See AO 2011-4(S)

Submitted by: Chair of the Assembly at the Request of the Mayor
Prepared by: Community Development Department
For reading: January 11, 2011

ANCHORAGE, ALASKA
AO No. 2011-4

AN ORDINANCE REPEALING AND REENACTING ANCHORAGE MUNICIPAL CODE TITLE 23 TO ADOPT 2009 AND OTHER RECENT EDITIONS, AND ADOPTING LOCAL AMENDMENTS OF THE FOLLOWING CODES: ADMINISTRATIVE; BUILDING; MECHANICAL; PLUMBING; ELECTRICAL; FIRE; FIRE PROTECTION SERVICE OUTSIDE SERVICE AREAS; ENERGY CONSERVATION; EXISTING BUILDINGS; ABATEMENT OF DANGEROUS BUILDINGS; SAFETY CODE FOR ELEVATORS AND ESCALATORS; SAFETY STANDARD FOR PLATFORM LIFTS AND STAIRWAY CHAIRLIFTS; RESIDENTIAL; SCHOOL RELOCATABLES; MOBILE AIRCRAFT SHELTERS; GRADING, EXCAVATION AND FILL; AND FUEL GAS.

THE ANCHORAGE ASSEMBLY ORDAINS:

Section 1. Anchorage Municipal Code title 23 is hereby repealed in its entirety and reenacted to read as follows:

TITLE 23 BUILDING CODES

23.05	Building Regulations
23.10	Anchorage Administrative Code
23.15	International Building Code, 2009 Edition, including Appendices A, C, G, and H
23.20	International Mechanical Code, 2009 Edition
23.25	Uniform Plumbing Code, 2009 Edition, including Appendices A, B, D, E, I, and L
23.30	National Electrical Code, 2008 Edition, including the Appendices
23.45	International Fire Code, 2009 Edition, including Appendices B—G, I, J, and K
23.55	Fire Protection Service Outside Service Areas
23.60	International Energy Conservation Code, 2009 Edition
23.65	International Existing Building Code, 2009 Edition, including Appendix A
23.70	Abatement of Dangerous Buildings Code
23.75	American National Standards Institute/American Society of Mechanical Engineers ANSI/ASME A17.1 2007 Safety Code for Elevators and Escalators including Appendices
23.76	American National Standards Institute/American Society of Mechanical Engineers ANSI/ASME A18.1-2005 Safety Standard for Platform Lifts and Stairway Chairlifts
23.85	International Residential Code, 2009 Edition. Chapters 1--10, and Appendices E and K
23.95	Relocatable Ancillary Buildings, 1997 Edition

23.100 Mobile Aircraft Shelters, 1997 Edition
23.105 Grading, Excavation and Fill, 2009 Edition
23.110 International Fuel Gas Code, 2009 Edition, including Appendix A

CHAPTER 23.05 BUILDING REGULATIONS

Sections

23.05.010 Adoption of codes.

The Municipality of Anchorage, pursuant to Charter Section 10.04, adopts and incorporates by reference the following codes of technical regulation.

TABLE INSET:

23.05 Building Regulations
23.10 Anchorage Administrative Code
23.15 International Building Code, 2009 Edition, including Appendices A, C, G and H
23.20 International Mechanical Code, 2009 Edition
23.25 Uniform Plumbing Code, 2009 Edition, including Appendices A, B, D, E, I, and L
23.30 National Electrical Code, 2008 Edition, including the Appendices
23.45 International Fire Code, 2009 Edition, including Appendices B—G, I, J, and K
23.55 Fire Protection Service Outside Service Areas
23.60 International Energy Conservation Code, 2009 Edition
23.65 International Existing Building Code, 2009 Edition, including Appendix A
23.70 Abatement of Dangerous Buildings Code
23.75 American National Standards Institute/American Society of Mechanical Engineers ANSI/ASME A17.1 2007 Safety Code for Elevators and Escalators including Appendices
23.76 American National Standards Institute/American Society of Mechanical Engineers ANSI/ASME A18.1-2005 Safety Standard for Platform Lifts and Stairway Chairlifts
23.85 International Residential Code, 2009 Edition. Chapters 1--10, and Appendices E and K
23.95 Relocatable Ancillary Buildings, 1997 Edition
23.100 Mobile Aircraft Shelters, 1997 Edition
23.105 Grading, Excavation and Fill, 2009 Edition
23.110 International Fuel Gas Code, 2009 Edition, including Appendix A

23.05.020 Copies on file.
At least one copy of each code of technical regulation adopted by reference in section 23.05.010 shall be kept in the office of the municipal clerk.

23.05.030 Applicability to service areas.
Except as otherwise expressly provided, all provisions of Title 23 shall apply within the Anchorage Building Safety Service Area (ABSSA).

23.05.040 Local amendments.
The various codes adopted by section 23.05.010 are amended by the local amendments set forth in chapters 23.10 through 23.110 inclusive. The last digits of the section numbers (after the title and chapter digits) are the section of the Uniform or International Codes to which the amendment refers; i.e., section 23.20.303.3 refers to amendments to section 303.3 of the International Mechanical Code.

23.05.050 Sustainable construction requirements for municipal buildings.

A. New construction. The municipality including the Anchorage School District shall construct its public facilities and buildings to sustainable building standards through the use of the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) rating system, and shall be responsible for ensuring public facilities and buildings meet the requirements as set out in this section and are operated accordingly.

1. LEED shall be the quantitative measurement for how well standards are met.

2. All public facilities and buildings utilizing municipal funds (either general or bonded), including new private construction for municipal leasing or renting, shall be constructed in such a fashion as to achieve a minimum level of LEED Certified.

a. Beginning July 1, 2012, the minimum level is increased from LEED Certified to LEED Silver.

B. Major building renovations and additions. Major building renovations and additions shall be constructed to sustainable standards as defined in the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) Green Building Rating System.

1. A major renovation is defined as an alteration that affects more than 50 percent of the total building floor area.

2. A major addition is defined as an addition that increases the total building floor area by more than 50 percent.

C. For all projects where sustainable building standards are appropriate, evaluation criteria for procurement of design services shall include experience with sustainable design.

D. Application. The sustainable building standards for municipal buildings and facilities, including Anchorage School District, shall apply to facilities and buildings where the principal use is regularly occupied space including, but not limited to, buildings occupied for office, retail, classroom or assembly purposes.

1. As used in this section, occupied means a facility or building whose primary purpose is for people to work, assemble, or intended to remain within to perform functions (other than routine maintenance) of the principal use of the building. Industrial facilities, such as maintenance, warehouse, and vehicle storage, are excluded from this section.

E. Exception procedure. If the municipality determines that it would not be economically feasible to satisfy the prerequisites for LEED certification in the case of a specific project, it may apply to the building board of appeals for an exemption to the requirement. The board shall act on an exemption application within 30 days, following its regular procedures to the full extent possible.

F. Economically feasible. A project shall be considered economically feasible when the cost of obtaining a LEED certification has a maximum 10 year payback. When requesting an exemption from this section the applicant shall provide sufficient supporting documentation to the building board demonstrating that obtaining a LEED certification is not economically feasible.

CHAPTER 23.10 2011 ANCHORAGE ADMINISTRATIVE CODE

23.10. Table 3-A Building Permit Fees.
23.10. Table 3-B Plan Review Fees
23.10. Table 3-C Inspection Fees.
23.10. Table 3-D Electrical Permit Fees.
23.10. Table 3-E Plumbing Permit Fees
23.10. Table 3-F Elevator, Escalator, Dumbwaiter, and Other Lift Permit Fees.
23.10. Table 3-G Grading, Excavation and Fill Permit Fees
23.10. Table 3-H Re-roof Permit Fees
23.10. Table 3-I Mobile Home Permit Fees
23.10. Table 3-J Sign Permit Fees
23.10. Table 3-K Licenses and Festing Fees
23.10. Table 3-L On-site Services Fees
23.10. Table 3-M Miscellaneous Fees
23.10. Table 3-N Fire Systems Fees

Section 101 General.

23.10.101.1 Title. These regulations shall be known as the Anchorage Administrative Code, may be cited as such and referred to herein as "this code."

23.10.101.2 Scope. The provisions of this code shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures. It shall also serve as the administrative, organizational and enforcement rules and regulations for the technical codes related to all work types listed above within the Municipality.

23.10.101.3 Intent. The purpose of this code is to establish the minimum requirements to safeguard the public health, safety and general welfare through structural strength, means of egress facilities, stability, sanitation, adequate light and ventilation, energy conservation, and safety to life and property from fire and other hazards attributed to the built environment.

23.10.101.4 Other laws. The provisions of this code shall not be deemed to nullify any provisions of local, state or federal law.

23.10.101.5 Referenced codes. Title 23 adopts numerous codes. Throughout the International Codes and other codes as adopted in title 23, there are references to other codes. In all places where the International Codes make reference to the International Plumbing Code, it shall mean the Uniform Plumbing Code as adopted by the Municipality. In all places where the International Codes and other codes refer to the Electrical, Elevator, Property Maintenance, Sign, or

Security codes, it shall mean those codes as adopted by the Municipality.

23.10.101.6 Conflicting provisions. The following shall resolve all conflicting provisions of this code:

A. When conflicting provisions or requirements occur between this code, the technical codes, reference standards and other codes or laws, the most restrictive shall govern.

B. When conflicts occur between the technical codes, those provisions providing the greater safety to life shall govern. In other conflicts where sanitation, life safety or fire safety are not involved, the most restrictive provision shall govern.

C. Where, in a specific case, different sections of the technical codes specify different materials, methods of construction or other requirements, the most restrictive shall govern. When there is a conflict between a general requirement and a specific requirement, the specific requirement shall be applicable.

D. When conflicts occur between specific provisions of this code, those provisions becoming the law most recently shall prevail.

23.10.101.7 Application to existing buildings and building service equipment. Buildings, structures and the building service equipment to which additions, alterations or repairs are made shall comply with all the requirements of the technical codes for new facilities, except as specifically provided in this section or the International Existing Buildings Code.

23.10.101.8 Moved buildings.

23.10.101.8.1 Buildings moved into the Municipality. Buildings or structures moved into the Anchorage Building Safety Service area shall comply with the provisions of this code for new buildings and structures.

23.10.101.8.2 Buildings moved within the Municipality. Buildings and structures moved within the Anchorage Building Safety Service Area shall comply with the provisions of this code for new or existing buildings and structures, and shall have a code compliance inspection by the Municipality for fire and life safety evaluation prior to the move.

Exception: One- and two-family dwellings not over two stories in height, moved within the Anchorage Building Safety Service Area and not changed from the existing as-built condition, do not require lateral analysis or lateral upgrades.

Section 102 Definitions.

23.10.102.1 Definitions. For the purpose of this code, certain terms,

phrases, words and derivatives shall be construed as specified in this section. Where terms are not defined, the definition shall be in accordance with the International Codes, National Electrical Code and the Uniform Plumbing Code adopted by the MOA. Terms not found in adopted codes shall be the ordinary accepted meanings within the context in which the term is used in Webster's Dictionary, and shall be considered as providing ordinarily accepted meanings. Words used in the singular include the plural and the plural the singular. Words used in the masculine gender include the feminine and the feminine the masculine.

Addition is an extension or increase in floor area or height of a building or structure.

Alter or Alteration is a change or modification in construction or building service equipment.

Approved, as to materials, types of construction, equipment and systems, refers to approval by the building official as the result of investigation and tests conducted by the building official, or by reason of accepted principles or tests by recognized authorities, technical or scientific organizations.

Approved Agency is an established and recognized agency regularly engaged in conducting tests or furnishing inspection services, when the agency has been approved by the building official.

Building is a structure used or intended for supporting or sheltering a use or occupancy.

Building Code is the Building Code, as adopted by the Municipality.

Building Construction Contractor is a person who undertakes to perform any part of the construction, reconstruction, alteration, repair, building, highway, road, railroad, excavation, or other structure, project, development, or improvement, including the erection of scaffolding, electric signs, marquees, or other similar structures for which a condition, rule, regulation, or standard is prescribed by the Building Code as adopted and amended by this code. This term includes those contractors generally classed as mechanical, general, or electrical contractors. This term does not include regular employees of a building code contractor licensed under this section or a person who, as owner of a building or structure, performs work on the building or structure for the owners use and benefit that would otherwise subject the owner to the licensing requirement of this section.

Building, Existing is a building erected prior to the adoption of this code, or one for which a legal building permit has been issued.

Building Official is the officer or other designated authority charged with the administration and enforcement of this code, or a regularly authorized deputy.

Building Service Equipment refers to the plumbing, mechanical, electrical and elevator equipment including piping, wiring, fixtures and other accessories providing sanitation, lighting, heating, ventilation, cooling, refrigeration, fire-fighting and transportation facilities essential to the occupancy of the building or structure for its designated use.

Change Order refers to the documentation required to be submitted, based upon a design change after a discipline has been approved, that requires plan review approval.

Dangerous Building Code is the Abatement of Dangerous Buildings Code as adopted by the Municipality.

Electrical Code is the Electrical Code, as adopted by the Municipality.

Electrical Contractor is a person who may obtain electrical permits and install electrical wiring and equipment in industrial, commercial or residential categories.

Electrical Journeyman is a person who installs electrical systems, subject to the standards of the adopted electrical codes. An electrical journeyman shall possess a Journeyman Electrician Certificate of Fitness issued by the State of Alaska when performing electrical work, shall not be able to obtain permits, and shall be employed by an electrical contractor licensed in the Municipality. A journeyman electrician may perform electrical work in all occupancies and supervise up to two trainees.

Electrical Residential Wireman is a person who installs residential wiring subject to the standards of the adopted electrical codes. An electrical residential wireman shall possess a residential wireman certificate of fitness issued by the State of Alaska, shall not be able to obtain permits, and shall be employed by an electrical contractor licensed in the Municipality. A residential wireman is limited to residential occupancies providing no more than four residential units on a common foundation and may supervise up to two trainees.

Electrical Trainee is a person employed by an electrical contractor to learn the electrical trade on the job and shall possess an Electrician Trainee Certificate of Fitness issued by the State of Alaska. Trainees may work only when under the direct supervision of a journeyman or wireman, and no more than two trainees may be assigned to a

journeyman.

Elevator Code is the elevator safety code for elevators, dumbwaiters, escalators and moving walks as adopted by the Municipality.

Existing Building Code is the Existing Building Code, as adopted by the Municipality.

Field Change (Minor) refers to the documentation required to be submitted based upon a design change after the permit has been approved that does not require plan review.

Fuel Gas Code is the Fuel Gas Code as adopted by the Municipality.

Gas Certificate Holder may install gas piping and gas equipment, and may also service said equipment, but shall not be issued permits.

Gas Piping Contractor certificate holder may install and repair gas piping, install and repair gas equipment and obtain permits for such work.

General Contractor means a contractor whose business operations require the use of more than three trades or the use of mechanical or specialty contractors and subcontractors who are under the supervision of the contractor.

Hydronic Heating Contractor certificate holder may obtain permits, install, and repair hydronic heating equipment.

Hydronic Heating Journeyman is a person who labors at the trade of hydronic heating as an employee. A journeyman hydronic heating certificate holder may install and repair hydronic heating equipment.

Listed and Listing are terms referring to equipment and materials included in a list published by an approved testing laboratory, inspection agency, or other organization concerned with product evaluation and maintaining periodic inspection of current productions of listed equipment or materials. The published list shall state the material or equipment complies with approved nationally recognized codes, standards or tests and has been tested or evaluated and found suitable for use in a specified manner.

Mechanical Code is the Mechanical Code, as adopted by the Municipality.

Occupancy is the purpose for which a building, or part thereof, is used or intended to be used.

Owner is any person, agent, firm or corporation with a legal or equitable interest in the property.

Permit is an official document or certificate issued by the building official authorizing performance of a specified activity.

Person is a natural person, heir, executor, administrator or assign, and also includes a firm, partnership or corporation, its or their successor or assign, or agent of any of the aforesaid.

Plumbing Code is the plumbing code, as adopted by the Municipality.

Plumbing Contractor certificate holder may obtain permits, install or repair plumbing, gas piping and mechanical equipment.

Plumbing Journeyman is a person who labors at the trade of plumbing as an employee. A journeyman plumber certificate holder may install plumbing, gas piping and mechanical equipment.

Refrigeration Contractor certificate holder may obtain permits, install, and repair refrigeration equipment.

Refrigeration Journeyman is a person who labors at the trade of refrigeration as an employee. A journeyman refrigeration certificate holder may install and repair refrigeration equipment.

Repair is the reconstruction or renewal of any part of an existing building, structure or building service equipment for the purpose of its maintenance.

Residential Construction shall be construction associated with one- and two-family dwelling units.

Residential Electrical Contractor may obtain permits to install electrical wiring and equipment in residential buildings up to four units on a single foundation.

Retrofit Permit is an official document or certificate issued by the building official for the 'like-for-like' replacement of an appliance, electrical service, plumbing fixture, or the modification of existing equipment with parts developed or made available after the original installation.

Service Station Piping Contractor certificate holder may obtain permits, install, and repair service station equipment, i.e., tanks, pumps, fuel piping, etc.

Service Station Piping Journeyman is a person who labors at the trade of service station piping as an employee. A journeyman service station piping certificate holder may install and repair service station equipment, i.e., tanks, pumps, fuel piping, etc.

Sewer or Sewage Disposal Contractor is a person who may conduct, carry on or engage in the business of installing, altering or repairing sewers and private sewage disposal systems.

Shall means mandatory.

Sheetmetal Contractor certificate holder may obtain permits, install or repair mechanical equipment, i.e., HVAC equipment, duct work and venting of appliances.

Sheetmetal Journeyman is a person who labors at the trade of sheet metal as an employee. A journeyman sheetmetal certificate-holder may install and repair mechanical equipment, i.e., HVAC equipment, duct work, and venting of appliances.

Structural Observation means the visual observation of the structural system, for general conformance to the approved plans and specifications, at significant construction stages and at completion of the structural system. Structural observation does not include or waive the responsibility for the inspections required in Section 106.7.

Structure is that which is built or constructed, an edifice or building of any kind, or any piece of work artificially built up or composed of parts joined together in some definite manner.

Technical Codes refer to those codes adopted by the Municipality containing the provisions for design, construction, alteration, addition, repair, removal, demolition, use, location, occupancy and maintenance of buildings and structures and building service equipment as herein defined.

Trainee is a person, other than a contractor or journeyman, who labors at the trade as an employee. The trainee shall be under the direct supervision and in the immediate presence of a contractor or journeyman. The trainee shall be a certificate holder of a valid Municipality Trainee card.

Valuation or Value as applied to a building and its building service equipment, shall be the estimated cost to replace the building and its building service equipment in kind, based on current replacement costs. This value shall contain the entire cost of demo, labor, materials, overhead and profit.

Section 103 Organization and Enforcement.

23.10.103.1 Creation of enforcement agency. There is hereby established a code enforcement agency under the administrative and operational control of the building official.

23.10.103.2 General. Whenever the term or the title "administrative authority," "responsible official," "building official," "chief inspector," "code enforcement officer," or similar designation is used herein or in any of the technical codes, it shall mean the building official designated by the appointing authority.

23.10.103.3 Powers and duties of the building official.

23.10.103.3.1 General. The building official is authorized and directed to enforce the provisions of this code, to render interpretations of this code, and to adopt policies and procedures in order to clarify the application of its provisions. Such interpretations, policies and procedures shall be in compliance with the intent and purpose of this code, and shall not have the effect of waiving requirements specifically provided for in this code.

23.10.103.3.2 Applications and permits. The building official shall receive applications, review construction documents and issue permits for the erection and alteration, demolition and moving of buildings and structures, inspect the premises for which such permits are issued and enforce compliance with the provisions of this code.

23.10.103.3.3 Notices and orders. The building official shall issue all necessary notices and orders to ensure compliance with this code. The person to whom a notice or order is directed shall have thirty (30) days to appeal to the board of appeals established under section 23.103.4. If no timely appeal is filed, the notice and order is final and binding and not subject to any further appeal. The building official may withdraw a notice or order at any time.

23.10.103.3.4 Inspections. The building official shall make all of the required inspections, or the building official is authorized to accept reports of inspections by approved agencies or individuals. Reports of such inspections shall be in writing and be certified by a responsible officer of such approved agency or the responsible individual. The building official is authorized to engage such expert opinion as deemed necessary to report upon unusual technical issues that arise, subject to the approval of the appointing authority.

23.10.103.3.5 Identification. The building official shall carry proper identification when inspecting structures or premises in the performance of duties under this code.

23.10.103.3.6 Right of entry. Where it is necessary to make

an inspection to enforce the provisions of this code, or where the building official has reasonable cause to believe there exists in a structure or upon a premises a condition contrary to or in violation of this code which makes the structure or premises unsafe, dangerous or hazardous, the building official is authorized to enter the structure or premises at reasonable times to inspect or to perform the duties imposed by this code, provided if such structure or premises is occupied, credentials shall be presented to the occupant and entry requested. If such structure or premises is unoccupied, the building official shall first make a reasonable effort to locate the owner or other person having charge or control of the structure or premises and request entry. If entry is refused, the building official shall have recourse to the remedies provided by law to secure entry.

23.10.103.3.7 Department records. The building official shall keep official records of applications received, permits and certificates issued, fees collected, reports of inspections, and notices and orders issued. Such records shall be retained in the official records for the period required for retention of public records.

23.10.103.3.8 Liability. The building official, member of the board of appeals or employee charged with the enforcement of this code, while acting for the Municipality in good faith and without malice in the discharge of duties required by this code or other pertinent law or ordinance, shall not be liable personally and is hereby relieved from personal liability for any damage accruing to persons or property as a result of any act or by reason of an act or omission in the discharge of official duties. Any suit instituted against an officer or employee because of an act performed by the officer or employee in the lawful discharge of duties and under the provisions of this code shall be defended by the municipal attorney until the final termination of the proceedings. Neither the building official nor any subordinate shall be liable for cost in any action, suit or proceeding instituted in pursuance of the provisions of this code.

23.10.103.3.9 Approved materials and equipment. Materials, equipment and devices approved by the building official shall be constructed and installed in accordance with such approval.

23.10.103.3.9.1 Used materials and equipment. The use of used materials meeting the requirements of this code for new materials is permitted. Used equipment and devices shall not be reused unless approved by the building official.

23.10.103.3.10 Modifications. Whenever there are practical difficulties involved in carrying out the provisions of this code, the building official has the authority to grant modifications for

individual cases, upon application of the owner or owner's representative, provided the building official shall first find a special individual reason making the strict letter of this code impractical, the modification is in compliance with the intent and purpose of this code, and such modification does not lessen health, life and fire safety, or structural requirements. The details of action granting modifications shall be recorded and entered in the files of the Development Services Department.

23.10.103.3.11 Alternative materials, design, and methods of construction and equipment. The provisions of this code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code, provided any such alternative has been approved. An alternative material, design or method of construction shall be approved where the building official finds the proposed design is satisfactory and complies with the intent of the provisions of this code, and the material, method or work offered is, for the purpose intended, at least the equivalent prescribed in this code in quality, strength, effectiveness, fire resistance, durability and safety.

23.10.103.3.11.1 Research reports. Supporting data, where necessary to assist in the approval of materials or assemblies not specifically provided for in this code, shall consist of valid research reports from approved sources.

23.10.103.3.11.2 Tests. Whenever there is insufficient evidence of compliance with the provisions of this code, or evidence a material or method does not conform to the requirements of this code, or in order to substantiate claims for alternative materials or methods, the building official is authorized to require tests as evidence of compliance, to be made at no expense to the Municipality. Test methods shall be as specified in this code or by other recognized test standards. In the absence of recognized and accepted test methods, the building official shall approve the testing procedures. Tests shall be performed by an approved agency, and reports of such tests shall be required for retention of public records.

23.10.103.3.12 Cooperation of other officials and officers. The building official may request and shall receive the assistance and cooperation of other officials of the Municipality as required in the discharge of the duties required by this code or other pertinent laws or ordinance.

23.10.103.3.13 Contractor license suspension or revocation. The building official may cancel, suspend, or revoke the license of a contractor who displays incompetence or lack of knowledge in matters relevant to such license, or

knowingly performs work multiple times without first obtaining the required permit(s) or if such license was obtained by fraudulent measures. If the license of any person is so cancelled or revoked, another such license shall not be granted to such person within twelve (12) months after the date of such cancellation or revocation. Any action may be appealed to the Board of Building Regulation Examiners and Appeals (Building Board).

23.10.103.3.14 Connection of service utilities. No person shall make connections from a utility, source of energy, fuel or power to any building or system regulated by this code for which a permit is required, until released by the building official.

23.10.103.3.15 Temporary connection. The building official has authority to authorize the temporary connection of the building or system to the utility source of energy, fuel, or power.

23.10.103.3.16 Authority to disconnect service utilities. The building official has authority to authorize disconnection of utility service to the building, structure, or system regulated by this code and the codes referenced in case of emergency where necessary to eliminate an immediate hazard to life or property. The building official shall notify the serving utility and, whenever possible, the owner and occupant of the building, structure, or service system of the decision to disconnect prior to taking such action. If not notified prior to disconnecting, the owner or occupant of the building, structure, or service system shall be notified in writing as soon as practical thereafter.

23.10.103.4 Power and Duties of the Building Board of Examiners and Appeals

23.10.103.4.1 General. In order to hear and decide appeals of orders, decisions or determinations made by the building official relative to the application and interpretations of the technical code, there shall be and is hereby created a board of appeals consisting of members qualified by experience and training to pass upon matters pertaining to building construction and building service equipment, and not employees of the Municipality. The building official shall be an ex officio member and shall act as secretary to the board but shall not vote upon any matter before the board. The board of appeals shall be appointed by the governing body and shall hold office at its pleasure. The board shall adopt rules of procedures for conducting business and shall render all decisions and findings in writing to the appellant, with a duplicate copy to the building official.

23.10.103.4.2 Limitations of authority. An application for appeal shall be based on a claim that the true intent of this code, or the rules legally adopted thereunder, have been

incorrectly interpreted, the provisions of this code do not fully apply, or an equally good or better form of construction is proposed. The board shall have no authority to waive requirements of this code.

23.10.103.4.3 Board of Building Regulation Examiners and Appeals (Building Board) established.

A. There is established a Board of Building Regulation Examiners and Appeals (hereinafter "Building Board"), as described in section 4.40.030, consisting of nine (9) members appointed by the mayor, subject to confirmation by the Assembly, qualified by experience or training to pass on matters pertaining to building construction, as follows:
   1. One (1) member shall be an Architect registered in the State of Alaska.
   2. One (1) member shall be a Professional Engineer registered as a Civil Engineer in the State of Alaska.
   3. One (1) member shall be a Professional Engineer, registered as a Mechanical Engineer in the State of Alaska.
   4. One (1) member shall be a Professional Engineer, registered as an Electrical Engineer in the State of Alaska.
   5. One (1) member shall be a licensed General Contractor actively engaged in general building construction and/or home building.
   6. One (1) member shall be a licensed Electrical Contractor actively engaged in the electrical trade.
   7. One (1) member shall be a licensed Plumbing Contractor actively engaged in the plumbing trade.
   8. One (1) member shall be a licensed Mechanical Contractor actively engaged in the mechanical trade.
   9. One (1) member shall be appointed at-large, and shall be either an Architect or Civil Engineer registered in the State of Alaska,

B. Five (5) members of the Building Board shall constitute a quorum for the transaction of any business. For affirmative action on quasi-judicial matters by the Building Board, there shall be a concurring vote of five (5) members.

C. Building Board shall hear and decide appeals from actions of administrative officials relating to code regulations under Title 23. A person with the right to appeal has thirty (30) days from the date of the action of

an administrative official to file an appeal with the secretary to the building board, unless a longer time period is stated in writing by the building official. If no appeal is filed within this time period, the action of the administrative official is deemed final and binding and not subject to any further appeal.

23.10.103.4.4 Secretary to building board. The building official or designee shall be an ex-officio member without vote and shall act as secretary to the Board, shall prepare all correspondence, send out all required notices, keep minutes of all meetings, and maintain a file on each case coming before the Building Board.

23.10.103.4.5 Appeal filing fee. The cost of filing an appeal to the Building Board is $500.00 and shall accompany the filing of the appeal. The secretary to the building board may waive the fee if the appellant demonstrates financial hardship or indigence.

23.10.103.5 Violations.

23.10.103.5.1 Unlawful acts. It shall be unlawful for any person, firm or corporation to erect, construct, alter, extend, repair, move, remove, demolish or occupy any building, structure or equipment regulated by this code, or cause same to be done, in conflict with or in violation of any of the provisions of this code.

23.10.103.5.2 Notice of violation. The building official is authorized to serve a notice of violation or order on the person responsible for the erection, construction, alteration, extension, repair, moving, removal, demolition or occupancy of a building or structure in violation of the provisions of this code, or in violation of a permit or certificate issued under the provisions of this code. Such order shall direct the discontinuance of the illegal action or condition and the abatement of the violation.

23.10.103.5.3 Prosecution of violation. If the notice of violation is not complied with promptly, the building official is authorized to request the municipal attorney of the Municipality to institute the appropriate proceeding at law or in equity to restrain, correct or abate such violation, or to require the removal or termination of the unlawful occupancy of the building or structure in violation of the provisions of this code or of the order or direction made pursuant thereto.

23.10.103.6 Stop Work Order.

23.10.103.6.1 Authority. Whenever the building official finds any work regulated by this code being performed in a manner either contrary to the provisions of this code or dangerous or

unsafe, the building official is authorized to issue a stop work order.

23.10.103.6.2 Issuance. The stop work order shall be in writing and shall be given to the owner of the property involved, or to the owner's agent, or to the person doing the work. Upon issuance of a stop work order, the cited work shall immediately cease. The stop work order shall state the reason for the order, and the conditions under which the cited work shall be permitted to resume.

23.10.103.6.3 Unlawful continuance. Any person continuing any work after being served with a stop work order, except such work as the person is directed to perform to remove a violation or unsafe condition, shall be subject to penalties as prescribed by law.

23.10.103.7 Penalties and Remedies.

23.10.103.7.1 Violation penalties. Any person violating a provision of this code or failing to comply with any of the requirements thereof or who erects, constructs, alters or repairs a building or structure in violation of the approved construction documents or directive of the building official, or of a permit or certificate issued under the provisions of this code, shall be subject to penalties as prescribed by law including but not limited to those in Table 3 of this code.

23.10.103.7.2 Civil Penalties. In addition to any other remedy or penalty provided by this title, any person violating any provision of this title, or any code of technical regulation adopted pursuant to this title, shall be subject to the civil penalties or injunctive relief, or both, as provided by section 1.45.010 B., or fines may be assessed according to the schedule provided in title 14.

23.10.103.7.3 Civil Actions. Any person aggrieved by the act or omission of another person constituting a violation of the provisions of this title or the codes of technical regulation adopted herein may, following thirty (30) days written notice to the municipal official or department empowered to enforce the provision, commence and maintain a civil action for injunctive relief authorized by section 1.45.010 B. The court, in issuing a final order in any action brought by a private person under this section may, in its discretion, award costs of litigation to any party. In any action under this section, the municipality, if not a party, may intervene as a matter of right.

Section 104 Permit Requirements

23.10.104.1 Permits required. Any owner or authorized agent intending to construct, enlarge, alter, repair, move, demolish, or change the occupancy of a building, structure or portion thereof, or to erect,

install, enlarge, alter, repair, remove, convert or replace any electrical, gas, mechanical or plumbing system, the installation of which is regulated by this code, or to cause any such work to be done, shall first make application to the building official and obtain the required permit unless work is specifically exempted by this code.

23.10.104.1.1 Emergency repairs. Where equipment replacements and repairs must be performed after hours in an emergency situation, the contractor shall call the Building Safety Hotline (343-7500) before commencing the work. The permit application shall be submitted within the next working business day to the building official.

23.10.104.1.2 Parcels with multiple structures. Each independent structure on a parcel with multiple structures requires a separate building permit unless otherwise approved by the Building Official.

23.10.104.2 Work exempt from permit. Exemptions from permit requirements of this code shall not be deemed to grant authorization for work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of the Municipality. See the following list for exempted work:

23.10.104.2.1 Building permit exemptions. A building permit shall not be required for the following:

A. One-story detached accessory buildings used as tool and storage sheds, playhouses, and similar uses, provided the floor area does not exceed 200 square feet.

B. Fences not over eight feet high.

C. Oil derricks.

D. Retaining walls supporting materials with up to four (4) feet in differential height measured from the top of grade on both sides of wall, unless supporting a surcharge or impounding Class I, II or III-A liquids.

E. Water tanks supported directly upon grade, if the capacity does not exceed 5,000 gallons and the ratio of height to diameter or width does not exceed 2:1.

F. Platforms, walks and driveways not more than 30 inches above grade and not over any basement or story below.

G. Painting, papering, tiling, carpeting, cabinets, countertops and similar finish work.

H. Temporary motion picture, television and theater stage sets and scenery.

I. Prefabricated swimming pools accessory to a Group R, Division 3 Occupancy, less than 24 inches deep, do not exceed 5,000 gallons and installed entirely above ground.

J. Window awnings supported by an exterior wall which do not project more than 54 inches (1372 mm) from the

exterior wall and do not require additional support of Group R-3, and Group U occupancies.

K. Movable cases, counters and partitions not over 5 feet 9 inches high.

L. Permits shall not be required for ordinary maintenance and/or non-structural repair on a building or structure in Groups R-3 and U occupancies. Ordinary maintenance of a building or structure shall not include the cutting away or addition of any wall, partition or portion thereof, the removal of any structural beam or bearing support, or the removal or change of any required means of egress, or rearrangement of parts of a structure; nor shall ordinary maintenance include additions to, alterations of, replacement or relocation of any standpipe, water supply, sewer, drainage, drain leader, gas, soil, waste vent or similar piping, electrical wiring, mechanical or other work affecting public health or safety. All ordinary maintenance and/or non-structural repair shall be made only in accordance with the applicable provisions of the building code, and other construction or safety codes of the municipality.

M. No building permit shall be required for nonstructural work up to and including $5,000 total construction valuation, including the combination of all building construction, electrical, plumbing, mechanical and structural work. Total construction includes all work (as if contracted out) to complete the project and occupy the structure. This exemption does not affect the need for electrical, plumbing, mechanical and structural permits if electrical, plumbing, mechanical or structural work is done.

N. Shade cloth structures constructed for nursery or agricultural purposes and not including service systems.

O. Swings and other playground equipment accessory to one- and two-family dwellings.

P. Construction site job shacks and fences on legal permitted construction sites.

Q. Storage racks not over six (6) feet high.

R. Artwork six (6) or less feet tall.

S. Grave markers.

T. Roof antennas not mechanically anchored where the existing roof structure and stability are checked by a civil engineer licensed in the State of Alaska.

U. Replacement of windows and doors where the rough opening is not enlarged.

V. Installation of non-structural exterior siding, excluding Exterior Insulation and Finish Systems (EIFS).

Unless otherwise exempted by this code, separate plumbing,

electrical and mechanical permits shall be required for the above exempted items.

23.10.104.2.2 Electrical permit exemptions. An electrical permit shall not be required for the following:

A. Portable motors or other portable appliances energized by means of a cord or cable having an attachment plug end to be connected to an approved receptacle when the cord or cable is permitted by the Electrical Code.

B. Repair or replacement of fixed motors, transformers or fixed approved appliances of the same type and rating in the same location.

C. Temporary decorative lighting.

D. Repair or replacement of current-carrying parts of any switch, contactor or control device.

E. Reinstallation of attachment plug receptacles, but not the outlets.

F. Repair or replacement of any overcurrent device of the required capacity in the same location.

G. Repair or replacement of electrodes or transformers of the same size and capacity in the same location.

H. Taping joints.

I. Removal of electrical wiring.

J. Temporary wiring for experimental purposes in suitable experimental laboratories.

K. Wiring for temporary theater, motion picture or television stage sets.

L. Low-energy power, controls and signal circuits of Class II and Class III as defined in the Electrical Code.

M. Installation, alteration or repair of electrical wiring, apparatus or equipment or the generation, transmission, distribution or metering of electrical energy or in the operation of signals or the transmission of intelligence by a public or private utility in the exercise of its function as a serving utility.

N. The provisions of this code shall not apply to electrical equipment used for radio and television transmissions, but shall apply to equipment and wiring for power supply, the installations of towers and antennas.

O. Installation of any temporary system required for the testing or servicing of electrical equipment or apparatus.

23.10.104.2.3 Mechanical permit exemptions. A mechanical permit shall not be required for the following:

A. A portable heating appliance.

B. Portable ventilation appliances and equipment.

C. A portable cooling unit.

D. A portable evaporative cooler.

E. Steam, hot water or chilled water piping within any heating or cooling equipment or appliance regulated by the Mechanical Code.
F. The replacement of any minor part that does not alter the approval of equipment or appliance or make such equipment or appliance unsafe.
G. Self-contained refrigeration system containing ten (10) pounds or less of refrigerant or that are actuated by motors of one (1) horsepower or less.
H. Portable fuel cell appliances that are not connected to a fixed piping system and are not interconnected to a power grid.

23.10.104.2.4 Plumbing permit exemptions. A plumbing permit shall not be required for the following:
A. The stopping of leaks in drains, soil, waste or vent pipe, provided, however, should any concealed trap, drain pipe, soil, waste or vent pipe become defective and necessary to remove and replace the same with new material, the same shall be considered as new work and a permit shall be procured and inspection made as provided in this code.
B. The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures, nor for the removal and reinstallation of water closets, provided such repairs do not involve or require the replacement or rearrangement of valves, pipes or fixtures.

23.10.104.3 Temporary and seasonal use structures

23.10.104.3.1 Temporary structures. Buildings, structures, sheds, canopies, fences, reviewing stands and other structures of a temporary nature may be erected and occupied by permit from the building official for a period of 180 days. Temporary structures may be erected without meeting all requirements for permanent structures, but shall meet the following conditions:
A. Temporary structures shall be limited to Group A, Group B, Group M, and Group U occupancies;
B. The size of the structure shall not exceed 1,500 square feet nor be more than one story in height unless otherwise approved by the building official;
C. The structure shall meet the required yards and separation from adjacent buildings as provided by the municipal land use regulations, but in no case less than ten feet;
D. Temporary structures extensively used or essential for public use shall comply with the building code for accessibility. Structures directly associated with the

actual processes of major construction, such as scaffolding, bridging, or materials hoists, are not included;

E. All temporary structures shall meet structural requirements in regard to type of materials, spans, and stresses as determined to be safe by the building official;

F. Mobile homes and trailers intended for use shall be of manufactured design. Homemade mobile homes or trailers shall not be allowed;

G. The structure and all associated materials shall be removed from the approved location on or before the expiration date of the permit;

H. Permits for temporary structures may be extended on a one-time basis for 180 days, upon application to the building official with a payment per Table 3-A;

I. After a temporary structure is removed from a lot, parcel or tract of land, no temporary structure may be placed at the same location for a period of at least 180 days;

J. Normally occupied temporary structures shall have toilet facilities.

23.10.104.3.2 Seasonal use structures. Sale stalls, carnivals, fairs and assembly pavilions or tents, including structures, such as tent frames, and attending support structures, such as decks, boardwalks, light poles, and plumbing/mechanical and electrical installations, may be erected without meeting all requirements for permanent structures, but shall meet the following conditions:

A. Seasonal use structures shall be limited to Groups A, B and M type occupancies and located in the B-2, B-3 or I zoning districts;

B. The structure shall not exceed one story in height;

C. Such structures and installations are subject to a maximum occupancy not to exceed eight months in any one calendar year;

D. An annual permit shall be obtained and an annual code compliance inspection performed prior to the establishment of the use or occupancy for each calendar year;

E. The annual code compliance inspection shall certify there are no hazards to health, life, or safety and proper maintenance of the structure or installations has been performed prior to re-occupancy;

F. Continued occupancy of seasonal use structures shall be allowed only if permitted and occupied within six months of the last occupancy, use or vacation. If not, the

structure shall be removed from the premises so as to leave it in a clean, level, nuisance-free condition;

G. Seasonal activities with seating areas shall provide accessible temporary or permanent toilet facilities as required by the Building Code;

H. Seasonal use structures open for public use shall comply with accessibility provisions of the Building Code;

I. All seasonal use structures shall meet structural requirements in regard to type of materials, spans, and stresses as determined to be safe by the building official.

23.10.104.3.3 Temporary and seasonal use permit applications. The application for a temporary or seasonal use permit shall include:

A. Property owner's name and mailing address;

B. Legal description of the proposed site with a plot plan showing the proposed location of the structure on the premises, location of any existing structures, and the location of any existing or proposed parking areas;

C. Length of use of the proposed structure, if a temporary or special event structure. No permit shall be required if the use is 14 days or less. However, exemption from the permit requirements of this code shall not be deemed to grant authorization for any work to be done in violation of the provisions of this section or any other laws or ordinances of the Municipality;

D. Description of the proposed use and a justification of temporary or seasonal occupancy;

E. All required fees and cash bonds.

23.10.104.3.4 Temporary and Seasonal Use permit fees. A nonrefundable fee shall accompany applications for temporary or seasonal use structures. See Table 3-A of this code for applicable fee. Applications for the annual code compliance inspection for seasonal use structures shall be accompanied by the renewal fee.

23.10.104.3.5 Temporary and seasonal use permit cash bonds. For all temporary or seasonal use structures, prior to permit approval, the applicant shall post bond with the building official. The bond shall be in the form of cash or certified check in the amount of $5,000.00:

A. Upon removal of the temporary or seasonal use structure by the applicant and compliance with all terms of this section, the bond shall be returned in full to the applicant;

B. Thirty days after receipt of a notice from the building official to the property owner or applicant of failure to

comply with the terms of the permit, the bond shall be forfeited at the applicant's sole expense.

23.10.104.4 Mobile food units. Mobile food units, including coffee carts (hereafter referred to as units) may be installed without obtaining a building permit under the following restrictions:

A. The unit shall not exceed 8'6" in width or 48' in length, including overhangs.
B. The unit shall be currently licensed by the State of Alaska as a motor vehicle or trailer, and have a chassis and wheels.
C. The unit shall obtain approval by the Department of Health and Human Services.
D. The unit shall not be connected to utilities, except electrical.
E. The electrical connection shall consist of an approved flexible cord, attachment cap and receptacle approved for the location.
F. The unit shall comply with the National Electrical Code as noted by NEC 550.4 (A). A code compliance inspection shall be performed and necessary corrections made before power is connected. A licensed electrical contractor shall obtain a permit and make the corrections. The permit for providing electrical service and/or connection may include the corrections when performed by the same contractor.
G. Service equipment located adjacent to vehicle lanes or the unit shall be provided with bollards or other substantial protective barriers.
H. The unit shall not reduce the required number of parking spaces at existing facilities.
I. The unit shall be allowed in the zoning district.
J. A currently serviced fire extinguisher shall be located inside the unit.
K. Propane tanks shall be protected from vehicle impact and shall be located in accordance with the fire code.
L. The unit location shall not impact fire lanes or emergency vehicle access to nearby structures.
M. The unit location is subject to approval by fire plan review and traffic engineering.

Units that do not meet all of these requirements require a building permit in accordance with this code.

23.10.104.4.1 Application requirements. The following items are required at the time of the permit application:

A. A completed commercial permit application for electrical connection and/or service equipment.
B. A site plan showing where the unit will be installed.
C. Approval from the Department of Health and Human Services for compliance with requirements of AMC 16.60.

D. A current copy of the State of Alaska vehicle or trailer registration.

23.10.104.5 Public service agencies. A permit shall not be required for the installation, alteration, or repair of generation, transmission, distribution or metering or other related equipment under the ownership and control of public service agencies by established right.

23.10.104.6 Permit application requirements. To obtain a permit, the applicant shall first file an application in writing on a form furnished by the code enforcement agency. Every application shall:

A. Identify and describe the work covered by the permit for which application is made.

B. Describe the land on which the proposed work is to be done by legal description, street address or similar description to readily identify and definitely locate the proposed building or work.

C. Indicate the use or occupancy for which the proposed work is intended.

D. Be accompanied by plans, diagrams, computations and specifications, and other data as required in this code.

E. State the valuation of the proposed work.

F. Be signed by the owner, contractor, Architectural or Engineering licensed professional, or the owner's authorized agent. If authorized agent will be signing, a notarized statement from the owner, naming authorized agent to be acting on the owners' behalf shall be submitted.

G. Give such other data and information as may be required by the building official.

H. If the work under application is an alteration to or construction of a privately owned residential structure of one to four units, used or intended to be used as a human dwelling, proof of a residential contractor endorsement issued by the State of Alaska shall be provided if required by value of alteration.

I. For all Change of Use, Alteration, and Additions the applicant must submit the number of inspections they estimate they will need. Fees for these types of permits will be based upon the number of inspections.

23.10.104.7 Design professional in responsible charge. When it is required that documents be prepared by a registered design professional, the building official shall be authorized to require the owner to engage and designate on the building permit application a registered design professional who shall act as the registered design professional in responsible charge. If the circumstances require, the owner shall designate a substitute registered design professional in responsible charge who shall perform the duties required of the original registered professional in responsible charge. The building official shall

be notified in writing by the owner if the registered design professional in responsible charge is changed or is unable to continue to perform the duties.

The registered design professional in responsible charge shall be responsible for reviewing and coordinating submittal documents prepared by others, including phased and deferred submittal items, for compatibility with the design of the building.

Where structural observation is required by the building code, the inspection program shall name the individual or firms who are to perform structural observation and describe the stages of construction at which structural observation is to occur (see also Special Inspection Program).

23.10.104.8 Submittal documents. Construction documents, statement of special inspections, structural observation programs, geotechnical reports and other data shall be submitted in accordance with the policies prescribed by the building official. The construction documents shall be prepared by a registered design professional where required by statutes of the Municipality in which the project is to be constructed. Where special conditions exist, the building official is authorized to require additional construction documents to be prepared by a registered design professional.

Exceptions:

1. The building official is authorized to waive the submission of construction documents and other data not required to be prepared by a registered design professional if it is found that the nature of the work applied for is such that review of construction documents is not necessary to obtain compliance with this code.
2. Only one copy of specifications and calculations are required.

23.10.104.8.1 Information on construction documents. Construction documents shall be dimensioned and drawn upon suitable material. Electronic media documents are permitted to be submitted when approved by the building official. Construction documents shall be of sufficient clarity to indicate the location, nature, and extent of the work proposed and show in detail that the work will conform to the provisions of this code and relevant laws, ordinances, rules and regulations, as determined by the building official.

Plans for buildings of other than Group R, Division 3 and Group U Occupancies shall indicate how required structural and fire-resistive integrity will be maintained where penetrations are made for electrical, mechanical, plumbing and communication conduits, pipes and similar systems.

23.10.104.8.2 Fire protection system shop drawings. Shop drawings for the fire protection system(s) shall be submitted to indicate conformance with this code and the construction documents and shall be approved prior to the start of system installation. Shop drawings shall contain all information as required by the referenced installation standards in Chapter 9.

23.10.104.8.3 Means of egress. The construction documents shall show in sufficient detail the location, construction, size and character of all portions of the means of egress in compliance with the provisions of this code. In other than occupancies in Groups R-3, the construction documents shall designate the number of occupants to be accommodated on every floor, and in all rooms and spaces.

23.10.104.8.4 Exterior wall envelope. Construction documents for all buildings shall describe the exterior wall envelope in sufficient detail to determine compliance with this code. The construction documents shall provide details of the exterior wall envelope as required, including flashing, intersections with dissimilar materials, corners, end details, control joints, intersections at roof, eaves or parapets, means of drainage, water-resistive membrane and details around openings.

The construction documents shall include manufacturer's installation instructions providing supporting documentation that the proposed penetration and opening details described in the construction documents maintain the weather resistance of the exterior wall envelope. The supporting documentation shall fully describe the exterior walls system which was tested, where applicable, as well as the test procedure used.

23.10.104.8.5 Site plan. The construction documents submitted with the application for permit shall be accompanied by a site plan showing, to scale, the size and location of new construction and existing structures on the site, distances from lot lines, the established street grades and the proposed finished grades and, as applicable, flood hazard areas, floodways, and design flood elevations; and it shall be drawn in accordance with an accurate boundary line survey. In the case of demolition, the site plan shall show construction to be demolished, and the location and size of existing structures and construction to remain on the site or plot. The building official is authorized to waive or modify the requirement for a site plan when the application for permit is for alteration or repair or when otherwise warranted.

23.10.104.9 Deferred submittals. For the purposes of this section, deferred submittals are defined as those portions of the design not submitted at the time of the application, and to be submitted to the building official within a specified period.
Deferral of any submittal items shall have the prior approval of the building official. The registered design professional in responsible charge shall list the deferred submittals on the construction documents for review by the building official.
Documents for deferred submittal items shall be submitted to the registered design professional in responsible charge who shall review them and forward them to the building official with a notation indicating the deferred submittal documents have been reviewed and been found to be in general conformance to the design of the building. The deferred submittal items shall not be installed until the design and submittal documents are approved by the building official.

23.10.104.10 Amended construction documents. Work shall be installed in accordance with the approved construction documents, and any changes made prior to or during construction that are not in compliance with the approved construction documents shall be resubmitted for approval as an amended set of construction documents.

23.10.104.11 Retention of construction documents. The building official shall keep official records of applications received, permits and certificates issued, fees collected, reports of inspections, and notices and orders issued. One set of approved plans, specifications and computations shall be retained in the official records for the period required for retention of public records, and one set of approved plans and specifications shall be returned to the applicant and shall be kept on the site of the building or work at all times while the work authorized thereby is in progress. The building official will provide digital long term retention documentation as per approved retention plan adopted by the Assembly including but not limited to the following items: Applications, permits, certificates issued, fees collected, reports of final inspections, and all notice and orders.

23.10.104.12 Document approval and permit issuance.

23.10.104.12.1 Document examination and approval. The application, plans, specifications, computations and other data filed for permit shall be reviewed by the building official. Such plans may be reviewed by other departments of the Municipality to verify compliance with any applicable laws under their jurisdiction. Once all documents are reviewed and approved by all departments of the Municipality, the building official shall stamp the approved plans and specifications "Reviewed for Code Compliance". Such approved plans and specifications

shall not be changed, modified or altered without authorization from the building official, and all work regulated by this code shall be done in accordance with the approved plans. Once documents are approved, all changes made shall require a Change Order or Field Change. One set of construction documents so reviewed shall be retained by the building official. The other sets shall be returned to the applicant, and shall be kept at the site of work and shall be open to inspection by the building official or a duly authorized representative.

23.10.104.12.2 Previous approvals. This code shall not require changes in the construction documents, construction or designated occupancy of a structure for which a lawful permit has been heretofore issued or otherwise lawfully authorized, and the construction of which has been pursued in good faith within 180 days after the effective date of this code and has not been abandoned.

23.10.104.12.3 Expiration of plan review. Applications for which no permit is issued within 360 days following the date of application shall expire by limitation, and plans and other data submitted for review may thereafter be returned to the applicant or destroyed by the building official. The building official may extend the time for action by the applicant for a period not exceeding 180 days, on written request by the applicant showing circumstances beyond the control of the applicant prevented action from being taken. An application shall not be extended if this code or any other pertinent laws or ordinances are amended subsequent to the date of application. In order to renew action on an application after expiration, the applicant shall resubmit plans and pay a new plan review fee unless otherwise approved by the building official.

23.10.104.12.4 Phased permit approval. The building official may issue a permit for the construction of part of a building, structure or building service equipment before the entire plans and specifications for the whole building, structure or building service equipment are submitted or approved, provided adequate information and detailed statements have been filed complying with all pertinent requirements of the technical codes. The holder of such permit shall proceed with the approved work at the holder's risk, without assurance the permit for the entire building, structure or building service will be granted. This approval must be approved by the building official and shall require written documentation prior to any work being done.

23.10.104.12.5 Permit issuance. If the building official finds the work described in an application for a permit and the plans, specifications and other data filed conform to the requirements of this code, the technical codes, and other pertinent laws and ordinances, and all permit fees have been paid, the building

official shall issue a permit to the owner, contractor or authorized agent.

Exceptions:

1. The building official may require a permittee to obtain a Certificate of Occupancy for a previous permit with an expired Conditional Certificate of Occupancy prior to issuing another permit.
2. The building official may require a permittee to reopen an expired permit and obtain a Certificate of Occupancy or Certificate of Completion for the expired permit prior to issuing another permit.
3. The building official may require a permittee to remedy a Stop Work Order, Notice of Violation, or Notice of Permit Requirement on a permittee's other project or permit prior to issuing another permit.
4. The building official may require a permittee to remedy a drainage problem on permittee's previous expired or unexpired permit prior to issuing another permit.
5. The building official may require a permittee to remedy water accumulation in a crawlspace of a previous permit prior to issuing another permit.

23.10.104.12.6 Validity of permit. The issuance or granting of a permit shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of this code or of any other ordinance of the Municipality. Permits presuming to give authority to violate or cancel the provisions of this code or other ordinances of the Municipality shall not be valid. The issuance of a permit based on construction documents and other data shall not prevent the building official from requiring the correction of errors in the construction documents and other data. The building official is also authorized to prevent occupancy or use of a structure in violation of this code or of any other ordinances of the Municipality.

23.10.104.12.7 Expiration. Every permit issued by the building official under the provisions of the technical codes shall expire by limitation and become null and void, if the building or work authorized by the permit is not commenced within 360 days from the date of the permit, or if the building or work authorized by the permit is suspended or abandoned at any time after the work is commenced for a period of 360 days. For the purposes of this section, work shall be deemed suspended or abandoned if no inspections have occurred within 360 days. Before such work may be recommenced, a new permit shall be first obtained to do so, and the fee therefore shall be one of half the amount required for a new permit for such work, provided no changes have been made or will be made in the original plans and

specifications for such work; and provided further such suspension or abandonment has not exceeded 18 months, unless otherwise approved by the building official. In order to renew action on a permit abandoned or suspended more than 18 months, the permittee shall pay a new full permit fee, unless otherwise approved by the building official.

A permittee holding an unexpired permit may apply for an extension of the time within which work may commence under the permit when the permittee is unable to commence work within the time required by this section for good and satisfactory reasons. The building official may extend the time for action by the permittee for a period not exceeding 360 days upon written request by the permittee showing circumstances beyond the control of the permittee prevented action from being taken. Permits shall not be extended more than once unless otherwise approved by the building official.

Unless the property has a valid Conditional Use approved by the Planning & Zoning Commission which sets a longer period of time for completion, grading permits in residential zoned areas shall be completed within two (2) years of permit issuance. Once a grading permit expires, a stop work order shall be issued, investigative fees shall be paid to reactivate the permit, and a bond posted. The bond shall be no less than the valuation to complete the work. The bond shall be forfeited if work is not completed within 180 days from the permit reactivation date.

23.10.104.12.8 Suspension or revocation. The building official may, in writing, suspend or revoke a permit issued under the provisions of this code and the technical codes when the permit is issued in error or on the basis of incorrect information supplied, or in violation of an ordinance or regulation or the provisions of these codes.

23.10.104.12.9 Revising application (removing permittee). In order to remove the permittee on a specific permit from responsibility of completing a project and obtaining a Certificate of Occupancy, Building Safety Form "Formal Transfer of Responsibilities at Time of C.C.O." shall be completed and signed by the Owner and permittee being removed.

23.10.104.13 Fees. Fees shall be assessed in accordance with the provisions of this section or shall be as set forth in the fee schedule adopted by the Municipality.

23.10.104.13.1 Valuation. Valuation is determined as follows:

A. The valuation used to compute fees for new construction shall be based on the Building Valuation Data Chart in the most recent November/December issue of the Building Safety Journal as published by the International

Code Council. The regional multiplier shall be 1.3. The rates in the November/December issue shall become effective on the following January 1st and continue to January 1st of the following year. The valuation shall be calculated using the dollar per square foot method. The area of the building shall be the gross floor area; the total horizontal area of all floors of a building, measured between exterior faces of exterior walls, including interior balconies, mezzanines, stairwells, elevator shafts, ventilation shafts, etc., but excluding area without floor structure in atria.

B. The valuation used to compute fees for projects (other than new construction calculated under item 23.10.104.13.1 A.) shall be provided by the permit applicant and verified by the building official. The valuation shall be the total cost required to complete the project. The valuation shall include the fair market value of donated labor and materials. The building official reserves the right to require additional documentation to verify valuation.

C. The valuation for permanent fabric structures shall be calculated at $33 per Sq. Ft.

23.10.104.13.2 Permit fees. Permit fees are calculated as follows:

A. The fee for each permit shall be as set forth in section 23.10 Tables 3-A through 3-N. Where a technical code is adopted by the Municipality for which no fee schedule is shown in this code, the fee required shall be in accordance with the schedule established by the Assembly.

B. Permit fees for new construction are based on valuation determined in accordance with 23.10.104.13.1(A). There are no additional permit fees for plumbing, mechanical and electrical permits.

C. Permit fees for additions, alterations and change of use permits are not based on valuation. The fees are based on an estimated number of inspections for all disciplines provided by the permit applicant. The building official will assist the permit applicant with the initial estimate. The building official reserves the right to correct the estimate based on historic information for similar projects. A refund will be granted for inspections not used. Additional fees are required for inspections exceeding the number purchased.

23.10.104.13.3 Plan review fees.

A. When documents are submitted in accordance with subsection 104.8, plan review fees shall be paid at the time of document submittal. Plan review fees shall be calculated as per Table 3-B.
Exception: A Fire Department Plan Review fee is not required for detached one and two family dwellings.

B. Plan review fees are in addition to permit fees.

C. Where plans are incomplete or changed so as to require additional plan review, an additional plan review fee shall be charged at the rate shown in Tables 3-B of this code.

D. Structures that are identical to a previously approved and permitted structure may qualify for "pre-approved" status for purposes of the plan review fee assessment. The plans must be submitted within the same code cycle. Each identical structure shall be issued a separate building permit.

E. Express Plan Review is a level of service allowed for all projects. See Policy AG.33 for Express Plan Review Program. Additional fees apply and shall be in accordance with Table 3-B.

23.10.104.13.4 Investigation fees: Work without a permit.

23.10.104.13.4.1 Investigation. Whenever work for which a permit is required by this code is commenced without first obtaining a permit, a code compliance inspection may be required before a permit is issued for such work.

23.10.104.13.4.2 Fee. When work is begun without proper permits, an investigation fee at a rate shown in Table 3-M, in addition to the permit fee, may be collected whether or not a permit is then or subsequently issued. The payment of the investigation fee shall not exempt an applicant from compliance with all other provisions of either this code or the technical codes nor from the penalty prescribed by law.

23.10.104.13.5 Fee refunds.

A. The building official shall refund a fee that is paid or collected in error.

B. The building official may refund up to eighty percent (80%) of the permit fee paid when a permit is cancelled.
Exception: The building official may grant a full refund of the permit fee if no work has been done by the Municipality, and the permittee shows the cancellation of the permit was beyond the permittee's control.

C. The building official may refund the full plan review fee if the permit is cancelled before any review has begun.

D. The building official shall not refund any fee unless it is requested in writing by the original permittee.

E. Permits expired by more than 360 days are not entitled to a refund.

Section 105 Licensing requirements

23.10.105.1 General provisions.

A. General: Except as allowed under paragraphs B, C and D, no person shall administer or perform work regulated by this code, except a person holding a valid, unexpired, and unrevoked contractor's license or certificate of qualification/fitness as required by this code.

B. Acting As a Contractor: All work regulated by this code shall be administered by contractors licensed in accordance with state law and this code.

Exceptions:

1. A property owner may act as a contractor as follows:
   a. An owner may construct a maximum of one structure every two years. The start date of the two year time limitation shall be the date of the certificate of occupancy. A permit to construct an additional structure cannot be issued during the two year time limitation.
   b. An owner may administer alterations, including additions, to an existing structure.
   c. An owner of an individual dwelling unit located in a multi-dwelling unit structure may administer alterations within their dwelling unit. Written permission from the condominium association is required.
2. A tenant may act as a contractor as follows:
   a. A tenant may administer alterations within their lease space.

C. Performing Work: All work regulated by this code shall be performed by individuals appropriately licensed in the relevant trade in accordance with state law and this code.

Exceptions:

1. A property owner may perform work as follows:
   a. The owner of a detached single-family home may perform any type of work regulated by this code on the structure as long as they reside in the home.
   b. The owner of a detached duplex (two dwelling units) may perform any type of work regulated by this code on the structure as long as they reside in one of the units.
   c. The owner of a commercial building and their

employees may perform maintenance, repair and alteration work (excluding electrical, mechanical and plumbing work that requires a permit in accordance with this code) on said structure.

2. A tenant may perform work as follows:
   a. A tenant and their employees may perform maintenance, repair and alteration work (excluding electrical, mechanical and plumbing work that requires a permit in accordance with this code) within their lease space.

D. Authorized Agent Acting As a Construction/Project Manager: A property owner may employ the services of an authorized agent who is not licensed as a contractor to act as a construction/project manager. The authorized agent may:
   1. Secure permits in the name of the owner.
   2. Manage multiple projects for multiple owners.
   3. Coordinate, direct, schedule and administer work for the owner.

   All contractual relationships involving labor, material and equipment incorporated into the project must be directly between the owner and subcontractor or supplier. If an authorized agent contracts for or pays for any labor, materials, supplies or equipment incorporated into the project, the authorized agent is considered to be acting as a general contractor and will be subject to all state and municipal requirements applicable to general contractors. Since the property owner is acting as the contractor, the property owner is legally responsible for ensuring code compliant construction, paying all fees associated with the permit and obtaining a certificate of occupancy.

E. It shall be unlawful for any person to conduct, carry on or engage in the business of, or act in the capacity of a contractor in a trade covered by this code without first being issued a valid contractor's license or certificate of qualification/fitness.

F. An applicant for a building construction contractor's license shall file a copy of the construction contractor's bond required by state law with the application and shall show proof the bond is current and in effect.

G. It shall be unlawful for any person to labor at a trade in the capacity of a journeyman in a trade covered by this code without first being issued a valid journeyman certificate of qualification/fitness.

H. Any contractor or journeyman doing sheet metal or plumbing work covered by this code shall be required to be tested and licensed.

I. It shall be unlawful for any person to labor at a trade covered by this code as a trainee without being issued a valid trainee certificate of registration.

J. It shall be unlawful for any person acting in the capacity of a contractor in a trade covered by this code, or as the responsible agent, manager, supervisor, superintendent or foreman, to knowingly or willfully order, instruct or permit an employee, agent or person under supervision or control to do an act violating the certificate of qualification or registration requirements set forth in subsections G. or I.

K. The ratio of individuals holding trainee registration cards shall not be more than two for every certified journeyman on a job site.

23.10.105.2 Application for certificate of qualification or registration.

A. Every person required to obtain a certificate of qualification who successfully passes the required test shall, within thirty (30) days of receiving notification of passing the test, obtain such certificate by paying a fee.

B. Every person required to obtain a trainee certificate of registration shall provide the information required on the registration application form and pay a fee.

C. Each applicant shall designate a supervisory member as the responsible managing employee (RME) to take the required examination and who shall be designated as administrator under the license. No person shall qualify as administrator under more than one license. If the relationship of the administrator with the firm or corporation applicant is terminated, the license shall become void within sixty (60) days unless another administrator is qualified by proper authority. Licenses issued to applicants are nontransferable.

D. Applicants for plumbing or sheetmetal contractors' certificates shall provide evidence of at least six years (12,000 hours minimum) of previous practical experience. Credit may be allowed for each year, and fraction thereof, of attendance at a recognized school, if the course taken by the applicant was primarily mechanical and directly related to the particular skill or trade being applied for. No credit shall be allowed any applicant for experience gained while doing any mechanical work ordinarily incidental to or associated with non-mechanical occupations, as determined by the building official.

E. Applicants for journeyman certificates shall provide evidence of at least four (4) years (8,000 hours minimum) of previous experience personally installing, fabricating, altering and repairing work covered by the particular skill or trade being applied for. In lieu of previous practical experience, credit may be allowed for each year, and fraction thereof, of attendance at a recognized school if the course taken by the applicant was primarily mechanical and directly related to the skill or trade

being applied for. No credit shall be allowed any applicant for experience gained while doing any work ordinarily incidental to or associated with non-mechanical occupations as determined by the building official. In lieu of the above qualifications, an applicant may submit proof of successful completion of at least a four-year (8,000 hours minimum) apprenticeship program registered and approved by the U. S. Department of Labor, Bureau of Apprenticeship and Training, as acceptable qualifications. Journeyman and trainee plumbers shall have a state license.

F. Applicants for a trainee certificate do not need prior experience, but shall provide evidence of working for a properly certified contractor.

G. Applicants for a journeyman gas fitter's license shall provide evidence of two years' (4,000 hours minimum) previous experience in the gas piping field.

23.10.105.3 Issuance of certificate of qualification or registration.

A. A sheetmetal, plumbing, or gas piping contractor's certificate of qualification shall be issued to every person who makes application for such certificate, pays the required fee, provides evidence of the required experience and training and successfully passes the examinations.

B. A sheetmetal, plumbing, or gas fitter journeyman's certificate of qualification shall be issued to every person who makes application for such certificate, pays the required fee, provides evidence of the required experience and training and successfully passes the examinations.

C. All other contractor and journeyman certificates of qualification for refrigeration, hydronic heating, and service station piping trades shall be issued to every person who makes application, provides evidence of the required experience and training, and pays the required fee.

D. A trainee certificate of registration shall be issued to every person who makes application for such certificate and pays the required fee.

E. A specialty contractor's certificate of qualification or registration shall be issued to every person who makes application for such certificate, pays the required fee, provides evidence of required experience and training, and successfully passes the examinations.

F. A backflow assembly tester certificate of qualification or registration shall be issued to every person who makes application for such certificate, pays the required fee, attends the four-day Backflow Assembly Certification class sponsored by the Municipality Building Safety Division, and successfully passes both the written and the hands-on examination. The

certification is valid for three (3) years and may be extended for one additional year with approval of the building official.

G. In lieu of the above, an applicant may submit proof of attendance of a similar class as described in subsection A. above, and of successfully passing the required examination(s) of the similar class, provided further the similar class is recognized as equal to the requirement(s) of subsection A. above, as determined by the building official.

H. Each person who holds a valid certificate of qualification or registration as a Backflow Assembly Tester shall attend an 8-hour re-certification class and successfully pass both the written and the hands-on examinations every three (3) years from the date of original issuance.

I. Every person required to have a certificate of qualification shall obtain such certificate:
   1. Within thirty (30) days of passing the required test; or
   2. Within 30 days of the expiration date shown on the certificate, except if the certificate has been suspended or revoked.

J. Licenses issued under this title are valid for a maximum of two (2) years, and expire on February 14 of each calendar year.

23.10.105.4 Re-Examination.

A. Any person who fails to pass the examination may apply for re-examination on the next available test date.

B. Fees for re-examination will be the same as initial examination fees.

23.10.105.5 Expiration of certificates of qualification or registration.

A. Every certificate of qualification or registration shall remain in force and effect until its expiration date, unless canceled or revoked.

B. Except for certificates of qualification which lapsed three or more years past the expiration date, all certificates of qualification and trainee registration cards expired beyond thirty (30) days may be renewed by paying the prescribed fee. This fee shall be retroactive to the expiration date of the last certificate issued. In addition, an administrative late fee shall be charged.

C. Certificates of qualification and trainee registration cards shall not be allowed to lapse beyond thirty (30) days of the expiration date without prior approval of the building official.

D. Certificates of qualification lapsing three or more years past the expiration date of the last one issued shall not be renewed, and the person shall be required to re-take the test required for all new applicants.

23.10.105.6 Revocation of certificates of qualification or registration.

A. The building official may cancel or revoke any certificate of qualification or registration issued to any person, if such person later shows incompetence or lack of knowledge in matters relevant to such certificate or if such certificate was obtained by fraud. If the certificate of qualification or registration of any person is canceled or revoked, another certificate shall not be granted to the person within twelve (12) months after the date of cancellation or revocation.

B. Certificates of qualification or registration are not transferable from one person to another, and the lending of any certificate or the obtaining of permits thereunder for any other person shall be cause for revocation.

C. The building official may require retesting of any certificate of qualification holder if such person shows incompetence or lack of knowledge in matters relevant to such certificate. Failure to pass a retesting shall result in revocation of the certificate. The person may apply for retesting after thirty (30) days have elapsed.

23.10.105.7 Certificate of fitness - right to inspection.

Municipal inspectors may contact any worker performing work for which a certificate of fitness is required (under AS 18.62.010) and request the person to exhibit the person's certificate of fitness. The inspector may immediately serve upon the person a notice to cease any further work in that occupation until a State of Alaska certificate of fitness is displayed.

Section 106 Inspection Requirements

23.10.106.1 General.

A. Construction or work for which a permit is required shall be subject to inspection by the building official and the construction or work shall remain accessible and exposed for inspection purposes until approved by the building official. In addition, certain types of construction shall have special inspection, as specified in section 106.7, which is a requirement of the owner and paid for by the owner. Note: The special inspector shall not receive compensation from the contractor of record.

B. Approval, as a result of an inspection, shall not be construed as an approval of a violation of the provisions of this code or other ordinances of the Municipality. Inspections presuming to give authority to violate or cancel the provisions of this code or other ordinances shall not be valid.

C. It shall be the duty of the permit applicant to cause the work to remain accessible and exposed for inspection purposes.

Neither the building official nor the Municipality shall be liable for expense entailed in the removal or replacement of any material required to allow inspection.

D. An as-built survey of the lot may be required by the building official to verify the structure is located in accordance with the approved plans.

E. A survey showing as-built contours of a fill or excavation may be required by the building official to verify whether the work conforms to approved plans or code requirements.

23.10.106.2 Inspection requests.

A. It shall be the duty of the person doing the work authorized by the permit to notify the building official such work is ready for inspection. The building official may require every request for inspection be filed at least one working day before such inspection is desired. Such request may be in writing or by telephone, at the option of the building official.

B. It shall be the duty of the person requesting any inspections required either by this code, or the technical codes, to provide access to and means for inspection of the work.

23.10.106.3 Approval required.

A. Work shall not be done beyond the point indicated in each successive inspection without first obtaining the approval of the building official. The building official, upon notification, shall make the requested inspections and shall either indicate the portion of the construction is satisfactory as completed or shall notify the permit holder or an agent of the permit holder wherein the same fails to comply with this code. Any portions not in compliance shall be corrected and such portion shall not be covered or concealed until authorized by the building official.

B. There shall be a final inspection and approval of all buildings and structures when completed and ready for occupancy and use.

23.10.106.4 Required inspections. Refer to Building Safety Division Handout AG.13 "Inspection Schedule" for required inspections.

23.10.106.5 Other inspections. In addition to the called inspections specified above, the building official may make or require other inspections of construction work to ascertain compliance with the provisions of this code or technical codes and other laws enforced by the code enforcement agency.

23.10.106.6 Re-inspections. This section to be used only for projects permitted prior to the adoption of this code and new commercial permits issued after adoption of this code.

A. A re-inspection fee may be assessed for each inspection or re-inspection when such portion of work for which inspection is called is not complete or when corrections called for are not made. Fees shall be in accordance with Table 3-C of this code. This section is not to be interpreted as requiring re-inspection fees the first time a job is rejected for failure to comply with the requirements of the technical codes, but as controlling the practice of calling for inspections before the job is ready for such inspection or re-inspection.

B. Re-inspection fees may be assessed when the approved plans are not readily available to the inspector or for failure to provide access on the date inspection is requested.

23.10.106.7 Special inspections and structural observation. Special inspection and structural observation requirements shall be in accordance with International Building Code Chapter 17 and the adopted Special Inspection Program.

Section 107 Certificates of Occupancy.

23.10.107.1 Use or occupancy.

A. Buildings or structures shall not be used or occupied nor shall a change in the existing use or occupancy classification of a building or structure or portion thereof be made until the building official issues a Certificate of Occupancy as provided herein.

B. Issuance of a Certificate of Occupancy shall not be construed as an approval of a violation of the provisions of this code or other ordinances of the Municipality. Certificates presuming to give authority to violate or cancel the provisions of this code or other ordinance shall not be valid.

23.10.107.2 Change in use. Changes in the character or use of a building or portion of a building, shall not be made except as specified in the Building Code.

23.10.107.3 Certificate of Occupancy issuance. After the building official and other authorized municipal code enforcement authorities inspect the building, structure and associated land use, and find no violations of the provisions of this title or other laws enforced by municipal code enforcement agencies, and upon submittal of an as-built survey as approved by the building official, the building official shall issue a Certificate of Occupancy containing the following:

1. The building permit number;
2. The address of the building;
3. The name and address of the owner;
4. A description of the portion of the building for which the certificate is issued; and

5. A statement that the described portion of the building has been inspected for compliance with the requirements of this code for the group and division of occupancy and the use for which the proposed occupancy is classified.

23.10.107.4 Conditional Certificate of Occupancy issuance.

A. If the building official finds substantial hazard will not result from occupancy of a building or portion thereof before the same is completed, a Conditional Certificate of Occupancy for the use of a portion or portions of a building or structure may be issued prior to the completion of the entire building or structure.

B. Conditional Certificates of Occupancy for exterior work not completed because of weather shall have an expiration date of August 15 of the following summer season.

C. Expired conditional certificates may prevent the same permittee from receiving additional permits, as outlined in Section 104 of this code.

23.10.107.5 Failure to obtain a Certificate of Occupancy. In addition to other penalties and remedies prescribed by this code, the building official may file in the Anchorage District Recorder's Office a certificate describing the property and noncompliance with this code. Failure to obtain a Certificate of Occupancy includes, but is not limited to, the following:

A. A Conditional Certificate of Occupancy that is expired by more than 180 days; or

B. A permit under which work has been performed that is expired by more than 180 days; or

C. Work regulated by this code performed without obtaining the required permit(s).

The responsibility and cost to remedy any conditions necessary to achieve compliance with this code shall not be borne by the Municipality.

23.10.107.6 Fees. All permit fees and fines shall be paid prior to obtaining a Certificate of Occupancy or Conditional Certificate of Occupancy.

23.10.107.7 Revocation. The building official may, in writing, suspend or revoke a Certificate of Occupancy issued under the provisions of this title when the certificate is issued in error, or on the basis of incorrect information, or when it is determined the building, structure, land use or portion thereof is in violation of an ordinance, regulation or the provisions of municipal code or state law.

Section 108 Unsafe Buildings, Structures, and Building Service Equipment.

23.10.108.1 General. See chapter 23.70 for Abatement of Dangerous Buildings Code.

23.10. Table 3-A Building Permit Fees.

1. New Construction (Commercial)	**Building Permit Fee**
$1.00 to $500,000	$0.015 * Valuation
$500,001 to $1,000,000	$0.010 * Valuation
$1,000,000 to $5,000,000	$0.008 * Valuation
$5,000,000 and up	$0.006 * Valuation
2. New Construction (Residential)	**Building Permit Fee**
	$0.009 * Valuation. The permit applicant receives 23 inspections plus 2 additional inspections for each $100,000 in valuation above $500,000 valuation. Additional inspections shall be $150 per inspection per hour.
3. Alterations; Additions; Change of Use; Plumbing, Mechanical and Electrical Alterations (Residential and Commercial)	$150 per inspection per hour with a minimum 1/2 hour charge per inspection.
4. Miscellaneous Building Permits	
A. Temporary/seasonal building (new)	$1,000.00
B. Temporary/seasonal building (extension/yearly renewal)	$500.00
C. Demolition	$150.00
D. Residential Deck Permit (addition or alteration), Owner/Contractor/permittee shall provide Building Safety with estimated number of inspections required to complete project	$75 per inspection per hour with a minimum one hour charge per inspection
E. Relocatable set-up permits Owner/Contractor/permittee shall provide Building Safety with estimated number of inspections required to complete project	$150 per inspection per hour with a minimum one hour charge per inspection
F. Mobile Food Unit	$150 per inspection per hour with a minimum one hour charge per inspection

23.10. Table 3-B Plan Review Fees

1. Building Permits Plan Review Fees	
A. Commercial Building plan review	0.0031 * Valuation with a minimum of $65
B. Fire Department plan review	0.0011 * Valuation with a minimum of $65
C. New Commercial Pre-approved plan review	0.0017 * Valuation with a minimum of $65 (In lieu of item A. in Table 3-B 1)
D. Commercial Land use plan review	0.00075 * Valuation with a minimum of $65
E. New Commercial/Residential Expedited plan review	60% of the building permit fee as calculated in Table 3-A 1 in addition to the applicable fee in Table 3-B 1.
F. Owner Requested Commercial Out-sourcing plan review	25% of the building permit fee, in addition to the applicable fee in Table 3-B 1.
G. Residential Building Plan Review	0.005 * Valuation with a minimum of $65
H. Residential Land Use Plan Review	0.00065 * Valuation with a minimum of $65
I. New Residential Pre Approved Plan Review	$0.003*Valuation with a minimum of $65 (In lieu of item G. in Table 3-B 1)
J. Alterations and/or Additions (Residential) Owner/Contractor/permittee shall provide Building Safety with estimated valuation of entire project	$0.005*valuation with a minimum of $65
K. Alterations and/or Additions (Residential) Land Use Plan review. Owner/Contractor/permittee shall provide Building Safety with estimated valuation of entire project	$0.00065* valuation with a minimum of $65
L. Change of Use (no other work being done) requiring architectural, fire and zoning review.	$130.00 per plan review discipline per hour with a half hour minimum per discipline
M. Express Permitting Commercial or Residential	$200.00 per hour per discipline with a half hour minimum per discipline, in addition to all applicable fees including base plan review fee
2. Electrical, Mechanical, Plumbing (No Structural Work)Plan Review Fees	
A. Commercial	0.0031*valuation with a minimum of $65
3. Miscellaneous	
A. Plan review or code research, change orders, alternate materials and methods requests, miscellaneous	$130.00 per plan review discipline per hour with a quarter hour minimum per discipline
B. Product/fabricator approval review	$130.00 per plan review discipline per hour with a quarter hour minimum per discipline
C. Residential Deck (addition or	$130.00 per plan review discipline per hour with

alteration	a quarter hour minimum per discipline

23.10. Table 3-C Inspection Fees

1.	Inspection or re-inspection, per hour, minimum one hour	$150.00
2.	Inspection or re-inspection, unscheduled, each, per hour, one- hour minimum. Inspection shall not count against pre-purchased inspections or allotted residential inspections.	$230.00
3.	Inspection or re-inspection, outside normal business hours, per hour, per inspector; two-hour minimum. Inspection shall not count against pre-purchased inspections or allotted residential inspections.	$285.00
4.	Inspection, Sundays and holidays, per hour, per inspector, two-hour minimum. Inspection shall not count against pre-purchased inspections or allotted residential inspections.	$375.00
5.	Code compliance inspection, per hour, per inspector, one-hour minimum	$150.00
6.	Secure Facilities Surcharge (in addition to the hourly rate for inspections at any facility where an inspector must wait for an escort)	25% Surcharge
7.	Fine for failure to perform special inspection, per incident	$300.00

23.10. Table 3-D Electrical Permit Fees

1. Miscellaneous	
A. Temporary Electric, without Building permit. No fee if tied to a building permit.	$150.00

23.10. Table 3-E Plumbing Permit Fees

1. Miscellaneous	
A. Temporary gas, without Building permit. No fee if tied to a building permit.	$150.00 per inspection per hour; minimum of one hour.
B. Test backflow preventer	$150.00 per inspection per hour; minimum of one hour.
2. Retrofit (Replacement) Permit Fees	
A. Repair or replacement of a heating appliance or water heater with an input of less than 200,000 Btu/hr	$150.00 per permit. Fee includes two inspections. $150 for each additional inspection.
B. Repair or replacement of a heating appliances or water heater over 200,000 Btu/hr Owner/Contractor/permittee shall provide Building Safety with estimated number of inspections required to complete project.	$150.00 per inspection per hour, with a minimum charge of one hour per inspection.

23.10. Table 3-F Elevator, Escalator, Dumbwaiter, and Other Lift Permit Fees.

NOTES:

1. Each separately powered unit shall be considered a separate conveyance; applications and permits shall be issued accordingly.
2. Load side wiring associated with the conveyance and installed by the elevator contractor shall not require additional permits.
3. Fees include elevator inspection section plan review time, travel time, inspection time, report preparation time and administrative time.
4. Elevator inspector time is billed in half hour increments.

1. New Installations, Modernizations and Relocations			
A. Hydraulic elevators	$2,100		
B. Electric geared & gearless elevators	$2,700		
C. Residential elevators	$1,800		
D. Dumbwaiters	$1,200		
E. Escalators and moving walks	$2,700		
F. Accessibility Equipment covered in the A18.1: 1. Vertical Platform Lift 2. Inclined Platform Lift 3. Inclined Stairway Chairlifts	 $1,200 $900 $300		
G. Vertical Reciprocating Conveyor(VRC)	$1,200		
H. Roped hydraulic elevators	$2,400		
2. Minor Alterations (on RETRO work Applications)			
Building Safety will use 3 hours as the base amount to charge at the time of application. Additional time required to complete the project will be billed at the end of the project.	$450 plus $150 per hour for inspector time beyond 3 hours		
3. Biennial Certificate of Inspection			
A. Escalators & moving walks	$1,050	Inspector time exceeding 9 hours shall be billed at hourly rate.	
B. Electric geared & gearless elevators	$900	Inspector time exceeding 8 hours shall be billed at hourly rate.	
C. Hydraulic elevators	$600	Inspector time exceeding 5 hours shall be billed at hourly rate.	
D. Accessibility Equipment covered in the A18.1	$450	Inspector time exceeding 4 hours shall be billed at hourly rate.	
E. Dumbwaiters	$450	Inspector time exceeding 4 hours shall be billed at hourly rate.	
F. Vertical Reciprocating Conveyor(VRC)	$450	Inspector time exceeding 4 hours shall be billed at hourly rate.	

23.10. TABLE 3-G GRADING, EXCAVATION AND FILL PERMIT FEES.

1. There is no additional permit fee when grading is done as part of a building permit.	
2. Permit fees are required for stand-alone grading permits as follows:	
A. Less than 10 cubic yards	$0.00
B. 10 to 50 cubic yards	$75.00
C. 51 to 500 cubic Yards	$225.00
D. 501 to 2,500 cubic Yards	$300.00
E. 2,501 to 5,000 cubic Yards	$450.00
F. 5,001 to 10,000 cubic Yards	$750.00
G. 10,001 to 25,000 cubic Yards	$1,000.00
H. 25,001 to 50,000 cubic Yards	$1,500.00
I. 50,001 to 100,000 cubic Yards	$2,000.00
J. Greater than 100,000 cubic Yards	$2,500.00
3. Plan review fees are required for all grading work, except grading associated with detached one and two family dwelling units, as follows:	
A. 50 cubic yards or less	$0.00
B. 51 to 500 cubic Yards	$75.00
C. 501 to 2,500 cubic Yards	$225.00
D. 2,501 to 5,000 cubic Yards	$300.00
E. 5,001 to 10,000 cubic Yards	$450.00
F. 10,001 to 25,000 cubic Yards	$600.00
G. 25,001 to 50,000 cubic Yards	$900.00
H. 50,001 to 100,000 cubic Yards	$1,200.00
I. Greater than 100,000 cubic Yards	$1,500.00
4. The fee for inspections beyond those required by chapter 23.105 Grading, Excavation and Fill code shall be $150.00 per hour with a one-hour minimum for each inspection.	

23.10. Table 3-H Re-roof Permit Fees

1.	Up to 1500 Sq Ft	$175.00 includes Plan review
2.	1501 to 3000 Sq Ft	$300.00 includes plan review
3.	Greater than 3001 Sq ft	$500.00 includes plan review

23.10. Table 3-I Mobile Home Permit Fees

1. Set-up fee	$225.00
2. Land use plan review fee	$25.00

23.10. Table 3-J Sign Permit Fees

1. Sign, other than electrical Owner/Contractor/permittee shall provide Building Safety with estimated number of inspections required to complete project.	$150 per Inspection
2. Electrical Sign Owner/Contractor/permittee shall provide Building Safety with estimated number of inspections	$150 per Inspection

required to complete project.	
3. Sign Building Plan Review Structural Review, per hour with half-hour increments, one-half hour minimum	$130.00
4. Sign Land Use Plan Review per hour with half-hour increments, one-half hour minimum	$130.00

23.10. Table 3-K Licenses and Testing Fees

1. Test Fees	
A. Contractor testing fee	$75.00
B. Journeyman testing fee	$50.00
2. Issuance or Renewal Fees	
A. Contractor license, 2 years	$360.00
B. Journeyman license, 2 years	$125.00
C. Trainee license, 2 years	$75.00
D. Special Inspector License, 2 years	$125.00
E. Administrative late fee	$60.00
3. License Requirements	
A. Backflow Assembly Tester, renewal fee (one-day recertification training required)	$100.00

23.10. Table 3-L On-site Services Fees

1. Certificate of on-site systems approval, single family	
A. Existing System	$490.00
B. Existing System with active upgrade permit	$250.00
C. New Installation	$65.00
2. On-site conditional approval	$260.00
3. On-site wastewater disposal system construction permit, single family, includes drain field replacement	$530.00
4. Water well construction permit, single family	$200.00
5. Septic tank replacement	$200.00
6. On-site permit renewal	$130.00
7. On-site water/wastewater expedited review	Additional 60% of applicable fees
8. On-site wastewater permit change order review, per hour, half-hour minimum	$130.00
9. On-site code compliance re-inspection, per inspection, per hour, one hour minimum	$130.00
10. Separation distance variance/waivers:	
A. Variance/Waiver, lot line	$200.00
B. Variance/Waiver, well to tank	$1050.00
C. Variance/Waiver, well to field	$1050.00
D. Variance/Waiver, field to surface water	$800.00
E. Variance/Waiver, tank to surface water	$800.00
F. Variance/Waiver, well to public sewer	$1050.00
G. Variance/Waivers of setback requirements in chapters 15.55 and 15.65 not listed in current fees	$200.00

11. Excavator Certification	$425.00
12. Well Driller/Pump Installer Certification	$265.00
13. Waste treatment equipment manufacturer (plan review & facility inspection)	$800.00
14. Sanitary Pumper, per truck	$275.00
15. Well Driller/Pump Installer Certification	$265.00

23.10. Table 3-M Miscellaneous Fees

1.	Code books and publications	Cost
2.	Appeal fee, Board of Building Regulation Examiners & Appeals, each	$500.00
3.	Research, building permit, per hour	$ 50.00
4.	Fine, building code violations, civil penalty, fine per day per violation	$100.00 to $500.00
5.	Copies, standard 8-1/2"×11" page, each	$ 0.35
6.	Monthly permit list, customer picks up	$ 10.00
7.	Monthly permit list, mailed, annual subscription	$100.00
8.	Investigation fee for work begun without proper permit(s), in addition to all permit fees required by this code, a. First Offense: Investigative fee may be waived by the building official if required permit is obtained within reasonable amount of time agreed to by building official. b. Subsequent Offenses: Investigative fee plus an additional $1000.00 fine applied incrementally for each additional offense. As example, the third offense would be investigative fee plus $2000.00 if the first one was waived.	Permit fee required by this code, or $1,000.00, whichever is greater
9.	Training, per person, per class	$ 50.00
10.	Code abatement fee, per hour, one hour minimum	$150.00
11.	**Fine (Contractor), work without a required contractor's license, civil penalty** a. First Offense: Issuance fee plus test fee (if applicable) and a $1000.00 fine which may be waived by the building official if required license is obtained within 30 days. b. Subsequent Offense: $1000.00 plus issuance fee plus test fee (if applicable) and an additional $1000.00 applied incrementally for each additional offense. As example, the third offense would be $2000.00.	
12.	**Fine (Journeyman), work without a required Certificate of Qualification** a. First Offense: Issuance fee plus test fee and a $250.00 fine which may be waived by the building official if the individual registers for the journeyman test within 72 hours. b. Subsequent Offense: $250.00 plus issuance fee plus test fee and an additional $250.00 applied incrementally for each additional offense. For example, a third offense is $500.00. c. The contractor for whom the violator is working for shall be subject to the same fines as the violator.	
13.	**Fine (Trainee), work without a required trainee card** a. First Offense: $60.00 (waived if obtained within 72 hours). b. Subsequent Offense: $100.00 for each offense and an additional $100.00 applied incrementally for each additional offense. For example,	

a third offense is $200.00.

c. The contractor for whom the violator is working for shall be subject to the same fines as the violator.

23.10. Table 3-N Fire Systems Fees

1.	Kitchen Hood Fire System	$325.00
2.	Fire Standpipe	$650.00
3.	Fire Pump	$520.00
4.	Fire CO2 System	$520.00
5.	Fire Alternate Gas	$520.00
6.	Other Fire System (reviewed and inspected per hour)	$130.00
7.	Emergency Generator	$1560.00
8.	Fire Sprinkler/Alarm/Foam	
	0-25 devices	$325.00
	26-50 devices	$422.50
	51-75 devices	$520.00
	76-100 devices	$617.50
	Each lot of 50 devices beyond 100	$325.00
9.	Change Order, per hour	$130.00

CHAPTER 23.15 LOCAL AMENDMENTS TO THE INTERNATIONAL BUILDING CODE 2009 EDITION

23.15.100	Local amendments to the International Building Code, 2009 Edition.
23.15.103-115	Delete.
23.15.202	"U" definitions.
23.15.305.2	Day care.
23.15.308.3.1	Definitions.
23.15.308.5	Group I-4, day care facilities.
23.15.310.1	Residential Group R.
23.15.406.1.4	Separation.
23.15.424	Special security requirements for Group E buildings.
23.15.425	Carbon monoxide detectors.
23.15.426	Residential care/assisted living facilities.
23.15.508.2.5	Table 508.2.5 Incidental Accessory Occupancies.
23.15.717.4.2	Groups R-1 and R-2.
23.15.903.2.3	Group E.
23.15.903.2.6	Group I.
23.15.903.2.11	Specific building areas and hazards.
23.15.903.3.5	Water supplies.
23.15.903.4.1	Monitoring.
23.15.906.1	Where required.
23.15.907.1.2	Fire alarm shop drawings.
23.15.907.2.1	Group A.
23.15.907.2.2	Group B.
23.15.907.2.2.1	Group B ambulatory health care facilities.
23.15.907.2.3	Group E.
23.15.907.2.4	Group F.

23.15.907.2.7	Group M.
23.15.907.2.8.1	Manual fire alarm system.
23.15.907.2.9.1	Manual fire alarm system.
23.15.907.7.5	Monitoring.
23.15.1008.1.9.7	Delayed egress locks.
23.15.1110.1	Signs.
23.15.1403.2	Weather protection.
23.15.1503	Weather protection.
23.15.1507.2.2	Slope
23.15.1507.3.3	Underlayment.
23.15.1507.3.3.1	Low slope roofs
23.15.1507.3.3.2	High slope roofs.
23.15.Table 1507.3.7	Clay and concrete tile attachment.
23.15.1603.1.10	Live loads posted.
23.15.1604.4	Analysis.
23.15.1608.1	General.
23.15.1608.3	Flat roof snow loads.
23.15.1609.3	Basic wind speed.
23.15.1609.4.3	Exposure categories.
23.15.1613.1	Scope.
23.15.1613.2	Definitions.
23.15.1613.10	ASCE 7, Section 13.4.2
23.15.1704.1	General.
23.15.1704.1.2	Report requirement.
23.15.1704.1.3	Pre-construction special inspection meeting.
23.15.1704.1.4	Special inspector pre-approval program.
23.15.1704.1.4.1	Special inspector intern program.
23.15.1704.1.4.2	Approval suspension.
23.15.1704.1.4.3	Removal of pre-approved status.
23.15.1704.1.5	Ad hoc special inspector peer committee.
23.15.1704.3	Steel construction.
23.15.1704.4	Concrete construction.
23.15.1802.1	Definitions.
23.15.1803.5.4	Groundwater table.
23.15.1803.5.11	Seismic design Categories C through F.
23.15.1803.5.12	Seismic design Categories D through F.
23.15.1803.5.13	Permafrost.
23.15.1803.6	Reporting.
23.15.1804.3	Site grading.
23.15.1804.5	Compacted fill material.
23.15.1805.1.3	Ground-water control.
23.15.1805.3	Waterproofing.
23.15.1807.1.4	Permanent wood foundation systems.
23.15.1808.1	General.
23.15.1808.7	Footings on or adjacent to slopes.
23.15.1809.5	Frost protection.
23.15.1810.2.4.1	Seismic design Categories D through F.
23.15.1810.3.5.3.2	Steel pipes and tubes.

23.15.1905.12	Cold weather requirements.
23.15.1907.5	Installation of anchors
23.15.1908.11	ACI 318, Section 10.9.1.
23.15.2104.5	Installation of anchors.
23.15.2205.2.2	Seismic Design Category D, E, or F.
23.15.2208.1	Storage racks.
23.15.2303.4.5	Alteration to trusses.
23.15.2304.11.2.2	Wood supported by exterior foundation walls.
23.15.2308.9.2.2	Top plates for studs spaced at 24 inches.
23.15.2308.9.8	Pipes in walls.
23.15 Table 2902.1.	
23.15.3005.4	Personnel and material hoists.
23.15.3006.1	Access.
23.15.3412.2	Applicability.
23.15	Appendix.
23.15.H.101.2	Signs exempt from permits.
23.15.H.101.3	Permits required.
23.15.H.101.4	Application for permit.

23.15.100 Local amendments to the International Building Code, 2009 Edition.

The amendments to the 2009 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.

23.15.103-115 Delete.

Delete IBC sections 103 through 115; refer to the Anchorage Administrative Code.

23.15.202 "U" 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.

23.15.305.2 Day care.

Amend first paragraph to read as follows:

> The use of a building or structure, or portion thereof, for educational, supervision or personal care services for more than five children older than 2-1/2 years of age, including children related to the staff, shall be classified as a Group E occupancy.

Add a new Exception to read as follows:

> **Exception:** A child day care facility located in a detached one-or two-

family dwelling unit or townhouse (as defined in the International Residential Code) operating between the hours of 6:00 a.m. and 10:00 p.m. may accommodate a maximum of eight (8) children of any age, including children related to staff, without conforming to the requirements of this code for a group E occupancy. Such facilities shall comply with Anchorage Municipal Code Chapter 16.55, Child Care and Education Facilities – Centers and Homes. Smoke alarms, carbon monoxide detectors, means of egress, and emergency escape and rescue openings shall be provided as required by the International Residential Code. Fire extinguishers shall be provided as required by the International Fire Code for a group E occupancy. Child day care shall be limited to the basement, first and second stories. Child day care facilities located in a basement or above the first 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 day 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.

23.15.308.3.1 Definitions.

Amend the definition of child care facilities as follows:

Child Care Facilities: Facilities providing care on a 24-hour basis to more than five children, including children related to staff, 2 ½ years of age or less.

23.15.308.5 Group I-4, day care facilities.

Amend the second sentence to read:

A facility, such as the above, with five (5) or fewer persons, including persons related to the staff, shall be classified as a Group R-3 or shall comply with the International Residential Code in accordance with Section 101.2.

23.15.310.1 Residential Group R.

Under R-3 occupancies, delete "Adult care facilities that provide accommodations for five or fewer persons of any age for less than 24 hours".

Under R-3 occupancies, add the following paragraph:

Adult care facilities providing accommodations for five or fewer residents on a 24-hour basis. Facilities providing accommodations for three to five residents, where one or more residents are incapable of responding to an emergency situation without physical assistance from staff, shall comply with section 23.15.426, or shall be classified as Group I-2.

Under R-3 occupancies delete:

Child care facilities that provide accommodations for five or fewer persons of any age for less than 24 hours.

Under R-3 Occupancies, add the following paragraph:

Child care facilities providing accommodations for eight or fewer persons of any age for less than 24 hours, and/or five or fewer persons on a 24 hour basis. Child care facilities shall comply with AMC chapter 16.55 Child Care and Education Facilities – Centers and Homes.

Under R-3 Occupancies, add the following paragraph:

A detached structure occupied as a single-family dwelling unit and containing not more than five guest 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.

Under R-4 Occupancies, add the following sentence to the end of the first paragraph:

Where one or more residents are incapable of responding to an emergency situation without physical assistance from staff, the facility shall comply with section 23.15.426, or shall be classified as Group I-2.

23.15.406.1.4 Separation.

Amend by changing the reference "1/2-inch (12.7mm)" in the first sentence of item #1 to "5/8-inch Type X".

23.15.424 Special security requirements for Group E buildings.

Amend Chapter 4 by adding a new section as follows:

424.1 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.

23.15.425 Carbon monoxide detectors.

Amend Chapter 4 by adding a new section 425 for carbon monoxide detectors, as follows:

425.1 Carbon monoxide detectors. The provisions of this section shall apply to Group I-1, R-2, R-3 R-4 occupancies and Group E daycare facilities. At least one (1) carbon monoxide detector shall be installed on each floor level. If a floor level contains bedrooms or sleeping rooms, at least one (1) detector shall be located in the immediate vicinity of the sleeping area, outside of the bedrooms/sleeping rooms. Carbon monoxide detectors shall be listed and installed in accordance with their listing. The alarm shall be clearly audible in all sleeping rooms with intervening doors closed.

Exceptions:

1. Carbon monoxide detectors are not required in dwelling units and structures with no combustion appliances and that do not have an attached garage.
2. Carbon monoxide detectors are not required in dwelling units and structures with only direct vent combustion appliances and that do not have an attached garage.

3. Carbon monoxide detectors are not required in Group 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 parking garage, the garage shall be ventilated by an approved automatic carbon monoxide exhaust system designed in accordance with the mechanical code.

425.2 Interconnection. In new construction, all carbon monoxide detectors 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.

425.3 Power source. In new construction, carbon monoxide detectors shall receive their primary power from the building wiring where such wiring is served from a commercial source and shall be equipped with a battery 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.

23.15.426 Residential care/assisted living facilities.

Amend Chapter 4 by adding a new Section 426 for residential care/assisting living facilities, as follows:

426.1 Scope. The provisions of this section apply to residential care/assisted living facilities licensed to provide accommodations for 3 to 16 residents, where one or more residents require physical assistance by staff to respond to an emergency situation. Facilities that comply with the requirements of this section and other applicable provisions of this code may be classified as group R-3 or R-4 based on the number of residents. Other facilities providing accommodations for three or more residents, where one or more residents is not capable of responding to an emergency situation without physical assistance from staff, shall be classified as Group I-2 and shall comply with the applicable provisions of this code.

426.2 Change of use 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, chapter 23.10.

426.3 Automatic sprinkler system. An automatic sprinkler system shall be provided in accordance with section 903.2.8. NFPA 13D systems shall require a minimum 30-minute water supply.

426.4 Fire and smoke alarms. Fire and smoke alarms shall be installed in accordance with section 907 based on the occupancy classification.

426.5 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 thickness gypsum wall board, or equivalent. All structural elements shall be separated from the interior of the building by ½ inch thickness gypsum wall board, or equivalent, or shall qualify as ½ hour fire-resistive structural elements in accordance with chapter 7.

426.6 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 1¾ inch solid wood core or 20-minute fire-rated, and shall be provided with latches suitable for keeping the doors closed.

426.7 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 426.7.1 through 426.7.3.

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

426.7.2 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.

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

426.8 Protection of vertical openings. A maximum of two 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.

426.9 Accessibility. Accessibility shall be provided in accordance with chapter 11.

426.10 Mixed use and occupancy. Residential care/assisted living facilities shall be separated from other occupancies by fire barriers constructed in accordance with section 707 and horizontal assemblies constructed in accordance with section 712, or both, having a two-hour fire-resistive rating, so as to completely separate adjacent occupancies. Egress from residential care/assisted living facilities shall not pass through other occupancies.

23.15.508.2.5 Table 508.2.5 Incidental Accessory Occupancies. Amend Table 508.2.5 by changing the wording in the first block under the left column to read as follows:

Furnace rooms in E and R-1, R-2, and R-4 occupancies, regardless of Btu input, and furnace rooms of all other occupancies where the largest piece of equipment is over 400,000 Btu per hour input.

23.15.717.4.2 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.

23.15.903.2.6 Group I.

Delete the exception and replace with:

Exception: Group I-1 facilities shall be protected throughout with an automatic sprinkler system designed and installed in accordance with 903.3.1.1 or 903.3.1.2. Existing group I-1 facilities with previously approved and installed sprinkler systems designed in accordance with NFPA 13D and 903.3.1.3 shall be considered as in compliance.

23.15.903.2.11 Specific building areas and hazards.

Add a new subsection 903.2.11.7 as follows:

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" from the bottom of the pit.

23.15.903.3.5 Water supplies.

Add a new subsection 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 psi minimum safety factor at the water source. Hydrant flow test shall be witnessed by the fire code official or their designee.

23.15.903.4.1 Monitoring.

Amend section by adding a new sentence to read as follows:

Central stations, remote stations or proprietary monitoring stations shall be located within the Municipality or shall have a local representative capable of responding to the location within sixty (60) minutes of notification.

23.15.906.1 Where required.

Revise by deleting the exception under item number one.

23.15.907.1.2 Fire alarm shop drawings.

Revise section 907.1.2 by adding the following construction documents to those required for plan review:

14. System riser diagrams

23.15.907.2.1 Group A.

Delete Exception.

23.15.907.2.2 Group B.

Delete Exception.

23.15.907.2.2.1 Group B ambulatory health care facilities.

Delete Exception.

23.15.907.2.3 Group E.

Delete Exceptions 2 and 3.

23.15.907.2.4 Group F.

Delete Exception.

23.15.907.2.7 Group M.

Delete Exceptions 1 and 2.

23.15.907.2.8.1 Manual fire alarm system.

Delete Exception 2.

23.15.907.2.9.1 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:

Amend section 907.2.9.1: Amend by deleting Exception # 2.

23.15.907.7.5 Monitoring.

Amend by adding a new subsection to read as follows:

907.7.5.2 Connection to municipal fire alarm circuit.

A. A person having a private fire alarm system for one building may connect the system to a municipal fire alarm circuit, or directly connect the system to the fire department communications center, after obtaining a permit for the connection from the fire chief. The fire chief may issue a permit for the connection if it is determined the connection:
   1. Is compatible with the municipal fire alarm circuit or system.
   2. Connects an adequate, properly installed and maintained private alarm system.
   3. Substantially benefits the municipal fire prevention system.

B. The permit required by this section shall be issued subject to the Fire Department rules and regulations and shall be conditional upon such reasonable requirements, terms, and conditions as the fire chief may require.

C. A permit may be revoked by the fire chief for noncompliance with the permit standards, rules, regulations, conditions, or restrictions. The permit may be revoked by the fire chief if, in the fire chief's discretion, it is found the disconnection of the private alarm system is in the best interests of the Municipality. The permit holder may appeal a decision to revoke a permit to the Building Board.

D. The permit holder shall pay the Municipality for the cost of a radio fire alarm box or for covering an existing radio fire alarm box, and for the cost of the initial hookup (one box per building). The permit holder shall pay the cost of providing, installing and maintaining the private system, up to the radio fire alarm box. The maintenance of the private system shall be by a qualified person engaged in the business of installing and maintaining a supervisory fire alarm system, who shall use NFPA 72 as an installation and maintenance standard.

E. It shall be unlawful for a person not authorized by the fire chief to connect or disconnect, temporarily or otherwise, a private fire alarm system, or other wires or conduits leading to a municipal fire alarm circuit or municipal fire system. The fire chief shall authorize specific connection or disconnection by written permit.

F. The permit holder shall pay the following fees for the connection of the private fire alarm system, for one building, to the municipal fire system:

1. Permit Fee $10
2. Initial Connection Fee $150
3. Annual Inspection Fee $1,200

G. It shall be unlawful for any person, firm, association, or corporation to do any act prohibited under this section or to fail to do any act required under this section. Any person, firm, association, and/or corporation violating this section shall be guilty of a misdemeanor and shall be subject to the penalties and remedies set forth in section 23.10.025.

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.

23.15.1106 Parking and passenger loading facilities.

Delete section 1106. Accessible parking and passenger loading facilities shall be provided in accordance with Title 21.

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.

In the first sentence, add the words "insulation and" before the word "ceilings."
Amend third sentence by changing "1 inch" to "1 ½ inch."
Amend fourth sentence by changing "1/300" to 1/150".

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.

23.15.1403.2 Weather protection.

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

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.

23.15.1507.2.2 Slope.
Replace slopes of two units vertical in 12 units horizontal with three units vertical in 12 units horizontal.

23.15.1507.3.3 Underlayment.
Replace paragraph with the following:

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

23.15.1507.3.3.1 Low slope roofs.
Delete section in its entirety.

23.15.1507.3.3.2 High slope roofs.
Delete section in its entirety.

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

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 a paragraph after the last sentence:

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:

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

23.15.1608.3 Flat roof snow loads.
Add the following section subsection:

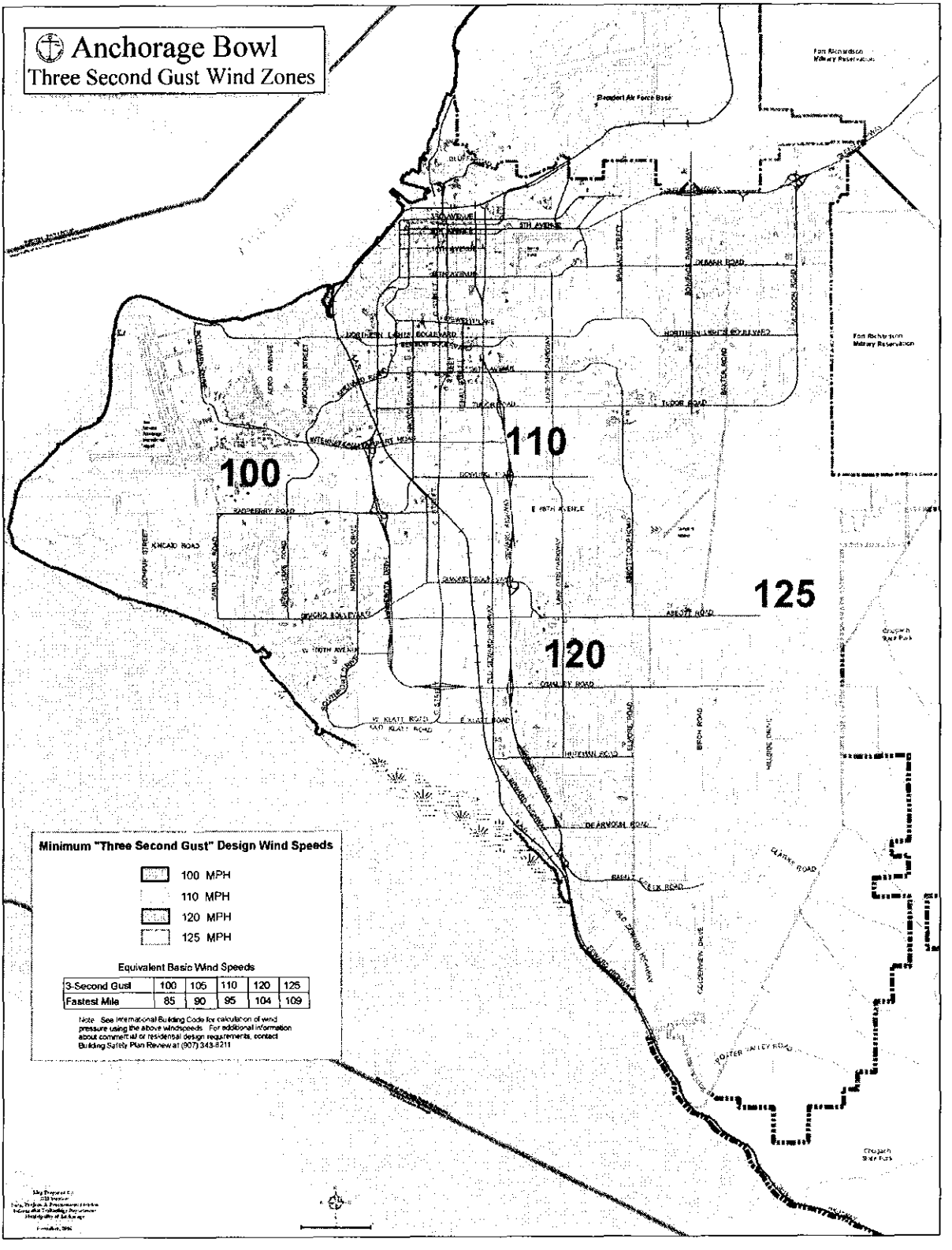
The minimum flat roof snow load, P_f, shall be forty (40) pounds per square foot.

23.15.1609.3 Basic wind speed.
Replace the first paragraph with the following:

The basic wind speed, in mph, for the determination of the wind loads

shall be determined in accordance with the Anchorage "Three Second Gust" Wind Zone Map.

Replace Figure 1609 with the Anchorage "Three Second Gust" Wind Zone Map:



23.15.1609.4.3 Exposure categories.

Add the following to the definition of "EXPOSURE D":

Shoreline is defined as the high tide line (as indicated by the edge of vegetation on the most recent Municipality base aerial photograph set).

Unobstructed is defined as any site not sheltered from the shoreline by vegetation or other impediments at least four (4) feet high and covering at least sixty (60) percent of an area extending at least thirty (30) feet perpendicular to a line connecting the building to any point of the shoreline.

23.15.1613.1 Scope.

Revise first sentence to also exclude ASCE 7 Appendix 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."

23.15.1613.10 ASCE 7, Section 13.4.2.

Add a new subsection to read as follows:

Modify ASCE 7, Section 13.4.2 as follows:

13.4.2 Anchors in concrete or masonry. Anchors embedded in concrete or masonry shall be proportioned to carry the least of the following:

a. 1.3 times the force in the component and its supports due to the prescribed forces.
b. The maximum force that can be transferred to the anchor by the component and its supports.

The value of R_p used in Section 13.3.1 to determine the forces in the connection part shall not exceed 1.5 unless one of the following is met:

a. The component anchorage is designed to be governed by the strength of a ductile steel element.
b. The design of post-installed anchors in concrete used for the component anchorage is prequalified for seismic applications in accordance with ACI 355.2.

23.15.1704.1 General.

Amend by adding the following to the end of the paragraph:

Provided the Engineer of Record is a registered professional engineer in the State of Alaska, the Engineer of Record shall be deemed qualified to perform special inspections required under this chapter without further statements of qualifications or resumes to the building official. Intermediate and special moment frame welds shall be inspected by a welding special inspector certified under AMC section 23.15.1704.1.4.

23.15.1704.1.2 Report requirement.

Delete the fourth and fifth sentences and insert 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 Engineer of Record 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 Engineer of Record and the building official in writing.

Copies of inspection reports shall be available at the construction site for review by Municipality Building Safety Personnel.

23.15.1704.1.3 Pre-construction special inspection meeting.

Add new subsection 1704.1.3 as follows:

A pre-construction special inspection meeting shall be required by the building official or designee, prior to the start of construction, when construction valuation meets or exceeds $1 million. A pre-construction special inspection meeting shall also be required whenever special inspection is performed on an essential facility or when the building official believes such a meeting facilitates the inspection process of any project. Such meetings are tools used to address and coordinate the special inspection activities among all people involved in the construction project. The building official or designee shall chair these meetings.

23.15.1704.1.4 Special inspector pre-approval program.

Add a new subsection 1704.1.4 to read as follows:

A. 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. 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.

B. 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.

23.15.1704.1.4.1 Special inspector intern program.

Add a new subsection 1704.1.4 to read as follows:

A. 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 pre-approved 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.

23.15.1704.1.4.2 Approval suspension.

Add a new subsection 1704.1.4.2 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 Appeals.

23.15.1704.1.4.3 Removal of pre-approved status.

Add a new subsection 1704.1.4.3 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 Appeals.

23.15.1704.1.5 Ad hoc special inspector peer committee.

Add a new subsection 1704.5 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 Appeals. For a quorum, a peer committee requires attendance of individuals from four (4) businesses performing similar special inspections, and the building official.

23.15.1704.3 Steel construction.

Add the following exception under Item 2, to read as follows:

2.6 Welds listed under exception 2 shall not require special inspection where $R_u \leq 0.5\ \phi R_n$ for LRFD or $R_a \leq 0.5\ R_n/\Omega$ for ASD, and welds are placed by AWS certified welders. The registered design professional in responsible charge shall indicate on the drawings which welds, if any, do not require special inspection under this chapter.

23.15.1704.4 Concrete construction.

Add the following exception:

6. Shotcrete work not of a structural nature or not for water retention structures, fully supported on earth, for minor repairs or when no special hazard exists and special inspection is waived by the building official.

23.15.1802.1 Definitions.

Amend by adding the following definitions:

Cold Foundation: Any foundation where the temperature of the bearing soil is normally subject to freezing.

Registered Design Professional: A civil engineer licensed in the State of Alaska.

Warm Foundation: Any foundation where the temperature of the bearing soil is normally maintained above freezing.

23.15.1803.5.4 Groundwater table.

Replace the subsection with the following:

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

23.15.1803.5.11 Seismic design Categories C through F.

Add the following after the paragraph:

A. Evaluation of liquefaction, slope stability, and surface rupture due to faulting or lateral spreading shall show through historic record, subsurface exploration, and analysis the building site and all natural, permanent cut, fill, or stabilized slopes exhibit an acceptable factor of safety or an acceptable level of risk. It may be necessary to extend the investigation beyond the immediate site boundaries in order to evaluate applicable hazards.

B. The level of evaluation shall be a function of the Occupancy Category of the structure and its location relative to the mapped Seismically-Induced Ground Failure Zones shown in the *Municipality of Anchorage 1980 Anchorage Coastal Resource Atlas, Volume I.*

C. Liquefaction: The evaluation of liquefaction potential for Occupancy Category I and II structures located in Seismically-Induced Ground Failure Zones 1, 2, or 3 may be based on historic record. The evaluation of liquefaction potential for all Occupancy Category III and IV structures, and for Occupancy Category I and II structures located in Seismically-Induced Ground Failure Zones 4 or 5, shall follow an accepted empirical procedure. The potential for liquefaction and soil strength loss shall be evaluated in terms of peak ground acceleration, earthquake magnitude and duration.

D. Slope Stability & Lateral Spreading: Evaluations of slope

stability and surface rupture due to lateral spreading may be analyzed following one of two methods defined below. All analyses shall consider the potential loss of soil strength due to liquefaction, or due to remolding of sensitive cohesive materials.

Method 1. Pseudo-Static Analysis: Following a Limit-Equilibrium analysis, the building site and all natural, permanent cut, fill, or stabilized slopes shall exhibit a minimum factor of safety of 1.50 under static loading conditions; and a minimum factor of safety of 1.10 for seismic loading conditions, when applying the minimum horizontal inertia force determined by multiplying the acceleration factor in Table 23.15.1803.5.11 to the weight of the potential sliding mass.

Method 2. Dynamic Analysis: The stability of the building site and all natural permanent cut, fill or stabilized slopes shall exhibit an acceptable safety factor or magnitude of displacement under seismic loading following a dynamic analysis. Dynamic analyses shall be based on site-specific design ground motions defined in Table 23.15.1803.5.11.

TABLE 23.15.1803.5.11
Seismic Horizontal Acceleration Factors

Method of Evaluation	Horizontal Acceleration Coefficient
1. Limit-Equilibrium: Zone[(a)] 1, 2, and 3 Zone[(a)] 4 and 5	 0.30 0.20
2. Dynamic Analysis	Peak horizontal acceleration corresponding to a 475-year return period ground motion (in bedrock), as modified for the site conditions (Ref: ASCE 7-05, Section 11.4 and Chapters 20-22).

a. Seismically-Induced Ground Failure Zones (Ref: *Municipality of Anchorage 1980 Anchorage Coastal Resource Atlas, Volume I*).

23.15.1803.5.12 Seismic design Categories D through F.
In Item 2, delete the last two sentences. Delete the Exception.

23.15.1803.5.13 Permafrost.
Add a new subsection 1803.5.13 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, Volume 1: The Anchorage Bowl, 1980*) as having a high potential for isolated permafrost conditions.

23.15.1803.6 Reporting.

Amend by adding the following items to read as follows:

11. When groundwater is known or suspected to exist within six feet (1.8m) of final grade, the report shall include surface and subsurface drainage recommendations.
12. The report shall address the potential for isolated permafrost. When permafrost is known or suspected to exist within the building site, the report shall include discussion of the potential for thaw or creep settlement and foundation recommendations to mitigate such consequences.
13. The soils report shall provide a summary of the methods, parameters and assumptions used to evaluate the hazards of liquefaction, slope stability, and lateral spreading.

23.15.1804.3 Site grading.

Add the following paragraph to the end of the section:

There shall not be an increase in surface drainage to adjacent properties. Approved discharge locations shall include street gutters, drainage easements, ditches or other approved locations per title 21. Surface runoff may be retained on site to prevent impacts to neighboring properties.

Add the following paragraph to the end of the section:

Footing drains or sump pumps shall discharge to a ditch or storm sewer for new construction where available. Backup emergency systems may discharge to the surface. Primary systems shall not discharge onto adjacent properties. Where sump pumps or footing drains discharge on the soil surface, the effluent shall be directed toward drainage easements, street gutters, ditches or other approved locations per title 21. Effluent may be retained on site to prevent impacts to neighboring properties.

23.15.1804.5 Compacted fill material.

Replace "90 percent" in the Exception with "Ninety-five (95) percent".

23.15.1805.1.3 Ground-water control.

Add the following 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.

Amend by adding the following paragraph to read as follows:

In addition, 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 to the beginning of the first paragraph:

All footings shall be concrete. All-weather wood foundation systems may only be installed in Type GW, GP, SW, and SP soils unless a complete soils investigation and foundation design, prepared by a civil engineer registered in the State of Alaska, is submitted for approval.

Add a second paragraph as follows:

Hot dipped zinc-coated fasteners may not be used for basement or crawl space construction. Fasteners and anchor bolts used in concrete footings shall be stainless steel. Anchor bolts shall be a minimum ten inch (10") by 5/8-inch nominal diameter embedded at least seven (7) inches (178 mm) into the concrete. Treated wood foundation plates or sills shall be installed in accordance with section 23.15.2308.6.

23.15.1808.1 General.

Add the following at the beginning of the paragraph:

Footings and foundations shall be constructed of masonry, concrete, or treated wood. Footings of concrete and masonry shall be of solid material. Foundations supporting wood shall extend at least six (6) inches above the adjacent grade. Unless other recommendations are provided by a foundation investigation report, footings shall meet the following requirements:

Except for the upper 12 inches, peat or organic silts (Pt. OL, or OH soils - as defined by the Unified Soil Classification System) shall not be used for backfill within eighteen (18) inches of the footing or stem wall.

23.15.1808.7 Footings on or adjacent to slopes.

Add the following paragraph before the first sentence:

When a foundation investigation is required in accordance with section 23.15.1803.2, the minimum building and structure clearances and setbacks shall be as defined in sections 1808.7.1 and 1808.7.2, or fifteen (15) feet (4572 mm) from the surface projection of the most critical theoretical failure plane determined from the slope stability analysis, whichever is greater.

23.15.1809.5 Frost protection.

Delete "Except where otherwise protected from frost," and change "foundation" to "Foundation."

Replace item 2 with:

2. Designing in accordance with ASCE 32, using a Design Air-Freeze Index (F_{100}) 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.

Table 23.15.1809.5

Foundation Type	Minimum Footing Depth, Inches [6] (mm)	
	Warm Foundation	Cold Foundation [3, 4]
Perimeter Footing [1]	42 (1067)	60 (1524)
Interior or Interior Isolated Spread Footing [2]	8 (203)	60 (1524)
Cast-in-Place Concrete Pier	42 (1067)	120 [5] (3048)
Exterior Isolated Foundation	NA	120 [5] (3048)

Notes:

1. Dimension indicated is from bottom of footing to adjacent exterior grade. Required depth to bottom of footing within a crawl space shall not be less than eight (8) inches (203 mm). Basements or crawl space walls supporting more than five (5) feet (1524 mm) differential fill on opposite faces shall be restrained as necessary against lateral movement.
2. Dimension indicated is from bottom of footing to nearest adjacent grade.
3. Exterior decks, landings, and platforms not rigidly attached to the building and not greater than thirty (30) inches (702 mm) above grade may bear directly on the ground. Bearing materials shall meet other provisions of this code.
4. The minimum footing depths may not be adequate for frost susceptible soils. Cold footings shall be founded below the frost line, or be protected from freezing with insulation or other appropriate means. In addition, provisions shall be made to resist uplift forces due to frost jacking on the sides of cold foundations.
5. Foundations installed in non-frost-susceptible material may be sixty (60) inches (five feet) (1524 mm).
6. Non-load-bearing site structures not attached to the building, such as fences, light poles, sign posts, shall have a footing depth based on an analysis of the vertical and lateral loads on the structure and the structure's susceptibility to damage from frost action.

23.15.1810.2.4.1 Seismic design Categories D through F.

Delete the section in its entirety, including the exception.

23.15.1810.3.5.3.2 Steel pipes and tubes.

Amend by adding the following exception:

3. The building official may permit small 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.

23.15.1905.12 Cold weather requirements.

Amend by adding the following paragraph to read as follows:

Freezing or near freezing weather is defined as a period when, for more than three 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.

23.15.1907.5 Installation of anchors.

Amend by adding the following paragraph to read as follows:

Except where approved by the registered design professional, anchors shall be in place prior to placing concrete.

Exception: Anchors for light-framed construction having a required embedment length of seven (7) inches or less may be field placed while concrete is in plastic condition.

23.15.1908.11 ACI 318, Section 10.9.1.

Add a new subsection to read as follows:

Delete ACI 318, Section 10.9.1, and replace with the following:

10.9.1 – Area of longitudinal reinforcement, A_{st}, for composite compression members with a least dimension to height ratio of 3 to 1 or greater shall be not less than 0.01 A_g. Where the least dimension to height ratio is less than 3 to 1, A_{st} shall be not less than 0.005 A_g.

23.15.2104.5 Installation of anchors.

Add a new section 2104.5 to read as follows:

Anchors shall be in place prior to grouting.

Exception: Anchors for light-framed construction having a required embedment of thirteen (13) inches or less may be field placed while grout is in plastic condition.

23.15.2205.2.2 Seismic Design Category D, E, or F.

Amend by adding the following exception:

Exception: Diaphragm, collector, and strut connections need not meet the ductile limit state requirement of AISC 341, Section 7.1.

23.15.2208.1 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 eight (8) feet in height.

23.15.2303.4.5 Alteration to trusses.

Amend by adding the following exception:

Exception: 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 303 of the International Existing

Building Code.

23.15.2304.11.2.2 Wood supported by exterior foundation walls.
Amend by deleting the paragraph and replacing with the following:

Wood framing members, including wood sheathing, that rest on exterior foundation walls and are less than six inches (152 mm) from exposed earth, shall be of naturally durable or preservative-treated wood.

23.15.2308.9.2.2 Top plates for studs spaced at 24 inches.
Delete paragraph in its entirety and substitute the following:

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

23.15.2308.9.8 Pipes in walls.
Amend the section by adding a paragraph as follows:

All studs in exterior plumbing walls shall be a minimum six-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.

23.15.3005.4 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 for a sign to be installed and maintained so as to conform to 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 AMC 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 the 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 (for B-1 and R-0 zones only), and structures identified by their principal use;
6. For B-1 and R-0 zones only, a list of all existing signs on the property on which the proposed sign is to be erected and a description of the size and square footage of each such existing display surface area; and
7. Such other information as the building official determines is reasonably necessary to an evaluation of the proposed sign's compliance with this code.

CHAPTER 23.20 LOCAL AMENDMENTS TO THE INTERNATIONAL MECHANICAL CODE 2009 EDITION

23.20.100	Local amendments to the International Mechanical Code, 2009 Edition.
23.20.101.2	Scope.
23.20.303.4	Protection from damage.
23.20.304.3	Elevation of ignition source.
23.20.304.13	Aircraft hangars.
23.20.306.3	Appliances in attics.
23.20.306.4	Appliances under floors.

23.20.306.5	Equipment and appliances on roofs or elevated structures.
23.20.306.5.2	Electrical requirements.
23.20.306.6	Mezzanines and platforms.
23.20.401.4.1	Mechanical intake openings serving single-family dwelling units.
23.20.Table 401.5	Opening sizes in louvers, grilles and screens protecting air intake openings.
23.20.403.3	Outdoor airflow rate.
23.20.Table 403.3.1.2	Zone air distribution effectiveness.
23.20.404.1	Enclosed parking garages.
23.20.406.1	General.
23.20.501.2	Exhaust discharge.
23.20.501.2.1.1	Exhaust discharge.
23.20.501.2.2	Exhaust opening protection.
23.20.504.6.4	Duct length.
23.20.504.6.4.2	Manufacturer's instructions.
23.20.504.6.5	Length identification.
23.20.505.1	Domestic systems.
23.20.505.2	Makeup air required.
23.20.507.2.1.1	Operation.
23.20.511.1	Dust, stock and refuse conveying systems.
23.20.515.1	Multi-port exhaust fans.
23.20.601.4	Contamination prevention.
23.20.602.1	General.
23.20.702	Circulation of air.
23.20.801.20	Plastic vent joints.
23.20.801.21	Location and support of venting systems other than masonry chimneys.
23.20.802.9	Vent terminals - ice and snow protection.
23.20.804.3.4	Horizontal terminations.
23.20.918.6	Prohibited sources.
23.20.923.2	Small ceramic kilns – ventilation.
23.20.1001.1	Scope.
23.20.1004.4	Mounting.
23.20.1006.6	Safety and relief valve discharge.
23.20.1006.7	Boiler safety devices.
23.20.1006.8	Electrical requirements.
23.20.1007	Boiler low-water cutoff.
23.20.1105.3	Refrigerant detector.
23.20.1105.6.2	Make-up air.
23.20.1105.9	Machinery room, general requirements.
23.20.1301.1	Scope

23.20.100 Local amendments to the International Mechanical Code, 2009 Edition.

The amendments to the International Mechanical Code are listed hereafter by section. The last digits of the section number (after the title and chapter digits) are the section of the International Mechanical Code to which the amendment refers, i.e., 23.20.303 refers to amendments to section 303 of the International Mechanical Code).
Delete entire chapter except for section 101 and 102.

23.20.101.2 Scope.
Delete exception.

23.20.303.4 Protection from damage.
Add the following section:

303.4.1 Appliances subject to vehicle impact. Appliances, including their associated piping and ductwork, subject to vehicle impact shall be protected by one or more of the following methods:

1 Install the appliance on a platform a minimum of 24 inches high. The appliance shall not extend beyond the face of the platform. Piping and ductwork shall not be surface mounted to the platform in a location subject to vehicle impact.

2. Protect the appliance with a barrier. The barrier shall be a minimum of 30" high and be constructed of a minimum 2" diameter schedule 40 steel pipe. The barrier must have a minimum 6" setback from the platform or appliance. The maximum unprotected distance shall not exceed five (5) feet. The barrier shall be installed per one of the following methods:
   a. Buried a minimum of 2'0" deep in compacted soil and imbedded in concrete slab.
   b. Set in a minimum 1'0" x 1'0" square by 1'0" deep block of concrete (slab not included).
   c. Secured to the wood framed garage floor with flange and stainless steel bolts and imbedded in concrete slab.
   d. Secured to the concrete slab using a floor flange with a minimum of four $^{3}/_{8}$" diameter by 3 ½" long galvanized or stainless anchor bolts.
3. Mount appliance and associated piping and ductwork to wall and/or suspend from the ceiling in a location clear of any potential vehicle interference.

In all cases, the minimum clear width and depth of the garage shall be maintained in accordance with title 21.

23.20.304.3 Elevation of ignition source.
Amend section 304.3 by adding the following to the end of the paragraph:

Rooms and spaces that are not part of the living space of a dwelling unit shall include but are not limited to utility, storage, mud, laundry, toilet and bathing rooms.

Group F, M, S-1 and S-2 occupancies with overhead doors providing access to vehicles and equipment containing combustible fuel shall

comply with this section.

23.20.304.13 Aircraft hangars.

Amend by adding a new section as follows:

304.13 Aircraft hangars. Overhead appliances installed in aircraft storage areas shall be located at least 10' vertically above the upper surface of the wings or engine enclosure of the tallest aircraft which may be housed in the hangar.

Exception. Where a 10' vertical separation cannot be maintained in an NFPA 409 Class III hangar, a sealed combustion appliance may be used. The appliance shall be located as high and as far away from the wings and engine enclosure as possible. This exception shall not apply to NFPA 409 Class I and Class II hangars.

23.20.306.3 Appliances in attics.

Add a new Exception #3 as follows:

Exception #3. The passageway and level surface are not required for replacement of horizontal furnaces located above drop ceilings in strip malls. All other code requirements apply.

23.20.306.4 Appliances under floors.

Amend by adding the following as the first sentence:

Installation of fuel burning appliances in underfloor crawl spaces is prohibited unless prior written approval is obtained from the authority with jurisdiction.

23.20.306.5 Equipment and appliances on roofs or elevated structures.

Add exception number 2 to section 306.5 as follows:

2. Where equipment requiring access and appliances are installed on the roof of a new building, such access shall be provided by a permanent *approved* means, interior to the building, extending from floor level to the equipment and/or appliances level service space, regardless of the roof height.

23.20.306.5.2 Electrical requirements.

Revise the sentence to read as follows:

A receptacle outlet shall be provided as required by the N.E.C.

23.20.306.6 Mezzanines and platforms.

Add a new section as follows:

306.6 Mezzanines and platforms. Every mezzanine or platform containing appliances or equipment requiring access more than ten feet, six inches above the ground or floor level shall be made accessible by a stairway or ladder fastened to the structure. The ladder shall be constructed in compliance with the provisions of Local Amendment 23.20.306.5.

23.20.401.4.1 Mechanical intake openings serving single-family dwelling units.

Add a new section as follows:

401.4.1 Mechanical intake openings serving single family dwelling units. Mechanical outdoor air intake openings serving single family dwelling units shall be located a minimum of six (6) feet horizontally from a gas pressure regulator relief vent outlet. Where a vent outlet is located within six (6) feet horizontally of a mechanical outdoor intake opening, such opening shall be located a minimum of two (2) feet below the vent outlet. Measurements shall be taken from the gas pressure regulator relief vent outlet.

23.20. Table 401.5 Opening sizes in louvers, grilles and screens protecting air intake openings.

Revise the minimum and maximum opening sizes as follows:

OUTDOOR OPENING TYPE	MINIMUM AND MAXIMUM OPENING SIZES IN LOUVERS, GRILLES AND SCREENS MEASURED IN ANY DIRECTION
Intake openings in residential occupancies	½ inch
Intake openings in other than residential occupancies	Not < ½ inch and not > 1 inch

23.20.403.3 Outdoor airflow rate.

Amend by adding to the end of the first sentence the words "or in accordance with the latest version of ASHRAE Standard 62.1."

23.20.Table 403.3.1.2 Zone air distribution effectiveness.

In the last row of the table, delete the words "near to" and add in their place "within 4 feet of".

23.20.404.1 Enclosed parking garages.

Add the following sentence to the end of the paragraph:

Carbon monoxide detectors, when used, shall be centrally located and shall activate the ventilation system at a maximum of 35 ppm.

23.20.406.1 General.

Delete section 406.1.

23.20.501.2 Exhaust discharge.

Delete Exception #1 to 501.2.

23.20.501.2.1.1 Exhaust discharge.

Insert the word "public" between the words "onto" and "walkways".

23.20.501.2.2 Exhaust opening protection.

Delete the words "sized not less than ¼ inch (6mm) and not larger than".

23.20.504.6.4 Duct length.

Add a sentence to the end of the paragraph to read:

The duct shall be routed using the shortest possible distance and/or the least number of 45 and 90 degree elbows, as possible.

23.20.504.6.4.2 Manufacturer's instructions.

Add the following exception:

Exception: For distances exceeding the dryer manufacturer's recommendations, a booster fan, listed for the purpose, shall be used for lengths up to the booster fan manufacturer's recommendations.

23.20.504.6.5 Length identification.

Replace the words "equivalent length" with the words "total length plus total number of elbows".

Add to the end of the paragraph:

"and shall be laminated or in a moisture-resistant sleeve secured to the wall using screws, staples, or thumb tacks. Push pins are not acceptable."

23.20.505.1 Domestic systems.

Delete the first sentence and replace with the following:

Each domestic range, fuel-fired or electric, shall be equipped with either a range hood or an integral downdraft exhaust system discharging to the exterior of the building through a duct constructed of galvanized steel, stainless steel, aluminum, or copper. Clearance above the cook top shall be at least thirty (30) inches to unprotected combustible material. When the underside of such combustible material is protected with insulating millboard at least one-quarter (1/4) inch thick covered with 0.021 inch thick (No. 28 U.S. gauge) sheet metal or metal ventilating hood, the distance shall not be less than twenty-four (24) inches.

Delete Exception No. 1.

23.20.505.2 Makeup air required.

Amend paragraph by adding the following:

Exception: A backdraft test may be performed to verify proper operation of all combustion appliances. If backdraft occurs under any operational scenario, makeup shall be required.

23.20.507.2.1.1 Operation.

Delete section 507.2.1.1 in its entirety.

23.20.511.1 Dust, stock and refuse conveying systems.

Amend by adding the following exception to section **511.1**:

Listed dust collectors and separator designed and installed in accordance with NFPA 664.

23.20.515.1 Multi-port exhaust fans.

Add new section as follows:

515.1 Multi-port exhaust fans. Multi-port exhaust fan installations shall comply with the following:

1. This type of fan may be used for exhausting environmental air such as bathrooms and toilet rooms and shall not be used for clothes dryer or range exhaust.
2. If this fan is installed in the attic, it shall be within three (3) feet of the attic access and the exhaust registers it serves shall be permanently labeled as to the location of the fan for service and maintenance.
3. The operating range for these fans is limited to -40 degrees F to +140 degrees F.
4. Combustion air requirements for fireplaces, water heaters, furnaces, boilers, etc., shall not be effected by the use or operation of this type of fan.
5. These fans shall not be used to exhaust combustible or flammable vapors, fumes, or dusts.
6. The exhaust fan and ductwork shall be insulated with minimum two (2) inch thick fiberglass duct insulation to minimize heat transfer to the attic space, which can result in ice damming on the roof.
7. All ceiling vapor barrier penetrations shall be sealed airtight to minimize condensation build-up in the attic and ice damming on the roof.
8. All duct seams shall be sealed airtight with duct mastic/sealer to prevent condensation damage in the attic.

23.20.601.4 Contamination prevention.

Amend by numbering the exception as "1" and adding the following two exceptions as follows:

Exceptions:

2. Environmental air exhaust ducts under positive pressure may extend into or through ducts or plenums if one of the following design approaches is used:
   a. Route environmental air exhaust ducts inside a shaft when passing through a duct or plenum.
   b. Install a second duct around the environmental air exhaust duct where passing through ducts and plenums to minimize leakage to the duct or plenum; seal both ends of the outer duct to outside.
   c. Seal the environmental air exhaust ducts along all seams and joints using a listed low to medium pressure duct sealant, typically applied by brush, trowel, or caulking gun; install sealant per manufacturer's recommendations.

d. Provide flexible duct with no seams in the duct or plenum only to a limit of eight (8) feet. The eight (8) feet limit is due to high static losses. Also, sleeving the metal duct with flexible seamless duct is acceptable.

3. Gas vents installed in accordance with section 503.3.6 in the International Fuel Gas Code.

23.20.602.1 General.

Delete from the first sentence the words "uninhabited crawl spaces."

Add the following sentence to the end of the paragraph:

Underfloor crawlspaces shall not be used as plenums.

23.20.702 Circulation of air.

Amend by adding the following section:

702 Circulation of air. Fuel burning appliances may be required to pass a back draft test as a part of the final plumbing or mechanical inspection. This test shall be conducted with all exhaust fans operating and with fireplace draft open.

23.20.801.20 Plastic vent joints.

Add to the end of the paragraph:

Solvent cement joints for CPVC and PVC pipe and fittings shall be primed. The primer shall be a contrasting color listed for the use.

23.20.801.21 Location and support of venting systems other than masonry chimneys.

Add a new section as follows:

801.21 Location and support of venting systems other than masonry chimneys. Unless a vent or chimney listed for exterior use in cold weather climates is installed, a vent or chimney system installed exterior to the building outside the thermal envelope shall be enclosed in an insulated (R-19 minimum) chase. The portion of the system above the last roof and its projected plane need not be enclosed. The portion of the system passing through an attic space need not be insulated or enclosed.

23.20.802.9 Vent terminals - ice and snow protection.

Amend by adding the following section:

802.9 Vent terminals – ice and snow protection. Vent terminations penetrating a metal roof with a pitch shall be protected by an ice or snow deflector of an approved type acceptable to the Administrative Authority.

23.20.804.3.4 Horizontal terminations.

Add the following two sentences to Item 6:

An anticipated snow depth of twelve (12) inches shall be used when determining the manufacturer's minimum vent termination height. Measurements shall be made to the bottom of the vent outlet.

23.20.918.6 Prohibited sources.

Change the wording to the first half of the sentence to read:

"Outdoor, return, or transfer air for a forced-air heating system..."

Change sub-paragraph #6 to read "Crawlspace".

23.20.923.2 Small ceramic kilns – ventilation.

Amend by adding the following section:

923.2 Small ceramic kilns - ventilation. A canopy-type hood shall be installed directly above each kiln. The face opening area of the hood shall be equal to or greater than the top horizontal surface area of the kiln. The hood shall be constructed of not less than 0.024-inch (No. 24 U.S. gauge) galvanized steel or equivalent and be supported at a height of between twelve (12) inches and thirty (30) inches above the kiln by noncombustible supports.

Exception: Electric kilns installed with listed exhaust blowers may be used when marked as being suitable for the kiln and installed in accordance with manufacturer's instructions.

Each hood shall be connected to a gravity ventilation duct extending in a vertical direction to outside the building. This duct shall be of the same construction as the hood and shall have a minimum cross-sectional area of not less than one-fifteenth of the face opening area of the hood. The duct shall terminate a minimum of twelve (12) inches above any portion of a building within four (4) feet and terminate no less than four (4) feet from any openable windows or other openings into the building or adjacent property line. The duct opening to the outside shall be shielded, without reduction of duct area, to prevent entrance of rain into the duct. The duct shall be supported at each section by noncombustible supports.

Provisions shall be made for air to enter the room in which a kiln is installed at a rate at least equal to the air being removed.

23.20.1001.1 Scope.

Amend Exception 7 by deleting the words "or state".

23.20.1004.4 Mounting.

Add the following to the end of the paragraph:

Boilers shall be installed in a water-tight pan of corrosion-resistant material. The pan shall be equipped with a minimum three quarter (3/4) inch (20mm) diameter drain discharging to an approved location.

Exceptions:

1. A pan is not required when a boiler is installed on a concrete slab.
2. A pan is not required where a corrosion-resistant material is placed under the boiler provided it covers the entire platform and extends to all walls adjoining the platform and turning up the walls a minimum of two (2) inches.

23.20.1006.6 Safety and relief valve discharge.

Add to the end of the paragraph:

When a boiler is installed on a platform, the boiler relief valve piping shall discharge to between 6" and 24" off the finished floor over the edge of the platform.

23.20.1006.7 Boiler safety devices.

Amend by replacing section 1006.7 with the following:

1006.7 Boiler safety devices. Boilers shall be equipped with controls and limit devices as required by the manufacturer's installation instructions, Table 1006.7 and the conditions of the listing.

23.20.Table 1006.7 –CONTROLS AND LIMIT DEVICES FOR AUTOMATIC BOILERS

		Trial for Main Burner Flame		Safety Control Timing (Nominal Maximum Time in Seconds)											
Boiler Group	Fuel	Fuel Input Range[1] (Inclusive) (x0.293071 for W)	Type Of Pilot[2]	Trial for Pilot	Direct Electric Ignition	Flame Pilot	Main Burner Flame Failure[3]	Assured Fuel Supply Control[4]	Assured Air Supply Control[5]	Low Fire Start Up Control[6]	Pre-Purging Control [7]	Hot Water Temp. and Low Water Limit Controls[8]	Steam Pressure and Low Water Limit Controls[9]	Approved Fuel Shutoff[10]	Control and Limit Device System Design[11]
A	Gas	0-400,000 Btu/h	Any type	90	Not required	90	90	Not required	Required	Not required	Not required	Required	Required	Not required	Required
B	Gas	400,001-2,500,000Btu/h	Interrupted or intermittent	15	15	15	2-4	Not required	Required	Not required	Not required	Required	Required	Not required	Required
C	Gas	2,500,001-5,000,000Btu/h	Interrupted or intermittent	15	15	15	2-4	Required	Required	Required	Required	Required	Required	Required	Required
D	Gas	Over 5,000,000 Btu/h	Interrupted	15	15	15	2-4	Required	Required	Required	Required	Required	Required	Required	Required
E	Oil	0-400,000 Btu/h	Any type	Not required	90	90	90	Not required	Required	Not required	Not required	Required	Required	Not required	Required
F	Oil	400,001-1,000,000 Btu/h	Interrupted	Not required	30	30	2-4	Required	Required	Not required	Not required	Required	Required	Not required	Required
G	Oil	1,000,001-3,000,000 Btu/h	Interrupted	Not required	15	15	2-4	Required	Required	Not required	Not required	Required	Required	Not required	Required
H	Oil	Over 3,000,000 Btu/h	Interrupted	15	15	60	2-4	Required	Required	Required	Required	Required	Required	Required	Required
K	Elec.	All	Not required	Not required	Not required	Not required	Not required	Not required	Not Required	Not required	Not required	Required	Required	Not required	Required

1 Fuel input shall be determined by one of the following:

1.1 The maximum burner input as shown on the burner nameplate or as otherwise identified by the manufacturer.

1.2 The nominal boiler rating, as determined by the building official, plus 25 percent.

2 Automatic boilers shall have one flame failure device on each burner which shall prove the presence of a suitable ignition source at the point where it will reliably ignite the main burner, except boiler Groups A, B, E, F and G which are equipped with direct electric ignition shall monitor the main burner, and all boiler groups using interrupted pilots shall monitor only the main burner after the prescribed limited trial and ignition periods. Boiler Group A equipped with continuous pilot shall accomplish 100 percent shutoff within 90 seconds upon pilot flame failure. The use of intermittent pilots in boiler Group C is limited to approved burner units.

3 In boiler Groups B, C and D, a 90-second main burner flame failure limit may apply if continuous pilots are provided on manufacturer-assembled boiler-burner units approved by an approved testing agency as complying with nationally recognized standards approved by the building official. Boiler Groups F and G equipped to reenergize their ignition system within 0.8 second after main burner flame failure shall be permitted 30 seconds for Group F or 15 seconds for Group G to reestablish its main burner flame.

4 Boiler Groups C and D shall have controls interlocked to accomplish a nonrecycling fuel shutoff upon high or low gas pressure, and boiler Groups F, G and H using steam or air for fuel atomization shall have controls interlocked to accomplish a nonrecycling fuel shutoff upon low atomizing steam or air pressure. Boiler Groups F, G and H equipped with a preheated oil system shall have controls interlocked to provide fuel shutoff upon low oil temperature.

5 Automatic boilers shall have controls interlocked to shut off the fuel supply in the event of draft failure if forced or induced draft fans are used or, in the event of low combustion airflow, if a gas power burner is used. Where a single motor directly driving both the fan and the oil pump is used, a separate control is not required.

6 Boiler Groups C, D and H, when firing in excess of 400,000 Btu per combustion chamber, shall be provided with low fire start of its main burner system to permit smooth light off. This shall normally be a rate of approximately one-third of its maximum firing rate.

7 Boiler Groups C, D and H shall not permit pilot or main burner trial for ignition operation before a purging operation of sufficient duration to permit a minimum of four complete air changes through the furnace, including combustion chamber and the boiler passes. Where this is not readily determinable, five (5) complete air changes of the furnace, including combustion chamber up to the first pass, shall be considered equivalent. An atmospheric gas burner with no mechanical means of creating air movement or an oil burner which obtains two-thirds or more of the air required for combustion without mechanical means of creating air movement shall not require purge by means of four (4) air changes so long as its secondary air openings are not provided with means of closing. If such burners have means of closing secondary air openings, a time delay shall be provided which puts these closures in a normally open position for four (4) minutes before an attempt for ignition. An installation with a trapped combustion chamber shall in every case be provided with a mechanical means of creating air movement for purging.

8 Every automatic hot-water-heating boiler, low-pressure hot-water-heating boiler, and power hot-water boiler shall be equipped with two (2) high-temperature limit controls with a manual reset on the control with the higher

setting interlocked to shut off the main fuel supply, except the manual reset on the high-temperature limit control shall not be required on any automatic package boiler not exceeding 400,000 Btu/h input and approved by an approved testing agency. Every automatic hot-water heating, power boiler and package hot-water supply boiler shall be equipped with one low-water-level limit control with a manual reset interlocked to shut off the fuel supply, installed to prevent damage to the boiler and to permit testing of the control without draining the heating system except on boilers used in Group R Occupancies of less than six (6) units. However, a low-water-flow limit control installed in the circulating water line may be used instead of the low-water-level limit control for the same purpose on coil-type boilers.

9 Every automatic low-pressure steam-heating boiler, small power boiler and power steam boiler shall be equipped with two high-steam pressure limit controls interlocked to shut off the fuel supply to the main burner with manual reset on the control with the higher setting, and two (2) low-water-level limit controls, one of which shall be provided with a manual reset device and independent of the feed water controller. Coil-type flash steam boilers may use two (2) high-temperature limit controls, one of which shall be manually reset in the hot-water coil section of the boiler instead of the low-water-level limit control.

10 Boiler Groups C, D and H shall use an approved automatic reset safety shutoff valve for the main burner fuel shutoff, which shall be interlocked to the programming control devices required. On oil burners where the safety shutoff valve shall be subjected to pressures in excess of ten (10) psi when the burner is not firing, a second safety shutoff valve shall be provided in series with the first. Boiler Groups C and D, using gas in excess of 1-pound-per-square-inch pressure or having a trapped combustion chamber or employing horizontal fire tubes, shall be equipped with two (2) approved safety shutoff valves, one of which shall be an automatic-reset type, one of which may be used as an operating control, and both of which shall be interlocked to the limit-control devices required. Boiler Groups C and D using gas in excess of 1-pound-per-square-inch pressure shall be provided with a permanent and ready means for making periodic tightness checks of the main fuel safety shutoff valves.

11 Control and limit device systems shall be grounded with operating voltage not to exceed 150 volts except, on approval by the building official, existing control equipment to be reused in an altered boiler control system may use 220-volt single phase with one side grounded, provided such voltage is used for all controls. Control and limit devices shall interrupt the ungrounded side of the circuit. A readily accessible means of manually disconnecting the control circuit shall be provided with controls so arranged that when they are de-energized the burner shall be inoperative.

23.20.1006.8 Electrical requirements.

Delete section in its entirety.

23.20.1007 Boiler low-water cutoff.

Delete section in its entirety.

23.20.1105.3 Refrigerant detector.

Add a second sentence to read as follows:

Refrigerant detectors shall alarm audibly and visually both inside and outside the machinery room or refrigerated space.

23.20.1105.6.2 Make-up air.
Amend last sentence by changing ¼ -inch to ½ -inch.

23.20.1105.9 Machinery room, general requirements.
Add a subsection 1105.9 as follows:

1105.9 Seismic protection. Refrigeration piping from adjacent equipment or machinery rooms that are not attached to the building shall be provided with seismic protection suitable for outdoor use and approved for use by the Administrative Authority. Examples: Flexible connectors approved for use in refrigeration systems, soft copper piping, swing joints.

23.20.1301.1 Scope.
Revise the first sentence of the section to read as follows:

The design, installation, construction, and repair of fuel oil storage and piping systems shall be in accordance with this chapter and NFPA 31.

CHAPTER 23.25 LOCAL AMENDMENTS TO THE UNIFORM PLUMBING CODE 2009 EDITION

23.25.100	Local amendments to the Uniform Plumbing Code, 2009 Edition.
23.25.102-103	Delete.
23.25. 204.0	"B" definitions.
23.25.313.12.4	Ratproofing.
23.25.315.0	Trenching, excavation, and backfill.
23.25.321.0	Mezzanines and platforms.
23.25.402.3.1	Non-water urinals.
23.25.402.4	Metered faucets.
23.25.411.1.1	Unvented garage floor drains.
23.25.412	Minimum number of required fixtures.
23.25.414.1	Access to whirlpool bathtub pump.
23.25.419.0	Minimum hot water supply temperature.
23.25.508.0	Other water heater installation requirements.
23.25.508.2	Seismic strapping for small water heaters.
23.25.508.4.1	Water heaters located in mobile homes.
23.25.508.5	Relief valve discharge.
23.25.508.14	Installation in residential garages.
23.25.603.0	Cross-connection control.
23.25.603.3	General requirements.
23.25.603.3.9	Area drain sizing for backflow assemblies.
23.25.603.4.6.5	Lawn irrigation.
23.25.603.4.8	Water cooled compressors, degreasers.
23.25.603.4.23	Potable water supply to dental chairs.
23.25.603.4.24	Hydronic heating/cooling.
23.25.603.4.25	Steam systems.
23.25.603.4.26	Cooling towers.
23.25.603.4.27	Tall buildings over 30 feet in height

23.25.603.4.28	Commercial hose bibbs.
23.25.604.1	Materials - water pipe and fittings.
23.25.604.2	Materials - copper tube.
23.25.604.8	Materials - plastic pipe materials.
23.25.605.3	Shut off valves in multi-family dwelling units.
23.25.608.0	Water pressure, pressure regulators and pressure relief valves.
23.25.609.3.2	Installation.
23.25.609.3.3	Water supply accessibility.
23.25.609.4	Testing.
23.25.609.10.1	Water hammer.
23.25.610.8	Size of meter and building supply pipe using Table 6-6.
23.25.612.0	Indoor water meter setter.
23.25.704.0	Fixture connections (drainage).
23.25.719.0	Cleanouts.
23.25.724..0	Building drain accessibility.
23.25.801.3	Bar and fountain sink traps.
23.25.815.0	Soda fountains, condensates, drip pans, ice machines, and other similar equipment.
23.25.908.2	Bathroom wet venting.
23.25.Table 10-1	Horizontal distance of trap arms.
23.25.1014.1	Grease interceptors.
23.25.1017.1	Interceptors required.
23.25.1101.1	Where required.
23.25.1101.3	Material uses.
23.25.1101.5	Subsoil drains.
23.25.1101.6	Building subdrains.
23.25.1101.9	Filling stations and motor vehicle washing establishments.
23.25.1101.11.1	Primary roof drainage.
23.25.1101.11.2.2.2	Combined system.
23.25.1108.0	Controlled-flow roof drainage.
23.23.1109.2	Methods of testing storm drainage systems.
23.25.1208.1	Temporary gas installations – permit required.
23.25.1208.2	Temporary gas installations – permit not required.
23.25.1209.5.8.1	Pipe joints.
23.25.1209.5.8.2	Tubing joints.
23.23.1209.5.8.4(2)	Metallic piping joints and fittings.
23.25.1211.1.2(A)	Cover requirements.
23.25.1211.1.5	Piping through foundation wall.
23.25.1211.1.8	Ground penetrations.
23.25.1211.1.9	Fuel gas piping connectors.
23.25.1211.1.10	Frost heave protection for copper tubing.
23.25.1211.5.1(3)	Manufactured home connections.
23.25.1211.5.5	Medium pressure gas.
23.25.1214.3.2	Test pressure.
23.25.1301.1	Application.
23.25.1309.0	Veterinary clinics.

23.25.1309.8 Vacuum systems for dental offices.
23.25.1310.3.1 Definitions – health care facilities.

23.25.100 Local amendments to the Uniform Plumbing Code, 2009 Edition.

Amendments to the 2009 Uniform Plumbing Code and appendices A, B, D, parts E-M of Appendix E, I, and L, (excluding L 8.0 and L 9.0), are adopted and listed hereafter by section. The digits after the title and chapter digits are the section number of the Uniform Plumbing Code to which the amendment refers, e.g., 23.25.510.8 refers to section 510.8 of the Uniform Plumbing Code.

23.25.102-103 Delete.
Delete sections 102 and 103; refer to the Anchorage Administrative Code.

23.25. 204.0 "B" definitions.
Amend by deleting the definition of *bathroom* and substitute the following:

Bathroom - any room or space containing a bathtub, shower, hot tub, Jacuzzi or swimming pool.

23.25.313.12.4 Ratproofing.
Delete section 313.12.4 in its entirety.

23.25.315.0 Trenching, excavation, and backfill.
Amend section **315.4** by adding, after the third sentence, the following:

Backfill material shall be 3/8" pea gravel or smaller. In the case of cast iron drain, waste and vent piping, the backfill material shall be ¾" gravel and earth or smaller.

23.25.321.0 Mezzanines and platforms.
Add new section as follows:
Every mezzanine or platform containing appliances or equipment requiring access more than ten feet, six inches above the ground or floor level shall be made accessible by a stairway or ladder fastened to the structure. The ladder shall be constructed with:

1. Rung spacing not to exceed fourteen (14) inches on center.
2. Toe spacing not less than six (6) inches deep.
3. At least 18" spacing between rails.
4. Rungs at least 0.75 inches in diameter capable of withstanding a 300 lb. load.
5. Offset sections and landings capable of withstanding 100 pounds per square foot when heights exceed 30 feet.

23.25.402.3.1 Non-water urinals.
Delete section in its entirety.

23.25.402.4 Metered faucets.

Add to the end of the first sentence of section 402.4:

...bus stations, cocktail lounges, bars, concert halls, sports arenas, theaters, and shopping malls.

23.25.411.1.1 Unvented garage floor drains.

Add new section as follows:

A. A maximum of three (3) unvented floor drains may be installed in one- and two-family residential garages. Each shall have a three-inch (3") (76mm) minimum trap and trap arm, and two-inch (2") (50.8mm) floor drain. No other plumbing fixtures may be connected to the garage drain piping. When a contractor or homeowner installs this type of system, they shall install the waste lines as per the Uniform Plumbing Code regarding slopes and backfill material.

B. Underground inspections of these floor drains are not required, but spot checks may be made by inspectors. If requested, MOA staff performs this inspection at no additional fee.

23.25.412 Minimum number of required fixtures.

Delete section 412.1 through 412.5.3 and refer to the Building Code.

23.25.414.1 Access to whirlpool bathtub pump.

Add to section 414.1:

The access shall be required to be a minimum of 16"x16", although alternate access arrangements may be considered. The intent is the pump may be removed easily and safely. All pumps shall be located so the supporting or securing bolts are no more than two (2) feet from the access opening. The access panel may be siliconed in place and shall remain easily removable. If removal of a pump motor is in question, the contractor shall be required to remove the pump motor to demonstrate proper access.

23.25.419.0 Minimum hot water supply temperature.

Add new section as follows:

The minimum hot water temperature to showers, tub and shower combinations, and tub fillers shall be 110°.

23.25.508.0 Other water heater installation requirements.

Replace Section 508.4 with the following:

508.4 Water heaters shall be installed in a watertight pan of corrosion-resistant material. The pan shall be equipped with a minimum three quarter (3/4) inch (20mm) diameter drain discharging to an approved location. Water heater enclosures shall be provided with an approved floor drain.

Exceptions:

1. A floor drain is not required when a water heater is installed in a garage and the garage floor slopes to the exterior.
2. A floor drain is not required if a water heater is equipped with a listed safety device to control flooding.

3. A floor drain is not required when a water heater is installed in an attic or above a drop ceiling and the pan is drained to an approved location.
4. A pan is not required when a water heater is installed on a concrete slab on grade.
5. A pan is not required in a garage, where a corrosion-resistant material is placed under the water heater provided it covers the entire platform and extends to all walls adjoining the platform and turning up the walls a minimum of two inches.

23.25.508.2 Seismic strapping for small water heaters.

Add an exception to UPC Section 508.2:

Exception: Tank type gas and electric water heaters with a minimum of 5 gallons and a maximum of 10 gallons require only one approved seismic strap placed as close to the middle of the heater as possible, measured vertically, without blocking access to the controls.

23.25.508.4.1 Water heaters located in mobile homes.

Add new section as follows:

508.4.1 Water heaters located in mobile homes.

A. Installation of a water heater located in a compartment off the bedroom shall be acceptable if the water heater was factory installed, if the compartment is sealed from the bedroom by a panel screwed to the wall, and if the combustion air is taken from a source outside of the bedroom and complies with Uniform Plumbing Code.

B. A water heater replaced in an existing mobile home shall be replaced with a water heater tested, approved, and listed for use in mobile homes. The proper combustion air shall be installed to supply the new water heater per Uniform Plumbing Code.

23.25.508.5 Relief valve discharge.

Replace Section 508.5 with the following:

When a water heater is installed in a garage, the water heater relief valve piping shall discharge to the floor over the edge of the platform.

23.25.508.14 Installation in residential garages.

Delete the words "unless listed as flammable vapor ignition resistant" from paragraph (1).

23.25.603.0 Cross-connection control.

Amend by adding the following:

Purpose and scope - the purpose of this section is to protect the public health by controlling or eliminating actual or potential installation of cross-connections. The control or elimination of cross-connections shall be in accordance with this code, the current edition of the cross-connection control manual published by the Pacific Northwest section of The American Water Works Association and the manual of Cross-

Connection Control published by the University of Southern California Foundation for Cross-Connection Control. In the event a conflict exists between the technical publications adopted herein and the Uniform Plumbing Code, the most stringent provision shall apply.

Unsafe facilities - the Municipality may refuse to furnish water and may discontinue services to any premises where plumbing facilities, appliances, or equipment using water are dangerous, unsafe, or not in conformity with the water utility tariff or other related municipal ordinances. No potable water service connection to any premises shall be installed or continued in use by a purveyor unless the potable water supply is protected by all necessary backflow prevention devices and assemblies. The installation or maintenance of a cross-connection, endangering the quality of the purveyor's water supply, shall be unlawful and is prohibited.

Administrative authority - the Building Official or authorized representative.

Purveyor - the operator or owner of a water supply.

Premises - real property, including any house or building thereon, located within the Municipality.

Cross-connection inspections - no water shall be delivered to any structure hereafter built within the Municipality until it is inspected by the Administrative Authority for possible cross-connections and approved as being protected from such cross-connections.

Inspections shall be made periodically of all potentially hazardous buildings, structures, or improvements of any nature now receiving water through the municipal water system, for the purpose of ascertaining whether cross-connections exist. Such inspections shall be made by the Administrative Authority.

Any building modification requiring a plumbing or mechanical permit may require a cross-connection inspection and compliance.

Possible cross-connections - backflow prevention assemblies or devices shall be installed in any premises where, in the judgment of the Administrative Authority, the nature and extent of activities, or the materials used or stored on the premises, may present a hazard to the potable water supply in the event a cross-connection were to be made; even though such cross-connection has not been made. Such circumstances include, but are not limited to:

- Premises having an auxiliary water supply.
- Premises having intricate plumbing arrangements making it impractical to ascertain whether or not cross-connections in fact exist.
- Premises where entry is restricted so inspection for cross-connections cannot be made with sufficient frequency or on sufficiently short notice to assure cross-connections do not exist.
- Premises having a repeated history of cross-connections being established or re-established.

- Premises on which any substance is handled under pressure, so as to permit entry into the water supply. This shall include the handling of process waters and cooling waters.
- Premises where materials of a toxic or hazardous nature are handled in such a way if back siphonage should occur, a health hazard might result.
- The following facilities, or portions of a building containing one of the listed facilities, when connected to a potable water supply, require backflow prevention assemblies or devices unless the authority with jurisdiction determines no hazard exists. An example of a facility within a building is a dental office in a multi-story office building. For this application, a reduced pressure principle backflow preventer is required to be installed on the hot and cold water serving the dental office and backflow prevention is not required on the main supply to the building. This protects both the city main and the occupants in the building:
  - Hospitals, mortuaries, and clinics;
  - Laboratories;
  - Metal plating industries;
  - Piers and docks;
  - Sewage treatment plants;
  - Food or beverage processing plants;
  - Chemical plants;
  - Petroleum processing or storage plants;
  - Radioactive material processing plants, nuclear reactors, or other facilities where radioactive materials may be utilized;
  - Manufacturing facilities;
  - Car wash facilities;
  - Water systems not within the definition of potable water supply;
  - Fire sprinkler systems;
  - Medical/dental facilities;
  - Waterfront facilities;
  - Irrigation systems;
  - Laundries and dry cleaners;
  - High rise or other buildings above system pressure which require booster pumps; and
  - Sand, gravel and concrete plants or other material processing plants.

23.25.603.3 General requirements.

Amend by adding a second paragraph to section **603.3.1** as follows:

Backflow assemblies and devices shall be approved if it successfully passed both the laboratory and field evaluation tests conducted by the University of Southern California Foundation for Cross-Connection Control.

23.25.603.3.9 Area drain sizing for backflow assemblies.

Delete Section 603.3.9 and replace with the following:

For new building construction, backflow devices or assemblies with drainage (reduced pressure principle assemblies) shall be provided with an area drain, as listed below.

Backflow Device Size	Area Drain Waste Line Minimum Size
1" and less	2"
1¼" – 2"	3"
2 ½" – 3"	4"
4" and greater	6"

Exception: Area drain size is not required to be larger than building sewer service line.

23.25.603.4.6.5 Lawn irrigation.

Add new paragraphs as follows:

The Uniform Plumbing Code regulates the installation of these types of plumbing systems up to and including the required type(s) of backflow preventer. A permit, plan check, and inspection is required to ensure the potable water piping is sized correctly for the number of fixture units effected by such a system and required piping material and backflow preventer(s) are installed. The installation down stream of the required backflow preventer is not regulated by the plumbing code and is considered non-potable water piping.

Installation of backflow preventers and/or vacuum breakers on public systems shall be done by a plumbing contractor properly licensed with the Municipality of Anchorage. Private installations require either a plumbing contractor or a legal owner complying with all the requirements in the Anchorage Administrative Code.

23.25.603.4.8 Water cooled compressors, degreasers.

Amend section by adding a second paragraph to read as follows:

Installation, operation or use of air conditioning or cooling units employing water or other fluid as a cooling agent without a recovery and recirculation unit is prohibited.

23.25.603.4.23 Potable water supply to dental chairs.

Add new section as follows:

603.4.23 Potable water supply to each individual dental chair shall be protected by a backflow preventer as approved by the administrative authority.

23.25.603.4.24 Hydronic heating/cooling.

Add a new section as follows:

603.4.24 Hydronic heating/cooling. Systems with heat transfer fluids containing plain water or water/propylene glycol mixture require a minimum double check valve with intermediate atmospheric vent backflow preventer to be installed on any directly connected potable

water makeup piping to the system. (A suitable example of this backflow preventer is a Watts 9D or a Hersey BCP valve.) In addition, the below listed requirements shall be complied with when a system contains propylene glycol:

1. Water/propylene mixture shall contain a food grade powder dye. (A suitable example is FD+C Powder Dye.) Liquid food coloring is not acceptable due to its potential dissipation into the system.
2. A warning tag shall be installed on the backflow preventer stating the following information:
   A. System contains propylene glycol - use no other substitute.
   B. Do not add ethylene glycol or automotive anti-freeze of any type.
   C. No high hazard toxic chemicals permitted to be added to this system.

Systems with a heat transfer fluid containing Ethylene Glycol approved for such use require minimum protection of the potable water makeup system by installation of a physical air gap or a reduced pressure principal backflow preventer.

23.25.603.4.25 Steam systems.

Add new section 603.4.25 as follows:

Due to potential addition of toxic chemicals in any steam system, the minimum protection for the potable water makeup shall be by installation of a physical air gap or a reduced pressure principal backflow preventer.

23.25.603.4.26 Cooling towers.

Add new section as follows:

603.4.26 Cooling towers. Cooling towers obtaining makeup water from a potable source shall have a reduced pressure principal backflow preventer or air gap separation installed at the source of the potable water.

23.25.603.4.27 Tall buildings over 30 feet in height.

Add new Local Amendment 23.25.603.4.27 – Tall buildings over 30 feet in height.

Buildings with water piping exceeding 30 feet in height measured from grade plane as defined by the Building Code to the highest portion of the piping system shall be equipped with a Double Check Valve Assembly on the main water supply to the building.

23.25.603.4.28 Commercial hose bibbs.

Hose bibbs within facilities with a potential for a high hazard cross-connection, such as automotive and maintenance shops and any facility where chemicals are used or stored in the vicinity of the hose bibb, shall be protected by a minimum pressure vacuum breaker or spill-resistant vacuum breaker.

23.25.604.1 Materials - water pipe and fittings.

Add a sentence to the end of 604.1 to read as follows:

Asbestos-Cement, PE, PVC, PEX-AL-PEX, PE-AL-PE and HDPE shall not be used for cold water building supply distribution systems outside a building.

23.25.604.2 Materials - copper tube.

Amend to delete the words "or underground outside of structures" in the Exception.

23.25.604.8 Materials - plastic pipe materials.

Amend by deleting paragraph 604.8 and the exception and substitute the following:

604.8 Plastic piping materials shall not be used for water service piping from the street service main, private well, or other water source to a building or premises.

23.25.605.3 Shut off valves in multi-family dwelling units.

In multi-dwelling units, one (1) or more shutoff valves shall be provided in each dwelling unit so the water supply to the entire dwelling unit can be shut off without stopping water supply to other units. These valves shall be accessible in the dwelling units that they control. Shutoff valves shall be visible and shall not exceed ten (10) feet from a crawl space access when the shutoff valves are located in a crawl space.

23.25.608.0 Water pressure, pressure regulators and pressure relief valves.

Amend by deleting paragraph 608.5 and substitute the following:

608.5 Relief valves shall be provided with a drain, not smaller than the relief valve outlet of galvanized steel or hard drawn copper pipe and fittings, CPVC or listed relief valve drain tube with fittings which shall not reduce the internal bore of the pipe tubing (straight lengths as opposed to coils), and shall extend from the valve to a floor drain or other approved location inside the building. The drain pipe shall terminate not more than two (2) feet (610 MM) nor less than six (6) inches (152 MM) above the floor drain or other approved location and point downward. No part of such drain pipe shall be trapped, and the terminal end shall not be threaded. Each relief valve drain shall be piped independently of other relief valve drains.

23.25.609.3.2 Installation.

Add exception:

Exception: Brazing shall not be required on non-pressurized, non-potable piping such as trap primers. Where joints are permitted, they shall be of the approved type.

23.25.609.3.3 Water supply accessibility.

Where the building water supply pipe enters the building within a crawlspace, it shall exit the ground or slab in an area with a minimum of forty inches (40")

clear space between ground or slab and bottom of structure, and provide an unobstructed passageway no less than forty (40) inches high and twenty-two (22) inches wide from the water supply entrance to the crawlspace access.

23.25.609.4 Testing.

Amend by deleting the words "Except for plastic piping" before "a fifty (50) pound test, to read as follows:

Upon completion of a section or of the entire hot and cold water supply system, it shall be tested and proved tight under a water pressure not less than the working pressure under which it is to be used. The water used for tests shall be obtained from a potable source of supply. A fifty (50) pound per square inch (344.5 k Pa) air pressure may be substituted for the water test. In either method of test, the piping shall withstand the test without leaking for a period of not less than fifteen (15) minutes.

23.25.609.10.1 Water hammer.

Add sentences to the end of Section 609.10 to read as follows:

Properly sized expansion tanks approved for potable water may be used in a single-family and duplex residence in lieu of water hammer arresters. Such expansion tanks must be installed on the cold water piping between the shutoff valve and each water heater maker location. In the event the expansion tanks do not eliminate the water hammer, mechanical water hammer devices will be required. Examples of quick-acting valve locations include, but are not limited to, a dishwasher, clothes washer, toilet ballcock, icemaker, and any single handle faucet.

23.25.610.8 Size of meter and building supply pipe using Table 6-6.

Amend by deleting the last sentence of section 610.8 and substitute the following:

No new street service or building supply pipe shall be less than one (1) inch (25.4 mm) in diameter.

23.25.612.0 Indoor water meter setter.

Add new sections as follows:

612.0 Indoor water meter setter.

612.1 All newly constructed single family, duplex and triplex residences shall install an approved indoor water meter setter with meter idler or a removable section of pipe to facilitate the future installation of water meters in a horizontal position. It shall be located in the vicinity of the main supply full-way valve, ahead of any branch lines and shall also be valved on the outlet side. An easily accessible frost-proof area with adequate clearances shall be provided for meter installation, maintenance or removal. "Easily accessible" shall be considered an open area not concealed by an appliance, furnace, water heater or standard building material. When the meter is installed in under floor or crawl spaces, the maximum distance from the access opening to the meter shall not exceed ten (10) feet (3048 mm).

612.2 A horizontal section of pipe may be used in lieu of the indoor meter setter provided the pipe is equal in length to a water meter of the same size including meter couplings, but in no case shall it be less than twenty-four inches (24"), (610 mm) in length. The piping shall be supported to provide a permanent support for the water meter when installed.

612.3 When the water tariff is revised to allow the metering of these residences, the utility shall furnish two meters and remote feed-outs at its expense and its crews shall install remote read-out meters at the time of actual meter installation.

23.25.704.0 Fixture connections (drainage).

Change the second sentence in paragraph 704.3 to read as follows:

"A floor drain **or flush mounted floor sink** shall be provided **within 5 feet of** the fixture, and the fixture..."

23.25.719.0 Cleanouts.

Delete first paragraph of 719.1 and substitute the following:

719.1 Cleanouts shall be placed at the end of building drains, two (2) feet (610 mm) outside building and shall be of same material as building drain.

23.25.724.0 Building drain accessibility.

Add new Local Amendment 23.25.724.0 – Building drain accessibility.

Where the building drain pipe enters in a crawl space, it shall exit the ground or slab in an area with a minimum of forty (40) inches clear space between the ground or slab and bottom of structure, and provide an unobstructed passageway no less than forty (40) inches high and twenty-two (22) inches wide from where the building drain exits the ground and the crawlspace access.

23.25.801.3 Bar and fountain sink traps.

Amend paragraph 801.3 by deleting the words "5 feet" from the last sentence and substituting the words "fifteen (15) feet."

23.25.815.0 Soda fountains, condensates, drip pans, ice machines, and other similar equipment.

Add new section as follows:

815.0 Soda fountains, condensates, drip pans, ice machines, and other similar equipment.

A. If the drain outlet for this type of equipment is below or remotely located from an approved point of disposal, the equipment may drain by gravity to a single pump, lift station receiver based on the following:

1. A "Little Giant" condensate unit or equal is acceptable for lift station receiver. The pump shall be appropriately sized for the required condition.
2. The equipment drain outlet or tailpiece may not

exceed 1" I.D.

3. The equipment drain pipe from the outlet or tailpiece to the lift station receiver shall not exceed five (5) feet measured along the centerline of the pipe and shall be piped per UPC section 803.0.
4. The discharge pipe and fittings from the lift station receiver shall be a material approved for drainage piping and shall be piped to an approved indirect waste receptor per Uniform Plumbing Code section 701.

B. Vending company employees may install the drainage piping from the equipment they install to the approved point of disposal, provided such piping is in accordance with the Uniform Plumbing Code requirements.

C. If the equipment installed requires a water supply, it shall be provided by a properly licensed plumber to within ten (10) feet of the equipment, complete with any required backflow prevention device. The vendor employee may make the water connection from that point to the equipment.

23.25.908.2 Bathroom wet venting.

Delete in its entirety.

23.25.Table 10-1 Horizontal distance of trap arms.

Add ** after Horizontal Distance of Trap Arms and add below Table 10-1 the following:

** Trap arms for residential floor drains may be extended beyond the limits of Table 10-1 to where they pass under the nearest wall before installing the required vent.

23.25.1014.1 Grease interceptors.

Amend by adding the following words to the first sentence after the words "leading from sinks":

1014.1 ..."such as pot sinks (two- and three-compartment), scullery sinks, dishwashing sinks, silverware sinks".

23.25.1017.1 Interceptors required.

Amend by deleting reference to "550 gallons" and replacing with "100 gallons".

23.25.1101.1 Where required.

Delete from the first sentence the words "or into a combined sewer system where a separate storm sewer system is not available."

Delete from the second sentence the words "In the case of one- and two-family dwellings," and "such as streets or lawns".

23.25.1101.3 Material uses.

Amend by deleting reference to "Chapter 15 Firestop Protection" and replacing

with "the Building Code".

23.25.1101.5 Subsoil drains.

Amend section 1101.5.1 by adding the following to the beginning of the section:

When required by the authority having jurisdiction…

23.25.1101.6 Building subdrains.

Amend section 1101.6 by deleting the word "public" and inserting the word "storm".

23.25.1101.9 Filling stations and motor vehicle washing establishments.

Amend section 1101.9 by adding to the beginning of the paragraph:

When required by the authority having jurisdiction…

23.25.1101.11.1 Primary roof drainage.

Delete the first sentence and replace with the following:

Roof areas of a building shall be drained by roof drains, gutters, scuppers, or sheet flow off the edge of the roof.

23.25.1101.11.2.2.2 Combined system.

Delete 1101.11.2.2.2 and replace with the following:

The secondary roof drains may connect to the horizontal portion of the primary drain a minimum of 3 feet downstream from the primary drain. Additionally, an approved flexible connector shall be installed on each roof drain per the manufacturer's installation instructions or a swing joint configuration may be used (see detail "A" of MOA Handout P.02). When this combined system is used, an overflow line must be installed in the drain line and run to the exterior of the building above grade to an appropriately designed overflow drain or scupper system to allow sheet flow from the drain line to surface in case of below grade freeze-up of main drain line or storm main. The primary storm drainage system shall connect to an underground public storm sewer or discharge to an approved location.

23.25.1108.0 Controlled-flow roof drainage.

Delete sections 1108.1 and 1108.2 in their entirety.

23.23.1109.2 Methods of testing storm drainage systems.

Delete the words "except that plastic pipe shall not be tested with air" from the first sentence.

23.25.1208.1 Temporary gas installations – permit required.

Add a new section as follows:

A. Temporary gas approval is given to allow "comfort heating" appliances to be used to provide temporary heat to a building or building site prior to the completion of the building's primary

heating system.

B. The most commonly used appliance is a natural gas portable space heater. Other comfort heat appliances allowed for temporary heat purposes are warm air furnaces, boilers, and unit heaters. It is NOT the policy of the Building Safety Division or Enstar Natural Gas Company to allow "decorator fireplaces" or "ranges" to be utilized as temporary heat for buildings. These appliances are not designed or "listed" for such purpose.

C. All appliances used to provide temporary heat for buildings shall be installed in accordance with the manufacturers' instructions and terms of their listing, with particular attention being paid to the clearances to combustibles from the top, bottom, back, and sides of these appliances.

D. Unit heaters used for temporary heat shall be installed per manufacturers' instructions and listed clearances to combustibles from the top, bottom, front, back, and sides of these appliances. The vent connector shall be graded at one-quarter inch (1/4") per foot slope upward to the outside and it shall be changed to "B" vent at the wall penetration. The "B" vent must maintain its listed clearance to combustibles, extend a minimum of five (5) feet vertically, and be secured.

E. Furnaces used for temporary heat shall comply with the same requirements as for unit heaters as stated above. In addition, the return air for the furnace shall be ducted a minimum of ten (10) feet from the furnace.

F. Portable space heaters shall be provided with one hundred percent (100%) outside air to the back end of the heater. In most cases, the gas regulator attached to these heaters shall be piped to the outside. If the regulator vent discharges, it shall not be allowed to discharge into the space being heated.

G. Gas hose used for temporary heaters shall be a type approved by the Building Safety Division and all manufacturers' listed clearances shall be maintained. The hose shall have an internal wire mesh or braid and be "kink proof". Supporting wire shall run the full length of the hose. Each time a hose is moved from one lot to another, it shall be retested with sixty (60) psi air pressure.

23.25.1208.2 Temporary gas installations – permit not required.

A permit and inspection shall not be required for residential temporary construction heat serving tented footings and foundations. This provision is for thawing ground and curing concrete, not comfort heat for workers, such as plumbers installing underground. This allowance is limited to portable "SURE FLAME" type heaters and not intended for unit heaters, furnaces, and boilers with special venting considerations. All heaters and hoses shall be of the approved type. Heaters shall be listed by an approved listing agency. All hoses shall have an internal wire mesh or braid, and be "kink proof". Supporting wire shall run the full length of the hose. One hundred percent (100%) outside air shall be provided to heater at all times. Listed clearances to combustibles shall

be maintained. A licensed journeyman plumber or gasfitter shall perform all work.

23.25.1209.5.8.1 Pipe joints.

Amend by adding the following at the end of the paragraph:

All joints in underground ferrous piping shall be welded when any of the following conditions apply:

1. The nominal pipe diameter is 2 ½ inches or larger.
2. The pipe is installed under a driveway.
3. Medium pressure systems.

23.25.1209.5.8.2 Tubing joints.

Amend by adding the following sentences at the end of the paragraph:

All joints in underground copper shall be brazed with wrought copper fittings. No underground joints shall be permitted unless the underground length of run exceeds sixty (60) feet. All pipe to tubing transitions shall be made above ground.

23.25.1209.5.8.4(2) Metallic piping joints and fittings.

Amend Item 2 by deleting the words "cast iron".

Delete Item 5.

Add a new Item 9 as follows:

9. Right and left nipple couplings. Where unions are necessary, right and left nipples and couplings shall be used. Ground joint unions may be used at exposed fixture, appliance, or equipment connections and in exposed exterior locations immediately on the discharge side of a building shutoff valve.

23.25.1211.1.2(A) Cover requirements.

Amend by adding the following sentence to the end of the paragraph:

Plastic and copper gas piping shall have at least eighteen inches (18") of earth cover or other equivalent protection.

23.25.1211.1.5 Piping through foundation wall.

Delete paragraph in its entirety and replace with the following:

Building fuel gas piping entrances and exits shall be located above grade or in an approved vented vault.

23.25.1211.1.8 Ground penetrations.

Add a new section as follows:

1211.1.8 Ground penetrations. At all points where fuel gas piping enters or leaves the ground, there shall be installed, above ground, an approved or listed fuel gas piping connector, capable of absorbing a six-inch (6") displacement, in any direction, due to frost heave action.

23.25.1211.1.9 Fuel gas piping connectors.

Add a new section as follows:

1211.1.9 Fuel gas piping connections. Fuel gas piping connectors

listed for outdoor use may be used between the meter and house main. No flex connector may pass through any wall, partition, panel, or other barrier. Solid fittings shall be used on each end.

23.25.1211.1.10 Frost heave protection for copper tubing.

Add a new section as follows:

1211.1.10 Frost heave protection for copper tubing. At points where copper tubing type systems enter or leave the ground, the systems shall be protected from frost heave action by the incorporation of a suitable above ground six-inch radius loop, or listed fuel gas piping connector of equal size.

23.25.1211.5.1(3) Manufactured home connections.

Add the following item to the section:

3. Pounds to inches water column regulators serving mobile homes and connected to copper tubing shall be attached to the exterior of the mobile home, and shall not be located under the mobile home.

23.25.1211.5.5 Medium pressure gas.

Add a new section as follows:

1211.5.5.1 Medium pressure gas. The installation of a medium pressure gas system (2 psig or 5 psig) within a building must be pre-approved by the local gas utility. Steel piping shall be welded. Test pressure for all medium pressure gas piping shall be 60 psig.

1211.5.5.2 CSST medium pressure gas. The installation of a CSST medium pressure gas system (2 psig or 5 psig) within a building must be preapproved by the local gas utility. Test pressure for all medium pressure gas piping shall be 60 psig. Joints shall be limited to the meter connection and at the regulator to the appliance being served. Intermediate joints are not allowed without prior approval.

23.25.1214.3.2 Test pressure.

Replace the reference to "1 ½" with "ten (10)".

Replace the minimum test pressure of three (3) psig with ten (10) psig and add the following sentences at the end of the paragraph:

Required pressure tests of ten (10) psig shall be performed with gauges of 1/10 psi increments or less.

Welded pipe shall be tested with not less than sixty (60) psig test pressures.

23.25.1301.1 Application.

Amend by adding to the end of the first sentence the words "or in accordance with the latest version of AIA Guidelines for Design and Construction of Hospital and Health Care Facilities."

23.25.1309.0 Veterinary clinics.

Amend by adding new section:

23.25.1309.1.1 Veterinary clinics. The material requirements, installation, and testing practices of NFPA 99 for Level 3 gas and vacuum systems shall apply to veterinary clinics except third party verification is not required.

23.25.1309.8 Vacuum systems for dental offices.

Amend by adding new section:

23.25.1309.8 Vacuum systems for dental offices. The purpose of this amendment is to point out and clarify the requirements for wet vacuum systems in dental offices. Refer to NFPA 99C (most current edition) [NFPA 99 5.3.10] for full text of these requirements.

A. Level 3 wet vacuum systems (in dental offices) may be installed using schedule 40 PVC with pressure fittings [NFPA 99 5.3.10.2 and 5.3.10.3]. Piping and fittings installed in plenums shall have a flame spread index of not more than 25 and a smoke developed rating of not more than 50.

B. The wet vacuum system (in dental offices) is considered a Level 3 system if:

1. The system is entirely separate from other Level 1 systems.
2. The occupancy to be served and the function of the occupancy is distinct from other occupancies in the building.
3. The patient population, during or subsequent to treatment, are not dependent for life on the vacuum system, and the treatment the facility performs may be completed without detrimental effect on patient outcomes in the event of sudden loss of vacuum systems [NFPA 99 Chapter 18].

C. The wet vacuum system (in dental offices) shall be verified by a third party technically competent and experienced in the field of Level 3 vacuum systems and testing, and meeting the requirements of ANSI/ASSE Standard 6030 [NFPA 5.3.12.3].

23.25.1310.3.1 Definitions – health care facilities.

Health Care Facilities – Buildings or portions or buildings in which medical, dental, psychiatric, nursing, obstetrical or surgical care is provided.

CHAPTER 23.30 LOCAL AMENDMENTS TO THE NATIONAL ELECTRICAL CODE 2008 EDITION.

23.30.010	Local amendments to the National Electrical Code 2008 Edition.
23.30.020	Certificate of fitness- right to inspection.
23.30.210.7	Branch circuit requirements for device connections and locations.
23.30.210.12(B)	Dwelling units.
23.30.210.23(E)	Outlets per circuit.
23.30.210.52(I)	Parking spaces.

23.30.210.52(J)	Underfloor (crawl) spaces.
23.30.230.1	Scope.
23.30.230.32	Protection against damage.
23.30.230.70(A)(1)	Disconnect at readily accessible location.
23.30.230.70(A)(3)	Remote control.
23.30.230.70(B)	Marking.
23.30.250.52(A)(1)	Metal underground water pipes.
23.30.250.53(D)(2)	Metal underground water pipes.
23.30.250.118	Types of equipment grounding conductors.
23.30.300.4(H)	Protection against physical damage.
23.30.300.5(L)	Separation from other systems.
23.30.300.24	Cold Temperature Installations.
23.30. 330.40	Insulating bushing
23.30. 334.10	Uses permitted.
23.30.334.104	Conductors.
23.30.410.17	Other closet or storage spaces.
23.30.445.18	Disconnecting means required for generators.
23.30.511.3 (C)(1)	Major repair garages, floor areas.
23.30.511.3 (C)(1)(a)	Floor areas; ventilation provided.
23.30.511.3 (C)(1)(b)	Floor areas; ventilation not provided.
23.30.511.3 (C)(2)(a)	Ceiling areas; ventilation provided.
23.30.511.3 (D)(1)	Minor repair garages, floor areas.
23.30.511.3 (D)(1)(a)	Floor areas; ventilation provided.
23.30.511.3 (D)(1)(b)	Floor areas; ventilation not provided.
23.30.511.3 (E)(1)	Modifications to classification, specific areas adjacent.

23.30.010 Local amendments to the National Electrical Code 2008 Edition.

The amendments to the 2008 edition of the National Electrical Code are listed here by section. The last digits of the number after the title and chapter digits are the article and section of the National Electrical Code to which the amendment refers, i.e., 23.30.210.8(A) refers to section 210.8(A) of the National Electrical Code, 2008 Edition.

23.30.020 Certificate of fitness- right to inspection.

Municipal electrical inspectors may contact any electrical worker performing work for which a certificate of fitness is required by Alaska Statue 18.62.070 and request the person to exhibit their certificate of fitness or trainee certificate of fitness. The inspector may immediately serve upon that person a notice to cease any further work in that occupation until the person has demonstrated possession of the required certificate.

23.30.210.7 Branch circuit requirements for device connections and locations.

Add a fine print note before (A):

"FPN: Refer to Municipality of Anchorage Amendments to the International Mechanical Code 23.20.304.3, which limits installation of

mechanical and electrical devices capable of generating a spark, glow or flame in some areas.

23.30.210.12(B) Dwelling units.

Add a second sentence:

"Similar rooms and areas do not include: Kitchens, bathrooms, or laundry rooms which are separate from areas which would otherwise require protection."

23.30.210.23(E) Outlets per circuit.

Add a subsection (E) to section 210.23:

(E) Outlets per circuit. In dwelling units, no more than thirteen (13) outlets are allowed on one branch circuit. All smoke detectors on a circuit may be counted as a total of one outlet. Appliance circuits are limited to six (6) duplex receptacles per circuit.

Exception: Fixed lighting circuits designed to meet the appropriate sections of the code.

23.30.210.52(I) Parking spaces.

Add a new subsection (I):

(I) Parking spaces. For each dwelling unit and mobile home, there shall be at least one (1) exterior G.F.C.I protected duplex outlet on a separate 20-ampere circuit adjacent to on-site parking locations.

Exception: For multi-family dwellings, eight-plex and larger where indoor parking is provided, the required number of exterior duplex receptacles may be reduced by the number of indoor heated parking locations.

23.30.210.52(J) Underfloor (crawl) spaces.

Add a new subsection (J):

(J) A receptacle shall be provided in each unconnected space; the receptacle shall be located adjacent to a sump when one is provided.

23.30.230.1 Scope.

Add a second sentence:

The service installation shall also conform to the written electric service requirements of the utility serving the area.

23.30.230.32 Protection against damage.

Add a second paragraph:

Physical protection of underground service laterals for residential services of 200 amperes and less shall consist of not more than nine feet of liquid tight flexible metal conduit.

23.30.230.70(A)(1) Disconnect at readily accessible location.

Add a second paragraph:

The service disconnecting means shall be operable from the exterior of the building if the service disconnect is within the building. A fire pump service disconnect is not required to be operable from the exterior of the building.

23.30.230.70(A)(3) Remote control.

Revise the section to read:

Where a remote control device(s) is used to actuate the service disconnecting means, the service disconnecting means shall be located in accordance with section 230.70(A)(1). The control device shall meet the requirements of the electrical utility and Building Safety Policy E.04 Electrical Disconnects.

23.30.230.70(B) Marking.

Add a sentence to end of the section:

Identification signage shall meet the requirements of Building Safety Policy E.04 Electrical Disconnects

23.30.250.52(A)(1) Metal underground water pipes.

Delete the exception:

Exception: In industrial, commercial and institutional buildings where conditions of maintenance and supervision ensure that only qualified persons service the installation, interior metal water piping located more than1.52 meters (5ft) from the point of entrance to the building shall be permitted as part of the grounding electrode system or as a conductor to interconnect electrodes that are part of the grounding electrode system, provided that the entire length, other than short sections passing perpendicular through walls, floors or ceilings, of the interior metal water pipe that is being used for the conductor is exposed.

23.30.250.53(D)(2) Metal underground water pipes.

Delete the Exception:

Exception: The supplemental electrode shall be permitted to be bonded to the interior metal water piping at any convenient point as covered in 250.52(A)(1), Exception.

23.30.250.118 Types of equipment grounding conductors.

Delete subsections (2) thru (14) and replace with:

(2) The copper sheath of mineral insulated, metal-sheathed cable.

(3) Metal enclosures of busways listed for grounding.

23.30.300.4(H) Protection against physical damage.

Add a new subsection (H):

(H) Roofs. Raceways run on the surface of a roof or subject to damage from snow, ice, or foot traffic, shall be rigid metal or intermediate metal conduit only.

23.30.300.5(L) Separation from other systems.

Add a new subsection (L):

(L) When direct buried cables or conductors cross or are installed parallel to sewers, water lines, gas or other fuel lines, steam lines, communication and utility electric cables or conductors, a 300 mm (12 inch) radial separation shall be maintained.

23.30.300.24 Cold Temperature Installations.

Add a section 300.24:

300.24 Cold temperature installations: Thermoplastic type insulated wires or cables, or non-metallic tubing shall not be installed when ambient temperatures are less than -7C (20F).

23.30. 330.40 Insulating bushing.

Amend by adding the following words to the end of the paragraph:

An insulated bushing or its equivalent protection shall be provided between the conductors and the outer metal sheath and must be visible for inspection.

23.30. 334.10 Uses permitted.

Delete the following subsection:

(3) Other structures permitted to be of Types III, IV and V construction except as prohibited in 334.12. Cables shall be concealed within walls, floors, or ceilings that provide a thermal barrier of material that has at least a 15-minute finish rating as identified in listings of fire-rated assemblies.

23.30.334.104 Conductors.

Replace the section with:

The insulated power conductors shall be sizes 14 AWG through 2 AWG with copper conductors or sizes 10 AWG through 2 AWG with aluminum or copper-clad aluminum conductors. Conductors supplying receptacles shall be minimum size 12 AWG copper conductors or sizes 10 AWG with aluminum or copper-clad aluminum conductors. The communication conductors shall comply with Part V of Article 800.

23.30.410.17 Other closet or storage spaces.

Add a new section 410.17:

410.17 Other closet or storage spaces. Luminaries shall meet the location requirements for clothes closets or be of a totally enclosed fluorescent or LED type.

23.30.445.18 Disconnecting means required for generators.

Add a sentence to the end of the section as follows:

Generator disconnecting means shall conform to the requirements of 23.30.230.70(A)(1) and 23.30.230.70(A)(3).

23.30.511.3 (C)(1) Major repair garages, floor areas.

Add a sentence as follows:

The entire floor area up to a level of 450 mm (18 in.) above the floor shall be classified as Class I, Division 2.

23.30.511.3 (C)(1)(a) Floor areas; ventilation provided.

Delete subsection (a):

(a) Ventilation Provided. The floor area shall be unclassified where there is mechanical ventilation providing a minimum of four air changes per hour per hour or one cubic foot per minute of exchanged air for each square foot of floor area. Ventilation shall provide for air exchange across the entire floor area, and exhaust air shall be taken at a point within 0.3 m (12 in.) of the floor.

23.30.511.3 (C)(1)(b) Floor areas; ventilation not provided.

Delete subsection (b):

(b) Ventilation Not Provided. The entire floor area up to a level of 450mm (18 in.) above the floor shall be classified as Class I, Division 2 if the ventilation does not comply with 511.3(C)(1)(a).

23.30.511.3 (C)(2)(a) Ceiling areas; ventilation provided.

Replace the subsection (a) with:

(a) Ventilation Provided. For existing buildings only, the ceiling areas shall be unclassified where ventilation is provided, from a point not less than 450 mm (18 in.) from the highest point in the ceiling to exhaust the ceiling area at a rate of not less than $0.3m^3/min/m^2$ (1 cfm/ft^2) of ceiling area at all times that the building is occupied or when vehicles using lighter-than-air gaseous fuels are parked below this area.

23.30.511.3 (D)(1) Minor repair garages, floor areas.

Replace subsection (1) with:

(1) In minor repair garages without pits, below grade work areas, or subfloor work areas the entire floor area up to a level of 450 mm (18 in.) shall be classified as Class I, Division 2.

23.30.511.3 (D)(1)(a) Floor areas; ventilation provided.

Delete subsection (a):

(a) Ventilation Provided. The floor area shall be unclassified where there is mechanical ventilation providing a minimum of four air changes per hour per hour or one cubic foot per minute of exchanged air for each square foot of floor area. Ventilation shall provide for air exchange across the entire floor area, and exhaust air shall be taken at a point within 0.3 m (12 in.) of the floor.

23.30.511.3 (D)(1)(b) Floor areas; ventilation not provided.

Delete subsection (b):

(b) Ventilation Not Provided. The floor area up to a level of 450mm

(18 in.) above any unventilated pit, below grade work area, or subfloor work area and extending a distance of 900mm (3 ft) horizontally from the edge of any such pit, below grade work area, or subfloor work area, shall be classified as Class I, Division 2.

23.30.511.3 (E)(1) Modifications to classification, specific areas adjacent.

Replace subsection with the following:

(1) Areas less than 300 square feet adjacent to classified locations in which flammable vapors are not likely to be released such as stock rooms, switchboard rooms, and other similar locations, shall be unclassified where mechanically ventilated at a rate of four or more air changes per hour, or designed with positive air pressure, or where effectively cut off by walls or partitions.

CHAPTER 23.45 LOCAL AMENDMENTS TO THE INTERNATIONAL FIRE CODE 2009 EDITION

23.45.100	Local amendments to International Fire Code, 2009 Edition.
23.45.102.1	Construction and design provisions.
23.45.105.6	Required operational permits.
23.45.308.1.4	Open-flame cooking devices.
23.45.308.3.1.1	Liquefied-petroleum-gas-fueled cooking devices.
23.45.311.1.1	Abandoned premises.
23.45.401.3	Emergency forces notification.
23.45.405	Emergency evacuation drills.
23.45.408.5.5	Group I-1 resident participation
23.45.408.10.5	Group R-4 resident participation
23.45.408.12	Occupants needing physical assistance
23.45.502	Definitions.
23.45.503	Fire apparatus access roads
23.45.507.2	Type of water supply
23.45.607.1	Emergency operation
23.45.607.1.1	Compliance date
23.45.901.6.2	Records
23.45.903.2.3	Group E.
23.45.903.2.6	Group I.
23.45.903.2.11	Specific building areas and hazards.
23.45.903.3.5	Water supplies.
23.45.903.4.1	Monitoring.
23.45.906.1	Where required.
23.45.907.1.2	Fire alarm shop drawings.
23.45.907.2.1	Group A.
23.45.907.2.2	Group B.
23.45.907.2.2.1	Group B ambulatory health care facilities.
23.45.907.2.3	Group E.
23.45.907.2.4	Group F.
23.45.907.2.7	Group M.
23.45.907.2.8.1	Group R-1: Manual fire alarm system.

23.45.907.2.9.1	Group R-2: Manual fire alarm system.
23.45.907.7.5	Monitoring.
23.45.908	Emergency alarm systems.
23.45.1008.1.9.7	Delayed egress locks.
23.45.1102.1	Definitions.
23.45.1106.3	Construction of aircraft-fueling vehicles and accessories.
23.45.2211.2.3	Drainage and disposal of liquids and oil-soaked waste.
23.45.2403.5	Use period.
23.45.2404.15	Heating and cooking equipment.
23.45.4603.2	Elevator operation.
23.45.4603.4	Sprinkler systems.
23.45.4603.4	Sprinkler systems.
23.45.4603.6	Fire alarm systems.
23.45.4603.6.5.1	Group R-1 hotel and motel manual fire alarm system.
23.45.Chapter 47	
23.45.Appendices	
23.45.D102.1	Access and loading.
23.45.D107.1	One- or two-family dwelling residential developments.
23.45.APPENDIX K	

23.45.100 Local amendments to the International Fire Code, 2009 Edition.

The amendments to the 2009 Edition of the International Fire Code are listed hereinafter by section. The last digits of the section number (after the title and chapter digits) refer to the section of the International Fire Code to which the amendment applies, i.e., 23.45.103.3.1.1 refers to section 103.3.1.1 of the International Fire Code (2009 Edition).
The 2009 International Fire Code and its Appendices, except for Appendix A and Appendix H, shall be adopted as amended.

23.45.102.1 Construction and design provisions.
Add the following to the end of Item 3:

> ...except in reference to voluntary upgrades, as defined and governed by the adopted International Existing Building Code (IEBC) per AMC chapter 23.65.

23.45.105.6 Required operational permits.
Amend **105.6** by adding a new subsection:

> **105.6.47 Connection to municipal fire alarm.** An operation permit is required to connect a private fire alarm system to the municipal fire alarm circuit.

23.45.308.1.4 Open-flame cooking devices.
After the word "operated" add "or stored".
After the words "combustible balconies" add "and decks".

23.45.308.3.1.1 Liquefied-petroleum-gas-fueled cooking devices.
After the words "combustible balconies" add "and decks".

23.45.311.1.1 Abandoned premises.
Amend paragraph by deleting reference to "the International Property Maintenance Code".

23.45.401.3 Emergency forces notification.
Amend by adding new subsection 401.3.4 to read as follows:

401.3.4 False alarm charges. The owner of a building containing a fire alarm or fire protection system shall pay a charge in accordance with section AMC section 8.40.040 for each and every false alarm to which the fire department responds.

As used in this section, *"false alarm"* means an alarm signal generated by a fire alarm system reporting an alarm for which no fire or emergency actually exists, and includes system malfunctions, faulty operation of detectors, and false alarms not classified above. It does not include incidents where the detector or system operated as designed, such as but not limited to, a smoke detector sounding from someone smoking under the detector or a manual pull station being pulled.

23.45.405 Emergency evacuation drills.
Amend by adding a new subsection 405.10 to read as follows:

405.10 False alarm. False alarms may not be counted as a fire drill for the purposes of this section.

23.45.408.5.5 Group I-1 resident participation.
Amend by adding the following sentence at the end of section 408.5.5:

Occupants needing physical assistance from staff or others to respond to emergencies shall also comply with section 23.45.408.12.

23.45.408.10.5 Group R-4 resident participation.
Amend by adding the following sentence at the end of section 408.10.5:

Occupants needing physical assistance from staff or others to respond to emergencies shall also comply with section 23.45.408.12.

23.45.408.12 Occupants needing physical assistance.
Amend 408 by adding new sections as follows:

408.12 Occupants needing physical assistance. Facilities housing occupants needing physical assistance shall comply with sections 408.12.1 through 408.12.4.3.

408.12.1 Applicability. The provisions of this section apply to Group I-1 institutional and Group R-3 and R-4 residential care/assisted living facilities where the occupants need physical assistance from staff or others to respond to an emergency.

408.12.2 Definitions. *Evacuation capability* means the ability

of occupants, residents, and staff as a group either to evacuate a building or to relocate from the point of occupancy to a point of safety; *point of safety* means a location (a) exterior to and away from a building or (b) within a building of any type construction protected throughout by an approved automatic sprinkler system; and is either (1) within an exit enclosure meeting the requirements of section 1022 or (2) within another portion of the building separated by smoke partitions meeting the requirements of IBC section 710, with not less than one half hour fire resistance rating, and the portion of the building has access to a means of escape or exit conforming to the requirements of this code and does not require return to the area of the fire.

Prompt evacuation capability means a group has the ability to move reliably to a point of safety in a manner equivalent to the ability of a household in the general population as measured under section 408.12.3.

Slow evacuation capability means a group has the ability to move reliably to a point of safety in a manner not as rapid as members of a household in the general population, as measured under section 408.12.3.

Impractical evacuation capability means a group does not have the ability to reliably move to a point of safety in a timely manner as measured under section 408.12.3.

408.12.3 Fire drills. A fire drill conducted by the fire official or other approved licensee shall make the initial determination of evacuation capability. Changes to the evacuation capability shall be based on a record of drills conducted by the facility and recorded for review by the fire official or other licensing official. The drills shall be conducted six (6) times a year on a bimonthly basis, with at least two (2) drills conducted during the night when residents are sleeping. Records shall indicate the time taken to reach a point of safety, date and time of the drill, location of simulated fire origin, escape paths used, and comments relating to residents who resisted or failed to participate in the drills. The relation of drill time to evacuation capability is as follows:

1. Three (3) minutes or less – prompt;
2. Over three (3) minutes but under 14 minutes – slow; or
3. Fourteen (14) minutes or more – impractical.

408.12.4 Evacuation capability and fire protection requirements. Fire protection requirements of a facility under this section are as follows:

408.12.4.1 Prompt evacuation capability. Evacuation capability of three minutes or less indicates prompt evacuation capability. In facilities maintaining prompt evacuation capability, the requirements of the code for Groups I-1 or R-4 occupancies shall be followed.

408.12.4.2 Slow evacuation capability. Evacuation capability of more than three but less than 14 minutes indicates slow evacuation capability. In facilities maintaining slow evacuation capability, the facility must be protected by (a) an automatic smoke detection system, using addressable smoke detectors, designed and installed in accordance with the provisions of this code and NFPA 72; and (b) an automatic sprinkler system, with quick response or residential sprinklers, installed in accordance with section 903.3.1.2 and NFPA 13R. A sprinkler system designed and installed in accordance with IFC 903.3.1.3 and NFPA 13D shall be allowed, provided it is equipped with a minimum 30 minute water supply.

408.12.4.3 Impractical evacuation capability. Evacuation capability of fourteen minutes or more indicates impractical evacuation capability. In facilities maintaining impractical evacuation capability, the facility must be protected by (a) the protections for a facility with slow evacuation capability under section 408.12.4.2; (b) one-half hour fire-resistive construction throughout the facility; and (c) direct egress from sleeping rooms for occupants needing evacuation assistance either (1) to the exterior at grade level, to an exterior porch or landing via a thirty-six (36) inch wide door; or (2) if the sleeping rooms are separated from the rest of the building by smoke partitions installed in accordance with IBC section 710, by egress windows conforming to the provisions of IBC Section 1029.

23.45.502 Definitions.

Amend 502 by adding definition for driveway:

Driveway - a vehicular ingress and egress route serving no more than five dwelling units or two unoccupied buildings or structures each with an area less than 1500 square feet.

23.45.503 Fire apparatus access roads.

Amend 503 by adding at the end of 503.1 a new sentence to read as follows:

503.1 Driveways required by section 503.7 shall be installed and arranged in accordance with sections 503.7.1 through 503.7.5.

Amend 503 by adding new section 503.7 as follows:

503.7 Driveways. Driveways shall be provided when any portion of an exterior wall of the first story of a building is located more than 150 feet (45720 mm) from a fire apparatus access road.

Exception: Where driveways cannot be installed because of topography, railways, waterways, non-negotiable grades or other similar conditions, the fire code official is authorized to require additional fire protection.

503.7.1 Dimensions. Driveways shall provide a minimum unobstructed width of 12 feet (3658 mm) and a minimum unobstructed height of 13 feet 6 inches (4115 mm).

503.7.2 Length. Driveways in excess of 150 feet (45720 mm) in length shall be provided with turnarounds. Driveways in excess of 200 feet (60960 mm) in length and less then 20 feet (6096 mm) in width shall be provided with turnouts in addition to turnarounds.

503.7.3 Service limitations. A driveway shall not serve in excess of five dwelling units, or two unoccupied buildings or structures each with an area less than 1500 square feet.

Exception: When such driveways meet the requirements for fire apparatus access roads in accordance with sections 503.1 through 503.6.

503.7.4 Turnarounds. The design for driveway turnarounds shall be approved by the fire code official.

503.7.5 Turnouts. Driveway turnouts shall be an all-weather road surface at least 10 feet (3048 mm) wide and 30 feet (9144 mm) long. Driveway turnouts shall be located as required by the fire code official.

23.45.507.2 Type of water supply.

Amend by adding a second paragraph and a new exception to 507.2 to read as follows:

The water system shall be designed to the standards of, and have the approval of the water utility providing service in the area. If the water system for a structure is not in an area served by a water utility, it shall meet the standards of the nearest water utility.

Exception: In areas of jurisdiction not served by a water utility, the requirements for water systems as outlined in section 507 need not be met, provided all structures other than structures regulated by the IRC and U occupancies are at least type A construction as defined in the International Building Code, 2009 Edition, or are provided with an approved sprinkler system in accordance with section 903.

23.45.607.1 Emergency operation.

Amend section 607.1 by deleting the first sentence in section 607.1 and replace with:

Existing elevators with a travel distance of 25 feet (7620 mm) or more above or below the main floor or other level of a building and intended to serve the needs of emergency personnel for fire-fighting or rescue purposes shall comply with the requirements in chapter 46.

Amend section 607.1 by adding subsection 607.1.1.

23.45.607.1.1 Compliance date.

Buildings where the elevator(s) have a rise of 75 feet or greater shall have

until January 1, 2016 to comply with 607.1. Buildings where the elevator(s) fall within the scope of 607.1 and have a rise of less than 75 feet shall have until January 1, 2018 to comply with 607.1.

23.45.901.6.2 Records.

Amend section 901.6.2 by deleting "upon request" and replacing it with "in accordance with appendix K".

23.45.903.2.3 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.

23.45.903.2.6 Group I.

Delete the exception and replace with:

Exception: Group I-1 facilities shall be protected throughout with an automatic sprinkler system designed and installed in accordance with 903.3.1.1 or 903.3.1.2. Existing group I-1 facilities with a previously approved and installed sprinkler system designed in accordance with NFPA 13D and 903.3.1.3 shall be considered as in compliance.

23.45.903.2.11 Specific building areas and hazards.

Amend by adding the following subsection:

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.

23.45.903.3.5 Water supplies.

Amend by adding new subsection 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 psi minimum safety factor at the water source. Hydrant flow test shall be witnessed by the fire code official or their designee.

23.45.903.4.1 Monitoring.
Amend section by adding the following new sentence to the end of the first paragraph.

Central stations, remote stations, or proprietary monitoring stations shall be located within the Municipality or shall have a local representative capable of responding to the location within sixty (60) minutes of notification.

23.45.906.1 Where required.
Revise by deleting the Exception under item 1.

23.45.907.1.2 Fire alarm shop drawings.
Amend section by adding the following construction drawing to the list of those required to be submitted:

14. System riser diagrams.

23.45.907.2.1 Group A.
Delete Exception.

23.45.907.2.2 Group B.
Delete Exception.

23.45.907.2.2.1 Group B ambulatory health care facilities.
Delete Exception.

23.45.907.2.3 Group E.
Delete Exceptions #2 & #3.

23.45.907.2.4 Group F.
Delete Exception.

23.45.907.2.7 Group M.
Delete Exceptions #1 & #2.

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

23.45.907.2.9.1 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.

23.45.907.7.5 Monitoring.
Amend by adding a new subsection to read as follows:

907.7.5.2 Connection to municipal fire alarm circuit.

A. A person having a private fire alarm system for one building may connect the system to a municipal fire alarm circuit, or directly connect the system to the fire department communications center, after obtaining a permit for the connection from the fire chief. The fire chief may issue a permit for the connection if it is determined the connection:
   1. Is compatible with the municipal fire alarm circuit or system.
   2. Connects an adequate, properly installed and maintained private alarm system.
   3. Substantially benefits the municipal fire prevention system.

B. The permit required by this section shall be issued subject to the Fire Department rules and regulations and shall be conditional upon such reasonable requirements, terms, and conditions as the fire chief may require.

C. A permit may be revoked by the fire chief for noncompliance with the permit standards, rules, regulations, conditions, or restrictions. The permit may be revoked by the fire chief if, in the fire chief's discretion, it is found the disconnection of the private alarm system is in the best interests of the Municipality. The permit holder may appeal a decision to revoke a permit to the Building Board.

D. The permit holder shall pay the Municipality for the cost of a radio fire alarm box or for covering an existing radio fire alarm box, and for the cost of the initial hookup (one box per building). The permit holder shall pay the cost of providing, installing and maintaining the private system, up to the radio fire alarm box. The maintenance of the private system shall be by a qualified person engaged in the business of installing and maintaining a supervisory fire alarm system, who shall use NFPA 72 as an installation and maintenance standard.

E. It shall be unlawful for a person not authorized by the fire chief to connect or disconnect, temporarily or otherwise, a private fire alarm system, or other wires or conduits leading to a municipal fire alarm circuit or municipal fire system. The fire chief shall authorize specific connection or disconnection by written permit.

F. The permit holder shall pay the following fees for the connection of the private fire alarm system, for one building, to the municipal fire system:
   1. Permit Fee $10.
   2. Initial Connection Fee $150.
   3. Annual Inspection Fee $1,200.

G. It shall be unlawful for any person, firm, association, or corporation to do any act prohibited under this section or to fail to do any act required under this section. Any person, firm, association, and/or corporation violating this section shall be guilty of a misdemeanor and shall be subject to the penalties

and remedies set forth in section 23.10.025.

23.45.908 Emergency alarm systems.

Add new section in section 908 Emergency Alarm Systems:

908.7 Carbon monoxide detectors. The provisions of this section shall apply to Group I-1, R-2, R-3 and R-4 occupancies and Group E daycare facilities. At least one (1) carbon monoxide detector shall be installed on each floor level. If a floor level contains bedrooms or sleeping rooms, at least one (1) detector shall be located in the immediate vicinity of the sleeping area, outside of the bedrooms/sleeping rooms.

Carbon monoxide detectors shall be listed and installed in accordance with their listing. The alarm shall be clearly audible in all sleeping rooms with intervening doors closed.

Exceptions:

1. Carbon monoxide detectors are not required in dwelling units and structures with no combustion appliances and with no attached garage.
2. Carbon monoxide detectors are not required in dwelling units and structures with only direct vent combustion appliances and with no attached garage.
3. Carbon monoxide detectors are not required in Group 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 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 detectors 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 units.

908.7.2 Power source. In new construction, carbon monoxide detectors shall receive their primary power from the building wiring where such wiring is served from a commercial source and shall be equipped with a battery backup. Wiring shall be permanent and without disconnecting switch other than those required for overcurrent protection. Carbon monoxide detectors shall be permitted to be cord-and-plug type with battery backup, or battery powered in existing construction.

23.45.1008.1.9.7 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.

23.45.1102.1 Definitions.

The first sentence of the definition of "***Airport***" is revised to delete the words:

...with an overall length greater than 39 feet (11887mm) and an overall exterior fuselage width greater than 6.6 feet (2012mm).

23.45.1106.3 Construction of aircraft-fueling vehicles and accessories.

Revise 1106.3 by adding a new exception to read:

Exception: A vehicle or trailer tank with a capacity of 250 gallons or less may be used for non-commercial refueling of private non-commercial aircraft provided:

1. The tank is placarded with no smoking signs, the type of fuel contained in the tank, and the tank capacity;
2. The tank and all appurtenances used in the fueling operation are listed and approved for the specific purpose;
3. Electrical bonding is provided as required under Section 1106.3.7.
4. Provide two (2) listed portable fire extinguishers complying with section 906, each having a minimum rating of 20-B:C. A portable fire extinguisher shall be readily accessible from either side.

23.45.2211.2.3 Drainage and disposal of liquids and oil-soaked waste.

Subsection 2211.2.3, first paragraph of the International Fire Code is revised by adding a sentence to read:

Where oil separators or traps are provided, neither the oil nor water phase may drain to septic systems, dry wells, or other means of underground discharge.

23.45.2403.5 Use period.

Add a new exception to read as follows:

Exception: Seasonal Use Structures permitted under AMC section 23.10.104.2.

23.45.2404.15 Heating and cooking equipment.

Amend IFC section 2404.15 by adding at the end of the sentence:

...unless as otherwise approved by the fire code official.

23.45.4603.2 Elevator operation.

Amend section 4603.2 by adding a subsection 4603.2.1.

4603.2.1 Compliance date. Buildings where the elevator(s) have a rise of 75 feet or greater shall have until January 1, 2016 to comply with 4603.2. Buildings where the elevator(s) fall within the scope of 4603.2 and have a rise of less than 75 feet shall have until January 1, 2018 to comply with 4603.2.

23.45.4603.4 Sprinkler systems.
Add two new subsections as follows:

4603.4.3 Group E occupancies. An approved automatic fire extinguishing or fire sprinkler system shall be installed in a Group E occupancy in accordance with section 903.2.3 as amended, whenever additions or level 2 or level 3 alterations are made to an existing structure containing an E Occupancy.

4603.4.4 Pit sprinklers. Sprinklers shall be installed in the bottom of all existing elevator pits below the lowest projection of the elevator car but no higher than 24" from the bottom of the pit.

23.45.4603.4 Sprinkler systems.
Delete and 4603.4.2 in the last sentence and replace it with thru 4603.4.4.

23.45.4603.6 Fire alarm systems.
Amend section 4603.6 by adding the following to the end of the exception
...meeting the minimum sound pressure levels: 65 dBA in occupancies in Group R and I-1; and 60 dBA in other occupancies.

23.45.4603.6.5.1 Group R-1 hotel and motel manual fire alarm system.
Amend section 4603.6.5.1 by deleting exception #2.

23.45.Chapter 47.
Amend IFC chapter 47 by adding section D107 as a referenced code section to IWUIC-09 under ICC.

23.45.Appendices.
Adopt appendices B through G, I, and J and new appendix K.

23.45.D102.1 Access and loading.
Amend section by deleting 75,000 pounds and replacing it with 80,000 pounds (36288 kg).

23.45.D107.1 One- or two-family dwelling residential developments.
Amend section D107.1 by adding exception 3 as follows:

Exceptions:

3. Where there are more than 30 but not more than 100 dwelling units on a single public or private fire apparatus access road and all dwelling units are constructed in accordance with the International Wildland-Urban Interface code, access from two directions shall not be required.

23.45.APPENDIX K
Appendix of the IFC is revised by adding APPENDIX K as follows:

APPENDIX K

FIRE PROTECTION SYSTEM STATUS REPORTING.

K101
General

K101.1 Scope. Fire protection system service reports shall be in accordance with this appendix and all other applicable requirements of the International Fire Code.

K102
Required Reporting

K102.1 Reporting. All fire service companies providing services in the Building Safety Service Area shall provide a legible copy of the fire system service report to the Division of Fire Prevention, Anchorage Fire Department. System service reports shall contain the following information:

1. Company name, address, and phone number.
2. Inspector's first and last name and State of Alaska Fire System Permit number issued under 13 AAC 50.035.
3. Contact phone number: office and cell if available.
4. System Status (1-4).
5. Deficiencies shall be typed or legibly hand written and shall be printed text (no cursive/long hand handwriting).
6. All reports shall have building name, occupancy inspected, and address clearly identified on the first page, and all subsequent pages shall have the building name and date of inspection on the top of the page.
7. All reports shall have the building contact person's name and phone number on the front page.
8. Only white or yellow copies will be accepted for reports submitted.
9. Deficiency write-ups must include the code citation that is in violation and a description of the problem.

K102.2 Fire system status. Fire protection system service reports shall contain the status of the system serviced in accordance with K102.2.1 through K102.2.4.

K102.2.1 Status 1. Systems out of service or having identified major deficiencies shall be reported as Status 1. The fire service company shall immediately contact the Division of Fire Prevention at 267-4900, if the system cannot be returned to service. After-hours or on weekends, contact AFD dispatch at 267-4950. Written notification shall be faxed to the Fire Marshal's Office within 24 hours at 267-4958.

K102.2.1.1 Corrective action. Systems reported as Status 1 shall be repaired immediately. Building and facilities with systems reported as Status 1 shall comply with IFC 901.7 through 901.7.6, and AFD Firewatch policy 08-010.

K102.2.1.2 Qualifying deficiencies. Systems with deficiencies listed in K102.2.1.2.1 through K102.2.1.2.5 shall be reported as Status 1.

K102.2.1.2.1 Fire sprinkler or water based system:

1. Non-working flow/pressure switches.
2. Damage to fire department connections.
3. No water to system.
4. Frozen or otherwise damaged system.
5. Local sprinkler alarm not functioning.
6. Large quantities of corrosion scale or debris found when flowing of test connections, remote drains or water motor gong alarm lines. Clogged or plugged sprinkler heads, test ports or alarm lines.
7. Physically damaged piping, sprinkler heads or valves (such as from forklift strike).
8. Main drain test where residual pressure drops below 20 psi during flow of main drain.
9. Where any of the following occur:
   - All sprinkler heads are painted in any room exceeding 1000 square feet.
   - When 25% of sprinkler heads are painted within any building.
   - When 20 or more sprinkler heads are painted in any building.
10. Antifreeze systems where freeze protection is rated above 20° Fahrenheit.

K102.2.1.2.2 Fire pump:

1. Non-working fire pump.
2. Fire pump controls not working or malfunctioning.
3. Degradation of water supply below rating of pump, or any degradation causing cavitations of pump.

K102.2.1.2.3 Fire alarm system (detection and alarm):

1. Non-working fire alarm panel.
2. Malfunctioning fire alarm panel.
3. Audio and visual devices not working entire NAC loop.
4. Detection not working entire detection loop.
5. Loss of programming.
6. Audio & visual devices not working - more than three devices in building.

7. Detection devices not working - more than three devices in building.

K102.2.1.2.4 Kitchen hood fire system:

1. System cylinder is not charged or is leaking.
2. Appliance not properly covered due to rearrangement of appliances.
3. Plugged discharge nozzles.
4. Automatic detection not functional.
5. Fuel or electric power supply not shutting off.

K102.2.1.2.5 Required clean agent or special hazard system:

1. System cylinder is not charged or is leaking.
2. Releasing panel not functional.
3. Where any of the following occur:
   - New holes and/or openings in walls and ceilings.
   - Wall or ceiling removed in system area.
   - Faulty door closers where required.
   - In any room or system area, physical changes to the building which could change clean agent concentration level, which adversely impact systems ability to perform as designed.

K102.2.2 Status 2. Systems with a critical deficiency shall be reported as Status 2. The fire service company shall contact the Division of Fire Prevention at 267-4900 or by fax at 267-4958 within 14 days from the date of inspection if the deficiency cannot be repaired and system returned to service. Written notification shall be faxed to the Fire Marshal's Office within 21 days at 267-4958.

K102.2.2.1 Corrective action. Systems reported as Status 2 shall be repaired within 14 days.

K102.2.2.2 Qualifying deficiencies. Systems with deficiencies listed in K102.2.2.2.1 through K102.2.2.2.6 shall be reported as Status 2.

K102.2.2.2.1 Fire sprinkler or water based system:

1. Five or more painted sprinkler heads in a concentrated area or more than 10 in a facility.

2. Change of use in buildings which causes a change in the occupancy classification to a higher hazard occupancy.
3. Low water pressure - negative changes of 10% or more of static or residual pressures during main drain test from previous year test or from original flow information where available.
4. Any other major problem that will affect the performance - (bad trim valves, pressure switches, etc.).
5. No monitoring on required systems.
6. Five-year obstruction investigation not performed or not verifiable.
7. Water control valves that will not hold back water / allow water to leak by.

K102.2.2.2.2 Fire pump:

1. Low fuel.
2. Pump packing leaking beyond specifications.
3. Fire pump room below 40 degrees.
4. Fire pump not meeting its rated discharge pressure or GPM flow over a 10% difference.
5. Any other major problem that will affect the performance.

K102.2.2.2.3 Fire alarm system (detection and alarm):

1. Batteries overdue for replacement.
2. No monitoring on required system.
3. Audio and visual devices not working – up to three devices; over three devices Status 1.
4. Detection not working – up to three devices; over three devices Status 1.
5. Any other major problem that will affect the performance.

K102.2.2.2.4 Kitchen hood fire system:

1. Hood and ducts with heavy grease buildup.
2. Any other major problems that will affect the performance.

K102.2.2.2.5 Required clean agent or special hazard system:

1. Room not properly sealed.
2. Room size has changed.
3. Expired Squibs.
4. HVAC shut downs not properly working.

5. Any other major problem that will affect the performance.

K102.2.2.2.6 Non-required clean agent or special hazard system:

1. Room not properly sealed.
2. Room size has changed.
3. Expired Squibs.
4. HVAC shut downs not properly working.
5. Any other major problem that will affect the performance.
6. System cylinder is not charged or is leaking.
7. Releasing panel not functional.
8. Wall or ceiling removed in system area.
9. Faulty door closers where required.
10. In any room or system area, physical changes to the building which could change clean agent concentration level, which adversely impact system's ability to perform as designed.

K102.2.3 Status 3. Systems with a minor deficiency shall be reported as Status 3. Status 3 reports shall be provided to the Division of Fire Prevention at 267-4900 or by fax at 267-4958 within 30 days from the date of inspection. These deficiencies will not affect the performance of the system.

K102.2.3.1 Corrective action. Systems reported as Status 3 shall be repaired within 30 days.

K102.2.3.2 Qualifying deficiencies. Systems with minor deficiencies, such as missing signs, data plates, leaking ball drip, improperly identified zones in panel programming, and similar items which will not affect the ability of the system to perform in any way shall be reported as Status 3. Includes any items not included in Status 1 or Status 2, and defined by NFPA as deficiencies.

K102.2.4 Status 4. System with no deficiencies shall be reported as Status 4. Status 4 reports shall be provided to the Division of Fire Prevention at 267-4900 or by fax at 267-4958 within 30 days from the date of inspection.

CHAPTER 23.55 FIRE PROTECTION SERVICE OUTSIDE SERVICE AREAS.

23.55.100 Definitions.
23.55.200 Policy.
23.55.300 Implementation.
23.55.400 Cost of services.

23.55.100 Definitions.

Whenever the term "*municipally financed fire protection*" is used, it shall include services received from the Municipality of Anchorage Fire Department, and other service areas offering tax-supported fire-protection services.

A. ***Accidental alarm*** means an alarm set off and transmitted through accidental operation of an automatic or manual fire alarm device, frequently caused by low air pressure on an automatic fire-extinguishing system, dry valves, excessive heat due to industrial processes or cold weather.

B. ***Call out*** means the initial response of a fire department to a report of a fire.

C. ***Needless alarm*** means an alarm of fire apparently given in good faith which proves to be needless because fire department assistance was not required.

23.55.200 Policy.

The policy of the municipality is to provide fire protection within service areas to the maximum extent possible within the budgets approved by the Assembly and supported by taxes raised within the service areas. Further, the municipality recognizes a supplementary obligation to protect lives and property from destruction by fire in areas of the municipality which do not support fire protection services by taxes or voluntary contributions sufficient to maintain a volunteer fire department capable of responding adequately to all calls twenty-four (24) hours per day, seven (7) days per week throughout the year.

23.55.300 Implementation.

The mayor is authorized to permit the use of municipally financed fire protection services outside of the areas providing tax or other adequate support for the services on the following conditions:

A. The first obligation is to areas furnishing tax support, and the service to the outside areas shall not jeopardize the service to the areas furnishing tax support;

B. The second obligation is to areas which voluntarily contribute to the maintenance of a 24-hour-per-day, seven-day-per-week fire department; and

C. The third obligation is to other areas.

23.55.400 Cost of services.

A. In areas outside of fire service areas, and in areas with no applicable mutual aid agreement, $500.00 shall be charged for call out of the Fire Department. After the first hour, hourly rates for each piece of fire apparatus used in suppressing the fire shall be charged in accordance with the following:

1. Engine company: $100.00 per hour;
2. Lander Truck: $100.00 per hour;

3. Heavy Rescue: $100.00 per hour;
4. Tender; $100.00 per hour;
5. Brush Engine: $100.00 per hour;
6. Command Officer vehicle: $ 50.00 per hour.

23.55.500 Responsibility for payment.

A. The responsibility for payment of the charges in section 23.55.040 shall rest jointly and severally upon the following:
   1. Owners of the property upon which the fire originated;
   2. Tenants of the property upon which the fire originated;
   3. Persons residing on the property upon which the fire originated; and,
   4. Any person legally responsible for the fire by reason of negligence or otherwise.

B. For the purpose of this section only, the term "*fire*" includes not only fires but any action or omission to act which results in a needless or accidental alarm.

23.55.600 Enforcement.

The municipality shall have the right to bring suit for the collection of these charges, plus costs and attorneys' fees, against any or all of the parties responsible for payment.

CHAPTER 23.60 LOCAL AMENDMENTS TO THE INTERNATIONAL ENERGY CONSERVATION CODE 2009 EDITION.

23.60.100	Local amendments to the International Energy Conservation Code 2009 Edition.
23.60.109	Board of Appeals.
23.60.401.3	Certificate.
23.60.402.2.1	Ceilings with attics.
23.60.402.2.4	Mass walls.
23.60.402.2.9	Crawl space walls.
23.60.402.3.7	Glazing limitation.
23.60.402.6	Moisture control.
23.60.402.7	Crawl space.
23.60.402.8	Ventilation
23.60.403.2.2	Sealing (Mandatory).
23.60.403.3	Mechanical system piping insulation.
23.60.403.6	Equipment sizing.
23.60.405.3	Performance based compliance.
23.60.Table 502.1.2	Building envelope requirements opaque element, maximum U-factors.
23.60.Table 502.2(1)	Building envelope requirements – opaque assemblies.
23.60.502.2.1	Roof assembly
23.60.502.2.4	Below-grade walls.

23.60.502.4.2	Curtain wall, storefront glazing and commercial entrance doors.
23.60.502.4.3	Sealing the building envelope.
23.60.502.5	Moisture control.
23.60.503.2.2	Equipment and system sizing.
23.60.503.2.4.4	Shutoff damper controls.
23.60.503.2.6	Energy recovery ventilation systems.
23.60.503.2.7.1.3	High-pressure duct systems.
23.60.503.2.8	Piping insulation.
23.60.Table 503.2.8	Minimum pipe insulation.
23.60.503.2.9	HVAC system completion.
23.60.503.2.10	Air system design and control.
23.60.503.4.2	Variable air volume (VAV) fan control.
23.60.503.4.3.4	Part load controls.
23.60.503.4.3.5	Pump isolation.
23.60.503.4.5	Requirements for complex mechanical systems serving multiple zones.
23.60.504.3	Temperature control.
23.60.505.2.2.1	Light reduction controls.
23.60.505.2.2.2	Automatic lighting shutoff.
23.60.505.5	Interior lighting power requirements (Prescriptive).
23.60.505.6	Exterior lighting.

23.60.100 Local amendments to the International Energy Conservation Code 2009 Edition.

The amendments to the 2009 edition of the International Energy Conservation Code are listed hereafter by section. The last digits of the number (after the title and chapter digits) are the sections of the International Energy Conservation Code to which the amendments refer.

23.60.109 Board of Appeals.

Delete section 109 Board of Appeals.

23.60.401.3 Certificate.

Add the following exception:

Exception: A certificate is not required for additions, alterations, renovations, and repairs to an existing building.

23.60.402.2.1 Ceilings with attics.

Amend section 402.2.1 by adding the following exception:

Exception: R-38 fiberglass blanket insulation may be compressed at the eave to provide a 1.5 inch air space when installed between wood trusses having a minimum heel height of 11.25 inches.

23.60.402.2.4 Mass walls.

Delete section 402.2.4 Mass Walls.

23.60.402.2.9 Crawl space walls.
Delete section 402.2.9.

23.60.402.3.7 Glazing limitation.
Add the following section:

402.3.7 Glazing limitation. Glazing shall be limited to 18% of the conditioned floor area.

23.60.402.6 Moisture control.
Add the following section:

402.6 Moisture control (mandatory). 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 the IRC or IBC as applicable. Interior moisture control shall comply with section 402.6.1. Should insulated assemblies become wet, or start out wet, the design strategy shall allow the assembly to dry to either the exterior or the interior. Materials shall be allowed to dry prior to enclosure.

402.6.1 Interior moisture control. 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 or II 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. Where duct work is located in dropped ceilings adjacent to attics and exterior walls, the vapor retarder continuity shall be maintained above the dropped ceiling and along the exterior wall.

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 basement and crawl space walls designed to dry to the interior.
3. 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.
4. 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.

5. A class 3 vapor retarder may be used on walls insulated to a minimum value of R-21 with spray foam having a minimum density of 2 pounds per cubic foot.
6. Up to one-third of the total installed insulation R-value may be installed on the warm side of the vapor retarder.
7. Factory manufactured insulated panels consisting of a metal skin encapsulating and bonded to a foam plastic core do not require a vapor retarder.

23.60.402.7 Crawl space.

Add the following section:

402.7 Crawl space (mandatory).

402.7.1 Unconditioned crawl space. When a crawl space is ventilated to the exterior by natural means in accordance with IRC section R408.2, the floor separating the crawl space from the living area shall be insulated in accordance with section 402.1. The crawl space shall not be heated.

402.7.2 Conditioned crawl space. When a crawl space is ventilated by mechanical means in accordance with IRC section R408.3, the crawl space walls shall be insulated in accordance with section 402.1. The floor of the crawl space shall be covered in accordance with IRC section R408.3.

23.60.402.8 Ventilation.

Add the following section:

402.8 Ventilation (Mandatory). Ventilation shall comply with ANSI/ASHRAE Standard 62.2-2007, including Addenda a, b, c, e and k. Where there are conflicts between an adopted code and this standard, the adopted code shall apply.

23.60.403.2.2 Sealing (Mandatory).

Amend the first paragraph of section 403.2.2 as follows:

403.2.2 Sealing (Mandatory). All ducts, air handlers and filter boxes shall be sealed. Joints and seams shall comply with the International Mechanical Code, as amended under AMC chapter 23.20.

23.60.403.3 Mechanical system piping insulation.

Insert the following exception under section 403.3:

Exception: Piping installed within the building thermal envelope.

23.60.403.6 Equipment sizing.

Delete the following language: ...in accordance with section M1401.3 of the International Residential Code" and replace with "based on design loads determined in accordance with the procedures described in ASHRAE Fundamentals Handbook, or other approved equivalent computational procedures. Over sizing should be limited to 15% of the design load.

23.60.405.3 Performance based compliance.

Add the following exception:

Exception: Compliance may be demonstrated through a home energy rating under a program approved by the Alaska Housing Finance Corporation (AHFC) that meets the following:

1. A minimum four-star plus rating is required.
2. The maximum air infiltration rate shall not exceed seven air changes per hour at 50 pascals pressure difference.
3. The compliance rating shall be performed by a person authorized by AHFC.

Compliance with sections 404.4 through 404.6 is not required.

23.60.Table 502.1.2 BUILDING ENVELOPE REQUIREMENTS OPAQUE ELEMENT, MAXIMUM U-FACTORS.

Amend Table 502.1.2, Climate Zone 7 as follows:

Category: Walls, Below Grade
Row: Below-grade wall
Column: All other
Amend by replacing C-0.119 with C-0.092.

23.60.Table 502.2(1) BUILDING ENVELOPE REQUIREMENTS – OPAQUE ASSEMBLIES.

Amend Table 502.2(1), Climate Zone 7 as follows:

Category: Walls, Above Grade
Row: Wood framed and other
Columns: All other and Group R
Amend by replacing R-13+R-7ci with R-21.
Category: Walls, Below Grade
Row: Below-grade wall
Column: All other
Amend by replacing R-7.5ci with R-10ci.
Category: Slab-on-Grade Floors
Row: Unheated slabs
Columns: All other and Group R
Amend by replacing R-15 for 24 in. below with R-10 for 36 in. below.
Category: Slab-on-Grade Floors
Row: Heated slabs
Column: All other
Amend by replacing R-20 for 24 in. below with R-10 for 36 in. below.
Category: Slab-on-Grade Floors
Row: Heated slabs
Column: Group R
Amend by replacing R-20 for 48 in. below with R-10 for 36 in. below.

23.60.502.2.1 Roof assembly.

Replace the Exception with the following:

Exception: Continuously insulated tapered roof assemblies with an

average R-value of not less than that specified in Table 502.2(1) and having not less than R-12.5 at each roof drain location.

23.60.502.2.4 Below-grade walls.

Amend section 502.2.4 by adding the following sentence:

In new construction, the minimum required R-value of insulating material shall be installed on the exterior side of the wall.

23.60.502.4.2 Curtain wall, storefront glazing and commercial entrance doors.

Amend section 502.4.2 by adding the following sentence:

Curtain wall and store front systems shall incorporate exterior openings for ventilation and drainage.

23.60.502.4.3 Sealing the building envelope.

Amend section 502.4.3 by adding the following sentences:

This does not include required moisture channels and exterior openings for ventilation and drainage in curtain wall and store front systems. These shall be maintained open and functional.

23.60.502.5 Moisture control.

Add the following section:

502.5 Moisture control (Mandatory). 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 the IBC. Interior moisture control shall comply with section 502.5.1. Should insulated assemblies become wet, or start out wet, the design strategy shall allow the assembly to dry to either the exterior or the interior. Materials shall be allowed to dry prior to enclosure.

502.5.1 Interior moisture control. 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 or II 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. Where duct work is located in dropped ceilings adjacent to attics and exterior walls, the vapor retarder continuity shall be maintained above the dropped ceiling and along the exterior wall.

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 basement and crawlspace walls designed to dry to the interior.

3. 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.
4. 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.
5. A class 3 vapor retarder may be used on walls insulated to a minimum value of R-21 with spray foam having a minimum density of 2 pounds per cubic foot.
6. Up to one-third of the total installed insulation R-value may be installed on the warm side of the vapor retarder.
7. Factory manufactured insulated panels consisting of a metal skin encapsulating and bonded to a foam plastic core do not require a vapor retarder.

23.60.503.2.2 Equipment and system sizing.

Amend section 503.2.2 by adding exception number 3 as follows:

3. Heating equipment may be oversized by up to 20 percent.

23.60.503.2.4.4 Shutoff damper controls.

Amend section 503.2.4.4 by adding exception number 4 as follows:

4. Motorized dampers shall not be required for exhaust systems where grease, lint, and similar particulates may accumulate on the damper and create a fire hazard.

23.60.503.2.6 Energy recovery ventilation systems.

Amend section 503.2.6 by adding exception number 8 as follows:

8. Where the system does not operate continuously and is controlled only to operate under a safety operation such as carbon monoxide exhaust systems in garages.

23.60.503.2.7.1.3 High-pressure duct systems.

Amend section 503.2.7.1.3 by deleting the last sentence:

Documentation shall be furnished by the designer demonstrating...

23.60.503.2.8 Piping insulation.

Amend section 503.2.8 by adding exception number 6 as follows:

6. Piping within baseboard radiation assemblies and piping that is intended to serve as a terminal heating device.

23.60.Table 503.2.8 Minimum pipe insulation.

Amend the insulation thickness in Table 503.2.8 as follows:

Steam: Pipe diameter 1.5 inch or less = 1 inch
Pipe diameter greater than 1.5 inch = 2 inch

Hot Water: All pipe sizes = 1 inch
Chilled Water: All pipe sizes = 1 inch

23.60.503.2.9 HVAC system completion.

Delete section 503.2.9.

23.60.503.2.10 Air system design and control.

Amend section 503.2.10 by replacing 5 horsepower (3.7 kW) with 10 horsepower (7.4kW).

23.60.503.4.2 Variable air volume (VAV) fan control.

Amend section 503.4.2 by deleting the last sentence:

For systems with direct digital control of individual zone boxes...

23.60.503.4.3.4 Part load controls.

Amend section 503.4.3.4 by replacing 300,000 Bth/h with 500,000 Btu/h, and adding an exception as follows:

Exception: Where the hydronic system serves domestic hot water generation equipment or other equipment that requires a consistent supply temperature and is not applicable to fluid temperature setback control.

23.60.503.4.3.5 Pump isolation.

Delete section 503.4.3.5.

23.60.503.4.5 Requirements for complex mechanical systems serving multiple zones.

Amend section 503.4.5 by adding item number 7 to the exception, as follows:

7. Supply air systems less than 10,000 CFM in capacity.

23.60.504.3 Temperature control.

Delete section 504.3.

23.60.505.2.2.1 Light reduction controls.

Amend section 505.2.2.1 as follows:

Revise Exception number 3 to read:

3. Corridors, storerooms, restrooms, public lobbies, and similar common and/or normally unoccupied spaces.

Add exception number 6 as follows:

6. Areas where HID lighting is utilized as the primary light source.

23.60.505.2.2.2 Automatic lighting shutoff.

Amend section 505.2.2.2 by replacing the first sentence with the following:

Occupied areas exceeding 5000 square feet (465 square meters) and under the control of a single occupant, owner, or tenant shall be equipped with an automatic control device to shutoff lighting.

23.60.505.5 Interior lighting power requirements (Prescriptive).

Effective January 1, 2011 through December 31, 2011, amend section 505.5 by replacing the first sentence with the following:

A building complies with this section if its total connected lighting power calculated under section 505.5.1 is no greater than 125 percent of the interior lighting power calculated under section 505.5.2.

Effective January 1, 2012, compliance with section 505.5 is required.

23.60.505.6 Exterior lighting.

Revise section 505.6 as follows:

505.6 Exterior lighting (Mandatory). When the power for the exterior lighting is supplied through the energy service to the building, all exterior lighting, other than low voltage lighting, shall have a source efficacy of at least 45 lumens per Watt. Fixtures employing lamps rated over 100 Watts shall either have a source efficacy of at least 60 lumens per Watt or be controlled by a motion sensor.

Exceptions:

1. Where approved because of historical, safety, signage or emergency considerations.
2. Light Emitting Diode (LED), neon, and cold cathode exterior lamp sources.
3. Where specific lighting levels are required by state or local governmental criteria, the state or local code shall prevail. Areas affected by this exemption may include, but are not limited to, ATM's and parking garage emergency lighting.
4. Theatrical and special effects lighting.

Delete sections 505.6.1 and 505.6.2.

CHAPTER 23.65 LOCAL AMENDMENT TO THE 2009 INTERNATIONAL EXISTING BUILDING CODE.

23.65.100	Local amendments to the International Existing Building Code, 2009 edition
23.65.103-117	Delete sections
23.65.302.3	Existing structural elements carrying gravity load
23.65.302.4	Existing structural elements carrying lateral load
23.65.303.3	Existing structural elements carrying gravity load
23.65.309.1	Conformance
23.65.606.2	Addition or replacement of roofing or replacement of equipment
23.65.606.3.2	Roof diaphragms resisting wind loads in high-wind regions
23.65.704.2	Automatic sprinkler systems
23.65.704.4	Existing structural elements carrying gravity loads
23.65.705.4.4	Panic hardware
23.65.907.1	Gravity loads
23.65.1003.2	Additional gravity loads

23.65.1003.3	Lateral force-resisting system
23.65.1003.4	Snow drift loads
23.65.1202.3	Wind loads
23.65.1202.4	Seismic loads
23.65.1202.5	Snow loads
23.65	Appendix A

23.65.100 Local amendments to the International Existing Building Code, 2009 edition.

The amendments to the 2009 Edition of the International Existing 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 Existing Building Code to which the amendments refer.

23.65.103-117 Delete sections.
Delete IEBC sections 103 through 117, and refer to the Anchorage Administrative Code.

23.65.302.3 Existing structural elements carrying gravity load.
Replace "5 percent" in the first sentence with "ten (10) percent".

23.65.302.4 Existing structural elements carrying lateral load.
Amend by adding the following exception to read as follows:

2. Additions to one- and two-family detached structures are not required to be structurally independent from the existing structure where all of the following items are met:
   a. The occupancy of the addition is the same as the existing, or is a Group U occupancy.
   b. The existing structure is not needed to support any lateral loads from the addition other than at the common wall(s).
   c. All common walls can support the loads from the existing and new structure.
   d. The addition does not reduce the capacity of any existing lateral element.

23.65.303.2.3.2 Alterations.
Revise "5 percent" to read "10 percent".

23.65.303.3 Existing structural elements carrying gravity load.
Replace "5 percent" in the first sentence with "ten (10) percent".

23.65.309.1 Conformance.
Revise the first sentence of the section to read as follows:
Structures moved into or within the Municipality shall comply with the provisions of Chapter 12.

23.65.606.2 Addition or replacement of roofing or replacement

of equipment.

Replace "5 percent" in Exception 1 with "ten (10) percent".

23.65.606.3.2 Roof diaphragms resisting wind loads in high-wind regions.

Amend by adding the following exception to read as follows:

Exception: Buildings constructed after 1984 are not required to comply with this section.

23.65.704.2 Automatic sprinkler systems.

Amend section 704.2.2 by deleting the reference to Group E occupancies.

Add the following subsection:

23.65.704.2.2.2 Group E Occupancy: When required by the International Fire Code, an automatic sprinkler system shall be installed throughout all buildings containing a group E occupancy.

23.65.705.4.4 Panic hardware.

Amend section 705.4.4 by replacing "greater than 100" with "of 50 or more".

23.65.707.4 Existing structural elements carrying gravity loads.

Replace "5 percent" in Exception 1 with "ten (10) percent".

23.65.907.1 Gravity loads.

Replace "5 percent" in the Exception with "ten (10) percent".

23.65.1003.2 Additional gravity loads.

Replace "5 percent" in Exception 1 with "ten (10) percent".

23.65.1003.3 Lateral-force-resisting system.

Amend by adding the following exception to read as follows:

3. Additions to one- and two-family detached structures are not required to be structurally independent from the existing structure where all of the following items are met:
   a. The occupancy of the addition is the same as the existing, or is a Group U occupancy.
   b. The existing structure is not needed to support any lateral loads from the addition other than at the common wall(s).
   c. All common walls can support the loads from the existing and new structure.
   d. The addition does not reduce the capacity of any existing lateral element.

23.65.1003.4 Snow drift loads.

Replace "5 percent" in Exception 1 with "ten (10) percent".

23.65.1202.3 Wind loads.

Replace "5 percent" in Exception 2 with "ten (10) percent".

23.65.1202.4 Seismic loads.
Replace "5 percent" in Exception 2 with "ten (10) percent".

23.65.1202.5 Snow loads.
Replace "5 percent" in the Exception with "ten (10) percent".

23.65.1301.2 Applicability.
Insert the date "June 9, 1948" in the space provided.

23.65 Appendix A.
Adopt Appendix A.

CHAPTER 23.70 ABATEMENT OF DANGEROUS BUILDINGS.

23.70.701 Purpose and scope.

23.70.701.1 Purpose.

1. It is the purpose of this chapter to provide a just, equitable and practicable method, to be cumulative with and in addition to any other remedy provided by the codes, or otherwise available by law, whereby buildings or structures which from any cause endanger the life, limb, health, morals, property, safety or welfare of the general public or their occupants shall be required to be repaired, demolished or removed.
2. The purpose of this chapter is not to create or otherwise establish or designate any particular class or group of persons who shall or should be especially protected or benefited by the terms of this chapter.

23.70.701.2 Scope. The provisions of this chapter shall apply to all dangerous buildings or structures, as defined in section 702, now in existence or which may hereafter become dangerous in this Municipality.

23.70.701.3 Abatement of dangerous building standards. All buildings or structures required to be repaired under the provisions of this chapter shall be subject to the provisions of the International Existing Building Code, as adopted by the Municipality of Anchorage.

23.70.702 Definitions.

23.70.702.1 General. For the purpose of this chapter, certain terms, phrases, words and their derivatives shall be construed as specified in either this chapter or as specified in the code. Where terms are not defined, they shall have the ordinary accepted meanings within the context with which they are used. Webster's Dictionary shall be construed as providing ordinary accepted meanings. Words used in the singular include the plural and the plural the singular. Words used in the masculine gender include the feminine and the feminine the masculine.

Abatement - the code compliant corrections of all conditions or defects described in section 702, as confirmed by the code official.

Beyond economic feasibility to repair - when the estimated cost of repair exceeds the estimated replacement cost of the entire structure.

Code or codes -the relevant codes, as adopted by the Municipality.

Code official - the building official or designee.

Dangerous building - for the purpose of this chapter, any building or structure with any or all of the conditions or defects hereinafter described to such an extent the condition endangers life, limb, health, morals, property, safety, or welfare of the general public or its occupants.

1. Whenever any door, aisle, passageway, stairway or other means of exit is not of sufficient width or size or is not so arranged as to provide safe and adequate means of exit in case of fire or panic.
2. Whenever the walking surface of any aisle, passageway, stairway or other means of exit is so warped, worn, loose, torn or otherwise unsafe as to not provide safe and adequate means of exit in case of fire or panic.
3. Whenever the stress in any materials, member or portion thereof, due to all dead and live loads, is more than one and one half times the working stress or stresses allowed in the code for buildings of similar structure, purpose or location.
4. Whenever any portion thereof has been damaged by fire, earthquake, wind, flood or by any other cause, to such an extent the structural strength or stability thereof is materially less than before such catastrophe and is less than the minimum requirements of the code for buildings of similar structure, purpose or location.
5. Whenever any portion or member or appurtenance thereof is likely to fail, or to become detached or dislodged, or to collapse and thereby injure persons or damage property.
6. Whenever any portion of a building or structure, or any member, appurtenance or ornamentation of the exterior thereof is not of sufficient strength or stability, or is not so anchored, attached or fastened in place so as to be capable of resisting a wind pressure of one half of that specified in the code for such buildings or structures.

7. Whenever any portion thereof has wracked, warped, buckled or settled to such an extent that walls or other structural portions have materially less resistance to winds or earthquakes than is required in the case of similar construction.
8. Whenever the building or structure, or any portion thereof, because of:
    a. Dilapidation, deterioration or decay;
    b. Faulty construction;
    c. The removal, movement or instability of any portion of the ground necessary for the purpose of supporting such building or structure;
    d. The deterioration, decay or inadequacy of its foundation; or
    e. Any other cause is likely to partially or completely collapse.
9. Whenever, for any reason, the building or structure, or any portion thereof, is unsafe for the purpose of which it is being used.
10. Whenever the exterior walls or other vertical structural members list, lean or buckle to such an extent a plumb line passing through the center of gravity does not fall inside the middle one-third of the base.
11. Whenever the building or structure, exclusive of the foundation, shows thirty-three (33) percent or more damage or deterioration of its supporting member or members, or fifty (50) percent damage or deterioration of its non-supporting members, enclosing or outside walls or coverings.
12. Whenever the building or structure has been so damaged by fire, wind, earthquake or flood, or has become so dilapidated or deteriorated as to become
    a. An attractive nuisance to children;
    b. A harbor for vagrants, criminals or immoral persons; or
    c. Enables persons to resort thereto for the purpose of committing unlawful or immoral acts.
13. Whenever any building or structure has been constructed, exists or is maintained in violation of any specific requirement or prohibition applicable to such building or structure provided by the building regulations of this Municipality, as specified in the code, or of any law or ordinance of this state or Municipality relating to the condition, location or structure of buildings.
14. Whenever any building or structure which, whether or not erected in accordance with all applicable laws and ordinances, has in any non-supporting part, member or portion less than fifty (50) percent, or in any supporting part, member or portion, less than sixty-six (66) percent of:
    a. Strength;
    b. Fire-resisting qualities or characteristics; or
    c. Weather-resisting qualities or characteristics required by

law in the case of a newly constructed building or structure of like area, height and occupancy in the same location.

d. This subsection does not apply to strength required to resist seismic loads.

15. Whenever a building or structure, used or intended to be used for dwelling purposes, because of inadequate maintenance, dilapidation, decay, damage, faulty construction or arrangement, inadequate light, air or sanitation facilities, or otherwise, is determined by the code official to be unsanitary, unfit for human occupancy or in such a condition it is likely to cause sickness or disease.
16. Whenever any building or structure, because of obsolescence, dilapidated condition, deterioration, damage, inadequate exits, lack of sufficient fire-resistive construction, faulty electric wiring, gas connections or heating apparatus, or other cause, is determined by the code official to be a fire hazard.
17. Whenever any building or structure is in such a condition as to constitute a public nuisance known to the common law or in equity jurisprudence.
18. Whenever any portion of a building or structure remains on a site after the demolition or destruction of the building or structure or whenever any building or structure is abandoned for a period in excess of six months so as to constitute such building or structure or portion thereof an attractive nuisance or hazard to the public.

Habitual - customarily, or by frequent practice or use; does not mean entirely or exclusively.

Imminent or immediate - near at hand, or if left unattended to on the point of happening; an observable structural, electrical, mechanical or plumbing failure to the extent a reasonable person may believe it poses a serious threat to life and safety.

Record owner - any legal interest of record disclosed from official public records.

Unfit for human occupancy - a building or structure is unfit for human occupancy whenever the code official finds such structure is unsafe, unlawful or because of the degree to which the building or structure is in disrepair or lacks maintenance, is unsanitary, vermin or rat infested, contains filth and contamination, or lacks ventilation, illumination, sanitary or heating facilities or other essential equipment required by this code, or because the location of the building or structure constitutes a hazard to the occupants of the building or structure or to the public.

Unlawful building or structure - is one found in whole or in part to be occupied by more persons than permitted under this code, or was erected, altered or occupied contrary to law.

Unsafe building or structure - is one found to be dangerous to the life, health, property or safety of the public or the occupants of the

building or structure by not providing the minimum safeguards to protect or warn occupants in the event of fire, or because such building or structure contains unsafe equipment or is so damaged, decayed, dilapidated, structurally unsafe or of such faulty construction or unstable foundation, that partial or complete collapse is possible.

Unsafe equipment - includes any boiler, heating equipment, elevator, moving stairway, electrical wiring or device, flammable liquid containers or other equipment on the premises or within the building or structure in such disrepair or condition that such equipment is a hazard to life, health, property or safety of the public or occupants of the premises, building or structure.

23.70.703 Administration.

23.70.703.1 Authority.

1. The code official is hereby authorized to enforce the provisions of this chapter.
2. The code official shall have the power to render interpretations of this chapter and to adopt and enforce rules and supplemental regulations in order to clarify the application of its provisions. Such interpretations, rules and regulations shall be in conformity with the intent and purpose of this chapter.

23.70.703.2 Extension of time to perform work. Upon receipt of a written request from the person required to conform to a notice and order and by agreement of such person to comply with the notice and order if allowed additional time, the code official may grant an extension of time, not to exceed an additional one hundred twenty (120) days, within which to complete said repair, demolition or removal, if the code official determines such an extension of time does not create or perpetuate a situation imminently dangerous to life or property. The code official's authority to extend time is limited to the physical repair, demolition or removal of the building or structure and shall not in any way affect the time to appeal the notice and order.

23.70.703.3 Inspections. The health officer, the fire marshal and the code official are hereby authorized to make such inspections and take such actions as may be required to enforce the provisions of this chapter.

23.70.703.4 Right of entry. When it is necessary to make an inspection to enforce the provisions of this chapter, or when the code official or designee has reasonable cause to believe there exists in a building or structure a condition which is contrary to or in violation of this chapter and makes the building or structure dangerous or unlawful, the code official may enter the building or structure at reasonable times to inspect or to perform the duties imposed by this chapter, provided if such building or structure be occupied that credentials be presented to the occupant and entry requested. If such building or structure is unoccupied, the code official shall first make a reasonable effort to locate the owner or other persons having charge or control of the building or structure and request entry. If entry is

refused, the code official shall have recourse to the remedies provided by law to secure entry.

23.70.703.5 Abatement of dangerous buildings. All buildings or structures or portions thereof determined after inspection by the code official to be dangerous or unlawful as defined in this chapter are hereby declared to be public nuisances and shall be abated by repair, demolition, or removal in accordance with this code.

23.70.703.6 Violations. It shall be unlawful for any person, firm or corporation to erect, construct, enlarge, alter, repair, move, improve, remove, convert or demolish, equip, use, occupy or maintain any building or structure or cause or permit the same to be done in violation of this chapter.

23.70.703.7 Board of appeals. In order to hear and decide appeals of orders, decisions or determinations made by the code official relative to the application and interpretations of this chapter, there shall be and is hereby created a board of appeals. The board of appeals for these issues is the Board of Building Regulation Examiners and Appeals (Building Board), as defined in section 23.10.103.4. Appeals to the board shall be processed in accordance with the provisions contained in section 706 of this chapter.

23.70.704 Notices and orders.

23.70.704.1 Commencement of proceedings. When the code official has inspected a building or structure and determined it is a dangerous or unlawful building, the code official shall commence proceedings to cause the repair, demolition, or removal of the building or structure.

23.70.704.2 Notice of violation. All violations noted by the code official shall receive a notice of violation. A notice of violation shall be posted at the location of the building or structure determined by inspection to have a violation. The code official shall give the owner three (3) business days to meet with the code official to determine the extent of the repair, demolition or removal necessary. After the three (3) business days, the code official shall determine if a notice and order shall be issued.

23.70.704.3 Notice and order. The code official shall issue a notice and order directed to the record owner of the building or structure. The notice and order shall contain:

1. The street address and a legal description sufficient for identification of the property upon which the building or structure is located.
2. A statement the code official found the building or structure to be dangerous or unlawful with a brief and concise description of the conditions found to render the building or structure dangerous or unlawful under the provisions of section 702.
3. A statement of the action required to be taken as determined by:
   a. If the code official has determined the building or structure must be repaired or removed, the order shall

require all required permits be secured therefore and the work physically commenced within sixty (60) days from the date of the order. The repairs shall be completed within such time as the code official shall determine is reasonable under all the circumstances and specified in the Notice and Order.

b. If the code official has determined the building or structure must be vacated, the order shall require the building or structure shall be vacated within a time certain from the date of the order as determined by the code official to be reasonable and specified in the Notice and Order. The notice to vacate shall be posted as per section 705.

c. If the code official has determined the building or structure must be demolished, the demolition shall be completed within such time as the code official determines is reasonable and shall be specified on the Notice and Order.

4. Statements advising if any required repair or demolition work is not commenced within the time specified, the code official:
   a. May order the Notice to Vacate as per section 705, and
   b. May proceed with causing the repair, demolition or removal as per section 708.
5. Statements advising:
   a. The notice and order may be appealed to the board of appeals as per section 706; and
   b. Failure to appeal shall constitute a waiver of all right to an administrative hearing and determination of the matter.

23.70.704.4 Service of notice and order. The notice and order, and any amended or supplemental notice and order, shall be served upon the record owner and posted on the property. The failure of the code official to serve any person required herein to be served shall not invalidate any proceedings hereunder as to any other person duly served or relieve any such person from any duty or obligation imposed by the provisions of this section.

23.70.704.5 Method of service.

1. Such notice shall be deemed to be properly served if a copy thereof is:
   a. Delivered personally;
   b. Sent by certified or first-class mail addressed to the last known address, return receipt requested; or
   c. Posted in a conspicuous place in or about the structure affected by such notice.

23.70.704.6 Recordation of notice and order.

1. If the order has not been complied with in the time specified therein, and no appeal has been properly and timely filed, the code official shall file in the Anchorage District Recorder's Office a certificate describing the property and certifying:

a. The building or structure is a dangerous or unlawful building; and

b. The owner has been so notified.

2. When the corrections ordered have been completed or the building or structure demolished so it no longer exists as a dangerous or unlawful building or structure on the property described in the certificate, the code official shall file a new certificate with the Anchorage District Recorder certifying the building or structure has been removed, demolished or all required repairs have been made so the building or structure is no longer dangerous or unlawful.

23.70.704.7 Transfer of ownership. It shall be unlawful for the owner of any building or structure who has received a notice and order or notice of violation to sell, transfer, mortgage, lease or otherwise dispose of such building or structure to another until the provisions of the notice and order or notice of violation have been complied with, or until such owner shall first furnish the grantee, transferee, mortgagee or lessee a true copy of any notice and order or notice of violation issued by the code official and shall furnish the code official a signed and notarized statement from the grantee, transferee, mortgagee or lessee, acknowledging the receipt of such notice and order or notice of violation fully accepting the responsibility without condition for making corrections or repairs required by such notice and order or notice of violation.

23.70.705 Notice to vacate.

23.70.705.1 Notice to vacate. The code official may post a building or structure with a notice to vacate if the building or structure is determined by the code official to contain an imminent or immediate life safety violation or condition. A notice to vacate shall be served under the same requirements for a notice and order as section 704.

23.70.705.2 Posting. Every notice to vacate shall, in addition to being served as provided in section 705.1, be posted at or upon each exit of the building or structure and shall be in substantially the following form:

23.70.705.3 No occupancy compliance. Whenever such notice is posted, the code official shall include a notification thereof in the notice and order issued under section 704, reciting the emergency and specifying the conditions which necessitate the posting. No person shall remain in or enter any building or structure so posted, except entry may be made to repair, demolish or remove such building or structure under permit. No person shall remove or deface any such notice after it is posted until the required repairs, demolition or removal are completed and a certificate of occupancy issued pursuant to the provisions of the code. The code official may assess fines as per 23.10.Table 3-M for each building code violation and the hourly rate for the code officials time as per the code abatement fee for failure to comply.

23.70.705.4 Code compliance inspection. All buildings or structures posted with a notice to vacate shall have a code compliance inspection performed before any permit for repair or removal shall be issued.

23.70.706 Appeal.

23.70.706.1 Form of appeal. Any person entitled to service under sections 704 or 705 may appeal any notice and order or any action of the code official under this chapter by submitting an application and the filing fee for an appeal to the Board of Building Regulation Examiners and Appeals at the office of the code official. The appeal shall be filed within thirty (30) days from the date of the service of such order or action of the code official; provided, however, if the building or structure is in such condition as to make it immediately dangerous to the life, limb, health, morals, property, safety or welfare of the general public or their occupants and is ordered vacated and is posted in accordance with section 705, such appeal shall be filed within ten (10) days from the date of the service of the notice and order of the code official.

23.70.706.2 Processing of appeal. Upon receipt of any appeal filed pursuant to this section, the code official shall present it at the next regular or special meeting of the board of appeals.

23.70.706.3 Scheduling and noticing appeal for hearings. As soon as practicable after receiving the written appeal, the board of appeals shall fix a date, time and place for the hearing of the appeal by the board. Such date shall not be less than ten (10) days nor more than sixty (60) days from the date the appeal was filed with the code official. Written notice of the time and place of the hearing shall be given at least ten (10) days prior to the date of the hearing to each appellant by the secretary of the board either by causing a copy of such notice to be delivered to the appellant personally or by mailing a copy thereof, postage prepaid, addressed to the appellant at the address shown on the appeal.

23.70.706.4 Effect of failure to appeal. Failure of any person to file an appeal in accordance with the provisions of section 706 shall constitute a waiver of the right to an administrative hearing and adjudication of the notice and order or any portion thereof.

23.70.706.5 Scope of hearing of appeal. Only those matters or issues specifically raised in the notice and order or actions by any persons with authority under this chapter shall be considered in the appeal hearing.

23.70.706.6 Staying of order under appeal. Except for notice to vacate order made pursuant to section 705, enforcement of any notice and order of the code official issued under this chapter shall be stayed during the appeal therefrom which is properly and timely filed.

23.70.707 Performance of work, repair, demolition or removal by owner.

23.70.707.1 Repair, demolition or removal by owner. The following standards shall be followed by the code official in allowing the owner to complete the repair, demolition or removal of any dangerous building or structure:

1. Any building or structure declared a dangerous building or structure under this chapter shall be made to comply by the owner with the following:
   1.1 The building or structure shall be repaired in accordance with the code applicable to the type of substandard conditions requiring repair. All work shall be permitted and inspected according to the code; or
   1.2 The building or structure shall be demolished at the option of the owner. A demolition permit shall be obtained prior to the work being performed; or
   1.3 The building or structure shall be removed at the option of the owner. If building or structure is to be moved to another location within the Municipality, a code compliance inspection shall be performed prior to the removal.

23.70.708 Enforcement by code official.

23.70.708.1 General. After any notice and order, board of appeals decision, contract agreement, or extension has been finalized, no person to whom any such order is directed shall fail, neglect, or refuse to obey any such order.

23.70.708.2 Failure to obey order. If, after any notice and order, board of appeals decision, contract agreement, or extension has been made final, the person to whom such order is directed shall fail, neglect or refuse to comply with such order, the code official may institute any appropriate action to abate such building or structure as a public nuisance.

23.70.708.3 Failure to commence work.

1. Whenever the required repair, demolition or removal of building or structure is not commenced within time specified under the notice and order, appeals board action, contract agreement or extension the following becomes effective:
   a. The code official shall cause the building or structure described in such notice and order to be vacated as per section 705.
   b. No person shall remove or deface any such notice so posted until the repairs, demolition or removal ordered by the code official are completed and a certificate of occupancy issued pursuant to the provisions of this code.
   c. The code official may, in addition to any other remedy provided herein, cause the building or structure to be repaired, demolished or removed according to this chapter. The cost of any such repairs, demolition, or

removals shall be recovered in the manner provided in this chapter.

23.70.708.4 Personal property. Prior to the time of repair, demolition or removal, the code official has the authority to enter the dangerous building or structure to make an inspection for any personal property of value abandoned on the premises. If such property is discovered, an inventory shall be taken and made part of the case file. If the owner fails to remove the discovered property prior to the demolition, the owner may redeem said property only under the conditions set forth below. At the time of demolition, the demolition contractor has the authority to remove the inventoried abandoned property from the premises and store the same safely. The record owner of the demolished property may, within thirty (30) days after the date of demolition, redeem the stored property upon the payment of a reasonable storage fee to the demolition contractor. If the record owner of the demolished building or structure fails to redeem the stored property, it shall become the property of the demolition contractor who shall have no recourse against the record owner of the demolished building or structure or the Municipality for any storage charges.

23.70.708.5 Repair, demolition or removal by code official. When any work, repair or demolition is to be done pursuant to section 708.3, the code official shall cause the required work to be accomplished by personnel of this Municipality or by private contract. All necessary permits shall be obtained prior to any work. If any part of the work is to be accomplished by private contract, standard Municipality contractual procedures shall be followed.

23.70.708.6 Interference with repair, demolition or removal work prohibited. No person shall obstruct, impede or interfere with the code official engaged in the work of repairing, demolishing or removing any such building or structure, pursuant to the provisions of this chapter, or in performing any necessary act preliminary to or incidental to such work or authorized or directed pursuant to this chapter.

23.70.709 Emergency abatement by code official.

23.70.709.1 Summary abatement. The code official, with written approval of the city manager, may abate any public nuisance without notice in an emergency where the lives or safety of the public is endangered and where immediate action is necessary and timely notice cannot be given. All other abatement proceedings, except the necessity and the manner and method of giving notice shall apply to the nuisance summarily abated, including the recovery of the costs of the summary abatement.

23.70.710 Recovery of costs by code official.

23.70.710.1 Responsibility for payment. The responsibility for payment of the charges for all expenses incurred during abatement by code official as set forth in this chapter shall rest solely upon the

owners of the property upon which the abatement occurred. Owners, as used in this section, includes the record owner upon the date of service of notice and order as served under section 704, jointly and severally with any subsequent owner until all costs assessed under this chapter are paid in full.

23.70.710.2 Enforcement. The Municipality shall have the right to bring suit for the collection of charges for abatement as set forth in this chapter plus costs and attorney's fees against any or all of the parties responsible for payment.

23.70.710.3 Account of expense.

1. The code official shall cause to be kept an account of the cost, including incidental expenses, incurred by the Municipality in the repair, demolition or removal of any building or structure done pursuant to the provisions of this chapter. Upon the completion of the work for repair, demolition or removal of the building or structure, the code official shall forward one or more bills for collection to the record owner as identified in this chapter, specifying the nature and costs of the work performed. Such costs shall be considered charges against the property and may be collected pursuant to this chapter or through any other legal means.
2. The term "incidental expenses" shall include, but not be limited to, the actual expenses and costs of the Municipality in the preparation of notices, specifications and contracts, overhead for account work, work inspection, and the cost of printing and mailing notices required hereunder.
3. If the bill for collection remains unpaid thirty (30) days after mailing of notice to the record owner(s), the Municipality shall be entitled to late fees on the amount billed from the date of mailing until paid at the rate prescribed by law for delinquent real property taxes. Any payments made or received shall be first applied to accumulated late fees.

23.70.710.4 Lien procedure. Charges for the repair, demolition or removal of any building or structure done pursuant to the provisions of this chapter become a lien upon the real property upon which the building or structure is or was located. The code official shall record a claim of lien at the Anchorage District Recorder's Office. The Lien placed shall meet all Alaska Statutes and municipal codes.

23.70.710.5 Bill to collections. When charges for the repair, demolition or removal of any building or structure remain unpaid after thirty (30) days from the date the code official forwards an invoice for payment to the record owner as identified in this chapter, the code official shall forward the bill to collections as per Municipality policies and procedures.

23.70.710.6 Collection of abatement charges. The lien created herein may be enforced as provided in Alaska Statute. The enforcement of the lien is a cumulative remedy and does not bar the collection of the charges for abatement as provided in section 709.

CHAPTER 23.75 LOCAL AMENDMENTS TO THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME) A17.1-2007/CSA B44-07 SAFETY CODE FOR ELEVATORS AND ESCALATORS.

The amendments to the 2007 edition of the ASME Safety Code for Elevators and Escalators are listed hereafter by section. The last digits of the number (after the title and chapter digits) are the sections of the Safety Code for Elevators and Escalators to which the amendments refer.

23.75.1.1.4	Effective Date
23.75.2.2.6	Stop Switch in Pits
23.75.2.12.6	Hoistway Door Unlocking Device
23.75.2.26.1.4.2	Top of Car Inspection Operation
23.75.8.6.1.2	General Maintenance Requirements (Reporting of Injuries)
23.75.8.11.1.1.2	Periodic Tests
23.75.8.11.1.3	Periodic Inspection and Test Frequency
23.75.8.11.1.6	Periodic Test Tags
23.75.8.11.3.4.5	Category 5 Tests of Overspeed Valves

23.75.1.1.4 Effective date.

In 1.1.4-Effective Date, amend by adding the following paragraph:

> The effective date for the A17.1-2007 edition will be that which is decided upon by the Municipality of Anchorage (MOA) Assembly. All addenda and supplements published by ASME to the A17.1-2007 shall be adopted and effective on the date recommended by ASME.

23.75.2.2.6 Stop switch in pits.

In 2.2.6-Stop Switch in Pits, amend by adding the following paragraph to the end of sub-section 2.2.6.2:

> The pit stop switch required at approximately 450 mm (18 in.) above the floor level of the landing shall be permitted to be mounted between 40 in. and 60 in. above the floor level of the landing, adjacent to the pit ladder. If this is done, then a second pit stop switch shall be mounted in the pit adjacent to the pit ladder approximately 1 200 mm (47 in.) above the pit floor.

23.75.2.12.6 Hoistway door unlocking device.

In 2.12.6-Hoistway Door Unlocking Device, amend by adding the following sub-section 2.12.6.2.6:

> On ***existing elevators*** without mechanical access on the hoistway doors, hoistway door unlocking devices shall be installed at the top and bottom landings, per 2.12.6.2.1 through 2.12.6.2.5. It may be provided at other landings for emergency purposes if desired.

Elevators with walk in pits may exclude this requirement at the bottom landing.

23.75.2.26.1.4.2 Top of Car Inspection Operation.

In 2.26.1.4.2-Top of Car Inspection Operation, amend by adding the following sub-section 2.26.1.4.2.1:

Existing elevators that do not currently have a car top inspection station on them, and that have automatic or continuous-pressure operation, shall have a continuous-pressure button operating switch mounted on the top of the car for the purpose of operating the car solely from the top of the car. The device shall operate the car at a speed not exceeding 150 fpm (0.76 m/s). The means for transferring the control of the elevator to the top-of-car operating device shall be on the car top and located between the car cross-head and the side of the car nearest the hoistway entrance normally used for access to the car top.

23.75.8.6.1.2 General maintenance requirements (reporting of injuries).

In 8.6.1.2- General maintenance requirements, amend by adding the following sub-section 8.6.1.2.3 "Reporting of injuries involving conveyances covered by the A17.1-2007":

Reporting Requirements: An owner or operator shall report, in detail and within forty-eight (48) hours, any accident involving the mechanical operation of a conveyance covered by the A17.1-2007, which results in injury to a person. If the deadline for the report falls on a weekend or holiday, the report shall be made at the beginning of the next municipal working day. The report shall be in the form of a written narrative to the Municipality, Elevator Inspection Section, by fax or e-mail. The report shall be signed by the author. The equipment shall not be moved, except to release the injured until an inspection has been made by a municipal Elevator Inspector with the Conveyance Service Company.

Unsafe Conditions: When an inspection reveals an unsafe condition, the inspector shall immediately file with the owner and the building official a full and true report of such unsafe condition. If the building official finds the unsafe condition endangers human life, or that it may cause additional injury, the building official may order the operation and use of the conveyance to cease until all necessary repairs are made and the conveyance is reinspected and released to return to operation.

23.75.8.11.1.1.2 Periodic tests.

In 8.11.1.1.2-Periodic Tests, replace language with the following:

The owner, or the owner's authorized agent, shall have all of the

periodic tests required by 8.11.2, 8.11.3, 8.11.4 and 8.11.5 performed by elevator personnel as defined in A17.1-2007. All periodic tests required by 8.11.2, 8.11.3, and 8.11.5 shall be permitted to be witnessed by the elevator personnel. Periodic test results shall be reviewed for compliance by a Municipality of Anchorage (MOA) Elevator Inspector during their periodic inspections required by 8.11.2, 8.11.3 and 8.11.5. The elevator personnel shall record the test results on the approved MOA A17.1-2007 periodic test form. The MOA A17.1-2007 periodic test form shall be placed in the elevator machine room/space or control room/space for review by the MOA Elevator Inspectors during their periodic inspections required by 8.11.2, 8.11.3 and 8.11.5. For Periodic test requirements listed in 8.11.4 (Escalators and Moving Walks), The MOA Elevator Inspector shall be the witness to the tests, on years when periodic inspections are due.

For a period of 2 (two) years from the effective date of this local amendment, at major modernization acceptance inspections, all Category-1, 3 & 5 tests applicable to a conveyance shall be witnessed by a MOA Elevator Inspector. If non-compliant items are found as a result of this testing, a separate report will be provided to the owner regarding the necessary corrections.

23.75.8.11.1.3 Periodic inspection and test frequency.

In 8.11.1.3-Periodic Inspection and Test Frequency, amend by adding the following paragraph:

The inspection and test intervals for all units covered by A17.1-2007 shall be as noted in Appendix N, Table N-1, except for the following:

1. Change the periodic inspections interval column to 24 months.
2. Remove private residence elevators, and other private residence conveyances, from the periodic inspections interval column.

23.75.8.11.1.6 Periodic test tags.

In 8.11.1.6-Periodic Test Tags, replace language with the following:

The appropriate approved Municipality of Anchorage (MOA) A17.1-2007 Periodic Test form with the applicable code requirement(s) and date(s) performed, and the name of the person or firm performing the test, shall be installed in the machine room/space or control room/space for all periodic tests. It shall be stored and kept with the Maintenance Control Program booklet or folder or stored in a separate folder or sleeve to provide protection for the form.

23.75.8.11.3.4.5 Category 5 tests of overspeed valves.

8.11.3.4.5-Category 5 tests of overspeed valves, amend by adding the following language:

For elevators equipped with overspeed valves, the five-year intervals for testing shall be based on the cross head data tag date. The intervals for testing shall be in five-year increments starting from this date (example - if the cross head data tag indicates a date of 7-1976, then moving forward in five-year increments would make the first required five-year test due by 7-2011). In no case shall the test be required sooner than five years from the date of the overspeed valve test tag.

CHAPTER 23.76 LOCAL AMENDMENTS TO THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME) A18.1-2005 SAFETY STANDARD FOR PLATFORM LIFTS AND STAIRWAY CHAIRLIFTS.

The amendments to the 2005 edition of the Safety Standard for Platform Lifts and Stairway Chairlifts are listed hereafter by section. The last digits of the number (after the title and chapter digits) are the sections of the Safety Standard for Platform Lifts and Stairway Chairlifts to which the amendments refer.

23.76.1.2	Purpose and Execptions
23.76.10.1.2	Periodic Inspections and Tests
23.76.10.2	Routine Inspections and Tests

23.76.1.2 Purpose and exceptions.

In A18.1-2005, Section 1.2 Purpose and exceptions, amend by adding the following paragraph:

Reporting of injuries involving conveyances covered by the A18.1-2005:

Reporting Requirements: An owner or operator shall report, in detail and within forty-eight (48) hours, any accident involving the mechanical operation of a conveyance covered by the A18.1-2005, which results in injury to a person. If the deadline for the report falls on a weekend or holiday, the report shall be made at the beginning of the next municipal working day. The report shall be in the form of a written narrative to the Municipality of Anchorage, Elevator Inspection Section, by fax or e-mail. The report shall be signed by the author. The equipment shall not be moved, except to release the injured until an inspection has been made by a MOA Elevator Inspector with the Conveyance Service Company.

Unsafe Conditions: When an inspection reveals an unsafe condition, the inspector shall immediately file with the owner and the building official a full and true report of such unsafe condition. If the building official finds the unsafe condition endangers human life, or that it may cause additional injury, the building official may order the operation and use of the conveyance to cease until all necessary repairs are

made and the conveyance is re-inspected and released to return to operation.

23.76.10.1.2 Periodic inspections and tests.

In 10.1.2-Periodic inspections and tests, replace sub-sections 10.1.2.1 through 10.1.2.3 with the following:

> The owner, or the owner's authorized agent, shall have all of the periodic tests required by 10.3 performed by authorized personnel, as defined in 1.3 of the A18.1-2005. All periodic tests required by 10.3 shall be permitted to be witnessed by the authorized personnel. Periodic test results shall be reviewed for compliance by a Municipality of Anchorage (MOA) Elevator Inspector during their routine inspections required by 10.2. The authorized personnel shall record the test results on the approved MOA A18.1-2005 periodic test form. The MOA A18.1-2005 periodic test form shall be placed on the lower exterior of the lift tower (if the lift is a vertical platform lift), or adjacent to the top or bottom ends of the lift (if the lift is an inclined platform lift or stairway chairlift) for review by the MOA Elevator Inspector during their routine inspections required by 10.2.

23.76.10.2 Routine inspections and tests.

In 10.2-Routine Inspections and Tests, replace subsection 10.2.1-Inspection and Test Periods with the following:

> The routine inspections and tests of sections 2, 3 and 4 lifts (lifts installed in locations other than in or at a private residence) shall be made at intervals not longer than 24 months.

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

23.85.R100 Local amendments to the 2009 International Residential Code.
23.85.R100.1 Administrative.
23.85.R202 Definitions Wind-borne debris region.
23.85.R301.2.1 Wind limitations.
23.85.Table R301.2(1) Climatic and Geographic Design Criteria.
23.85.Figure R301.2(4) Basic wind speeds for 50-year mean recurrence interval.
23.85.Figure R301.2(4) Basic wind speeds for 50-year mean recurrence interval.
23.85.R301.2.1.1 Design criteria.
23.85.R301.2.2.1.1 Alternate determination of seismic design category.
23.85.Table R302.1 Exterior walls.
23.85.R302.2 Townhouses.
23.85.R302.2.1 Continuity.
23.85.R302.2.1.1 Horizontal continuity.

23.85.R302.2.1.2	Exterior walls.
23.85.R302.2.1.3	Horizontal projecting elements.
23.85.R302.2.4	Structural independence.
23.85.R302.2.5	Common wall insulation.
23.85.R302.3	Two-family dwellings.
23.85.R302.3.2	Common wall insulation.
23.85.R302.5.1	Opening protection.
23.85.Table R302.6	Dwelling/garage separation.
23.85.R302.10.2	Loose-fill insulation.
23.85.R303.1	Habitable rooms.
23.85.R307.1	Space required.
23.85.R308.6.9	Testing and labeling.
23.85.R310.1	Emergency escape and rescue required.
23.85.R313	Automatic fire sprinkler systems.
23.85.R315.1	Carbon monoxide alarms.
23.85.R315.2	Interconnection.
23.85.R315.3	Power source.
23.85.R317.1	Location required.
23.85.R317.1(5)	Location required.
23.85.R317.1.1	Field treatment.
23.85.R317.3.1	Fasteners for preservative-treated wood.
23.85.R401.1	Application.
23.85.R401.3	Drainage
23.85.R401.4	Soil tests.
23.85.Table R401.4	Hazard zone.
23.85.R403.1	General.
23.85.Table R403-16	Reinforced concrete.
23.85.Figure R403-25	Typical foundation and footing details.
23.85.Figure R403-29	Typical step footing.
23.85.Figure R403-31	Typical pony wall for split level.
23.85.Figure R403-34	All weather wood foundation.
23.85.Figure R403-37	Typical basement foundation wall.
23.85.Table R403.1	Footing depths.
23.85.R403.1.1	Minimum size.
23.85.R403.1.3	Seismic reinforcing.
23.85.R403.1.4.1	Frost protection.
23.85.R403.2	Footings for wood foundations.
23.88.Table.R403.3(2)	Air-freezing index for U.S. locations by county.
23.85.R404.1.	Concrete and masonry foundation walls.
23.85.R404.2	Wood foundation walls.
23.85.R404.3	Wood sill plates.
23.85.R404.6	Insulating concrete form foundation walls.
23.85.R405.1.1	Precast concrete foundation.
23.85.R406.1	Concrete and masonry foundation dampproofing.
23.85.R406.2	Concrete and masonry foundation waterproofing.
23.85.R406.3	Dampproofing for wood foundations.
23.85.R406.3.2	Below grade moisture barrier.
23.85.R406.4	Precast concrete foundation system dampproofing.

23.85.R407.2	Steel column protection.
23.85.R602.3.2	Top plate.
23.85.R602.6	Drilling and notching – studs.
23.85.R703.2	Water-resistive barrier.
23.85.R703.3.1	Panel siding.
23.85.Table R703.4	Water-resistant siding attachment and minimum thickness.
23.85.R703.8	Flashing.
23.85.R802.2	Design and construction.
23.85.R802.10.1	Truss design drawings.
23.85.R802.10.2	Design.
23.85.R802.10.3	Bracing.
23.85.R806.1	Ventilation required.
23.85.R806.2	Minimum area.
23.85.R806.4	Unvented attic assemblies.
23.85.R807.1	Attic access.
23.85.R903.1	General.
23.85.R903.4	Roof drainage.
23.85.903.4.2	Snow impact on neighboring lot.
23.85.R905.1.1	Sheathing and deck requirements.
23.85.R905.1.2	Underlayment.
23.85.R905.1.3	Ice barrier.
23.85.R905.2.7	Underlayment application (asphalt shingles).
23.85.R905.2.8.2	Valleys (asphalt shingles).
23.85.R905.3.1	Deck requirements (clay and concrete tile).
23.85.R905.3.3.1	Low slope roofs (clay and concrete tile).
23.85.R905.3.3.2	High slope roofs (clay and concrete tile).
23.85.R905.4.1	Deck requirements (metal roof shingles).
23.85.R905.4.3	Underlayment (metal roof shingles).
23.85.R905.5.3	Underlayment (mineral-surfaced roll roofing).
23.85.R905.6.3	Underlayment (slate and slate-type shingles).
23.85.R905.7.1	Deck requirements (wood shingles).
23.85.R905.7.3	Underlayment (wood shingles).
23.85.R905.8.1	Deck requirements (wood shakes).
23.85.R905.8.3	Underlayment (wood shakes).
23.85.R905.9.1	Slope (built-up roofs).
23.85.R905.10.1	Deck requirements (metal roof panels).
23.85.R905.14	Sprayed polyurethane foam roofing.
23.85.Chapter 11	Energy efficiency.
23.85 Chapters 12-42	
23.85.Appendix.	
23.85.AE101.1	General.
23.85.AE102.7	Mobile homes, campers, and travel trailers.
23.85.AE102.7.1	Mobile homes
23.85.AE102.7.2	Campers and travel trailers
23.85.AE201	Definitions.
23.85.AE301.1	Initial installation.
23.85.AE301.5	Gas and plumbing service.

23.85.AE302.4	Who may apply.
23.85.AE307	Utility service.
23.85.AE502.3	Footings and foundations.
23.85.AE502.6	Under-floor clearances-ventilation and access.
23.85.AE503.1	Skirting and permanent perimeter enclosures.
23.85.AE604.1	Ground anchors.

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

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

23.85.R100.1 Administrative.

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

23.85.R202 Definitions – Wind-borne debris region.

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

23.85.R301.2.1 Wind limitations.

Delete the words "EXTERIOR DOORS" from the third sentence.

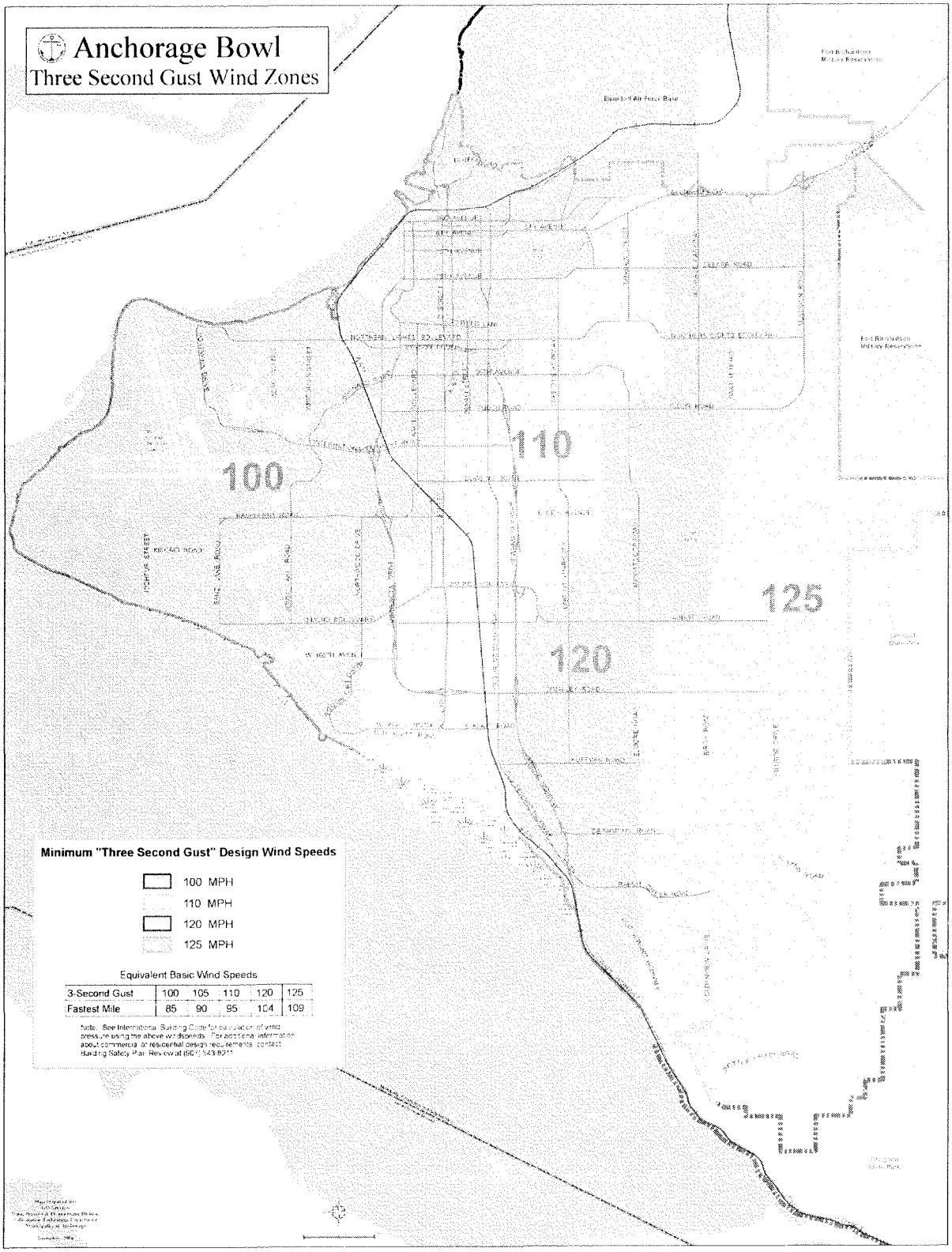
23.85.Table R301.2(1) Climatic and Geographic Design Criteria.

Add the following information in the table:

Ground snow load	50 PSF
Equates to 40 psf roof snow load	
Wind Speed	23.85.Figure R301.2(4)
Topographic effects	per site
Seismic Design Category	D_2
Subject to damage from:	
Weathering	Yes, severe
Frost Line Depth	42" for warm foundation, 60" for cold foundation
Termite	No
Winter Design Temperature	-25 deg F
Ice Shield Underlayment Required	Yes
Flood Hazards	Yes, see flood hazard maps
Air Freezing Index	3500
Mean Annual Temperature	35°F

23.85.Figure R301.2(4) Basic wind speeds for 50-year mean recurrence interval.

Amend by deleting Figure R301.2(4) and replace with the following:
Anchorage Bowl "Three Second Gust" Wind Zone Map:



23.85.R301.2.1.1 Design criteria.

Add to Section R301.2.1.1:

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

23.85.R301.2.2.1.1 Alternate determination of seismic design category.

Delete paragraphs R301.2.2.1.1, R301.2.2.1.2, and table R301.2.2.1.1 and replace with the following:

The seismic design category for Anchorage shall be D_2.

23.85.Table R302.1 Exterior walls.

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

23.85.R302.2 Townhouses.

In the exception add to the beginning of the paragraph:

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

23.85.R302.2.1 Continuity.

Delete the last sentence in paragraph.

23.85.R302.2.1.1 Horizontal continuity.

Add the following subsection:

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

23.85.R302.2.1.2 Exterior walls.

Add the following subsection:

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

23.85.R302.2.1.3 Horizontal projecting elements.

Add the following subsection:

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

that are within 4 feet of the separation wall.

Exceptions:

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

23.85.R302.2.4 Structural independence.

In exception #5, remove the wording "1-hour".

Add to the end of the sentence in exception #5:

...and of which will not be a bearing wall (walls) supporting any floor or roof.

23.85.R302.2.5 Common wall insulation.

Add new subsection:

The portion of the common wall(s) between dwelling units located in the attic space shall be fireblocked at ceiling line(s) and insulated equivalent to the attic space directly above the fireblocking.

23.85.R302.3 Two-family dwellings.

Delete exception 2 and add the following exception in its place:

2. A one-hour fire-resistive separation shall not be required between an Accessory Dwelling Unit (ADU), as defined under MOA Title 21 – section 21.45.035, and its primary residence.

23.85.R302.3.2 Common wall insulation.

Add new subsection:

The portion of the common wall(s) between dwelling units located in the attic space shall be fireblocked at ceiling line(s) and insulated equivalent to the attic space directly above the fireblocking.

23.85.R302.5.1 Opening protection.

Add to the end of the paragraph:

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

23.85.Table R302.6 Dwelling/garage separation.

Amend table by replacing ½ inch gypsum board with $^{5}/_{8}$ inch Type X gypsum board in all locations within the table.

23.85.R302.10.2 Loose-fill insulation.

Add the following paragraph after exception:

Depth gages or truss markings shall be provided for blown-in insulation to allow for verification of depth throughout the attic space.

23.85.R303.1 Habitable rooms.

Under exceptions add item 4:

4. Theater rooms are exempt from ventilation requirements of this section.

23.85.R307.1 Space required.

Delete paragraph and figure R307.1 and replace with:

Reference the current adopted plumbing and mechanical codes.

23.85.R308.6.9 Testing and labeling.

Add sentence to end of paragraph:

Will accept literature provided on site to show skylights meet criteria of section, in lieu of label adhered to skylight.

23.85.R310.1 Emergency escape and rescue required.

Number the exception 1, and add exception number 2:

2. Where windows are provided as a means of escape or rescue in a basement, they shall have a finished sill height of not more than forty-eight (48) inches above the finished floor.

23.85.R313 Automatic fire sprinkler systems.

Delete section.

23.85.R315.1 Carbon monoxide alarms.

Delete the information in section and replace with:

At least one carbon monoxide detector shall be installed on each floor level. If a floor level contains bedrooms, at least one detector shall be located in the immediate vicinity but outside of the bedrooms. Carbon monoxide detectors shall be listed and installed in accordance with their listing. Combination carbon monoxide/smoke detectors are acceptable as long as they meet all requirements.

Exceptions:

1. Carbon monoxide detectors are not required in dwelling units that have no combustion appliances and that do not have an attached garage.
2. Carbon monoxide detectors are not required in dwelling units that have only direct vent combustion appliances and that do not have an attached garage.

23.85.R315.2 Interconnection.

Delete title of section and rename as noted. Delete the information in section and replace with:

In new construction, carbon monoxide detectors shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual dwelling unit.

23.85.R315.3 Power source.

Delete title of section and rename as noted. Delete the information in section and replace with:

In new construction, carbon monoxide detectors shall receive their primary

power from the building wiring where such wiring is served from a commercial source and shall be equipped with a battery back-up. Wiring shall be permanent and without disconnecting switch other than those required for overcurrent protection. In existing construction, carbon monoxide detectors shall be permitted to be battery powered or cord-and-plug type with battery back-up.

23.85.R317.1 Location required.

Amend first sentence by deleting the words "naturally durable wood or".

23.85.R317.1(5) Location required.

Add the following sentence to the end of number 5 in this section:

Measures should be taken to mitigate frost heaving if wood siding or sheathing has less than six inch clearance.

23.85.R317.1.1 Field treatment.

Add the following sentence to the end of the paragraph:

This requirement only applies to exposed glue-laminated timbers in section R317.1.5 and AWW foundation walls.

23.85.R317.3.1 Fasteners for preservative-treated wood.

Add Exception 3:

¼" steel (red iron) designed brackets, may be used with treated lumber providing a 10 mil polyethylene plastic barrier, two layers, is placed between surface of wood and surface of steel.

23.85.R401.1 Application.

Add the following item No. 3 to the exception:

3. Wood foundations shall be per 23.85.Figure R403-34.

23.85.R401.3 Drainage.

Add the following sentence to the end of the paragraph:

There shall not be a net increase in surface drainage across property lines. Approved discharge locations shall include street gutters, drainage easements, ditches, or other approved locations. Surface runoff may be retained on site to prevent impacts to neighboring properties.

23.85.R401.4 Soil tests.

Add the following:

Special site investigations shall be performed in potentially hazardous areas as follows:

1. Special site investigations are required in delineated seismic hazard zones after consideration of the proposed location, use, and building type. The required level of documentation is specified in the following paragraphs according to designations in 23.85.Table R401.4.
   a. For site investigation requirement "A", submit geotechnical information sufficient for the Building Official to verify that

the assumed hazard zonation is consistent with known site conditions.

b. For site investigation requirement "B", provide all information described above; plus submit geotechnical investigation per 2009 IBC 1803 prepared by a professional engineer registered in the State of Alaska. It may be necessary to extend the investigation beyond the immediate site boundaries in order to evaluate applicable hazards. The structure shall be designed and sealed by a structural engineer registered in the State of Alaska.

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

OCCUPANCY	SITE INVESTIGATION REQUIREMENT HAZARD ZONE (SEE NOTES)				
Residential	5 B	4 B	3 A	2 A	1 A

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

Hazard Zones*

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

*Reference: Municipality of Anchorage, Geotechnical Hazard Assessment Study, date 1979.

23.85.R403.1 General.

Delete the last two sentences of R403.1 and figures R403.1(1), R403.1(2), and R403.1(3) and Table R403.1, and add or replace with the following:

1. Definitions:
   a. ***Warm foundation***: Any foundation where the temperature of the bearing soils are normally maintained above freezing;
   b. ***Cold foundation***: Any foundation where the temperature of the bearing soils are normally subjected to freezing.
2. Foundations shall be constructed as shown in Table 23.85.R403-16 and Figures 23.85.R403-25, 23.85.R403-29, 23.85.R403-31, 23.85.R403-34, and 23.85.R403-37 or foundations designed under the provisions of the IBC. Footings and foundations shall be constructed of masonry, concrete, or treated wood. Footings of concrete and masonry shall be of solid material. Foundations supporting wood shall extend at

least six (6) inches above the adjacent grade. Unless other recommendations are provided by a foundation investigation report, footings shall meet the following requirements:

a. Minimum footing depths shall be indicated in 23.85.Table R403.1. Footings shall bear on undisturbed natural inorganic soil, or suitably compacted fill.

b. Cast-in place concrete piers shall be founded at a depth suitable for structural support or as indicated in 23.85.Table R403.1, whichever is greater. Connecting grade beams between piers on perimeter walls of warm buildings shall extend at least 36 inches below ground surface and shall be protected from frost heave. The potential for frost heave below grade beams of cold structure shall be accounted for in the design of these elements.

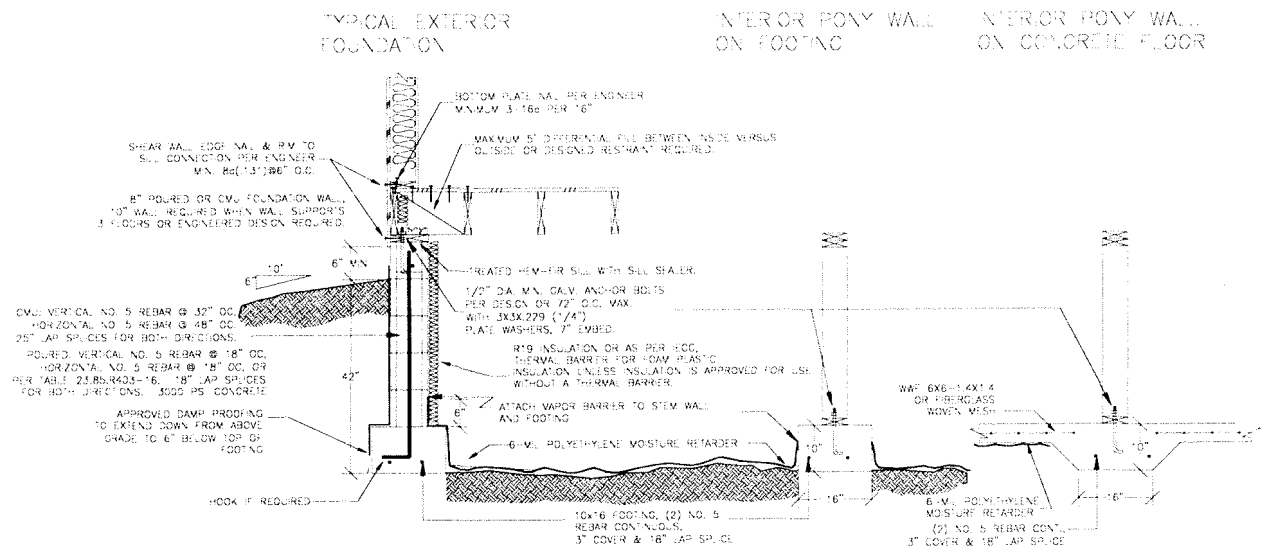
23.85.Table R403-16 Reinforced concrete.

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

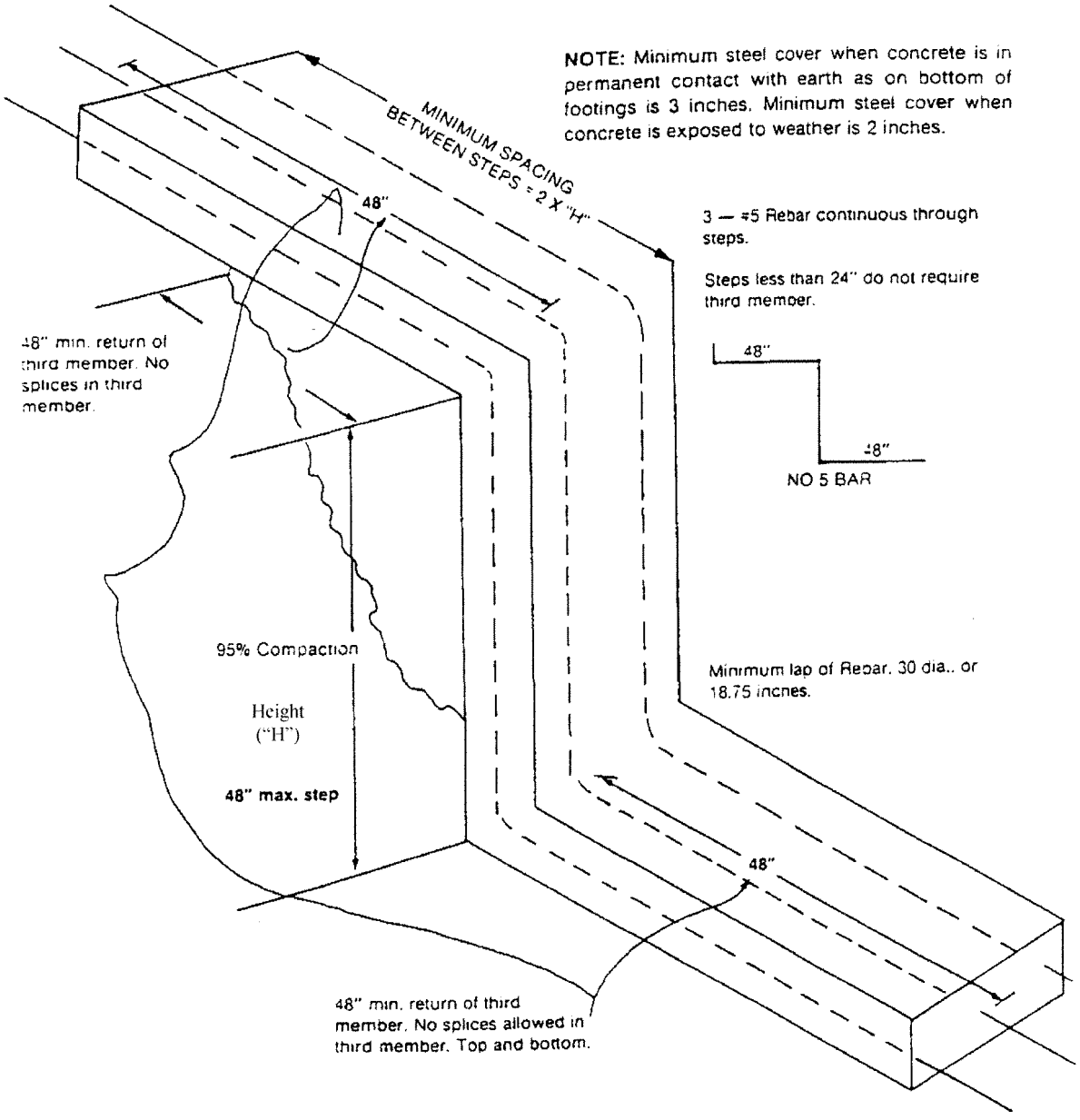
MINIMUM REINFORCEMENT FOR CONCRETE WALLS
(Horizontal and Vertical Spacing)

Width of Wall	**#5 Bar**	**#4 Bar**
6" Walls	#5 @ 18" O.C. hor.	#4 @ 16" O.C. hor.
	#5 @ 18" O.C. vert.	#4 @ 18" O.C. vert.
8" Walls	#5 @ 18" O.C. hor.	#4 @ 12" O.C. hor.
	#5 @ 18" O.C. vert.	#4 @ 18" O.C. vert.
10" Walls	#5 @ 15" O.C. hor.	#4 @ 10" O.C. hor.
	#5 @ 18" O.C. vert.	#4 @ 16" O.C. vert.

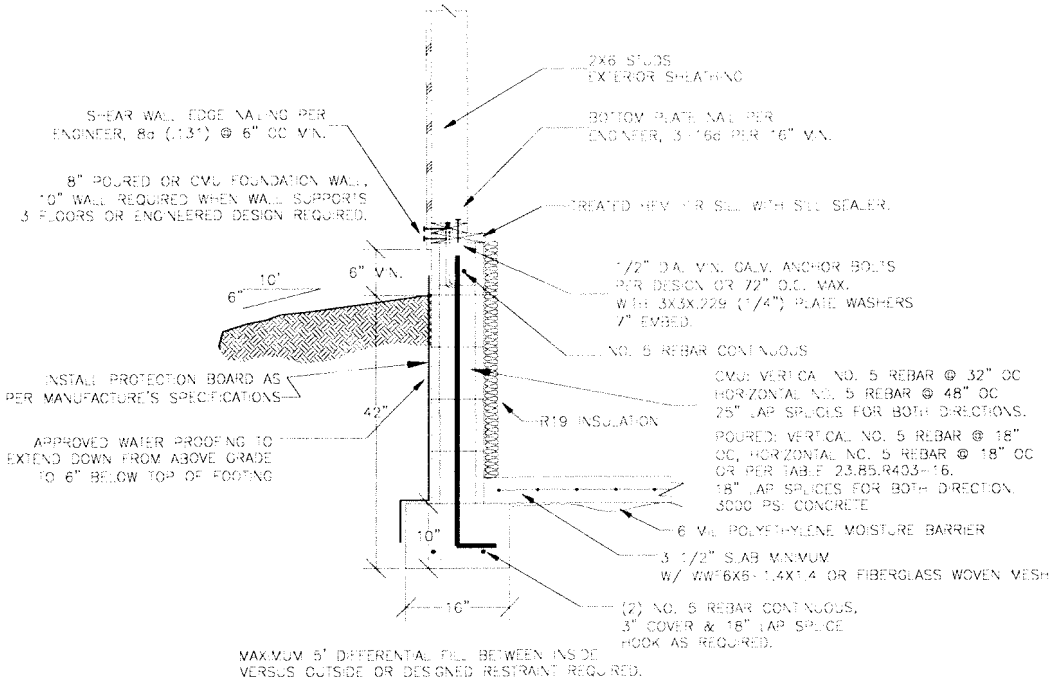
23.85.Figure R403-25 Typical foundation and footing details.



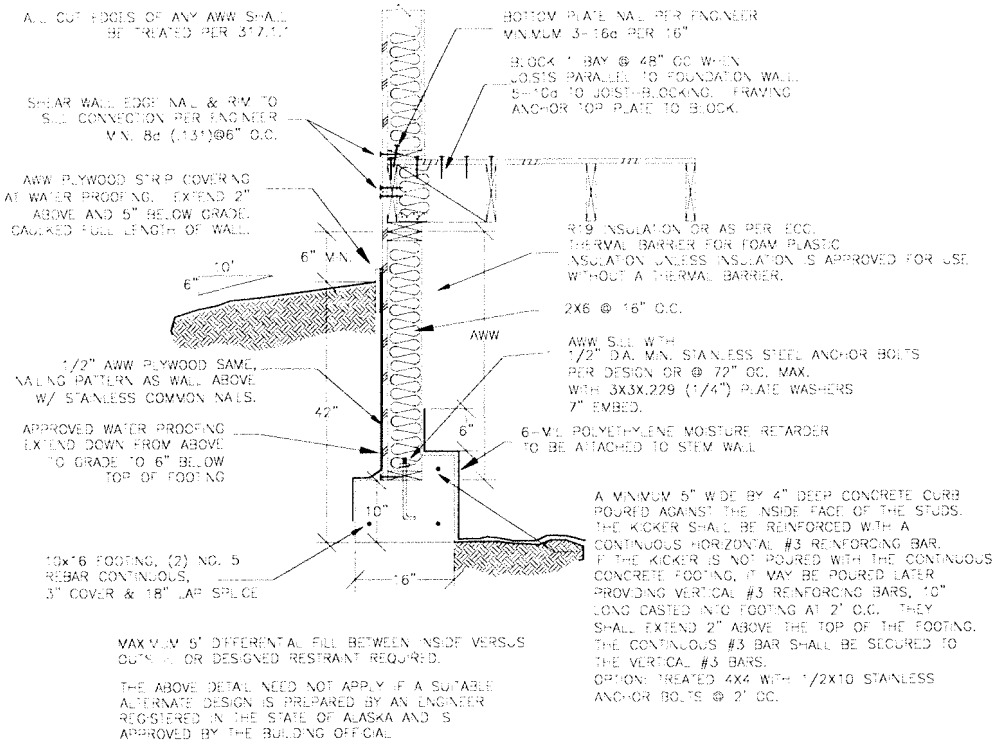
23.85.Figure R403-29 Typical step footing.



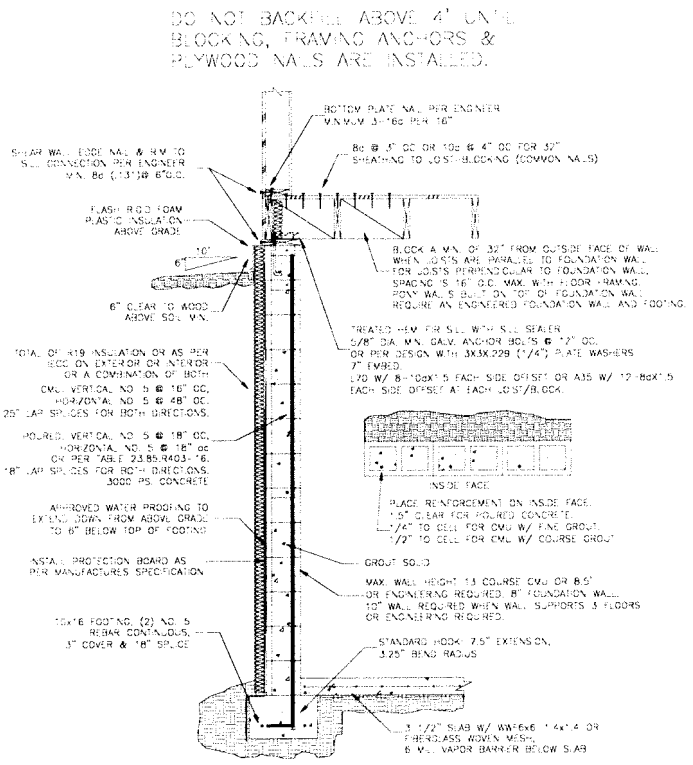
23.85.Figure R403-31 Typical pony wall for split level.



23.85.Figure R403-34 All weather wood foundation.



23.85.Figure R403-37 Typical basement foundation wall.



23.85.Table R403.1 Footing depths.

Foundation Type	Minimum Footing Depth (Inches)		
	Warm Foundation		Cold Foundation (3)(4)
Perimeter Footing (1)	42	all measurements	60
Interior or Interior Isolated Spread Footings (2)		are from top of finished	60
Cast-in-Place Concrete Pier	42	grade	120 (5)

NOTES TO TABLE:

(1) Dimension indicated is from bottom of footing to adjacent exterior grade. Basements or crawlspace walls supporting more than five feet differential fill on opposite faces shall be restrained as necessary against lateral movement.

(2) Dimension indicated is from bottom of footing to nearest adjacent grade.

(3) Exterior decks, landings, and platforms not rigidly attached to the building and not greater than 30 inches above grade may bear directly on the ground. Bearing materials must meet other portions of this code.

(4) The minimum footing depths may not be adequate for frost susceptible soils. Cold footings shall be founded below the frost line, or be protected from freezing with insulation or other appropriate means. In addition, provisions shall be made to resist uplift forces due to frost jacking on the side of cold foundations.

(5) Cast-in-place concrete piers installed in non-frost-susceptible material may be 60 inches (five feet).

23.85.R403.1.1 Minimum size.

Delete section – see 23.85.R403.1.

23.85.R403.1.3 Seismic reinforcing.

Delete exception.

23.85.R403.1.4.1 Frost protection.

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

23.85.R403.2 Footings for wood foundations.

Delete entire paragraph and replace with the following:

Wood foundations shall be per 23.85.Figure R403-34.

23.88.Table.R403.3(2) Air-freezing index for U.S. locations by county.
Add Anchorage to the "3500" column in the Alaska row.

23.85.R404.1 Concrete and masonry foundation walls.
Delete subsections R404.1.1 through R404.1.8.
Delete Tables R404.1.1(1) - R404.1.1(4), and R404.1.2(1) – R404.1.2(9), and Figure R404.1.5(1).
See 23.85.R403.1.

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

23.85.R404.3 Wood sill plates.
Delete paragraph and substitute with the following:

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

23.85.R404.6 Insulating concrete form foundation walls.
Add new section:

> Only flat insulating concrete form wall systems shall be used with reinforcement per 23.85.Table R403-16.

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

23.85.R406.1 Concrete and masonry foundation dampproofing.
Substitute with the following:

> In the first sentence beginning with the word "enclose", replace the wording in the rest of the sentence with the following:
> ...crawl space walls 40 inches or less in height shall be damp-proofed from above grade to 6" below the top of the footing.

Number the exception to1 and add exception 2:

> 2. Foundation walls backfilled on both sides, such as those used in conjunction with a "slab on grade", do not require damp-proofing.

23.85.R406.2 Concrete and masonry foundation waterproofing.
Delete the first sentence and replace with the following:

> Exterior foundation walls that retain earth and enclose habitable or usable interior spaces and floors below grade shall be waterproofed

from above grade to 6" below the top of the footing.

Number the exception to 1 and add exception 2:

2. Foundation walls backfilled on both sides, such as those used in conjunction with a "slab on grade" do not require waterproofing.

23.85.R406.3 Dampproofing for wood foundations.

Delete the word "dampproofing" in heading and body of section and replace with "waterproofing".

23.85.R406.3.2 Below grade moisture barrier.

Delete paragraph and replace with the following:

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

23.85.R406.4 Precast concrete foundation system dampproofing.

Delete paragraph, replace with: See Section 23.85.R406.1 and 23.85.R406.2 for requirements.

23.85.R407.2 Steel column protection.

Delete paragraph and replace with:

Exterior surface of steel columns exposed to the elements shall be protected with a rust inhibitive paint except for corrosive-resistant steel and steel treated with coatings to provide corrosion resistance.

23.85.R602.3.2 Top plate.

Delete exception.

23.85.R602.6 Drilling and notching – studs.

Amend section by adding item 3:

3. All studs in walls containing plumbing drains and vents shall be a minimum of 6" nominal width or structurally sheath one side when 4" nominal width studs are used.

23.85.R703.2 Water-resistive barrier.

Amend the first sentence of the section to begin as follows:

Though not required by the Municipality of Anchorage, when installed or when required by the manufacturer, apply....

Amend the first sentence by adding the word "permeable" between the "of"

and "No. 15".

23.85.R703.3.1 Panel siding.

Add the following to the end of the paragraph:

Exterior type plywood siding with a grooved pattern shall not be installed horizontally and used as the weather resistant siding.

23.85.Table R703.4 Water-resistant siding attachment and minimum thickness.

In the fourth column, Water resistive barrier required, add a note after heading to see local amendment 23.85.R703.2.

23.85.R703.8 Flashing.

Amend section by deleting items 1 and 4 and substitute with:

Edges of all exterior openings and all horizontal joints of exterior trim shall be caulked and sealed with exterior grade, paintable caulk, a minimum of a 3/8" bead.

23.85.R802.2 Design and construction.

Add the following sentence to end of paragraph:

Minimum depth from roof sheathing to wall plate at exterior side of exterior wall shall be 11 ¼ inches.

23.85.R802.10.1 Truss design drawings.

Amend first sentence by deleting the following words:

...and approved prior to installation.

23.85.R802.10.2 Design.

Add the following sentence to end of paragraph:

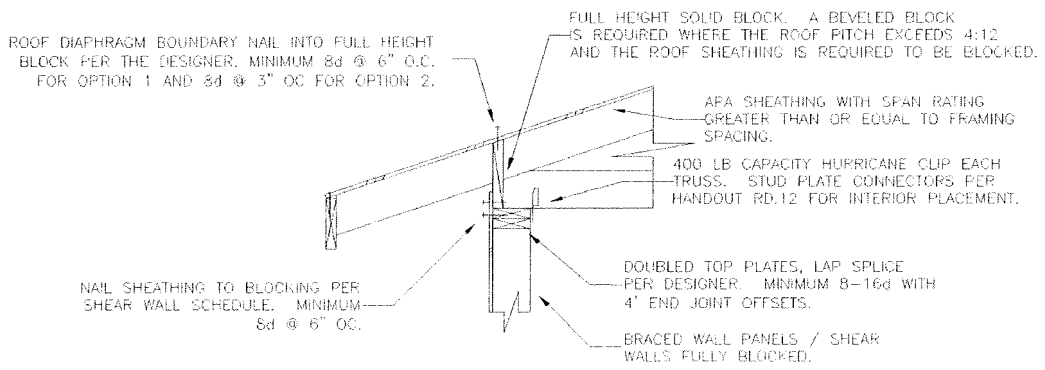
Minimum depth of truss at exterior wall plate shall be 11 ¼ inches at exterior side plate.

23.85.R802.10.3 Bracing.

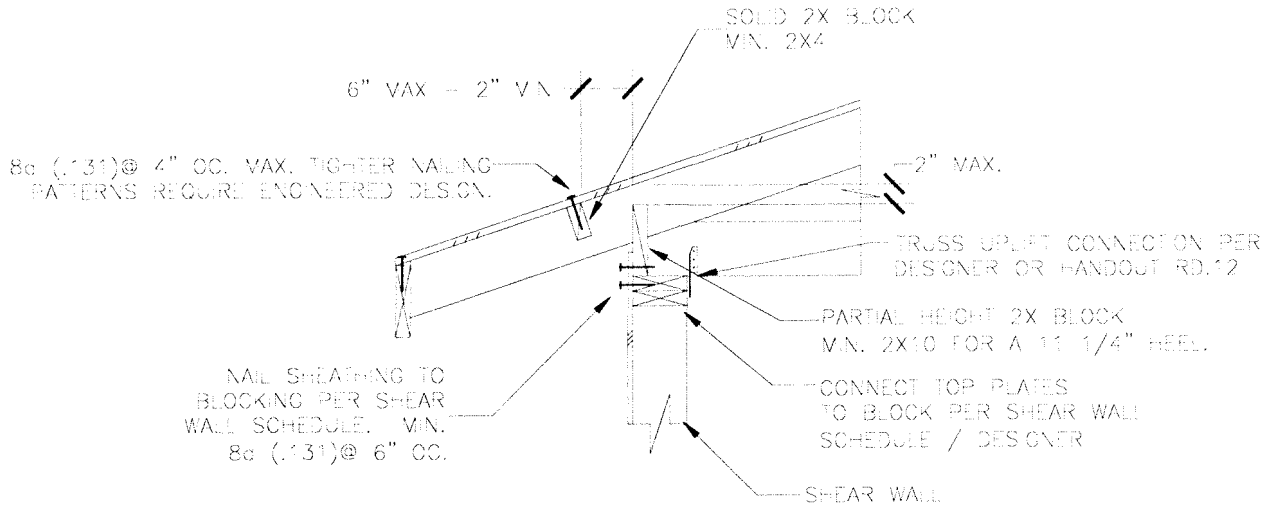
Add the following details and verbiage to section:

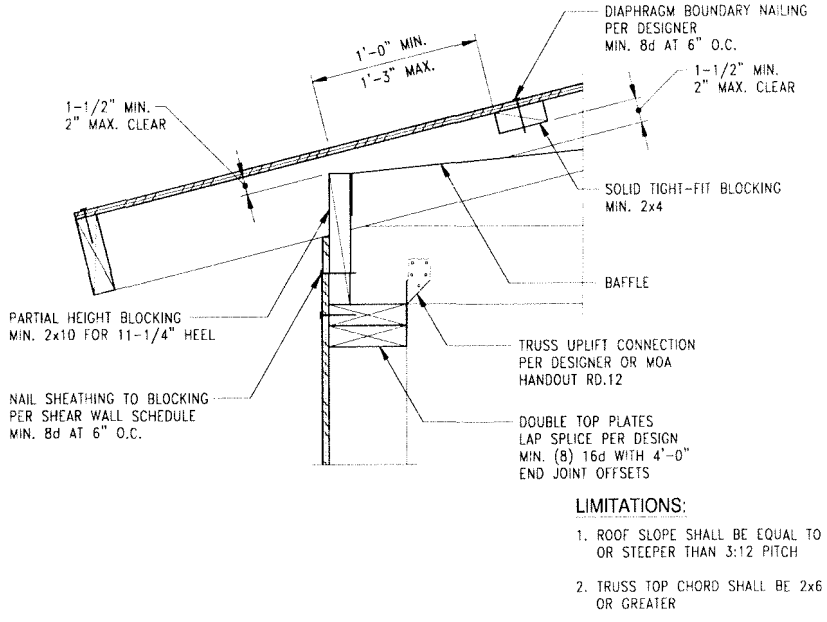
OPTION 1: FULL HEIGHT BLOCK IN EVERY SPACE WITH 3 OR MORE 2" DIAMETER OR LARGER HOLES AT TOP OF BLOCK.

OPTION 2: ALTERNATE FULL HEIGHT BLOCK WITH 3 OR MORE 2" DIAMETER HOLES AT TOP OF BLOCK AND PARTIAL HEIGHT BLOCK EVERY OTHER SPACE WITH AN AIR GAP BETWEEN 1"–2" FROM ROOF SHEATHING TO TOP OF PARTIAL HEIGHT BLOCK – MIN. 2X10 BLOCK.



OPTIONS 3 & 4: THESE CONFIGURATION MAY BE USED IN LIEU OF FULL HEIGHT BLOCKS ABOVE EXTERIOR WALLS FOR TRUSSES WITH HEELS OF 11 1/4".





Other configurations may be deemed acceptable when supported by calculations.

23.85.R806.1 Ventilation required.

Add the following sentence to end of paragraph:

A non-ventilated roof system may be allowed as an alternate method when the design is approved by the building official.

23.85.R806.2 Minimum area.

Revise the first sentence of paragraph by replacing the phrase:

...except that reduction of the total area to 1 to 300, is permitted, provided that...

With the word "and".

Delete the last sentence of paragraph.

23.85.R806.4 Unvented attic assemblies.

Delete section.

23.85.R807.1 Attic access.

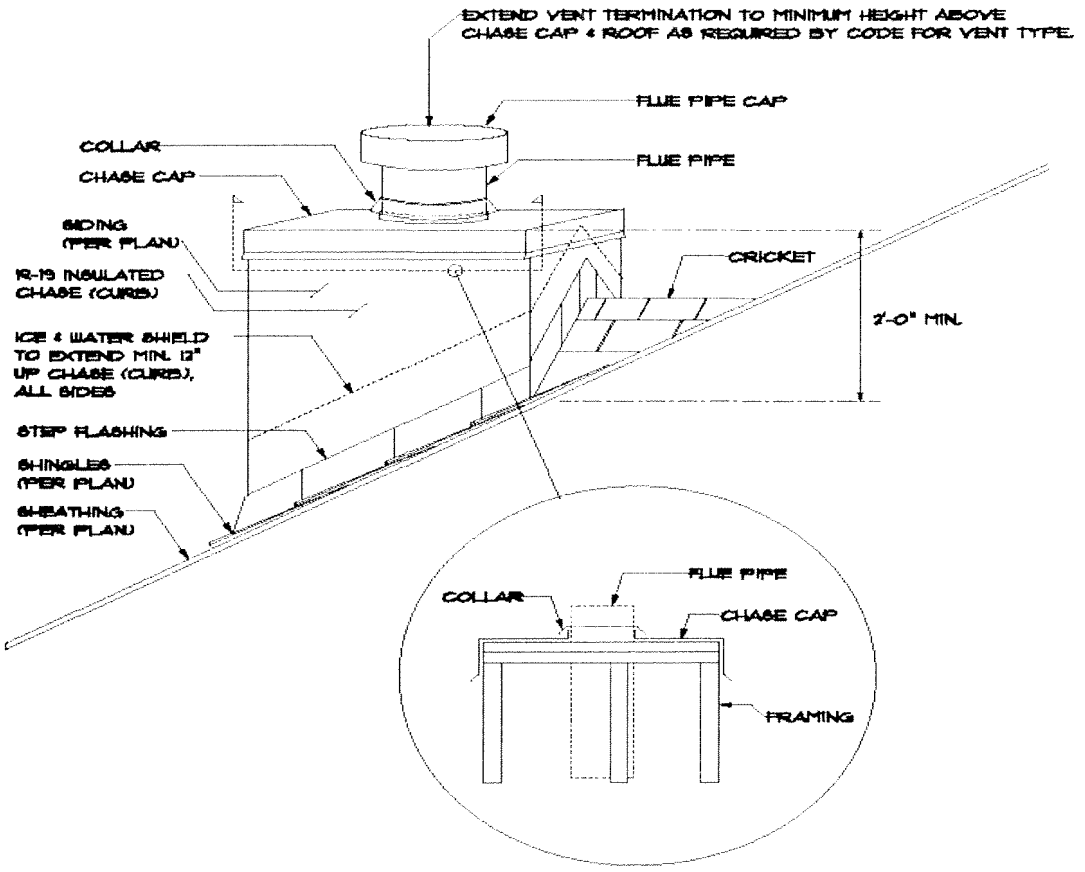
Add the following paragraph to the end of the section:

Attic access shall not be located in a room containing bathing facilities. Access may be located in closets with minimum depth of 23 inches and minimum width of 48 inches.

23.85.R903.1 General.

Add the following paragraph and detail to the end of section:

1. All valleys shall have a modified bitumen ice barrier lapped eighteen inches minimum each side of valley centerline. No penetrations shall be located in required valley ice barrier.
2. All roof penetrations shall be located a minimum of six feet from valley centerline and four feet from the exterior wall line measured on a horizontal plane, excluding attic ventilation.
3. All roof penetrations shall extend above the roof surface a minimum of 24 inches, except attic ventilation.
4. Type B gas vents may penetrate the eave ice barrier area if installed within a 24 inches, wood framed, R-19 insulated curb, measured on the ridge side of the roof. The ice barrier must extend up the curb a minimum of 12 inches on all sides. See detail below.



23.85.R903.4 Roof drainage.

Add the following sentence to end of the last paragraph:

Roofs and gutter downspouts shall not create a water flow that damages neighboring properties.

23.85.903.4.2 Snow impact on neighboring lot.

Add the following subsection:

Snow from a structure shall not shed across a property line.

23.85.R905.1.1 Sheathing and deck requirements.

Add the following subsection:

Spaced sheathing is not permitted.

23.85.R905.1.2 Underlayment.

Add the following subsection:

Underlayment shall comply with ASTM D 226 Type I (No. 15 Asphalt Felt). For slopes 4V:12H and steeper underlayment shall be at least one layer installed with a 4 inch lap over the ice barrier. Each subsequent layer shall be lapped 4 inches vertically and two inches horizontally to shed water, continuing to the ridge, fastened sufficiently to hold in place. See 23.85.R905.1.3 for ice barriers used as

underlayment.

23.85.R905.1.3 Ice barrier.
Add the following subsection.

An ice barrier shall be a self-adhering polymer modified bitumen sheet complying with ASTM D 1970. For slopes less steep than, but not including, 4V:12H, an ice barrier shall be used over the entire surface of the roof. No additional normal underlayment is required. For slopes 4V:12H and steeper an ice barrier shall extend from the lowest edges of all roof surfaces to a point at least 36 inches inside the exterior wall line of the building. The remainder of the roof surfaces may be covered with normal underlayment.

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

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

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

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

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

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

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

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

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

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

23.85.R905.7.3 Underlayment (wood shingles).
Delete this subsection in its entirety; refer to 23.85.R905.1.2 and 23.85.R905.1.3.

23.85.R905.8.1 Deck requirements (wood shakes).
Delete all reference to spaced sheathing, as spaced sheathing is not permitted; refer to 23.85.R905.1.1.

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

23.85.R905.9.1 Slope (built-up roofs).
Delete the following words:

> ...except for coal-tar built-up roofs, which shall have a design slope of a minimum one-eight unit vertical in 12 units horizontal (1-pecent slope).

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

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

23.85.Chapter 11 Energy efficiency.
Delete Chapter 11, Energy Efficiency, in its entirety and refer to the 2009 International Energy Conservation Code and all local amendments.

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

23.85. Appendix.
Adopt Appendices E and K.

23.85.AE101.1 General.
Amend the first sentence to read:

> These provisions shall apply to manufactured homes, mobile homes, campers, and travel trailers serving as detached single-family dwelling units placed either on private (nonrental) lots or within mobile home parks licensed by the Municipality, and shall apply to the following:

Add the following section:

> **23.85.AE102.7 Mobile homes, campers, and travel trailers.**
>
> **23.85.AE102.7.1 Mobile homes.**
>
> Every mobile home built prior to June 15, 1976, shall be labeled as required in Section A201, and shall conform to all of the following:
>
> 1. FIRE WARNING SYSTEM - Smoke detectors shall be

provided with in accordance with R317.

2. FIRE PROTECTION – Each mobile home shall be equipped with at least one 2-A rated portable fire extinguisher installed in accordance with NFPA 10-98.
3. ELECTRICAL SYSTEM - All electrical equipment, wiring, and appliances shall be installed per Building Safety Handout No. R.10 Mobile Home Set-Up and Permit Requirements, as maintained by the Building Official.
4. MECHANICAL SYSTEM - All heating facilities shall be maintained in a safe condition. Additions, alterations, repairs and replacements shall comply with manufacturer's instructions and the currently adopted edition of the International Mechanical Code. Gas piping shall conform to the currently adopted edition of the International Fuel Gas Code.
5. PLUMBING SYSTEM - All plumbing facilities shall be maintained in a safe and sanitary condition. Additions, alterations, repairs and replacements shall comply with manufacturer's instructions and the currently adopted edition of the Uniform Plumbing Code.
6. EXIT FACILITIES - Mobile homes shall have a minimum of two external doors located remotely from each other and so arranged as to provide means of unobstructed travel to the outside of the mobile home.
7. GROUND FAULT INTERUPTER CIRCUIT - Every mobile home shall have every electrical circuit serving bathroom, kitchen, and ground level service outlets protected by a ground fault interrupter circuit I, as required by Article 550-8(b) of the National Electrical Code.

23.85.AE102.7.2 Campers and travel trailers.

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

1. All of the construction requirements of NFPA 501C, 1996 edition.
2. Items 1 through 6 of AMC 23.85.A102.7.1. Any camper or travel trailer not located within a licensed Camper Park shall not be occupied as a residence more than 14 days at a time for a total of more than 30 days in any twelve month period.

23.85.AE201 Definitions.

Add the following:

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

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

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

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

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

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

Add the following to the definition of ***Manufactured home standards***:

Every manufactured home installed in the Municipality must be certified for the "North Zone" (40 pounds per square foot) for snow load and heat loss "Comfort Zone 3" in accordance with HUD standards.

23.85.AE301.1 Initial installation.

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

...relocated, moved,...

23.85.AE301.5 Gas and plumbing service.

Add a new section:

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

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

23.85.AE302.4 Who may apply.

Only the owner of a manufactured home or a licensed mobile home contractor may apply for a permit under this section.

23.85.AE307 Utility service.

Add the following sentence:

All sewer, electricity, gas, and water services shall be installed and maintained in a safe manner in accordance with the appropriate adopted codes.

23.85.AE502.3 Footings and foundations.

Replace the last sentence of the first paragraph with the following:

Footings shall have a minimum depth of 42 inches below exterior grade on privately owned (nonrental) lots, unless a greater depth is required by the building official based on a foundation investigation or other information. Footings or piers in mobile home parks may be placed at surface grade, provided all other requirements are met.

23.85.AE502.6 Under-floor clearances-ventilation and access.

Add to the second paragraph the following:

Where combustion air is not taken from the crawl space, and where the floor area of the home does not exceed 800 square feet, the ventilation requirement may be met by operable vents of 8 inches by 16 inches installed in skirting not less than 18 inches above exterior grade at opposite ends of the manufactured home.

23.85.AE503.1 Skirting and permanent perimeter enclosures.

Replace the first sentence of the first paragraph with the following:

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

23.85.AE604.1 Ground anchors.

Replace the first paragraph with the following:

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

Chapter 23.95 RELOCATABLE ANCILLARY BUILDINGS.

23.95.100 Building permit: exemption.

Relocatable ancillary buildings, which meet the requirements of section 23.95.200 qualify for a building permit. Relocatable ancillary buildings are exempt from the requirements of section 102.6, moved buildings, and section 102.7, temporary structures of the Anchorage Administrative Code, or any successor or local amendment thereto.

23.95.200 Requirements for building permit.

A relocatable ancillary building which meets all of the following requirements, qualifies for a building permit:

A. The relocatable ancillary building shall comply with the provisions of the technical codes for new buildings or structures relating to fire, building and life safety concerns and are current as of the date of the building plan review, except the relocatable ancillary building is not required to have:
   1. Plumbing facilities;
   2. Water service;
   3. Permanent foundation;
   4. Active fire alarm system, provided the relocatable ancillary building is less than 1,000 square feet in size and has at least two exit door openings;
   5. Fire sprinkler system; or
   6. Accessibility for the disabled, provided a similar education program is offered in the permanent building accessible to the disabled.

B. The relocatable ancillary building must be secured to prevent overturning or sliding by lateral forces, including wind, and to minimize movement during seismic activities.

C. A plan for the proposed location of the relocatable ancillary buildings shall be approved by the municipal Fire Department and the Building Safety Division of the Department of Development Services.

D. An electrical permit and reinspection for the relocatable ancillary building is required following each relocation thereof.

E. A plumbing permit and reinspection for any relocatable ancillary building having plumbing facilities or water service is required following each relocation thereof.

23.95.300 Definitions.

A. ***Relocatable ancillary building*** - a publicly or privately owned moveable educational classroom or support facility meeting the Group E occupancy definition of the Building Codes contained in title

23 and constructed for multi-year use in conjunction with one or more publicly or privately owned permanent building and which meets all of the following criteria:

1. Is a public or private educational facility which serves a public education purpose;
2. Is ancillary to a permanent building and serves the same general purpose and function as the permanent building;
3. Is located in close proximity to the permanent building; and
4. Is used as a classroom for students who have access to the plumbing facilities and water service of the permanent building or is used as a storeroom solely for classroom supplies.

CHAPTER 23.100 MOBILE AIRCRAFT SHELTERS.

23.100.010 General.

Notwithstanding other requirements of this code, mobile structures for the housing of aircraft may be moved and maintained subject to the requirements set forth in this section.

23.100.020 Location.

Existing Mobile Aircraft Shelters (shelters) may be relocated on municipal airports. No such shelter shall be located closer than twenty (20) feet from any permanent building, mobile home or lot line, except where lot lines are along streets or aircraft taxiways where the twenty (20) feet may be measured from the centerline of the right of way; and except where such shelters are situated in a configuration providing periodic fire breaks in conformity with required building and fire codes. The location of each structure shall also comply with the requirements of title 21.

23.100.030 Occupancy.

Mobile Aircraft Shelters shall be used only for the following authorized purposes:

A. Storage of personal or business use aircraft and related spare

parts;

B. Storage or use of tools subject to the limitations contained in this chapter; and

C. Minor maintenance or repair of aircraft by their owners or contract/licensed mechanics.

23.100.040 Authorized activities.

Authorized activities shall include storage or maintenance of the following:

A. Storage of an aircraft for personal or business use, or in the case of smaller aircraft, more than one aircraft;

B. Hand tools and small power tools required to support authorized activities;

C. Spare parts such as:

1. tires and wheels
2. propellers
3. seats
4. avionics
5. hardware
6. wire and wiring supplies
7. lamps
8. small structural sections
9. personal and cargo parachutes, including packing and repairs to parachutes

D. Work benches and shelves;

E. Storage cabinets;

F. Aircraft ingress winches and required electrical and communications utilities to support the same;

G. Routine cleaning of aircraft parts or the shelter;

H. Minor aircraft repairs, adjustments, and configurations;

I. Inspections, including annual inspections;

J. Installation or changing, or changing calibration of avionics;

K. Replacement of control surfaces, axles, bearings and aircraft accessories including but not limited to generators, alternators, fuel pumps, oil and vacuum pumps, magnets, batteries, cylinder heads and cylinder barrel replacement;

L. Open houses and posting signs for the purpose of showing or selling or subleasing a mobile aircraft shelter;

M. Storage of snowblowers or snow removal equipment;

N. Storage of compressors and related tools;

O. Unused oil not to exceed two (2) cases or ten (10) gallons;

P. Aircraft fuel in the aircraft tanks;

Q. Lubricants in factory containers;

R. Emergency electrical generators;

S. Seasonal equipment such as ice augers, survival equipment and non-commercial fishing equipment; and

T. Personal vehicles in place of the aircraft when the aircraft is flying.

23.100.050 Unauthorized activities.

Mobile aircraft shelters shall not be used for any of the following:

A. Commercial activities including but not limited to:
   1. Performing for hire annual inspections for other aircraft owners;
   2. Commercial basing of aircraft for the purposes of guiding, air cargo or commuter operations where the mobile aircraft shelter is used for ancillary uses other than the actual storage of this aircraft; and
   3. Commercial basing of aircraft for instructional purposes when the mobile aircraft shelter is used for purposes other then only storage of the aircraft.

B. Major repairs, including engine tear downs;
C. Welding of any kind;
D. Painting except for minor touch up painting utilizing small, hand-held spray cans;
E. Storage of non-aviation related products including but not limited to:
   1. furniture not related to authorized shelter uses;
   2. unrelated business records or files;
   3. equipment, tools, or other items of household or business use;
   4. vehicles not otherwise allowed, including snowmachines, motorcycles, all-terrain vehicles, automobiles, trucks;
   5. boats, except for rubber rafts and their motors;
   6. campers and camper shells;
   7. mobile homes;
   8. trailers;
   9. commercial generators and welders;
   10. used oil;
   11. fuel in drums or portable containers in excess of a total of five (5) gallons;
   12. hydraulic oil in excess of a total of one (1) gallon.

23.100.060 Heating methods.

Heating mobile aircraft shelters may be provided as follows:

A. The following may be used as methods of heating authorized aircraft, vehicle, equipment or shelters:
   1. electric block-type with UL approval for such purposes;
   2. pan adhesion with UL approval for such purposes;
   3. individual catalytic heaters with UL approval for such purposes; and
   4. Forced air sealed combustion chamber heaters using outside combustion air connected to natural gas, *provided* such heaters are UL approved and are designed, installed and operated in conformity with applicable building and fire codes.

B. The following shall not be used as methods of heating aircraft, vehicles, equipment or shelters:
   1. open flame heaters of any kind;
   2. propane heaters;
   3. diesel fired heaters; and
   4. "salamander" or kerosene catalytic heaters.

23.100.070 Area and height limitations.

Individual shelters shall not exceed two thousand five hundred (2,500) square feet of usable floor area. Where two or more shelters are grouped together (or "nested" in "T-Hangar" configuration), the total gross floor area of such grouping shall not exceed twenty thousand (20,000) square feet on non-combustible construction without an approved area separation wall.

A. Adjacent shelters may be joined with non-combustible materials of similar design to original construction providing that they are separated by a one (1) hour rated fire door and applicable hardware. All floors shall be ground level, and no balcony or mezzanine floors shall be permitted, except that the areas which are not in the landing gear "footprint" may be insulated with insulfoam covered with plywood where said exposed materials are covered with an approved, rated, fire retardant coating.

B. Minimum spacing between groupings of shelters shall be sixty-five (65) feet, except when an area separation wall is provided as noted above and in concert with applicable building and fire codes. Maximum height of any portion of the structure above grade shall be twenty-five (25) feet, and subject to the appropriate, approved and adopted airport height zoning map.

23.100.080 Design.

Shelters may be constructed of any non-combustible materials permitted by this code. Adequacy of design shall be evidenced by International Conference of Building Officials (ICBO) Research Report, computations by a registered engineer in the State of Alaska, or other additional information such as manufacturer's specification sheets and test results, subject to the approval of the building official.

23.100.090 Utilities.

Shelters may be connected to electrical, communications and natural gas utilities provided all devices utilized and all methods of installation and use meet the appropriate building codes and Municipal amendments thereto. If shelters are required in the future to be connected to water and/or sewer, and when and if such a requirement is perceived to exist, the building official shall provide guidance and where deemed appropriate and in the public interest, issue appropriate permits.

23.100.100 Foundations.

Shelters shall be founded on a concrete slab with a sufficient sill between each

unit to prevent liquid from flowing from one unit to another unit with appropriate anchorage for the units into the concrete slab. Maximum soil pressures shall be in accordance with this code.

23.100.110 Anchorage.
Shelters shall be anchored to resist uplift and lateral forces. Anchors shall resist various forces through gravity and soil pressures. The suitability and capacity of anchors shall be established by appropriate test reports or computations. Anchors shall be installed in accordance with the manufacturer's recommendations.

23.100.120 Structural strength.
Existing shelters are grandfathered. Any modifications to existing shelters shall be designed and constructed to meet criteria as required by the building code.

23.100.130 Exits.
Exit requirements for portable aircraft shelters shall be as required in the building code.

23.100.140 Protective Finish.
Shelters shall have protective finishes required by building code on exposed surfaces.

CHAPTER 23.105 GRADING, EXCAVATION AND FILL.

23.105.101 Purpose.
The purpose of this section is to safeguard life, limb, property and the public welfare by regulating grading on public or private property.

23.105.102 Scope.
This section sets forth rules and regulations to control excavation and earthwork construction, including fills and embankments; establishes the

administrative procedure for issuance of permits; and provides for approval of plans and inspection of grading construction.

The standards listed below are recognized standards.

1. Testing.

1.1. ASTM D 1557, Moisture-Density Relations of Soils and Soil Aggregate Mixtures

1.2. ASTM D 1556, In Place Density of Soils by the Sand-Cone Method

1.3. ASTM D 2167, In Place Density of Soils by the Rubber-Balloon Method

1.4. ASTM D 2937, In Place Density of Soils by the Drive-Cylinder Method

1.5 ASTM D 2922 and D 3017, In Place Moisture Contact and Density of Soils by Nuclear Methods

23.105.103 Permits required.

23.105.103.1 Permits required. Except as specified in section 23.105.103.2 below, no person shall do any grading without first having obtained a grading permit from the code official.

23.105.103.2 Exempted work. A grading permit is not required for the following:

1. When approved by the code official, grading in an isolated, self-contained area if there is no danger to private or public property.
2. An excavation below finished grade for basements and footings of a building, retaining wall or other structure authorized by a valid building permit.
3. Cemetery graves.
4. Refuse disposal sites controlled by other regulations.
5. Excavations for wells or tunnels or utilities.
6. Mining, quarrying, excavating, processing or stockpiling of rock, sand, gravel, aggregate or clay where established and provided for by law, provided such operations do not affect the lateral support or increase the stresses in or pressure upon any adjacent or contiguous property.
7. Exploratory excavations under the direction of soil engineers or engineering geologists.
8. An excavation:
   a. less than 2 feet (610 mm) in depth; or
   b. does not create a cut slope greater than 5 feet (1524 mm) in height and steeper than 1 unit vertical in 2 units horizontal (50% slope).
9. A fill less than:
   a. 1 foot (305 mm) in depth and placed on natural terrain with a slope flatter than 1 unit vertical in 5 units horizontal (20% slope); or
   b. less than 3 feet (914 mm) in depth, not intended to support structures, that does not exceed 50 cubic yards (38.3 m^3) on any one lot and does not obstruct a

drainage course.

Exemption from the permit requirements of this chapter shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this chapter or any other laws or ordinances of this Municipality.

10. Any retaining wall where the retained soil height measured from the bottom of the footing to the top of retained soil at the face of the wall is four (4) feet or less, and the top of the wall above the retained soil is no higher than 12 in.

23.105.104 Hazards.

Whenever the code official determines any existing excavation or embankment or fill on private property has become a hazard to life and limb, or endangers property, or adversely affects the safety, use or stability of a public way or drainage channel, the owner of the property upon which the excavation or fill is located, or other person or agent in control of said property, upon receipt of notice in writing from the code official, shall within the period specified therein repair or eliminate such excavation or embankment to eliminate the hazard and to be in conformance with the requirements of this code.

23.105.105 Definitions.

For the purposes of this code, the definitions listed hereunder shall be construed as specified in this section.

Approval - the proposed work or completed work conforms to this chapter in the opinion of the code official.

As-graded - the extent of surface conditions on completion of grading.

Bedrock - in-place solid rock.

Bench - a relatively level step excavated into earth material on which fill is to be placed.

Borrow - earth material acquired from an off-site location for use in grading on a site.

Civil engineer - a professional engineer registered in the state to practice in the field of civil works.

Civil engineering - the application of the knowledge of the forces of nature, principles of mechanics and the properties of materials to the evaluation, design and construction of civil works.

Compaction - the densification of a fill by mechanical means.

Earth material - any rock, natural soil or fill or any combination thereof.

Erosion - the wearing away of the ground surface as a result of the movement of wind, water or ice.

Excavation - the mechanical removal of earth material.

Fill - a deposit of earth material placed by artificial means.

Geotechnical engineer - see *Soils engineer.*

Grade - the vertical location of the ground surface.

Grade, existing - the grade prior to grading.

Grade, finish - the final grade of the site that conforms to the approved plan.

Grade, rough - the stage at which the grade approximately conforms to the approved plan.

Grading - any excavating or filling or combination thereof.

Key - a designed, compacted fill placed in a trench excavated in earth material beneath the toe of a proposed fill slope.

Site - any lot or parcel of land or contiguous combination thereof, under the same ownership, where grading is performed or permitted.

Slope - an inclined ground surface the inclination of which is expressed as a ratio of horizontal distance to vertical distance.

Soil - naturally occurring superficial deposits overlying bedrock.

Soils engineer (Geotechnical engineer) - an engineer experienced and knowledgeable in the practice of soils engineering (geotechnical) engineering.

Soils engineering (Geotechnical engineering) - the application of the principles of soils mechanics in the investigation, evaluation and design of civil works involving the use of earth materials and the inspection or testing of the construction thereof.

Terrace - a relatively level step constructed in the face of a graded slope surface for drainage and maintenance purposes.

23.105.106 Grading permit requirements.

23.105.106.1 Permits required. Except as exempted in section 23.105.103.2, no person shall do any grading without first obtaining a grading permit from the code official. A separate permit shall be obtained for each site, and may cover both excavations and fills.

23.105.106.2 Application. The provisions of the Anchorage Administrative Code section 23.10.301 are applicable to grading. Additionally, the application shall state the estimated quantities of work involved.

23.105.106.3 Grading designation.

Grading meeting any of the following shall be designated as "engineered grading":

A. Total grading quantities in excess of 5,000 cubic yards (3825 m^3); or

B. The natural slope is steeper than 2 units vertical in 1 unit horizontal (20% slope); or

C. Retaining walls not exempted per section 23.105.103.2 that are adjacent to property lines or structures where distance from the face of the wall to the property line or structure is less than the retained height of soil; or

D. Retaining walls not exempted per section 23.105.103.2 that are located in Seismically-Induced Ground Failure Zones 4 or 5, as defined by AMC section 23.15.1613.2; or

E. The code official determines that special conditions or unusual hazards exist that require professional engineering.

All other grading shall be designated as "regular grading". The

permittee may choose to have grading performed as engineered grading.

23.105.106.4 Soils engineering report. The soils engineering report required by section 23.105.106.3.1 shall include data regarding the nature, distribution and strength of existing soils, conclusions and recommendations for grading procedures and design criteria for corrective measures, including buttress fills, when necessary, and opinion on adequacy for the intended use of sites to be developed by the proposed grading as affected by soils engineering factors, including the stability of slopes.

23.105.106.5 Liquefaction study. The geotechnical investigation shall include a liquefaction study when the following conditions exist:

A. Shallow ground water, 50 feet (15240 mm) or less.
B. Unconsolidated sandy alluvium.

23.105.106.6 Regular grading requirements. Each application for a grading permit shall be accompanied by two sets of plans in sufficient clarity to indicate the nature and extent of the work and compliance with the provisions of this code. The plans shall give the location of the work, the name of the owner and the name of the person who prepared the plan. The plan shall include the following information:

A. General vicinity of the proposed site.
B. Limiting dimensions and depth of cut and fill.
C. Before and after contours.
D. Location of any buildings or structures where work is to be performed, and the location of any buildings or structures within fifteen (15) feet (4572 mm) of the proposed grading.

23.105.106.7 Issuance.

A. The provisions of the Anchorage Administrative Code are applicable to grading permits. The code official may require grading operations and project designs be modified if delays occur which incur weather-generated problems not considered at the time the permit was issued.
B. The code official may require special inspection and testing. The code official may require the grading to conform to engineered grading.

23.105.107 Grading fees.

23.105.107.1 General. Fees shall be assessed in accordance with the provisions of this section or shall be as set forth in the fee schedule adopted by the Municipality.

23.105.107.2 Plan review fees. When a plan or other data are required to be submitted, a plan review fee shall be paid at the time of submitting plans and specifications for review. The plan review fee shall be as set forth in the Anchorage Administrative Code chapter 23.10, Table 3B. Separate plan review fees shall apply to retaining walls or major drainage structures. For excavation and fill on the same site, the fee shall be based on the volume of excavation or fill, whichever is greater.

23.105.107.3 Grading permit fees. A fee for each grading permit shall be paid to the code official as set forth in the Anchorage Administrative Code chapter 23.10, Table 3H. Separate permits and fees shall apply to retaining walls or major drainage structures. There shall be no separate charge for standard terrace drains and similar facilities.

23.105.108 Bonds.

A. The code official may require bonds in such form and amounts as may be deemed necessary to ensure the work, if not completed in accordance with the approved plans and specifications, shall be corrected to eliminate hazardous conditions.

B. In lieu of a surety bond. the applicant may file a cash bond or instrument of credit with the code official in an amount equal to that required in the surety bond.

23.105.109 Cuts.

23.105.109.1 General.

A. Unless otherwise recommended in the approved soils engineering report, cuts shall conform to the provisions of this section. Cuts shall not cause a net increase in surface runoff or concentrated flow across property lines. Runoff shall discharge to approved locations or be retained on site.

B. These provisions may be waived for minor cuts not intended to support structures.

23.105.109.2 Slope. The slope of cut surfaces shall be no steeper than 1 unit vertical in 2 units horizontal (50% slope) unless the permittee furnishes a soils engineering report, stating the site has been investigated and giving an opinion that a cut at a steeper slope is stable and does not create a hazard to public or private property.

23.105.110 Fills.

23.105.110.1 General.

A. Unless otherwise recommended in the approved soils engineering report, fills shall conform to the provisions of this section. Fills shall not cause a net increase in surface runoff or concentrated flow across property lines. Run-off shall discharge to approved locations or be retained on site.

B. In the absence of an approved soils engineering report, these provisions may be waived for minor fills not intended to support structures.

23.105.110.2 Preparation of ground. Fill slopes shall not be constructed on natural slopes steeper than 1 unit vertical in 2 units horizontal (50% slope).

The ground surface shall be prepared to receive fill by removing vegetation, noncomplying fill, topsoil and other unsuitable materials and scarifying to provide a bond with the new fill.

Where slopes are steeper than one (1) unit vertical in five (5) units horizontal (20% slope) and the height is greater than five (5) feet (1524 mm), by benching into sound bedrock or other competent material as determined by the soils engineer. The bench under the toe of a fill on a slope steeper than one (1) unit vertical in five (5) units horizontal (20% slope) shall be at least ten (10) feet (3048 mm) wide.

Exception: When based on a geotechnical engineer's recommendation and designed by a civil engineer, parking lots may be constructed by placing structural fill over peat. A geotechnical site investigation is required prior to future buildings being constructed on such sites to determine the amount of peat to be removed below the building footprint.

23.105.110.3 Fill material. Fill material shall not include organic, frozen, or other deleterious material. No rock or similar irreducible material with a maximum dimension greater than twelve (12) inches (305 mm) shall be buried or placed in fills.

23.105.110.4 Compaction. All fills shall be placed in lifts not exceeding 12 inches and compacted to a minimum of ninety percent (90%) of maximum density. Fills under building footprints, driveways, and parking lots shall be placed in lifts not exceeding 12 inches and compacted to ninety-five percent (95%) of maximum density.

23.105.110.5 Slope. The slope of fill surfaces shall be no steeper than is safe for the intended use. Fill slopes shall be no steeper than one (1) unit vertical in two (2) units horizontal (50% slope).

23.105.111 Setbacks.

23.105.111.1 General. Cut and fill slopes shall be set back from site boundaries in accordance with this section. Setback dimensions shall be horizontal distances measured perpendicular to the site boundary.

23.105.111.2 Top of cut slope. The top of cut slopes shall not be made nearer to a site boundary line than one-fifth of the vertical height of cut with a minimum of two (2) feet (610 mm) and a maximum of ten (10) feet (3048 mm). The setback may need to be increased for any required interceptor drains.

23.105.111.3 Toe of fill slope. The toe of fill slopes shall be made not nearer to the site boundary line than one-half the height of the slope with a minimum of two (2) feet (610 mm) and a maximum of twenty (20) feet (6096 mm). Where a fill slope is to be located near the site boundary and the adjacent off-site property is developed, special precautions shall be incorporated in the work as the code official deems necessary to protect the adjoining property from damage as a result of such grading.

These precautions may include but are not limited to:

A. Additional setbacks.
B. Provision for retaining or slough walls.
C. Mechanical or chemical treatment of the fill slope surface to minimize erosion.
D. Provisions for the control of surface waters.

23.105.111.4 Modification of slope location. The code official may approve alternate setbacks. The code official may require an investigation and recommendation by a qualified engineer to demonstrate the intent of this section has been satisfied.

23.105.112 Drainage and terracing.

23.105.112.1 General. Unless otherwise indicated on the approved grading plan, drainage facilities and terracing shall conform to the provisions of this section for cut or fill slopes steeper than one (1) unit vertical in three (3) units horizontal (33.3% slope).

23.105.112.2 Terrace.

A. Terraces at least six (6) feet (1829 mm) in width shall be established at not more than thirty (30) foot (9144 mm) vertical intervals on all cut or fill slopes to control surface drainage and debris except where only one terrace is required, it shall be at midheight. For cut or fill slopes greater than sixty (60) feet (18 288 mm) and up to one hundred twenty (120) feet (36 576 mm) in vertical height, one terrace at approximately midheight shall be twelve (12) feet (3658 mm) in width. Terrace widths and spacing for cut and fill slopes greater than 120 feet (36 576 mm) in height shall be designed by the civil engineer and approved by the code official. Suitable access shall be provided to permit proper cleaning and maintenance.

B. Swales or ditches on terraces shall have a minimum gradient of five percent (5%). They shall have a minimum depth at the deepest point of one (1) foot (305 mm).

C. A single run of swale or ditch shall not collect runoff from a tributary area exceeding 13,500 square feet (1254.2 m^2) (projected) without discharging into a down drain.

23.105.112.3 Subsurface drainage. Cut and fill slopes shall be provided with subsurface drainage as necessary for stability.

23.105.112.4 Disposal.

A. All drainage facilities shall be designed to carry waters to the nearest practicable drainage way approved by the code official or other appropriate jurisdiction as a safe place to deposit such waters. Erosion of ground in the area of discharge shall be prevented by installation of nonerosive down-drains or other devices.

B. Footing drains or sump pumps shall discharge to a ditch or storm sewer for new construction where available. Backup emergency systems may discharge to the surface. Primary systems shall not discharge onto adjacent properties. Where sump pumps or footing drains discharge on the soil surface, the effluent shall be directed toward drainage easements, street gutters, ditches or other approved locations. Effluent may be retained on site to prevent impacts to neighboring properties.

C. Building pads shall have a drainage gradient of two percent (2%) toward approved drainage facilities, unless waived by the

code official.

Exception: The gradient from the building pad may be one percent (1%), if all of the following conditions exist throughout the permit area:

1. No proposed fills are greater than ten (10) feet (3048 mm) in maximum depth; and
2. No proposed finish cut or fill slope faces have a vertical height in excess of ten (10) feet (3048 mm); and
3. No existing slope faces steeper than one (1) unit vertical in ten (10) units horizontal (10% slope) have a vertical height in excess of ten (10) feet (3048 mm).

23.105.112.5 Drainage across property lines. Drainage across property lines shall not exceed that which existed prior to grading. Excess or concentrated drainage shall be contained on site or directed to an approved drainage facility. Erosion of the ground in the area of discharge shall be prevented by installation of nonerosive down drains or other devices.

23.105.112.6 Interceptor drains. Interceptor drains shall be installed along the top of all cut and fill slopes where the tributary drainage area above slopes toward the cut or fill and has a drainage path greater than forty (40) feet (12 192 mm) measured horizontally. The slope of the drain shall be 5% unless otherwise approved by the code official.

23.105.113 Erosion control.

23.105.113.1 Slopes. The faces of cut and fill slopes shall be prepared and maintained to control against erosion. This control may consist of effective planting. The protection for the slopes shall be installed as soon as practicable and prior to calling for final approval. Where cut slopes are not subject to erosion due to the erosion-resistant character of the materials, such protection may be omitted.

23.105.113.2 Other devices. Where necessary, check dams, cribbing, riprap or other devices or methods shall be employed to control erosion and provide safety.

23.105.114 Retaining walls.

23.105.114.1 Design. Retaining walls shall be designed in accordance with the International Building Code.

23.105.114.2 Municipal inspections. Municipal inspections shall be scheduled in accordance with the Anchorage Administrative Code.

23.105.114.3 Special inspections. Special inspections for retaining walls shall be required where Items 3, 4, or 5 of Section 23.105.106.3 are met, and as required by the permittee or the registered design professional in responsible charge.

23.105.115 Grading inspection.

23.105.115.1 General. Grading operations requiring a permit shall be subject to inspection by the code official. Engineered grading requires special inspection in accordance with section 23.105.115.4. Regular

grading may require special inspection as deemed necessary by the code official.

23.105.115.2 Permittee.

A. The permittee shall be responsible for the work to be performed in accordance with the approved plans and specifications, and in conformance with the provisions of this code.

B. The permittee shall act as a coordinator between consultants, the contractor and the code official.

C. In the event of changed conditions, the permittee shall be responsible for informing the code official of such change and shall provide revised plans for approval.

D. The permittee shall monitor the progress of the work.

E. For engineered grading, the permittee shall schedule municipal inspections at the start of work, fifty percent (50%) completion, one hundred percent (100%) completion, and at significant stages outlined by the design consultants.

F. Additional municipal inspections shall be required for every 25,000 cubic yards (119,114 m^3), or portion thereof, of grading beyond 50,000 cubic yards (38,228 m^3).

G. For regular grading, the permittee shall schedule municipal inspections at fifty percent (50%) completion and one hundred percent (100%) completion.

H. For engineered grading and retaining walls, the permittee shall provide the special inspection reports to the Building Safety inspector during required inspections.

23.105.115.3 Building Safety inspector. The Building Safety inspector shall inspect the project at the various stages of work requiring approval to determine adequate control is being exercised. The Building Safety inspector may require a survey to be performed or test holes to be dug or soils tests to be performed to verify the work complies with the approved plans and applicable code requirements.

23.105.115.4 Special inspection.

A statement of special inspection shall be prepared in accordance with the International Building Code section 1704.1.1. Special inspectors shall be qualified per AMC section 23.15.1704.1.4.

23.105.115.5 Notification of noncompliance. If a special inspector finds that the work is not being done in conformance with this chapter or the approved grading plans, the discrepancies shall be reported immediately in writing to the permittee and to the Building Safety inspector.

23.105.116 Completion of work.

23.105.116.1 Notification of completion. The permittee shall notify the Building Safety inspector when the grading operation is ready for final inspection. Final approval shall not be given until all work, including installation of all drainage facilities, their protective devices, and all erosion-control measures, are completed in accordance with the final approved grading plan, and the required reports have been submitted.

CHAPTER 23.110 LOCAL AMENDMENTS TO THE INTERNATIONAL FUEL GAS CODE 2009 EDITION.

23.110.503.6.14	Gypsum wall board (sheetrock) clearances.
23.110.503.8	Venting system termination location.
23.110.503.10.4.2	Common vents for multiple appliances.
23.110.Table 504.2	
23.110.504.2.9	Chimney and vent locations.
23.110.504.3.20	Chimney and vent locations.
23.110.505.1.1	Commercial cooking appliances vented by exhaust hoods.
23.110.614.6.5.2	Manufacturer's instructions.
23.110.614.6.6	Length identification.
23.110.618.5	Prohibited sources.
23.110.618.6	Screen size.
23.110.618.8	Multi-zone systems.
23.110.621	Unvented room heaters.
23.110.623.7	Vertical clearance above cooking top.
23.110.623.8	Ventilating hoods
23.110.629.2	Small ceramic kiln ventilation.
23.110.630.3	Combustion and ventilation air.
23.110.634	Chimney damper opening area.
23.110.Appendix A	Sizing and capacities of gas piping.

23.110.100 Local amendments to the International Fuel Gas Code, 2009 Edition.

The amendments to the International Fuel Gas Code are listed hereafter by section. The last digits of the number (after the title and chapter digits) are the section of the International Fuel Gas Code to which the amendments refers, i.e., 23.110.210 refers to amendments to section 210 of the International Fuel Gas Code.

23.110.101.2 Scope.
Delete the exception.

23.110.103 – 23.110.110.
Delete sections 103 through 110.

23.110.103 Authority to render gas service.
Add new sections to read as follows:

103.1 Unlawful acts. It shall be unlawful for any person, firm, or corporation, excepting an authorized agent or employee of a person, firm, or corporation engaged in the business of furnishing or supplying gas and whose service pipes supply or connect with the particular premises, to turn on or reconnect gas service in or on any premises where and when gas service is, at the time, not being rendered.

103.2 Authority to disconnect. The administrative authority or the serving gas supplier is hereby authorized to disconnect any gas piping or appliance, or both, found not to conform to the requirements of this code or found defective and in such condition as to endanger life or

property. Where such disconnection is made, a notice shall be attached to such gas piping, appliance, or both stating the same has been disconnected, together with the reasons therefore.

23.110.202 General definitions.

Add new definitions as follows:

Connector fuel gas piping. A fitting that is used at all points where fuel gas piping enters or leaves the ground. Connector shall be capable of absorbing a displacement due to frost heave action. An example for low pressure systems would be a Dormont flex. An example for medium pressure would be CSST. An example for diameters greater than two inches would be a braided metal flex connector. (See amendment to section 404 Piping System Installation.) Rubber flexible connectors are not approved.

23.110.303.3 Prohibited locations.

Amend section by deleting Exceptions 3 and 4, and add new Item No. 6, as follows:

6. Domestic gas-fired clothes dryers may be installed in bathrooms if provided with make-up air in accordance with section 614.5.

23.110.303.4 Protection from damage.

Add the following section:

303.4.1 Appliances subject to vehicle impact. Appliances, including their associated piping and ductwork, subject to vehicle impact shall be protected by one or more of the following methods:

1 Install the appliance on a platform a minimum of 24 inches high. The appliance shall not extend beyond the face of the platform. Piping and ductwork shall not be surface mounted to the platform in a location subject to vehicle impact.

2. Protect the appliance with a barrier. The barrier shall be a minimum of 30" high and be constructed of a minimum 2" diameter schedule 40 steel pipe. The barrier must have a minimum 6" setback from the platform or appliance. The maximum unprotected distance shall not exceed five (5) feet. The barrier shall be installed per one of the following methods:
   a. Buried a minimum of 2'0" deep in compacted soil and imbedded in concrete slab
   b. Set in a minimum 1'0" x 1'0" square by 1'0" deep block of concrete (slab not included).
   c. Secured to the wood framed garage floor with flange and stainless steel bolts and imbedded in concrete slab.
   d. Secured to the concrete slab using a floor flange with a minimum of four $^{3}/_{8}$" diameter by 3 ½" long galvanized or stainless anchor bolts.
3. Mount appliance and associated piping and ductwork to wall and/or suspend from the ceiling in a location clear of any potential vehicle interference.

In all cases the minimum clear width and depth of the garage shall be maintained in accordance with Title 21.

23.110.303.8 Liquefied petroleum gas facilities.

Add new section as follows:

303.8 Liquefied petroleum gas facilities. Liquefied petroleum gas facilities shall not be located in any pit, basement, crawlspace, under show windows, or interior stairways, in engine, boiler, heater, or electric meter rooms. LPG facilities means tanks, containers, container valves, regulating equipment, meters, and/or appurtenances for the storage and supply of LPG for any building structure or premises.

303.8.1 Liquefied petroleum gas piping. Liquefied petroleum gas piping shall not serve any gas appliance located in a pit or basement where heavier than air gas might collect to form a flammable mixture.

23.110.304.6 Outdoor combustion air.

Delete Figure 304.6.1(1).

Delete Figure 304.6.1(2).

Delete Alternate Opening Location in Figure 304.6.2.

23.110.304.8 Engineered installations.

Add a new section as follows:

Section 304.8.1 Cold climate alternate requirements for combustion and ventilation air.

304.8.1.1 Purpose. The purpose of this section is to provide alternate methods of designing combustion air and ventilation air systems for fuel burning appliances in cold climate regions. Only persons registered to practice engineering in the applicable jurisdiction will be permitted to use these alternate design methods.

304.8.1.2 Scope. The requirements of this section apply to all fuel gas burning appliances.

Exception: Direct vent appliances, listed cooking appliances, appliances having separated combustion system, enclosed furnaces, refrigerators and domestic clothes dryers.

304.8.1.3 Definitions.

Certain words and terms used in this section shall have meanings as listed. The below-listed definitions shall apply to this section only, even though they may differ with broader definitions found elsewhere in the code.

Free area - the net actual open area of a louver, screen, duct, or intake grille.

Ventilation air - air required for cooling of the appliance enclosure to maintain temperatures required for proper equipment operation.

304.8.1.4 General.

304.8.1.4.1 Air supply. Fuel-burning equipment shall be provided with a sufficient supply of combustion and ventilation air.

304.8.1.4.1.1 Enclosures containing fuel burning appliances. Enclosures shall be provided with minimum unobstructed combustion air openings as specified in section 304.8.1.9 and arranged as specified in sections 304.8.1.5 and 304.8.1.6, and ventilation air systems shall be as specified in section 304.8.1.10.

304.8.1.4.1.2 Existing buildings. When fuel-burning appliances are installed in an existing building containing other fuel-burning equipment, the enclosure shall be provided with sufficient combustion and ventilation air for all fuel-burning equipment contained therein as specified in sections 304.8.1.9 and 304.8.1.10.

304.8.1.5 Combustion air openings.

304.8.1.5.1 Location. The combustion air opening(s) may be located anywhere in the enclosure provided there is an unobstructed area extended to the fire box that does not increase the total combustion air system static pressure requirements.

304.8.1.5.2 Dampers prohibited. Combustion air openings shall not be installed so as to open into construction where fire dampers are required. Volume dampers shall not be installed in combustion air openings.

Exception: Dampers electrically interlocked with the firing cycle of the appliance, so as to prevent operation of the appliance when the dampers are not proven open.

304.8.1.5.3 Screening. Combustion air openings shall be covered with corrosion-resistant screen of one-half (1/2) inch mesh, except as provided in section 304.8.1.7.3.

Exception: Combustion air openings serving a nonresidential portion of a building may be covered with a screen having openings larger than one-half (1/2) inch but in no case larger than one (1) inch.

304.8.1.6 Sources of combustion and ventilation air.

304.8.1.6.1 Air from outside. Combustion and ventilation air obtained from outside the building shall be supplied as follows:

1. Through permanent openings of the required area directly to the outside of the building through the floor, roof, or walls of the appliance enclosure; or
2. Through continuous ducts of the required cross-sectional area extending from the appliance enclosure to the outside of the building.

304.8.1.6.2 Interior spaces. Large indoor areas may be

used for combustion and/or ventilation air if sufficient infiltration or other outside air supply is available by nature of the building construction, system design, or building use.

304.8.1.6.3 Prohibited sources. Openings and ducts shall not connect appliance enclosures with space where the operation of a fan may adversely affect the flow of combustion air. Combustion and ventilation air shall not be obtained from a hazardous location or from any area in which objectionable quantities of flammable vapor, lint or dust are given off. Combustion and ventilation air shall not be taken from a machinery room.

304.8.1.7 Combustion and ventilation air ducts.

304.8.1.7.1 General. Combustion and ventilation air ducts shall:

1. Be of galvanized steel complying with chapter 6 or equivalent corrosion-resistant material approved for this use.
2. Have a minimum cross-sectional dimension of three inches (3").
3. Serve a single appliance enclosure.

304.8.1.7.2 Dampers. Combustion air ducts shall not be installed so as to pass through construction where fire dampers are required, unless properly enclosed in a rated shaft. Volume dampers shall not be installed in combustion air ducts.

Exception: Motor operated dampers interlocked with appliance controls to open damper prior to firing appliance are permitted, if damper blade actuated end switches are provided to prevent appliance operation should dampers fail to open.

304.8.1.8 Special conditions created by mechanical exhausting or fireplaces. Operation of exhaust fans, kitchen ventilation systems, clothes dryers or fireplaces shall be considered in determining combustion and ventilation air requirements to avoid unsatisfactory operation of installed fuel burning appliances.

304.8.1.9 Area of combustion air openings.

304.8.1.9.1 General. The free area of openings, ducts or plenums, screens and louvers supplying combustion air to enclosures containing fuel-burning appliances shall be as required: The opening(s) shall communicate directly or by means of ducts with outdoors or to such spaces (crawl space) freely communicating with outdoors and shall be sized in accordance with Table No. 304.8.1.1.

304.8.1.10 Ventilation air.

304.8.1.10.1 General. In addition to the combustion air required, sufficient ventilation shall be supplied for proper

operation of equipment. Ventilation system shall be designed to maintain positive or atmospheric pressures within the enclosure. If exhaust fans are provided, a mechanical make-up air fan shall be installed to make-up exhausted air. Natural or gravity make-up air is not allowed.

Table No. 304.8.1.1 Combustion Air System Design Criteria

Fuels	System Static Pressure Limits[1]			Combustion Air Requirements
	Atmospheric		Forced Draft	
	Draft Hoods	Barometric Dampers		All Types
GAS (Natural, Propane, Butane)	0.02" WG	0.02" WG	0.05" WG	24 CFM 100,000 BTUH

Note 1: Static pressure values represent maximum static pressure losses across all components of the combustion air system including screens, louvers, ducts and fittings.
For enclosures containing both atmospheric and forced draft appliances, the most restrictive design requirements shall apply.

PER ASHRAE 1993 FUNDAMENTALS HANDBOOK CHAPTER 15 TABLE 11 (Pg 15.10)
1 cu. ft. natural gas requires 9.6 cu. ft. air
Convert to CF/1000 Btu

GAS: $\frac{9.6 \text{ cu. ft. air}}{1 \text{ cu. ft. gas}} \times \frac{1 \text{ cu. ft. gas}}{1000 \text{ Btu}} = 9.6$ cu. ft. air/1000 Btu (14.4 @ 50% excess)

*Air at 2000 feet above sea level. Installations above this shall derate appliance output 4%/1000 feet.

EXAMPLE: Combustion Air Flow Rates (CFM) per 100,000 Btuh input. Verify heating values and adjust CFM as required.

	STOICHIOMETRIC 0% EXCESS AIR	COMBUSTION @ 50% EXCESS AIR
Natural Gas	16.0 CFM	24 CFM
1000 Btu/cu. ft.	100,000 Btuh	100,000 Btuh

23.110.304.10 Louvers and grilles.
Delete the words "not smaller than 1/4 inch" and replace with "of one-half inch (½") for residential and one-half inch (½")up to one inch (1") for commercial applications."

23.110.304.11 Combustion air duct.
Delete the exception to Item 1.
Delete Item 5 and replace with:
Combustion air shall not be obtained from the attic, unless prior written approval is obtained from the authority having jurisdiction.
Insert the following words at the beginning of Item 8:

Due to a one foot (1') anticipated snow depth...

Change the reference of twelve (12) inches to twenty-four (24) inches in Item 8.

23.110.304.13 LPG systems.

Add new section as follows:

304.13 LPG systems. Appliances using LPG shall have two (2) combustion air openings. The lower opening shall be at floor level or below and shall be sloped down toward the exterior. These systems shall be continuously ducted to outside the building.

Use of underfloor areas for supply of combustion air to LPG burning appliances is prohibited.

23.110.305.3 Elevation of ignition source.

Amend section 305.3 by adding the following to the end of the paragraph:

Rooms and spaces that are not part of the living space of a dwelling unit shall include but are not limited to utility, storage, mud, laundry, toilet and bathing rooms.

Group F, M, S-1 and S-2 occupancies with overhead doors providing access to vehicles and equipment containing combustible fuel shall comply with this section.

Delete exception to 305.3.

23.110.305.11 Installation in aircraft hangars.

Replace Section 305.11 with the following:

305.11 Installation in aircraft hangars. Overhead appliances installed in aircraft storage areas shall be located at least 10' vertically above the upper surface of the wings or engine enclosures of the tallest aircraft which may be housed in the hangar.

Exception: Where a 10' vertical separation cannot be maintained in an NFPA 409 Class III hangar, a sealed combustion appliance may be used. The appliance shall be located as high and as far away from the wings and engine enclosure as possible. This exception shall not apply to NFPA 409 Class I and Class II hangars.

23.110.306.3 Appliances in attics.

Add Exception #3 as follows:

3. The passageway and level surface are not required for replacement of horizontal furnaces located above drop ceilings in strip malls. All other code requirements apply.

23.110.306.4 Appliances under floors.

Amend by adding the following as the first sentence:

Installation of appliances in underfloor crawlspaces is prohibited unless prior written approval is obtained from the administrative authority.

23.110.306.5 Equipment and appliances on roofs or elevated structures.

Add Exception #2 as follows:

2. Where equipment requiring access and appliances are installed on the roof of a new building, such access shall be provided by a permanent, approved means, interior to the building, extending from floor level to the equipment and/or appliance's level service space, regardless of the roof height.

23.110.306.7 Mezzanines and platforms.

Add a new section as follows:

306.7 Mezzanines and platforms. Every mezzanine or platform more than ten (10) feet six (6) inches above the ground or floor level shall be made accessible by a stairway or ladder fastened to the structure. The ladder shall be constructed in compliance with the provisions of section 306.5.

23.110.307.2 Fuel burning appliances.

Replace "collected" with "piped through a condensate neutralizer".

Add the following exception:

Exception: Condensate from Category III appliances may be run to an evaporative drain pan covering at least 144 square inches (one square foot) having a depth of at least one (1) inch.

23.110.310 Electrical bonding.

Delete the first paragraph "310.1 Pipe and tubing other than CSST".

Change the second paragraph to read as follows:

310.1 Electrical bonding. All metal gas piping systems including CSST, shall be bonded to the electrical service grounding electrode system at an accessible location, preferably indoors where the gas service enters the building. The bonding jumper shall be not smaller than 6 AWG copper wire or equivalent.

23.110.403.10.1 Pipe joints.

Amend by adding the following at the end of the paragraph:

All joints in underground ferrous piping shall be welded when any of the following conditions apply:

1. The nominal pipe diameter is 2 ½ inches or larger.
2. The pipe is installed under a driveway.
3. Medium pressure systems.
4.

23.110.403.10.2 Tubing joints.

Amend by adding the following sentences at the end of the paragraph:

All joints in underground copper shall be brazed with wrought copper fittings. No underground joints shall be permitted unless the underground length of run exceeds sixty (60) feet. All pipe to tubing

transitions shall be made above ground.

23.110.403.10.4 Metallic fittings.

Amend Item 2 by deleting the words "cast iron."

Delete Item 5.

Add a new Item 9 as follows:

9. **Right and left nipple couplings.** Where unions are necessary, right and left nipples and couplings shall be used. Ground joint unions may be used at exposed fixture, appliance, or equipment connections and in exposed exterior locations immediately on the discharge side of a building shutoff valve.

23.110.404.10 Minimum burial depth.

Delete the wording:

...except as provided for in Section 404.10.1.

Amend by adding the following sentence to the end of the paragraph:

Plastic and copper gas piping shall have at least eighteen inches (18") of earth cover or other equivalent protection.

23.110.404.10.1 Individual outside appliances.

Delete this section.

23.110.404.18 Ground penetrations.

Add a new section as follows:

404.18 Ground penetrations: At all points where fuel gas piping enters or leaves the ground, there shall be installed, above ground, an approved or listed fuel gas piping connector, capable of absorbing a six-inch (6") displacement, in any direction, due to frost heave action.

23.110.404.19 Fuel gas piping connectors.

Add a new section as follows:

404.19 Fuel gas piping connections: Fuel gas piping connectors listed for outdoor use may be used between the meter and house main. No flex connector may pass through any wall, partition, panel or other barrier. Solid fittings shall be used on each end.

23.110.404.20 Frost heave protection for copper tubing.

Add a new section as follows:

404.20 Frost heave protection for copper tubing. At points where copper tubing type systems enter or leave the ground, they shall be protected from frost heave action by the incorporation of a suitable above ground six-inch radius loop, or listed fuel gas piping connector of equal size.

23.110.406.4.1 Test pressure.

Replace the reference to "1 ½" with "ten (10)".

Replace the minimum test pressure of three (3) psig with ten (10) psig and add the following sentences at the end of the paragraph:

Required pressure tests of ten (10) psig shall be performed with gauges of 1/10 psi increments or less.

Welded pipe shall be tested with not less than sixty (60) psig test pressures.

23.110.406.8 Temporary gas provisions.

Add a new section as follows:

The installation of temporary gas shall comply with sections 406.8.1 and 406.8.2.

23.110.406.8.1 Temporary gas installations – permit required.

A. Temporary gas approval is given to allow "comfort heating" appliances to be used to provide temporary heat to a building or building site prior to the completion of the building's primary heating system.

B. The most commonly used appliance is a natural gas portable space heater. Other comfort heat appliances allowed for temporary heat purposes are warm air furnaces, boilers, and unit heaters. It is NOT the policy of the Building Safety Division or Enstar Natural Gas Company to allow "decorator fireplaces" or "ranges" to be utilized as temporary heat for buildings. These appliances are not designed or "listed" for such purpose.

C. All appliances used to provide temporary heat for buildings shall be installed in accordance with the manufacturers' instructions and terms of their listing, with particular attention being paid to the clearances to combustibles from the top, bottom, front, back, and sides of these appliances.

D. Unit heaters used for temporary heat shall be installed per manufacturer's instructions and listed clearances to combustibles from the top, bottom, front, back, and sides of these appliances. The vent connector shall be graded at one-quarter inch (¼") per foot slope upward to the outside and it shall be changed to "B" vent at the wall penetration. The "B" vent must maintain its listed clearance to combustibles, extend a minimum of five (5) feet vertically, and be secured.

E. Furnaces used for temporary heat shall comply with the same requirements as for unit heaters as stated above. In addition, the return air for the furnace shall be ducted a minimum of ten (10) feet from the furnace.

F. Portable space heaters shall be provided with one hundred percent (100%) outside air to the back end of the heater. In most cases, the gas regulator attached to these heaters shall be piped to the outside. If the regulator vent discharges, it shall not be allowed to discharge into the space being heated.

G. Gas hose used for temporary heaters shall be a type approved by the Building Safety Division and all manufacturers' listed clearances shall be maintained. The hose shall have an internal wire mesh or braid and be "kink proof". Supporting wire shall run the full length of the hose. Each time a hose is moved from one lot to another, it shall be retested with sixty (60) psi air

pressure.

23.110.406.8.2 Temporary gas installations – permit not required. A permit and inspection shall not be required for residential temporary construction heat serving tented footings and foundations. This provision is for thawing ground and curing concrete, not comfort heat for workers, such as plumbers installing underground. This allowance is limited to portable 'SURE FLAME' type heaters and not intended for unit heaters, furnaces, and boilers with special venting considerations. All heaters and hoses shall be of the approved type. Heaters shall be listed by an approved listing agency. All hoses shall have an internal wire mesh or braid, and be "kink proof". Supporting wire shall run the full length of the hose. One hundred percent (100%) outside air shall be provided to heater at all times. Listed clearances to combustibles shall be maintained. A licensed journeyman plumber or gasfitter shall perform all work.

23.110.411.2 Manufactured home connections.

Add the following item to the section:

4. Pounds to inches water column regulators serving mobile homes and connected to copper tubing shall be attached to the exterior of the mobile home, and shall not be located under the mobile home.

23.110.417.0 Medium pressure gas.

Add a new section as follows:

417.1 Medium pressure gas. The installation of a medium pressure gas system (2 psig or 5 psig) within a building must be pre-approved by the local gas utility. Steel piping shall be welded. Test pressure for all medium pressure gas piping shall be 60 psig.

417.2 CSST medium pressure gas. The installation of a CSST medium pressure gas system (2 psig or 5 psig) within a building must be pre-approved by the local gas utility. Test pressure for all medium pressure gas piping shall be 60 psig. Joints shall be limited to the meter connection and at the regulator to the appliance being served. Intermediate joints are not allowed without prior approval.

23.110.501.7 Connection to fireplace.

Add the following sentence to section 501.7:

Gas fired appliances shall not be connected to fireplace chimneys without prior approval of the Administrative Authority.

23.110.501.8 Equipment not required to be vented.

Delete Item 8.

23.110.502.8 Enclosure required.

Add the following section:

502.8 Enclosure required. Venting systems installed exterior to the building outside the thermal envelope shall be enclosed in an

insulated (R-19 minimum) chase. The portion of the vent system above the last roof and its projected plane need not be enclosed. The portion of the venting system passing through an attic space need not be insulated or enclosed.

23.110.502.9 Protection from sliding snow and ice.

Add the following section:

502.9 Protection from sliding snow and ice. Vent terminations penetrating a metal roof with a pitch shall be protected by an ice dam or deflector of an approved type acceptable to the Administrative Authority.

23.110.503.3.6 Above ceiling air handling spaces.

Add the following sentence to Item No. 1:

The vent material shall have a flame spread index of not more than 25 and a smoke-developed index of not more than 50 when tested in accordance with ASTM E84.

23.110.503.5.5 Size of chimneys.

Item 2: Delete the phrase, at the end of the sentence:

... , nor greater than seven times the drafthood outlet area.

Item 3: Delete the phrase at the end of the sentence:

..., nor greater than seven times the drafthood outlet area.

Add item 6:

In no case shall the gas vent be sized more than one (1) pipe size larger than the minimum size required by the appliance sizing tables referenced in the code or the manufacturer's installation instructions.

23.110.503.6.9.1 Category I appliances.

Item 2: Delete the phrase at the end of the sentence:

... , nor greater than seven times the drafthood outlet area.

Item 3: Delete the phrase at the end of the sentence:

... , nor greater than seven times the drafthood outlet area.

Add item 5:

In no case shall the gas vent be sized more than one (1) pipe size larger than the minimum size required by the appliance sizing tables referenced in the code or the manufacturer's installation instructions.

23.110.503.6.14 Gypsum wall board (sheetrock) clearances.

Amend by adding a new section as follows:

503.6.14 Gypsum wall board clearances. GWB may be considered a noncombustible material when determining minimum required clearances. GWB shall not be used to reduce clearances to combustibles. For example, B vent shall be installed with a one inch (1") minimum clearance from wood, even if the wood is covered with GWB.

23.110.503.8 Venting system termination location.

Amend by adding new Item 5 to read as follows:

5. An anticipated snow depth of twelve inches (12") shall be used when determining the manufacturer's minimum vent termination height. Measurements shall be made to the bottom of the vent outlet.

23.110.503.10.4.2 Common vents for multiple appliances.

Add a new section as follows:

503.10.4.2 Common vents for multiple appliances. When venting 3 or more Category I appliances, the common vent shall be a minimum Type "B" double wall.

23.110.Table 504.2

At the bottom of Tables 504.2(3) and 504.2(4), delete the category "maximum internal area of chimney (square inches)" and the words:

...seven times the listed appliance categorized vent area, flue collar area, or drafthood outlet area.

23.110.504.2.9 Chimney and vent locations.

Change R8 to R19 in last sentence of paragraph.

23.110.504.3.20 Chimney and vent locations.

Change R8 to R19 in last sentence of the first paragraph.

23.110.505.1.1 Commercial cooking appliances vented by exhaust hoods.

Delete the following words:

...and the appliances shall be interlocked with an exhaust hood system to prevent appliance operation when the exhaust hood system is not operating.

Add the following to the end of the last sentence:

...unless part of the listed system.

23.110.614.6.5.2 Manufacturer's instructions.

Add the following exception:

Exception: For distances exceeding the dryer manufacturer's recommendations, a booster fan, listed for the purpose, shall be used for lengths up to the booster fan manufacturer's recommendations.

23.110.614.6.6 Length identification.

Replace the words "equivalent length" with the words "total length plus total number of elbows".

Add to the end of the paragraph:

...and shall be laminated or in a moisture resistant sleeve secured to the wall using screws, staples, or thumb tacks. Push pins are not acceptable.

23.110.618.5 Prohibited sources.

Change the wording to the first half of the sentence to read:

Outdoor, return, or transfer air for a forced air heating system....

Replace the wording of subparagraph #7 to simply read "crawl space".

23.110.618.6 Screen size.

Change ¼ to ½ in both places.

23.110.618.8 Multi-zone systems.

Replace 618.8 with the following:

618.8 Multi-zone systems. Prior to final inspection, the installer shall measure and record the temperature rise across the heat exchanger under all possible scenarios. The temperature rise shall be within the furnace nameplate rating. At the time of the final inspection, the installer shall submit the test results to the mechanical inspector. Since the inspector may require an additional test in his/her presence to verify the results, the installer shall be present. If the results show the furnace is not operating within its listed parameters under all possible scenarios, the test shall be noted as failed. The installer shall be responsible for correcting any deficiencies and demonstrating proper operation of the furnace.

23.110.621 Unvented room heaters.

Delete section 621 in its entirety.

23.110.623.7 Vertical clearance above cooking top.

Delete the words from Item #2:

...with a clearance of not less than ¼" (6.4 mm) between the hood and the underside of the combustible material or metal cabinet...

23.110.623.8 Ventilating hoods.

Add new subsection 623.8 to read as follows:

623.8 Ventilating hoods. Ventilating hoods shall be installed over all domestic free standing or built-in ranges, unless the range is otherwise listed for forced down draft ventilation. The hood or ventilation system shall exhaust to exterior of the building.

23.110.629.2 Small ceramic kiln ventilation.

Add a new subsection 629.2 to read as follows:

629.2 Small ceramic kiln ventilation. A canopy-type hood shall be installed directly above each kiln. The face opening area of the hood shall be equal to or greater than the top horizontal surface area of the kiln. The hood shall be constructed of not less than 0.024-inch (No. 24 U.S. gauge) galvanized steel or equivalent and be supported at a height of between twelve (12) inches and thirty (30) inches above the kiln by noncombustible supports.

Each hood shall be connected to a gravity ventilation duct extending in a

vertical direction to outside the building. This duct shall be of the same construction as the hood and shall have a minimum cross-sectional area of not less than one fifteenth of the face opening area of the hood. The duct shall terminate a minimum of twelve (12) inches above any portion of a building within four (4) feet and terminate no less than four (4) feet from any openable windows or other openings into the building or adjacent property line. The duct opening to the outside shall be shielded, without reduction of duct area, to prevent entrance of rain into the duct. The duct shall be supported at each section by noncombustible supports.

Provisions shall be made for air to enter the room in which a kiln is installed at a rate at least equal to the air being removed through the kiln hood.

23.110.630.3 Combustion and ventilation air.

Delete this section in its entirety.

23.110.634 Chimney damper opening area.

Delete section 634.

23.110.Appendix A Sizing and capacities of gas piping.

Adopt Appendix A.

Section 2. This ordinance shall be effective immediately upon passage and approval.

PASSED AND APPROVED by the Anchorage Assembly this _____ day of _____, 2011.

_____
Chair of the Assembly

ATTEST:

_____
Municipal Clerk

MUNICIPALITY OF ANCHORAGE
Summary of Economic Effects -- General Government

AO Number: 2011-4

Title: AN ORDINANCE REPEALING AND REENACTING ANCHORAGE MUNICIPAL CODE TITLE 23 TO ADOPT 2009 AND OTHER RECENT EDITIONS, AND ADOPTING LOCAL AMENDMENTS OF THE FOLLOWING CODES: ADMINISTRATIVE; BUILDING; MECHANICAL; PLUMBING; ELECTRICAL; FIRE; FIRE PROTECTION SERVICE OUTSIDE SERVICE AREAS; ENERGY CONSERVATION; EXISTING BUILDINGS; ABATEMENT OF DANGEROUS BUILDINGS; SAFETY CODE FOR ELEVATORS AND ESCALATORS; SAFETY STANDARD FOR PLATFORM LIFTS AND STAIRWAY CHAIRLIFTS; RESIDENTIAL; SCHOOL RELOCATABLES; MOBILE AIRCRAFT SHELTERS; GRADING, EXCAVATION AND FILL; AND FUEL GAS.

Sponsor: Mayor
Preparing Agency: Community Development Department/Development Services Division
Others Impacted:

CHANGES IN EXPENDITURES AND REVENUES:	**(In Thousands of Dollars)**				
	FY11	**FY12**	**FY13**	**FY14**	**FY15**
Operating Expenditures					
1000 Personal Services					
2000 Non-Labor					
3900 Contributions					
4000 Debt Service					
TOTAL DIRECT COSTS:	$ -	$ -	$ -	$ -	$ -
Add: 6000 Charges from Others					
Less: 7000 Charges to Others					
FUNCTION COST:	$ -	$ -	$ -	$ -	$ -
REVENUES:					
CAPITAL:					
POSITIONS: FT/PT and Temp					

PUBLIC SECTOR ECONOMIC EFFECTS:

Approval of this ordinanace should have no significant overall impact on the public sector. See the Summary of Significant Changes (Exhibit B) for specific effects.

PRIVATE SECTOR ECONOMIC EFFECTS:

Approval of this ordinance should have no significant overall impact on the private sector. See the Summary of Significant Changes (Exhibit B) for specific effects.

Prepared by: Ross Noffsinger Telephone: 343-8309

MUNICIPALITY OF ANCHORAGE

ASSEMBLY MEMORANDUM

No. AM 26-2011

Meeting Date: January 11, 2011

From: MAYOR

Subject: AN ORDINANCE REPEALING AND REENACTING ANCHORAGE MUNICIPAL CODE TITLE 23 TO ADOPT 2009 AND OTHER RECENT EDITIONS, AND ENACTING LOCAL AMENDMENTS OF THE FOLLOWING CODES: ADMINISTRATIVE; BUILDING; MECHANICAL; PLUMBING; ELECTRICAL; FIRE; FIRE PROTECTION SERVICE OUTSIDE SERVICE AREAS; ENERGY CONSERVATION; EXISTING BUILDINGS; ABATEMENT OF DANGEROUS BUILDINGS; SAFETY CODE FOR ELEVATORS AND ESCALATORS; SAFETY STANDARD FOR PLATFORM LIFTS AND STAIRWAY CHAIRLIFTS; RESIDENTIAL; SCHOOL RELOCATABLES; MOBILE AIRCRAFT SHELTERS; GRADING, EXCAVATION AND FILL; AND FUEL GAS.

General

This ordinance repeals existing editions of the various building codes and local amendments, and adopts new codes and revised local amendments. The new codes and proposed amendments were reviewed and recommended by the Anchorage Building Board, after eight subcommittees, comprised of over 90 private sector and MOA professionals (Exhibit A), reviewed the national codes and made recommendations. This process took approximately ten months to complete, and all meetings were open to the public.

Building Board

Following the work of the subcommittees, the Building Board (Board) held three public meetings on the proposed new codes: September 2, 2010, October 7, 2010 and December 14, 2010. The September 2 meeting involved approval of the code package, minus sections 23.75 and 23.76, approved at the October 7 meeting. During the September meeting, a local architect, Don Dwiggins, provided testimony against adoption of the 2009 International Energy Conservation Code and section 23.05.050, Sustainable building standards for construction and renovation of buildings (also known, and hereafter referred to, as LEED). During the October 7 and December 14 meetings, the Development Services Division proposed corrections and clarifications to LEED. At the December 14 meeting, the Board approved language clarifying the requirements for renovations and deleted permit fee refunds. The refunds were deleted because building safety is intended to be self

supported by permit fees through the 181 fund, but permit fees have not been adjusted to cover the cost of potential LEED refunds. Additionally, the 181 fund is operating at a substantial deficit. The Board also approved a motion to assemble a committee to further review the LEED ordinance and forward recommendations to the Assembly.

State of Alaska

The State of Alaska has not adopted the 2009 version of the building codes. Development Services contacted the State Fire Marshal's office and discussed the adoption time line with Assistant State Fire Marshal Kelly Nicolello. The State Fire Marshal and Development Services maintain a good working relationship; the State has confidence in the Municipality's program and does not see a problem with the MOA adopting the 2009 codes before it does.

Repeal and adoption

This ordinance repeals existing codes and amendments, and adopts the new national codes, changed on a 3-year cycle, with local amendments. This ordinance repeals the 2006 editions of the national codes, and adopts the 2009 editions of the respective codes, except 23.75 Safety Code for Elevators and Escalators (2007 edition) and 23.76 Safety Standard for Platform Lifts and Stairway Chairlifts (2005 edition). Additionally, 23.30 National Electrical Code (2008 edition), 23.55 Fire Protection Service Outside Service Areas, 23.70 Abatement of Dangerous buildings Code, 23.95 Relocatable Ancillary Buildings, and 23.100 Mobile Aircraft Shelters have no changes. The department worked in conjunction with the Anchorage Building Board and the Legal Department to insure the easiest and most understandable presentation of the new codes and amendments.

Technical provisions

The technical provisions in the national codes and local amendments should not be controversial as every reasonable attempt was made to resolve issues during committee meetings and public hearings. Significant code changes are summarized in Exhibit B.

Permit fees

The fee changes approved under AO No. 2010-81 (S-1) are included in 23.10 Table 3-A through Table 3-N.

Recommendation

The Administration recommends these documents be approved by the Assembly.

THE ADMINISTRATION RECOMMENDS APPROVAL OF AN ORDINANCE REPEALING AND REENACTING ANCHORAGE MUNICIPAL CODE TITLE 23 TO ADOPT 2009 AND OTHER RECENT EDITIONS, AND ENACTING LOCAL AMENDMENTS OF THE FOLLOWING CODES: ADMINISTRATIVE; BUILDING; MECHANICAL; PLUMBING; ELECTRICAL; FIRE; FIRE PROTECTION SERVICE OUTSIDE SERVICE AREAS; ENERGY CONSERVATION; EXISTING BUILDINGS; ABATEMENT OF DANGEROUS BUILDINGS; SAFETY CODE FOR ELEVATORS AND ESCALATORS; SAFETY STANDARD FOR PLATFORM LIFTS AND STAIRWAY CHAIRLIFTS; RESIDENTIAL; SCHOOL RELOCATABLES; MOBILE AIRCRAFT SHELTERS; GRADING, EXCAVATION AND FILL; AND FUEL GAS.

Prepared by:	Ross Noffsinger, Engineering Services Manager Development Services Division
Approved by:	Sharen Walsh, Deputy Director/Building Official Development Services Division
Approved by:	Jerry T. Weaver, Jr., Director Community Development Department
Concur:	Dennis A. Wheeler, Municipal Attorney
Concur:	George J. Vakalis, Municipal Manager
Respectfully submitted:	Daniel A. Sullivan, Mayor

EXHIBIT A

2009 Code Review Committees

IBC Structural	IBC Non-Structural	IFC	IMC/IFGC
Bill Westbrook	Bob Holben	Bart Meinhardt	Bob Holben
Bob Holben	Donald Crafts	Bob Holben	Craig Fredeen
Colin Maynard	Frank Carpenter	David Boggs	David Butto
Collin Dey	Gordon Thompson	Jim Luke	Don McCann
David Stchyrba	Henry Kim	Jon Steele	Gary Hile
Jared Keyser	Jeff Koonce	Lon Johannes	Jeff Robinson
Jesse Gobeli	Jon Steele	Mark Frischkorn	Larry Kampen
Keith Reed	Martin Schwan	Martin Schwan	Leigh Bergstrom
Mark Panilo	Phillip Calhoun	Nick Bakic	Mak Kampen
Nelson Franklin	Richard Rearick	Pat Thompson	Mark Langberg
Rick Fouts	Ross Noffsinger	Rita Venta	Rob Merchant
Scott Haan	Scott Bohne	Sean Carlson	Ron Green
Stacy Carpenter	Scott Depalatis	Tom Looney	
Troy Feller	Sean Carlson		
Tyler Loken	Tom Furch		
Wayne Bolen			

IRC	UPC	ENERGY	ELEVATOR
Andre Spinelli	Bari Gray	Andre Spinelli	Scott Bohne
Becky Hellman	Bob Holben	Bob Ferguson	Chalon Rein
Jeff Lintelman	David Boggs	Brian Pekar	Martin Schwan
Jim Stubbs	Gary Hile	Chuck Renfro	Brice Burnett
John Rankin	Jeff Cooper	Bernard Droege	Pete Askeland
Karen Cushman	John Annesi	Eric Cowling	Casey Crowly
Nick Bakic	Leigh Bergstrom	Ginny Moore	Mike Liebing
Paul Michelsohn	Matt Klebs	Bob Holben	Paul Bender
Ron Wilde	Matt Short	Jeff Jensen	Mike Evens
Shawn Broiles	Michael Cooke	Jim Ward	Jeanna Evens
Stacy Carpenter	Mike Divens	John Rankin	Ed Jackson
	Roger Heikes	Jonathan Steele	
	Tom Kyte	Ken Bauer	
	Tracy McKeon	Nichelle Seely	
		Randy Williams	
		Ross Noffsinger	
		Royal Field	
		Sarah Robicheaux	
		Shawn Holdridge	
		Stefan Roemer	
		Tyler Loken	

Exhibit B

MUNICIPALITY OF ANCHORAGE

Title 23 Summary of Significant Changes

2009 International Building Code (IBC):

Residential Care/Assisted Living Facilities: The 2009 IBC no longer recognizes residential care/assisted living facilities housing 5 or fewer residents where one or more residents may not be capable of responding to an emergency situation without assistance from staff. These facilities typically occur in a single family home. Anchorage has over 200 of these facilities where residents may or may not be capable of responding to an emergency without assistance from staff. The IBC now classifies these facilities as Group I-2 institutional, the same as hospitals, which have very stringent and costly code requirements. To allow this concept of residential care within a single family home to continue, a local amendment was created based on the more detailed requirements in NFPA 101 (Life Safety Code) for small residential board and care facilities. The end result is the new local amendment 23.15.426 detailing requirements for small residential care/assisted living facilities where one or more residents are incapable of responding to an emergency without assistance. New facilities with 3 to 5 residents going into existing homes are now required to obtain a change of use permit and a residential fire sprinkler system is required. The fire sprinkler provision does not apply to existing facilities with 5 or fewer residents. The new local amendment also has minimum fire resistive and smoke containment construction requirements that most homes should be able to meet with minimal work. We have received estimates that a residential fire sprinkler system installed in a new building is roughly $3.00 per square foot. To retrofit a fire sprinkler system into an existing building is roughly $3.25 per square foot.

IBC 1614: Category III or IV high-rise structures will now be subject to structural integrity requirements because longitudinal, transverse, vertical, and perimeter ties now have specific design and detailing requirements. This is dependent on how the engineers detail the structural elements and connections. This has the potential of being costly for the first few high-rises while engineers and contractors assess the design and detailing requirements. The likelihood of one of these structures being constructed in Anchorage is low. An example would be a high-rise office or apartment building with an occupant load over 5000 people.

2009 International Existing Building Code (IEBC):

23.65.606.3.2: Roofing replacements and rooftop equipment additions for masonry buildings constructed before 1984 will now kick in a requirement for concrete to be assessed for out-of-plane anchorage. This will require additional up-front engineering. The cost impact is not quantifiable given the variability of the existing buildings.

2009 International Fire Code (IFC):

Emergency Operation of Elevators: IFC section 607.1, Emergency Operation, requires new elevators to have emergency recall (phase I) and emergency in-car operation (phase II) in accordance with ASME A17.1. IFC section 4603.2 requires existing elevators with a travel distance of 25 feet or more to have phase II emergency operation in accordance with ASME A17.3. These code provisions are in the 2000, 2003, and 2006 fire codes but were not strictly enforced. New elevators automatically comply; however there are over 200 existing elevators that do not comply, and over a hundred that are undetermined. A time line for compliance was discussed by both the fire code committee and the elevator code committee and it was agreed to allow 5 years from the date of the 2009 code adoption (comply by January 2016) for elevators with a rise of 75 feet and greater and 7 years (comply by January 2018) for elevators with a rise between 25 and 75 feet. It should be noted that existing elevators undergoing a voluntary modernization will automatically comply, and it is expected that all noncompliant elevators will have undergone a voluntary modernization by these dates, thus minimizing the financial impact of the code requirement on building owners. The Division of Fire Prevention will work in concert with the Municipal elevator inspectors to notify the building owners with non-compliant elevators. The potential cost has a very wide range depending on the existing equipment. Technically the required additional features can be added as an overlay and retain the current controls. This approach will cost from $15-30K per elevator. Most building owners will probably choose to replace the control systems and associated equipment as a full modernization. This will cost between $45-70K per hydraulic elevator and $100-150K per traction elevator.

Luminous Egress Path Markings: IFC section 4604.23 requires luminous egress path markings in existing high rise buildings. This requirement applies retroactively to existing buildings having occupied floors located more than 75 feet above the level of fire department vehicle access. The markings are to be installed within exit enclosures on the leading edge of stair treads and landings; on handrails; along the floor perimeter at landings and walkways; to delineate obstacles; and on doors through which occupants must pass to exit the building. The purpose of the markings is to delineate the path of travel in a dark or smoke filled exit enclosure. This code requirement is a result of the NIST egress study on the World Trade Center.

2009 International Residential Code (IRC):

No significant cost implications anticipated by the adoption of the 2009 IRC. For energy related costs, see discussion for the 2009 IECC.

Fire Sprinkler Systems: The 2009 IRC requires fire sprinkler systems in all new single family homes, duplexes and townhouses. This requirement was amended out of the code by the IRC code committee. If the requirement for residential fire sprinkler systems is put back into the IRC by the Assembly, this will have a substantial cost impact on residential construction. We have received an estimate of $3.00 per square foot.

2009 International Energy Conservation Code (IECC):

Up to the adoption of the 2009 IECC, the energy code requirements for single family homes, duplexes and townhouses was governed by a local amendment to the IRC that consisted of nothing more than a prescriptive table specifying minimum R-values for various building components. Additionally, the IRC prescriptive insulation requirement for walls was reduced from R-21 to R-19. Specific requirements for air sealing, vapor retarder installation, insulation, windows and equipment were deleted. With the adoption of the 2009 IECC, single family homes, duplexes and townhouses will be governed by a complete energy code. The most substantial implications are discussed below. Once adopted, we anticipate implementing a grace period of several months to allow educating/training contractors and trades people on the new requirements. It is important to note that the energy code changes discussed below have the tangible benefit of reduced energy consumption and improved whole-house performance.

Wall Insulation: Since the energy code allows either a prescriptive or analytical approach for determining compliance with the code, it is difficult to determine costs associated with changes to the prescriptive requirements that do not affect analytical requirements. For example, the prescriptive wall insulation requirement changed from R-19 to R-21. R-21 costs $0.096 more per square foot than R-19. For a typical 2500 square foot house this equates to roughly $225. It must be noted that R-21 was designed specifically for a 2x6 wall, whereas R-19 was not. The end result is that R-19 is slightly compressed when installed in a 2x6 wall, resulting in an installed R-value of 17. If one chooses to do the analytical approach by performing an AHFC AKWARM computer run to demonstrate four star plus compliance, the analysis may show that R-19 insulation meets code. Consequently there really is no mandatory requirement to use R-21 as long as it can be demonstrated that R-19 meets code for a specific situation.

Air sealing: The 2009 IECC along with its amendments detail both prescriptive and performance based air sealing requirements. The purpose of air sealing is to control both infiltration and the accumulation of moisture in insulated assemblies. In typical construction the vapor retarder is used to air seal. When a vapor retarder is used to achieve compliance, the seams must now be sealed with an approved tape or sealant. Even though some builders seal seams, this has not been a mandatory requirement in the MOA. For those who currently do not seal seams, this will require a minor amount of additional labor.

Vapor Retarder at Rim Joist: It is difficult to maintain the continuity of the traditional poly vapor retarder through a floor framing assembly along the rim joist. Currently the MOA allows the vapor retarder to stop at the ceiling line in residential construction and does not require that it extend through the floor assembly to the underside of the deck above, which is necessary to maintain continuity. The vapor retarder plays a very important role by controlling infiltration and inhibiting the accumulation of moisture in insulated assemblies. Continuity of the vapor retarder will be required under the 2009 IECC. This will involve extra labor by the installer, which is usually an insulation contractor. As an alternate, the rim joist may be insulated and sealed simultaneously by the application of 2 pound density polyurethane foam spray applied insulation.

Crawlspace Insulation: The prescriptive requirement for crawlspace insulation is substantially less in the 2009 IECC versus the 2006 code. Since the industry has standardized on R-19 crawlspace insulation, and the trend is towards greater efficiency, we doubt people will take advantage of this allowable reduction to R-13 for framing insulation and R-10 for continuous insulation.

Foundation Insulation: The prescriptive requirement for foundation insulation increased from R-8 to R-10. This potentially represents a substantial cost increase because extruded polystyrene (XPS, R-10 for standard 2 inch thickness) is considerably more expensive than expanded polystyrene (EPS, R-8 for standard 2 inch thickness). Since research has shown that EPS may absorb less water than XPS and consequently retains its R value better, we intend to write a policy clarifying the acceptance of 2 inch EPS as meeting the prescriptive code requirement for R-10 foundation insulation. Since 2 inch EPS is the industry standard for residential construction, the end result will be no cost impact on the public.

Garage Foundation Insulation: In typical residential construction, garages are heated. Since they are heated, foundation insulation is required. Currently, many residential builders do not insulate the garage foundation. The cost to insulate a typical garage foundation should be less than $100 in material cost, and foundation insulation is known to have a fast payback. Starting with the adoption of the 2009 codes, the MOA intends to require insulation around the garage foundation, as required by code.

Crawlspace Construction: Current practice in anchorage is to insulate the walls of the crawlspace and then ventilate the crawlspace to the exterior with manual vents. The idea is the vents can be opened in the summer and closed in the winter. The 2009 code, including local amendments, recognizes that moisture problems are not limited to summer and requires an effective, energy efficient solution that works throughout the year. No longer will the practice of installing vents in the thermal envelope be allowed. When a builder chooses to construct a heated crawlspace with insulted walls, mechanical ventilation will be required per the IRC. This can be accomplished with the installation of a small continuous duty exhaust fan, or thru the use of the forced air heating system. If the forced air system is used, there is no anticipated cost impact. A small exhaust fan system may cost approximately $250. There will be a material and labor cost savings for not installing the manual vents.

Residential Ventilation: One of the most significant code changes for 2009 is the requirement for mechanical ventilation within a dwelling unit in accordance with ASHRAE Standard 62.2-2007. Note that this has been an AHFC requirement since April 2007. There are many ways one can comply with the requirement for mechanical ventilation. Arguably the best way is to use a heat recovery ventilator (HRV), however they are expensive. Installed costs for a typical 2500 square foot home would be $6500 (with hot water heat) and $2500 (with forced air heat). The forced air installation is lower because less ductwork is required for the HRV. A considerably less expensive way to obtain compliance would be through the installation of one or more continuous duty exhaust fans. The fans would be controlled by wall mounted switches, and they would continuously exhaust the home with make-up air entering through infiltration. This system would cost between $250 and $500 per home. If manually operated fresh air inlets are installed (which are not required), the cost would be between $1500 and $1800 per home.

Forced Air Furnace Located in the Garage: Typical residential construction is heated by a forced air furnace installed in an attached garage. When a furnace is installed in an attached garage, ASHRAE Standard 62.2 (proposed for adoption with the 2009 IECC) limits the furnace and ductwork leakage rate to no more than 6 percent. The intent is to prevent the polluted garage air from entering the home. Studies conducted in Anchorage by the Health Department have confirmed that attached garages are responsible for elevated benzene levels in homes. They have also confirmed that forced air heating systems exacerbate the problem. Benzene is a known carcinogen. Currently (given the leakiness of furnaces) there appears to be no practical way to meet the 6 percent leakage requirement. This may change in the future as furnace manufacturers improve the quality of construction of the appliances. In the mean time the only practical solution is to separate the furnace from the garage. Since this issue can be solved in a myriad of ways, it is difficult to quantify the cost associated with this requirement. Even though this is a new requirement for Development Services, it is not a new requirement for builders constructing to AHFC standards.

Lighting: Electrical energy consumption through lighting will be limited per IECC section 505.5 for commercial and institutional establishments. A local amendment has been created to reduce the impact on electrical engineers, designers and contractors by not requiring full compliance with this section until 2012. It is not possible to quantify the effect of this requirement which may or may not result in a higher initial cost for lighting systems. However this requirement will reduce energy consumption, thus saving on utility costs.

2009 Uniform Plumbing Code (UPC):

Section 23.25.605.3: In multi-dwelling units, one (1) or more shutoff valves shall be provided in each dwelling unit so as the water supply to the entire dwelling unit can be shut off without stopping water supply to other units. These valves shall be accessible in the dwelling units that they control. Shutoff valves shall be visible and shall not exceed ten (10) feet from a crawl space access when the shutoff valves are located in a crawl space.

Reason: To provide the ability to isolate a dwelling unit without affecting other units if plumbing work needs to be performed such as replacing a shower valve or angle stop.

Section 23.25.603.4.28: Hose bibbs within facilities that have a potential for a high hazard cross-connection such as automotive and maintenance shops and any facility where chemicals are used or stored in the vicinity of the hose bibb shall be protected by a minimum pressure vacuum breaker or spill-resistant vacuum breaker.

Reason: To include requirements from the PNWA AWWA Cross Connection Manual into the UPC amendments to provide clear understanding of what is required in Anchorage.

We anticipate that neither of these requirements would significantly increase the cost of construction.

2009 International Mechanical Code (IMC):

Duct Sealing in Residential Construction: All duct connections and seams (excluding continuously welded and locking type longitudinal seams on low pressure ducts) are required to be sealed per section 603.9. This is not a new requirement; however the MOA has not been enforcing it on drive-slip joints on rectangular ductwork in residential construction. With the adoption of the 2009 IECC and more emphasis on improved whole-house performance, we will require

compliance in conjunction with the adoption of the 2009 codes. This should have a negligible cost impact on residential construction.

IMC 403.3 Outdoor Airflow Rate: Although there are now multiple factors involved in the calculation of the minimum ventilation rate, the new procedures will result in ventilation systems for most occupancies being designed with slightly lower outdoor airflow rates when compared with the previous code. These reductions will likely result in reduced equipment and installation costs as well as reduced energy costs. This applies to commercial and institutional construction.

IMC 403.3.2 System Outdoor Airflow: This series of calculations for multiple zone recirculation systems will generally provide an overall outdoor air intake flow rate that is less than what would be determine by simply adding the flow rates for the separate zones. The overall result, however, will depend on the occupant diversity, the system ventilation efficiency as well as the overall population, size and use of the zones. This again will typically result in lower outdoor airflow rates than the previous code, resulting in lower equipment cost and reduced energy consumption. This applies to commercial and institutional construction.

IMC TABLE 1103.1 Refrigerant Classification: Besides adding 39 new refrigerants, the new code has increased the allowable quantities of refrigerant by an average of 27%. When a piece of equipment in an enclosed space utilizing a refrigerant has a quantity of refrigerant in the system that exceeds the allowable limit, the room must then meet the requirements of a "Machine Room". Among some of the requirements are audio and visual alarms both inside and outside of the enclosure plus mechanical ventilation to the outdoors capable of exhausting the minimum quantity of air during normal and emergency power conditions. These increases in allowable quantities should reduce installation costs for many commercial refrigeration systems.

2009 International Fuel Gas Code (IFGC):
23.110.503.5.5 Size of Chimneys
23.110.503.6.9.1 Category One Appliances
23.110.504.2(3) & 504.2(4) TABLES

When a natural draft appliance is replaced by a high efficiency condensing appliance, a new venting system must be installed to serve the high efficiency appliance. If the replaced appliance was vented into a common venting system serving other appliances like a water heater and/or garage unit heater, the remaining venting system may be oversized for the remaining appliances. Using a typical residential example, a natural draft water heater and boiler often have a common vent to the atmosphere. If the boiler is upgraded to a high efficiency model, it would be vented separately leaving the water heater with a vent size 4

to 5 times larger than required. In our cold winter conditions this can lead to a situation known as cold stacking where the cold air coming down the vent overpowers the water heater products of combustion trying to go up the flue, causing byproducts of combustion to spill into the building. In order to preclude this from happening, these amendments would require replacing a substantially oversized common vent with an appropriately sized new installation, thus significantly increasing the replacement cost of one appliance.

Prepared by:
Ross Noffsinger, PE
Engineering Services Manager
343-8309

Content ID: 009726

Type: Ordinance - AO

Title: AN ORDINANCE REPEALING AND REENACTING ANCHORAGE MUNICIPAL CODE TITLE 23 TO ADOPT 2009 AND OTHER RECENT EDITIONS, AND ADOPTING LOCAL AMENDMENTS OF THE FOLLOWING CODES: ADMINISTRATIVE; BUILDING; MECHANICAL; PLUMBING; ELECTRICAL; FIRE; FIRE PROTECTION SERVICE OUTSIDE SERVICE AREAS; ENERGY CONSERVATION; EXISTING BUILDINGS; ABATEMENT OF DANGEROUS BUILDINGS; SAFETY CODE FOR ELEVATORS AND ESCALATORS; SAFETY STANDARD FOR PLATFORM LIFTS AND STAIRWAY CHAIRLIFTS; RESIDENTIAL; SCHOOL RELOCATABLES; MOBILE AIRCRAFT SHELTERS; GRADING, EXCAVATION AND FILL; AND FUEL GAS.

Author: maglaquijp

Initiating Dept: Dev_Svs

Description: An Ordinance Repealing and Reenacting Anchorage Municipal Code Title 23 to Adopt 2009 and Other Recent Editions, and Enacting Local Amendments

Keywords: Title 23 2009 Code Repeal and Reenactment

Date Prepared: 12/16/10 7:09 PM

Director Name: Jerry T. Weaver, Jr.

Assembly Meeting Date: 1/11/11

Public Hearing Date: 2/15/11

Workflow Name	Action Date	Action	User	Security Group	Content ID
Clerk_Admin_SubWorkflow	1/3/11 8:36 AM	Exit	Joy Maglaqui	Public	009726
MuniManager_SubWorkflow	1/3/11 8:36 AM	Checkin	Joy Maglaqui	Public	009726
Legal_SubWorkflow	12/28/10 12:07 PM	Approve	Rhonda Westover	Public	009726
Finance_SubWorkflow	12/27/10 4:04 PM	Approve	Lucinda Mahoney	Public	009726
OMB_SubWorkflow	12/27/10 9:50 AM	Approve	Marilyn T. Banzhaf	Public	009726
Commun_Dev_SubWorkflow	12/17/10 12:00 PM	Approve	Jerry Weaver Jr.	Public	009726
Dev_Svs_SubWorkflow	12/17/10 11:32 AM	Approve	Sharen Walsh	Public	009726
AllOrdinanceWorkflow	12/16/10 7:15 PM	Checkin	Susan Perry	Public	009726

CONSENT AGENDA - **INTRODUCTION**