the thickness shall not be less than 7-1/2 inches (190 mm), and the wall shall retain no more than 4 feet (1219 mm) of unbalanced fill. Walls shall have reinforcement in accordance with 22.6.6.5.

(b) Isolated footings of plain concrete supporting pedestals or columns are permitted, provided the projection of the footing beyond the face of the supported member does not exceed the footing thickness.

    Exception:

    In detached one- and two-family dwellings three stories or less in height, the projection of the footing beyond the face of the supported member is permitted to exceed the footing thickness.

(c) Plain concrete footings supporting walls are permitted, provided the footings have at least two continuous longitudinal reinforcing bars. Bars shall not be smaller than No. 4 and shall have a total area of not less than 0.002 times the gross cross-sectional area of the footing. For footings that exceed 8 inches (203 mm) in thickness, a minimum of one bar shall be provided at the top and bottom of the footing. Continuity of reinforcement shall be provided at corners and intersections.

Exceptions:

1. In Seismic Design Categories A, B and C, detached one-and two-family dwellings three stories or less in height constructed with stud-bearing walls, are permitted to have plain concrete footings without longitudinal reinforcement.

2. For foundation systems consisting of a plain concrete footing and a plain concrete stemwall, a minimum of one bar shall be provided at the top of the stemwall and at the bottom of the footing.
3. Where a slab on ground is cast monolithically with the footing, one No. 5 bar is permitted to be located at either the top of the slab or bottom of the footing.

1905.1.9 ACI 318, Section D.3.3. Modify ACI 318 Sections D.3.3.4.2, D.3.3.4.3(d) and D.3.3.5.2 to read as follows:

D.3.3.4.2 - Where the tensile component of the strength-level earthquake force applied to anchors exceeds 20 percent of the total factored anchor tensile force associated with the same load combination, anchors and their attachments shall be designed in accordance with D.3.3.4.3. The anchor design tensile strength shall be determined in accordance with D.3.3.4.4

Exception:

Anchors designed to resist wall out-of-plane forces with design strengths equal to or greater than the force determined in accordance with ASCE 7 Equation 12.11-1 or 12.14-10 shall be deemed to satisfy Section D.3.3.4.3(d).

D.3.3.4.3(d) - The anchor or group of anchors shall be designed for the maximum tension obtained from design load combinations that include E, with E increased by $\Omega_0$. The anchor design tensile strength shall be calculated from D.3.3.4.4.

D.3.3.5.2 – Where the shear component of the strength-level earthquake force applied to anchors exceeds 20 percent of the total factored anchor shear force associated with the same load combination, anchors and their attachments shall be designed in accordance with D.3.3.5.3. The anchor design shear strength for resisting earthquake forces shall be determined in accordance with D.4.1.1.

Exceptions:

1. For the calculation of the in-plane shear strength of anchor bolts attaching wood sill plates of bearing or non-bearing walls of light-frame wood structures to foundations or foundation stem walls, the in-plane design shear strength in accordance with D.6.2 and D.6.3 need not be computed and D.3.3.5.3 shall be deemed to be satisfied provided all of the following are met:

1.1. The allowable in-plane shear strength of the anchor is determined in accordance with AF&PA NDS Table 11E for lateral design values parallel to grain
1.2. The maximum anchor nominal diameter is 5/8 inches (16 mm).
1.3. Anchor bolts are embedded into concrete a minimum of 7 inches (178 mm).

1.4. Anchor bolts are located a minimum of 1-3/4 inches (45 mm) from the edge of the concrete parallel to the length of the wood sill plate.

1.5. Anchor bolts are located a minimum of 15 anchor diameters from the edge of the concrete perpendicular to the length of the wood sill plate.

1.6. The sill plate is 2-inch or 3-inch nominal thickness.

2. For the calculation of the in-plane shear strength of anchor bolts attaching cold-formed steel track of bearing or non-bearing walls of light-frame construction to foundations or foundation stem walls, the in-plane design shear strength in accordance with D.6.2 and D.6.3 need not be computed and D.3.3.5.3 shall be deemed to be satisfied provided all of the following are met:

2.1. The maximum anchor nominal diameter is 5/8 inches (16 mm).

2.2. Anchors are embedded into concrete a minimum of 7 inches (178 mm).

2.3. Anchors are located a minimum of 1-3/4 inches (45 mm) from the edge of the concrete parallel to the length of the track.

2.4. Anchors are located a minimum of 15 anchor diameters from the edge of the concrete perpendicular to the length of the track.

2.5. The track is 33 to 68 mil designation thickness.

Allowable in-plane shear strength of exempt anchors, parallel to the edge of concrete shall be permitted to be determined in accordance with AISI S100 Section E3.3.1.

3. In light-frame construction, bearing or non-bearing walls, shear strength of concrete anchors less than or equal to 1 inch [25 mm] in diameter attaching sill plate or track to foundation or foundation stem wall need not satisfy D.3.3.5.3(a) through (c) when the design strength of the anchors is determined in accordance with D.6.2.1(c).

23.15.2104.5 Installation of anchors.

Add a new subsection to read as follows:

**2104.5 Installation of anchors.** Except where approved by the registered design professional, anchors shall be tied in place prior to grouting.

**Exception:** Anchors for light-framed construction having a required embedment of 13 inches (330 mm) or less may be field placed while grout is in plastic condition.
23.15.2106.2 ASCE 7 Section 13.4.2.2

Amend ASCE 7 Section 13.4.2.2 by deleting the second sentence and the exception.

23.15.2106.3 ASCE 7 Section 15.4.9.2

Amend ASCE 7 Section 15.4.9.2 by deleting the second sentence and the exception.

23.15.2209.1 Storage racks.

Add the following exception to 2208.1:

**Exception**: The building official may waive the design requirement for storage racks less than or equal to 8 feet (2,438 mm) in height.

23.15.2303.4.5 Alterations to trusses.

Revise the last sentence to read as follows.

Alterations resulting in the addition of loads to any member (e.g., HVAC equipment, piping, additional roofing or insulation, etc.) shall be evaluated in accordance with Section 403 of the International Existing Building Code.

23.15.2304.11.2.2 Wood supported by exterior foundation walls.

Replace “8 inches (203 mm)” in the sentence with “6 inches (152 mm)”.

23.15.2305.4 Anchorage at shear wall ends.

Add the following section:

**2305.4 Anchorage at shear wall ends.** 1,000 lbs. (4.45 kN) (ASD) net uplift at shear wall boundaries for upper story walls and 1,500 lbs (6.67 kN) (ASD) net uplift for shear walls directly connected to concrete or masonry foundations may be neglected when determining overturning restraint. Where overturning forces exceed these limits, the full calculated force must be used to design the anchorage.

23.15.2305.5 NDS SDPWS Section 4.3.6.

Add the following exceptions to NDS SDPWS Section 4.3.6.4.3:

\begin{itemize}
\item d. A 3x nominal sill plate may be used in lieu of extending the washer to within 1/2 inch (13 mm) of the edge of the plate on the side(s) with sheathing.
\item e. Where required nominal capacity does not exceed 1,200 plf (17.5 kN/m), a 2x nominal sill plate may be used where the sill plate is anchored using
\end{itemize}
two times the number of anchors required by design and 0.229-inch by 3-inch by 3-inch (5.82 mm by 76 mm by 76 mm) plate washers are used.

23.15.2308.9.2.2 **Top plates for studs spaced at 24 inches.**

Delete the section and replace with the following:

When bearing studs are spaced at 24-inch (610 mm) intervals, joists or trusses shall bear within 5 inches (127 mm) of the studs beneath or a third plate shall be installed.

23.15.2308.9.8 **Pipes in walls.**

Add the following paragraph at the end of the section:

All studs in exterior plumbing walls shall be a minimum 6-inch (152 mm) nominal width unless otherwise approved.

23.15 **Table 2902.1.**

Replace the reference to section 410.1 of the International Plumbing Code with the following:

Where water is served in restaurants, drinking fountains shall not be required. In other occupancies where drinking fountains are required, bottle water dispensers shall be permitted to be substituted for the required drinking fountains. Drinking fountains shall not be required in B and S occupancies containing break rooms with sinks.

Replace the reference to section 419.2 of the International Plumbing Code with the following:

Substitutions for water closets. In each bathroom or toilet room, urinals shall not be substituted for more than 67 percent of the required water closets.

Replace the reference to section 411 of the International Plumbing Code with the following:

Waste connections shall not be required for emergency showers and eyewash stations.

23.15.3004.3 **Area of vents.**

Change the last sentence in section 3004.3, exception, to read as follows:
The manual override control shall be capable of opening and closing the vents, and shall be located adjacent to the elevator entrance(s) at the primary recall floor, which is the main entry and egress level of the building, or it may be located adjacent to the main fire alarm panel in the building. The manual override control shall be in the form of a two (2) position switch (it may be keyed if desired), and shall be labeled “Elevator Hoistway Ventilation Manual Override Switch”. It shall also be labeled with the open and closed positions.

23.15.3005.4 Personnel and material hoists.

Add new first sentence to read:

Personnel and material hoists shall meet the requirements of ANSI A10.4.

Add new subsection 3005.4.1 to read:

3005.4.1 Elevators for construction and demolition. All elevators, hoists, and material lifts used for construction to convey personnel and materials for construction and demolition operations shall be required to be certified by either the elevator or lift manufacturer or an independent, NAESA certified elevator inspector at the start of construction, prior to initial use, and each six (6) months thereafter while it remains installed at the project site. Such inspection shall include, but is not be limited to, inspection of the erected frame, the motor, hoist mechanisms, braking mechanism, means of entry and egress, load testing, and governor test. Tests reports and certification letter shall be submitted to the elevator section of the Building Safety Division within 72 hours of completion of the inspection. This requirement shall be retroactive to all permits, started prior to the approval of this code which remain open.

All outstanding non-conformances to ANSI A10.4 shall be corrected, reinspected, and certified before said elevator or hoist is placed in use.

23.15.3006.1 Access.

Add new paragraph to read:

Access to elevator machine rooms shall be from the inside of the building or shall be by an enclosed, ventilated, and well lighted passageway protected from the weather. Passageway shall be a minimum of 3'- 6" wide by 6'-8" high, and shall meet the material and construction requirements of this code.

23.15.3412.2 Applicability.

Insert the date "June 9, 1948" in the space provided.

23.15 Appendix.
Adopt Appendices A, C, G and H.

23.15.H.101.2 Signs exempt from permits.

Delete subsection in its entirety and substitute the following:

A. The following signs shall not require a permit under this chapter. An exemption shall not affect the requirement that a sign be installed and maintained so as to conform with the new requirements of this code and any other applicable law.

1. The changing of the advertising copy or message on a painted or printed sign only. Except for theater marquees or similar signs specifically designed for the use of replaceable copy, electric signs shall not be included in this exemption.

2. Painting, repainting or cleaning of an advertising structure or the changing of advertising copy or message thereon shall not be considered an erection or alteration requiring a sign permit, unless structural change is made.

3. Official signs erected by a federal, state or municipal agency.

4. Signs not exceeding six (6) square feet in area on any one of its faces.

5. Signs affixed to or painted on a currently operable and licensed vehicle.

6. Printed messages carried on any surface not attached to or supported from the ground or from a structure. (OA 88-30S).

23.15.H.101.3 Permits required.

Add a new section H.101.3 as follows:

A sign permit shall be required before any sign is erected. No permit shall be issued unless the proposed sign fully conforms to all requirements of this chapter and of Anchorage Municipal Code title 21.

23.15.H.101.4 Application for permit.

Add a new section H.101.4 as follows:

A. An application for a sign permit shall be made in writing on forms prescribed by the building official and shall be complete only if accompanied by:

1. The location by street and number of the proposed sign structure;

2. The name, address, and telephone number of owner of the property on which the sign is to be erected;

3. The name, address, and telephone number of the sign contractor or erector;
4. A drawing to scale showing the design of the sign, including dimensions, sign size, method of attachment, structural specifications, source of illumination and showing the relationship to any building or structure to which it is or is proposed to be installed or affixed to which it relates;

5. For permanent, freestanding signs only, a plot plan to scale, indicating location of the sign relative to property lines, streets and sidewalks, utility easements, buildings, driveways, parking spaces, existing signs, and structures identified by their principal use; and

6. Such other information as the building official determines is reasonably necessary to an evaluation of the proposed sign’s compliance with this code.