Postponed Indefinitely 9/10/02

Submitted by: Chairman of the Assembly at the request of the Mayor
Prepared by: Department of Law
For reading: FEBRUARY 12, 2002

ANCHORAGE, ALASKA
AO NO. 2002-31

AN ORDINANCE REPEALING AND REENACTING TITLE 23 OF THE ANCHORAGE MUNICIPAL CODE TO ADOPT THE 2000 EDITIONS OF THE FOLLOWING CODES AND ENACTING LOCAL AMENDMENTS THERETO: ADMINISTRATIVE, BUILDING, MECHANICAL, PLUMBING, FIRE, EXISTING BUILDINGS, RESIDENTIAL, BUILDING CONSTRUCTION CONTRACTOR REQUIREMENTS, FIRE PROTECTION SERVICE OUTSIDE SERVICE AREAS, ENERGY CONSERVATION, SCHOOL RELOCATABLES, SAFETY CODE FOR ELEVATORS AND ESCALATORS, ELECTRICAL CODE, MOBILE AIRCRAFT SHELTERS, GRADING, AND FUEL GAS CODE.

THE ANCHORAGE ASSEMBLY ORDAINS:

Section 1. That Anchorage Municipal Code Title 23 is hereby repealed and reenacted to read:

TITLE 23 BUILDING CODES

CHAPTERS

23.100 Mobile Aircraft Shelters
23.105 Grading
23.110 International Fuel Gas Code, 2000 Edition, except Chapter 1, including Appendix A.

CHAPTER 23.05
BUILDING REGULATION

23.05.010 Adoption of Codes

The Municipality of Anchorage, pursuant to §10.04 of its Home Rule Charter, adopts and incorporates by reference the following codes of technical regulation:

23.10 Anchorage Administrative Code, 2000 Edition
23.15 International Building Code, 2000 Edition, except Chapters 1 and 34, including appendices A-C, G and H.
23.20 International Mechanical Code, 2000 Edition, except Chapter 1
23.25 Uniform Plumbing Code, 2000 Edition, except chapters 1, 12 and 15, including appendices A, B, D, I, and L.
23.30 National Electrical Code, 1999 Edition, including the appendices thereto
23.45 International Fire Code, 2000 Edition, and Appendices B – G.
23.55 Fire Protection Service Outside Service Area
23.60 Energy Conservation in New Building Design, ANSI/ASHRAE/IES 90A-1980, ANSI/ASHRAE/IES 90.1-1989, ASHRAE/IES 90B-1975, and ASHRAE 90C-1977
23.65 Anchorage Existing Buildings Code, 2000 Edition
23.75 American National Standards Institute/American Society of Mechanical Engineers ANSI/ASME A17.1, 1996 Safety Code for Elevators and Escalators, including the appendices thereto; ANSI/ASME A17-1D 2000 update
23.85 International Residential Code, 2000 Edition, Chapters 2-11, and Appendix E.
23.90 Building Construction Contractor Requirements
23.95 School Relocatables
23.100 Mobile Aircraft Shelters
23.105 Grading
23.110 International Fuel Gas Code, 2000 Edition, except Chapter 1, 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 Building Safety Service Area.

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 23.105 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., 23.20.303.3 refers to amendments to Section 303.3 of the International Mechanical Code.

Chapter 23.10
ANCHORAGE ADMINISTRATIVE CODE

Chapter 1
TITLE, SCOPE AND GENERAL
SECTION 101
TITLE, PURPOSE AND SCOPE

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."

101.2 Purpose. The purpose of this code is to provide for the administration and enforcement of the technical codes adopted by this jurisdiction.

101.3 Scope. The provisions of this code shall serve as the administrative, organizational and enforcement rules and regulations for the technical codes which regulate site preparation and construction, alteration, moving, demolition, repair, use and occupancy of buildings, structures and building service equipment within this jurisdiction.

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

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 will mean the Uniform Plumbing Code as adopted by the Municipality of Anchorage. In all places where the

International Codes and other codes refer to the Accessibility, Electrical, Energy, Elevator, Sign, or Security codes, it will mean those codes as adopted by the Municipality of Anchorage.

SECTION 102
APPLICATION TO EXISTING BUILDINGS AND BUILDING SERVICE EQUIPMENT

102.1 General. Buildings, structures and their 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 Anchorage Existing Buildings Code.

102.2 Additions, alterations or repairs. Additions, alterations or repairs may be made to a building or its building service equipment without requiring the existing building or its building service equipment to comply with all the requirements of the technical codes, provided the addition, alteration or repair conforms to that required for a new building or building service equipment.

Additions or alternations shall not be made to an existing building or building service equipment which will cause the existing building or building service equipment to be in violation of the provisions of the technical codes nor shall such additions or alternations cause the existing building or building service equipment to become unsafe. An unsafe condition shall be deemed to have been created if an addition or alternation will cause the existing building or building service equipment to become unsafe or overloaded; will not provide adequate egress in compliance with the provisions of the building code or will obstruct existing exits; will create a fire hazard; will reduce required fire resistance; will cause building service equipment to become overloaded or exceed their rated capacities; will create a health hazard or will otherwise create conditions dangerous to human life. A building so altered, which involves a change in use or occupancy, shall not exceed the height, number of stories and area permitted by the Building Code for new buildings. A building plus new additions shall not exceed the height, number of stories and area specified by the Building Code for new buildings.

Additions or alternations shall not be made to an existing building or structure when the existing building or structure is not in full compliance with the provisions of the Building Code except when the addition and alteration will result in the existing building or structure being no more hazardous based on life safety, fire safety and sanitation, than before such additions or alterations are undertaken.

Exception: Alterations of existing structural elements, or additions of new structural elements, which are not required by Section 102.4 and which are initiated for the purpose of increasing the lateral-force-resisting strength or stiffness of an existing structure need not be designed for forces conforming to these regulations provided that an engineering analysis is submitted to show that:

1. The capacity of existing structural elements required to resist forces is not reduced, and
2. The lateral loading to required existing structural elements is not increased beyond their capacity, and
3. New structural elements are detailed and connected to the existing structural elements as required by these regulations, and

4. New or relocated nonstructural elements are detailed and connected to existing or new structural elements as required by these regulations, and
5. An unsafe condition as defined above is not created.

Alterations or repairs to an existing building or structure which are nonstructural and do not adversely affect a structural member or a part of the building or structure having required fire resistance may be made with the same materials of which the building or structure is constructed, subject to approval by the Building Official. Installation or replacement of glass shall be as required for new installations.

Minor additions, alterations and repairs to existing building service equipment installations may be made in accordance with the technical code in effect at the time the original installation was made, subject to approval of the Building Official, and provided such additions, alterations and repairs will not cause the existing building service equipment to become unsafe, unsanitary or overloaded.

102.3 Existing installations. Building service equipment lawfully in existence at the time of the adoption of the technical codes may have their use, maintenance or repair continued if the use, maintenance or repair is in accordance with the code at time of construction and installation and a hazard to life, health or property has not been created by such building service equipment.

102.4 Existing occupancy. Buildings in existence at the time of the adoption of the Building Code may have their existing use or occupancy continued if the use or occupancy was legal at the time of construction and the adoption of the Building Code, and provided continued use is not dangerous to life, health and safety.

A change in use or occupancy of any existing building or structure shall comply with the provisions of Section 309 of this code and Chapter 5 of the Anchorage Existing Buildings Code.

102.5 Maintenance. Buildings, structures and building service equipment, existing and new, and part thereof shall be maintained in a safe and sanitary condition. Devices or safeguards which are required by the technical codes shall be maintained in conformance with the technical code under which installed. The owner or the owner's designated agent shall be responsible for the maintenance of buildings, structures and their building service equipment. To determine compliance with this section, the Building Official may cause a structure to be reinspected.

102.6 Moved buildings. Buildings or structures moved into the jurisdiction shall comply with the provisions of this code for new buildings or structures. Buildings or structures moved within the jurisdiction shall be inspected and any hazards to health, life or safety shall be corrected before it is occupied.

102.7 Temporary structures. Buildings, structures, sheds, canopies, fences, reviewing stands and other structures of a temporary nature may be erected by special permit from the Building Official for a period of 180 days. Temporary structures may be erected without meeting all requirements for permanent structures, but must meet the following conditions:

A. Temporary structures shall be limited to Group A; Group B; and Group M occupancies;
B. The size of the structure shall not exceed 1,000 square feet nor be more than one story in height;

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 that are extensively used or are essential for public use shall comply with the accessibility code for the disabled. 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 must 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. When a building permit has been issued for new construction or remodeling, a permit for a fence or construction shacks will not be required;

J. After a temporary structure has been 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.

102.7.1 Seasonal use structures. Sale stalls, carnivals, fairs and assembly pavilions or tents, including such structures 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 must meet the following conditions:

A. Seasonal use structures will 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 temporary 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 is to certify there are no hazards to health, life, or safety and proper maintenance of the structure or installations has been performed prior to reoccupancy;

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

G. Seasonal activities with seating areas must provide handicap-accessible temporary or permanent toilet facilities as required by the Plumbing Code and Accessibility Code;

H. Seasonal use structures that are extensively used or are essential for public use shall comply with the Accessibility Code, providing accessibility for the disabled;

I. 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.

102.7.2 Permit application. 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 this jurisdiction;

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

E. All required fees and cash bonds.

102.7.3 Fees. A nonrefundable fee shall accompany applications for temporary or seasonal use structures. Applications for the annual code compliance inspection, for seasonal use structures shall be accompanied by a fee for each inspector per hour.

102.7.4 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 $1,000.00:

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.

102.8 Historic buildings. Repairs, alterations and additions necessary for the preservation, restoration, rehabilitation or continued use of a building, structure, or its building service equipment may be made without conforming to the requirements of the technical code when authorized by the Building Official, provided:

1. The building or structure has been designated by official action of the Anchorage Municipal Assembly or its delegated authority as having special historical or architectural significance.
2. Unsafe conditions as described in this code are corrected.
3. The restored building or structure and its building service equipment will be no more hazardous based on life safety, fire safety and sanitation than the existing building.

SECTION 103
DEFINITIONS

For the purpose of this code, certain terms, phrases, words and their derivatives shall be construed as specified in this section. Where terms are not defined, they shall have their ordinary accepted meanings within the context with which they are used in *Webster's Dictionary*, 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 International Building Code, as adopted by this jurisdiction.

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 which provide sanitation, lighting, heating, ventilation, cooling, refrigeration, fire-fighting and transportation facilities essential to the occupancy of the building or structure for its designated use.

DANGEROUS BUILDING CODE is the *Anchorage Existing Buildings Code.*

ELECTRICAL CODE is the Electrical Code, as adopted by this jurisdiction.

ELEVATOR CODE is the safety code for elevators, dumbwaiters, escalators and moving walks as adopted by this jurisdiction.

JURISDICTION, as used in this code, is a state or political subdivision, which adopts this code for administrative regulations within its area of authority.

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 that maintains periodic inspection of current productions of listed equipment or materials. The published list shall state that 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 International Mechanical Code, as adopted by this jurisdiction.

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 having 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, heirs, executors, administrators or assigns, and also includes a firm, partnership or corporation, its or their successors or assigns, or agent of any of the aforesaid.

PLUMBING CODE is the plumbing code, as adopted by this jurisdiction.

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

RETROFIT is the replacement of any part of the existing building service equipment with parts developed or made available after the original installation.

SHALL, as used in the code, is mandatory.

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 by Sections 305 and 306.

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 this jurisdiction 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.

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.

SECTION 104
CONFLICTING PROVISIONS

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

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.

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.

When conflicts occur between specific provisions of this code and administrative provisions in a technical code, which is then applicable within this jurisdiction, those provisions becoming the law most recently shall prevail.

SECTION 105
ALTERNATE MATERIALS, METHODS OF DESIGN AND METHODS OF CONSTRUCTION

The provisions of the technical codes are not intended to prevent the use of any material, method of design or method of construction not specifically prescribed by the technical codes, provided an alternate has been approved and its use authorized by the Building Official.

The Building Official may approve an alternate, provided the Building Official finds that the proposed design is satisfactory and complies with the provisions of the technical codes and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed in the technical codes in suitability, strength, effectiveness, fire resistance, durability, safety and sanitation.

The Building Official shall require that sufficient evidence or proof be submitted to substantiate claims that may be made regarding its use. The details of an action granting approval of an alternate shall be recorded and entered in the file of the code enforcement agency.

SECTION 106
MODIFICATIONS

Whenever there are practical difficulties involved in carrying out the provisions of the technical codes, the Building Official may grant modifications for individual cases. The Building Official shall first find that a special individual reason makes the strict letter of the technical code impractical and the modification is in conformity with the intent and purpose of the technical code, and that such modification does not lessen health, life safety and fire safety requirements or any degree of structural integrity. The details of actions granting modifications shall be recorded and entered in the files of the code enforcement agency.

SECTION 107
TESTS

Wherever there is insufficient evidence of compliance with the provisions of the technical codes or evidence that materials or construction do not conform to the requirements of the technical codes, the Building Official may require tests as evidence of compliance to be made at no expense to the jurisdiction.

Test methods shall be as specified by the technical codes or by other recognized test standards. In the absence of recognized and accepted test methods, the Building Official shall determine test procedures.

Tests shall be made by an approved agency. The Building Official shall retain reports of such tests for the period required for the retention of public records.

Chapter 2
ORGANIZATION AND ENFORCEMENT

201.1 Creation of enforcement agency. There is hereby established in the jurisdiction a code enforcement agency which shall be under the administrative and operational control of the Building Official.

201.2 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 be construed to mean the Building Official designated by the appointing authority of this jurisdiction.

SECTION 202
POWERS AND DUTIES OF THE BUILDING OFFICIAL

202.1 General. The Building Official is hereby authorized and directed to enforce all the provisions of this code and the referenced technical codes. For such purposes, the Building Official shall have the powers of a law enforcement officer.

The Building Official shall have the power to render interpretations of this code and the referenced technical codes and to adopt and enforce rules and regulations supplemental to this code as may be deemed necessary to clarify the application of the provisions of this code. Such interpretations, rules and regulations shall be in conformity with the intent and purpose of this code.

202.2 Deputies. In accordance with prescribed procedures and with the approval of the appointing authority, the Building Official may appoint such number of technical officers and inspectors and other employees as shall be authorized from time to time. The Building Official may deputize such inspectors or employees as may be necessary to carry out the functions of the code enforcement agency.

202.3 Right of entry. When necessary to make an inspection to enforce any of the provisions of this code and the technical codes, or when the Building Official has reasonable cause to believe that there exists in any building or upon a premises a condition which is contrary to or in violation of this code which makes the building or premises unsafe, dangerous or hazardous, the Building Official may enter the building or premises at all reasonable times to inspect or to perform the duties imposed by this code, provided that if such building or premises be occupied, that credentials be presented to the occupant and entry requested. If such building or premises be unoccupied, the Building Official shall first make a reasonable effort to locate the owner or other persons having charge or control of the building or premises and request entry. Should entry be refused, the Building Official shall have recourse to the remedies provided by law to secure entry.

202.4 Stop Work orders. When work is being done contrary to the provisions of this code, the technical codes, or other pertinent laws or ordinances implemented through the enforcement of this code, the Building Official may order the work stopped by notice in writing served on persons engaged in the doing or causing such work to be done, and such persons shall forthwith stop the work until authorized by the Building Official to proceed with the work.

202.4.1 Unlawful continuance. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be subject to penalties as prescribed by law.

202.5 Occupancy violations. When a building or structure or building service equipment therein regulated by this code and the technical codes is being used contrary to the provisions of such codes, the Building Official may order such use discontinued by written notice served on any person causing such to be continued. Such person shall discontinue the use within the time

prescribed by the Building Official after receipt of such notice to make the structure, or portion thereof, comply with the requirements of such codes.

202.6 Authority to disconnect utilities. The Building Official or the Building Official's authorized representative shall have the authority to disconnect a utility service or energy supplied to the building, structure or building service equipment therein regulated by this code or the technical codes in case of emergency where necessary to eliminate an immediate hazard to life or property. The Building Official shall whenever possible notify the serving utility, the owner and occupant of the building, structure or building service equipment of the decision to disconnect prior to taking such action, and shall notify such serving utility, owner and occupant of the building, structure or building service equipment, in writing, of such disconnection immediately thereafter.

202.7 Authority to condemn building service equipment. When the Building Official ascertains that building service equipment regulated in the technical codes has become hazardous to life, health or property, or has become unsanitary, the Building Official shall order in writing that such equipment either be removed or restored to a safe or sanitary condition, as appropriate. The written notice itself shall fix a time limit for compliance with such order. Defective building service equipment shall not be maintained after receiving such notice.

When such equipment or installation is to be disconnected a written notice of such disconnection and causes therefore shall be given within 24 hours to the serving utility, the owner and occupant of such building, structure or premises.

When any building service equipment is maintained in violation of the technical codes and in violation of a notice issued pursuant to the provisions of this section, the Building Official shall institute appropriate action to prevent, restrain, correct or abate the violation.

202.8 Connection after order to disconnect. Persons shall not make connections from an energy, fuel or power supply nor supply energy or fuel to building service equipment which has been disconnected or ordered to be disconnected by the Building Official or the use of which has been ordered to be disconnected by the Building Official until the Building Official authorizes the reconnection and use of such equipment.

202.8.1 Unlawful continuance. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be subject to penalties as prescribed by law.

202.9 Liability. The Building Official charged with the enforcement of this code and the technical codes, acting in good faith and without malice in the discharge of his duties, shall not thereby be rendered personally liable for damage that may accrue to persons or property as a result of an act or omission in the discharge of the assigned duties. A suit brought against the Building Official or employee because of such act or omission performed by the Building Official or employee in the enforcement of the provisions of such codes or other pertinent laws or ordinances implemented through the enforcement of this code or enforced by the code enforcement agency shall be defended by this jurisdiction until final termination of such proceedings, and any judgment resulting there from, shall be assumed by this jurisdiction.

This code shall not be construed to relieve from or lessen the responsibility of any person owning, operating or controlling a building, structure or building service equipment therein for

damages to persons or property caused by defects, nor shall the code enforcement agency or its parent jurisdiction be held as assuming such liability by reason of the inspections authorized by this code or permits or certificates issued under this code.

202.10 Cooperation of other officials and officers. The Building Official may request, and shall receive, the assistance and cooperation of other officials of this jurisdiction so far as is required in the discharge of the duties required by this code or other pertinent laws or ordinance.

SECTION 203
UNSAFE BUILDINGS, STRUCTURES OR BUILDING SERVICE EQUIPMENT

Buildings or structures regulated by this code and the technical codes which are structurally inadequate or have inadequate egress, or which constitute a fire hazard, or otherwise dangerous to human life are, for the purpose of this section, unsafe buildings.

Building service equipment regulated by such codes, which constitutes a fire, electrical or health hazard, or an unsanitary condition, or is otherwise dangerous to human life is, for the purpose of this section, unsafe. Use of buildings, structures or building service equipment constituting a hazard to safety, health or public welfare by reason of inadequate maintenance, dilapidation, obsolescence, fire hazard, disaster, damage or abandonment is, for the purpose of this section, an unsafe use.

Parapet walls, cornices, spires, towers, tanks, statuary and other appendages or structural members which are supported by, attached to, or a part of a building and which are in a deteriorated condition or otherwise unable to sustain the design loads which are specified in the Building Code are hereby designated as unsafe building appendages.

Unsafe buildings, structures or appendages and building service equipment are hereby declared to be public nuisances and shall be abated by repair, rehabilitation, demolition or removal in accordance with the procedures set forth in the Dangerous Buildings Code or such alternate procedures as may be adopted by this jurisdiction. As an alternative, the Building Official or other employee or official of this jurisdiction as designated by the governing body may institute other appropriate action to prevent, restrain, correct or abate the violation.

SECTION 204
BOARD OF APPEALS

204.1 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 who are qualified by experience and training to pass upon matters pertaining to building construction and building service equipment and who are not employees of the jurisdiction. The Building Official shall be an ex officio member and shall act as secretary to said board but shall have no 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 its business and shall render all decisions and findings in writing to the appellant with a duplicate copy to the Building Official.

204.2 Limitations of authority. The board of appeals shall have no authority relative to interpretation of the administrative provisions of this code or the administrative provisions of the

technical codes nor shall the board be empowered to waive requirements of either this code or the technical codes.

204.3 Board of building regulation examiners and appeals (Building Board) established.

There is established a Board of Building Regulation Examiners and Appeals (hereafter known as the "Building Board"), as described in Section 4.40.030 of the Anchorage Municipal Code, consisting of eleven members appointed by the mayor, subject to confirmation by the Assembly, who are qualified by experience or training to pass on matters pertaining to building construction.

1. At least two members shall be Architects registered in the State of Alaska.
2. At least two members shall be Professional Engineers registered as Civil Engineers in the State of Alaska.
3. At least one member shall be a Professional Engineer registered as a Mechanical Engineer in the State of Alaska
4. At least one member shall be a Professional Engineer registered as an Electrical Engineer in the State of Alaska.
5. At least two members shall be licensed General Contractors actively engaged in general building construction and/or home building.
6. At least one member shall be a licensed Electrical Contractor actively engaged in the electrical trade.
7. At least one member shall be a licensed Plumbing Contractor actively engaged in the plumbing trade.
8. At least one member shall be a licensed Mechanical Contractor actively engaged in the mechanical trade.

Six members of the Building Board shall constitute a quorum for the transaction of any business. For the affirmative action on quasi-judicial matters by the Building Board, there must be a concurring vote of six members.

The Building Board shall hear and decide appeals from actions of administrative officials relating to code regulations under Title 23.

204.4 Secretary to building board. The Building Official or his designee shall be an ex-officio member without vote and shall act as secretary to the Board, shall conduct all correspondence, send out all required notices, keep the minutes of the meeting, and maintain a file on each case which comes before the Building Board.

204.5 Appeal filing fee. The cost of filing an appeal case to be considered by the Building Board is $500.00 and must accompany the filing of the appeal.

SECTION 205
VIOLATIONS

205.1 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.

205.2 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.

205.3 Prosecution of violation. If the notice of violation is not complied with promptly, the Building Official is authorized to request the legal counsel of the jurisdiction 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.

SECTION 206
PENALTIES AND REMEDIES

In addition to any other remedy or penalty provided by this title, any person who violates 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 provided by Section 1.45.010B of the Anchorage Municipal Code.

Any person aggrieved by the act or omission of another person that constitutes a violation of the provisions of this title or the codes of technical regulation adopted herein may, following 30 days written notice to the municipal official or department empowered to enforce that provision, commence and maintain a civil injunctive relief or both authorized by Section 1.45.010B of the Anchorage Municipal Code. The court, in issuing any final order in any action brought by a private person under this section, may, at its discretion, award the 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.

Chapter 3
PERMITS AND INSPECTIONS

SECTION 301
PERMITS

301.1 Permits required. Except as specified in Section 301.2, no building, structure or building service equipment regulated by this code and the technical codes shall be erected, constructed, enlarged, altered, repaired, moved, improved, removed, converted or demolished unless a separate, appropriate permit for each building, structure or building service equipment has first been obtained from the Building Official.

301.1.1 Emergency repairs. Where equipment replacements and repairs must be performed in an emergency situation, the permit application shall be submitted within the next working business day to the Building Official.

301.2 Work exempt from permit. A permit shall not be required for the types of work in each of the separate classes of permit as listed below. 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 the technical codes or any other laws or ordinances of this jurisdiction.

301.2.1 Building permits. A building permit shall not be required for the following:

1. One-story detached accessory buildings used as tool and storage sheds, playhouses, and similar uses, provided the floor area does not exceed 120 square feet.
2. Fences not over 6 feet high
3. Oil derricks.
4. Movable cases, counters and partitions not over 5 feet 9 inches high.
5. Retaining walls, which are not over 4 feet in height, measured from the bottom of the footing to the top of the wall, unless supporting a surcharge or impounding Class I, II or III-A liquids.
6. 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.
7. Platforms, walks and driveways not more than 30 inches above grade and not over any basement or story below.
8. Painting, papering and similar finish work.
9. Temporary motion picture, television and theater stage sets and scenery.
10. Window awnings supported by an exterior wall of group R, Division 3, and Group U Occupancies when projecting not more than 54 inches.
11. Prefabricated swimming pools accessory to a Group R, Division 3 Occupancy, as applicable in Section 101.2, which are less than 24 inches deep, do not exceed 5,000 gallons and are installed entirely above ground.
12. Permits will not be required for ordinary maintenance 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 shall be made only in accordance with the applicable provisions of the building code, and other construction or safety codes of the municipality.
13. 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 any electrical, plumbing, mechanical or structural work is done.
14. Shade cloth structures constructed for nursery or agricultural purposes and not including service systems.
15. Swings and other playground equipment accessory to one- and two-family dwellings.

Unless otherwise exempted by this code, separate plumbing, electrical and mechanical permits will be required for the above exempted items.

301.2.2 Plumbing permits. A plumbing permit shall not be required for the following:

1. The stopping of leaks in drains, soil, waste or vent pipe, provided, however, that should any concealed trap, drain pipe, soil, waste or vent pipe become defective and it becomes 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.
2. 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.

301.2.3 Electrical permits. An electrical permit shall not be required for the following:

1. 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 that cord or cable is permitted by the Electrical Code.
2. Repair or replacement of fixed motors, transformers or fixed approved appliances of the same type and rating in the same location.
3. Temporary decorative lighting.
4. Repair or replacement of current-carrying parts of any switch, contactor or control device.
5. Reinstallation of attachment plug receptacles, but not the outlets thereof.
6. Repair or replacement of any overcurrent device of the required capacity in the same location.
7. Repair or replacement of electrodes or transformers of the same size and capacity in the same location.
8. Taping joints.
9. Removal of electrical wiring.
10. Temporary wiring for experimental purposes in suitable experimental laboratories.
11. The wiring for temporary theater, motion picture or television stage sets.
12. Electrical wiring, devices, appliances, apparatus or equipment operating at less than 25 volts and not capable of supplying more than 50 watts of energy.
13. Low-energy power, controls and signal circuits of Class II and Class III as defined in the Electrical Code.
14. A permit shall not be required for the 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.

15. The provisions of this code shall not apply to electrical equipment used for radio and television transmissions, but does apply to equipment and wiring for power supply, the installations of towers and antennas.
16. A permit shall not be required for the installation of any temporary system required for the testing or servicing of electrical equipment or apparatus.

301.2.4 Mechanical permits. A mechanical permit shall not be required for the following:

1. A portable heating appliance.
2. Portable ventilating equipment.
3. A portable cooling unit.
4. A portable evaporative cooler.
5. A closed system of steam, hot or chilled water piping within heating or cooling equipment regulated by the Mechanical Code.
6. Replacement of any component part of assembly of an appliance which does not alter its original approval and complies with other applicable requirements of the technical codes.
7. Refrigerating equipment, which is part of the equipment for which a permit has been issued pursuant to the requirements of the technical codes.
8. Self-contained refrigeration system containing 10 pounds or less of refrigerant and actuated by motors of 1 horsepower or less.

301.2.5 Remodeling work. Electrical, plumbing, mechanical and building (structural) permits may be issued to residential remodeling contractors. Whenever the work consists only of electrical, mechanical, or plumbing, a building (structural) permit need not be obtained. Work for which a permit is required shall be performed only by a contractor licensed to do that work, or by homeowner as per Section 303, Permits Issuance.

SECTION 302
APPLICATION FOR PERMIT

302.1 Application. To obtain a permit, the applicant shall first file an application therefore in writing on a form furnished by the code enforcement agency for that purpose. Every such application shall:

1. Identify and describe the work to be covered by the permit for which application is made.
2. Describe the land on which the proposed work is to be done by legal description, street address or similar description that will readily identify and definitely locate the proposed building or work.
3. Indicate the use or occupancy for which the proposed work is intended.
4. Be accompanied by plans, diagrams, computations and specifications, and other data as required in Section 302.2.
5. State the valuation of any new building or structure or any addition, remodel or alteration to an existing building.
6. Be signed by the owner, or the owner's authorized agent.

7. Give such other data and information as may be required by the Building Official.
8. If the work under application is an alteration to or construction of a privately owned residential structure of one to four units that is used or intended to be used as a human dwelling, proof of a residential contractor endorsement issued by the State of Alaska must be provided.

302.2 Submittal documents. Plans, specifications, engineering calculations, diagrams, soil investigation reports, special inspection and structural observation programs and other data shall constitute the submittal documents and shall be submitted in one or more sets with each application for a permit. When such plans are not prepared by an architect or engineer, the Building Official may require the applicant submitting such plans or other data to demonstrate that state law does not require that the plans be prepared by a licensed architect or engineer. The Building Official may require plans, computations and specifications to be prepared and designed by an engineer or architect licensed by the state to practice as such even if not required by state law.

Exception: The Building Official may waive the submission of plans, calculations, construction inspection requirements and other data if it is found that the nature of the work applied for is such that reviewing plans is not necessary to obtain compliance with this code.

302.3 Information on plans and specifications. Plans and specifications shall be drawn to scale on substantial paper or cloth and shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of this code and all relevant laws, ordinances, rules and regulations.

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 will be made for electrical, mechanical, plumbing and communication conduits, pipes and similar systems.

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-2 and R-3 as applicable in Section 101.2 and I-1, the construction documents shall designate the number of occupants to be accommodated on every floor, and in all rooms and spaces.

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 manufacturing installation instructions that provide 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 wall system which was tested, where applicable, as well as the test procedure used.

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 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 that are to remain on the site or plot. The Building Official is authorized to waive or modify the requirements for a site plan when the application for permit is alteration or repair or when otherwise warranted.

302.4 Architect or engineer of record.

302.4.1 General. When it is required that documents be prepared by an architect or engineer, the Building Official may require the owner to engage and designate on the building application an architect or engineer who shall act as the architect or engineer of record. If the circumstances require, the owner may designate a substitute architect or engineer of record who shall perform all the duties required of the original architect or engineer of record. The Building Official shall be notified in writing by the owner if the architect or engineer of record is changed or is unable to continue to perform the duties.

The architect or engineer of record shall be responsible for reviewing and coordinating all submittal documents prepared by others, including deferred submittal items, for compatibility with the design of the building.

302.4.2 Deferred submittals. For the purpose of this section, deferred submittals are defined as those portions of the design which are not submitted at the time of the application and which are to be submitted to the Building Official within a specified period.

Deferral of any submittal items shall have prior approval of the Building Official. The architect or engineer of record shall list the deferred submittals on the plans and shall submit the deferred submittal documents for review by the Building Official.

Submittal documents for deferred submittal items shall be submitted to the architect or engineer of record who shall review them and forward them to the Building Official with a notation indicating that the deferred submittal documents have been reviewed and that they have been found to be in general conformance with the design of the building. The deferred submittal items shall not be installed until their design and submittal documents have been approved by the Building Official.

302.5 Inspection and observation program. When special inspection is required by Section 306, the architect or engineer of record shall prepare an inspection program which shall be submitted to the Building Official for approval prior to issuance of the building permit. The inspection program shall designate the portions of the work to have special inspections, the name or names of the individuals or firms who are to perform the special inspections and indicate the duties of the special inspectors.

The special inspector shall be employed by the owner, the engineer or architect of record, or an agent of the owner, but not the contractor or any other person responsible for the work.

When structural observation is required by Section 307, the inspection program shall name the individuals or firms who are to perform structural observation and describe the stages of construction at which structural observation is to occur.

The inspection program shall include samples of inspection reports and provide time for submission of reports.

302.6 Soils investigation. A soils investigation shall be required for all new construction prior to obtaining a building permit, in accordance with Section 1802 of the International Building Code, as amended. A building permit for additions to existing construction may require a soils investigation, if determined appropriate by the Building Official.

Exception: Group R-3 and U occupancies may not require a special soils investigation for each lot, provided that a subdivision soils investigation for that plat is prepared by a licensed Civil Engineer registered by the State of Alaska indicating the soils are adequate for the proposed structure.

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

SECTION 303
PERMITS ISSUANCE

303.1 Issuance. The application, plan, specifications, computations and other data filed by an applicant for permit shall be reviewed by the Building Official. Such plans may be reviewed by other departments of this jurisdiction to verify compliance with any applicable laws under their jurisdiction. If the Building Official finds that the work described in an application for a permit and the plans, specifications and other data filed therewith conform to the requirements of this code and the technical codes and other pertinent laws and ordinances, and that the fees specified in Section 304 have been paid, the Building Official shall issue a permit to the applicant.

The Building Official may request the Anchorage Board of Building Regulation Examiners and Appeals (Building Board) to determine whether a permittee shall be denied any new permits while they have an expired Conditional Certificate of Occupancy for a previously issued permit(s). The previously issued permit must have been issued after the adoption of this code. The Building Official must notify the permittee, in writing, 14 days in advance of this determination by the Building Board.

When a permit is issued when plans are required, the Building Official shall endorse in writing or stamp the plans and specifications APPROVED. 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.

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 have been submitted or approved, provided adequate information and detailed statements have been filed complying with all pertinent requirements of the technical codes. The holder of a partial permit shall proceed without assurance that the permit for the entire building, structure or building service will be granted.

Exception: Footing and foundation permits may be issued when a plat has been approved and the final mylar has been submitted to the Municipality for filing.

No permit shall be issued to any person to do or cause to be done any work regulated by this code, except to a person holding a valid, unexpired, and unrevoked contractor's certificate of qualification or registration as required by this code, except when and as otherwise hereinafter provided in this section.

A permit may be issued to a properly licensed person not acting in violation of any current contract licensing law.

Any permit required by this code may be issued to any person to do any work regulated by this code in a single-family or duplex dwelling used exclusively for living purposes, including the usual accessory buildings and quarters in connection with such buildings in the event that any such person is the legal owner of any such dwelling and accessory buildings and quarters, and that the same are occupied by said owner, provided that said owner shall personally perform all labor in connection therewith.

303.1.2 Mechanical contractor.

303.1.2.1 To whom permits may be issued.

A. No permit shall be issued to any person to do or cause to be done any work regulated by this code, except to a person holding a valid unexpired and unrevoked contractor's certificate of qualification as required by this code, except when and as otherwise hereinafter provided in this section.

B. A permit may be issued to a properly licensed person not acting in violation of any current contractor licensing law.

C. Any permit required by this code may be issued to any person to do any work regulated by this code in a single-family or duplex dwelling used exclusively for living purposes, including the usual accessory buildings and quarters in connection with such buildings in the event that any such person is the legal owner of any such dwelling and accessory buildings and quarters, and that the same are occupied by said owner, provided that said owner shall personally perform all labor in connection therewith.

303.1.2.2 Definitions of journeyman, contractors and trainees

A. A sheet metal contractor certificate holder can obtain permits, install or repair mechanical equipment, i.e., HVAC equipment, duct work and venting of appliances.

B. A refrigeration contractor certificate holder can obtain permits, install, and repair refrigeration equipment.

C. A hydronic heating contractor certificate holder can obtain permits, install, and repair hydronic heating equipment.

D. A service station piping contractor certificate holder can obtain permits, install, and repair service station equipment, i.e., tanks, pumps, fuel piping, etc.

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

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

G. A hydronic heating journeyman is a person who labors at the trade of hydronic heating as an employee. A journeyman hydronic heating certificate holder can install and repair hydronic heating equipment.

H. A service station pipin g journeyman is a person who labors at the trade of service station piping as an employee. A journeyman service station piping certificate holder can install and repair service station equipment, i.e., tanks, pumps, fuel piping, etc.

I. A 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 of Anchorage Trainee card.

303.1.2.3 General provisions.

A. 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 having been issued a valid contractor's certificate of qualification. This pertains to sheet metal, refrigeration, hydronic heating, and service station piping trades.

B. 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 having been issued a valid journeyman certificate of qualification. This pertains to sheet metal, refrigeration, hydronic heating, and service station piping trades.

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

D. It shall be unlawful for any person to labor at a trade covered by this code as a trainee without having been issued a valid trainee certificate of registration. This pertains to sheet metal, refrigeration, hydronic heating, and service station piping trades.

E. It shall be unlawful for any person acting in the capacity of a contractor in a trade covered by this code or his responsible agent, manager, supervisor, superintendent or foreman to knowingly or willfully order, instruct or permit an employee, agent or person under his supervision or control to do an act which violates the certificate of qualification or registration requirements set forth in paragraphs B or D of this section. This pertains to sheet metal, refrigeration, hydronic heating, and service station piping trades.

303.1.2.4 Application for certificate of qualification or registration.

A. Every person who is required to obtain a certificate of qualification and successfully passes the required test shall, within 30 days 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 other than an individual shall designate a supervisory member who shall be a responsible managing employee (RME) to take the required examination and who shall be designated as administrator under the license. No person may 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 60 days unless another administrator is qualified by proper authority. Licenses issued to applicants are nontransferable.

D. Applicants for contractors' certificates shall prove that they have had 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 which is ordinarily incidental to or associated with non-mechanical occupations, as determined by the administrative authority.

E. Applicants for journeyman certificates shall prove that they have had at least four 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 mechanical work which is ordinarily incidental to or associated with non-mechanical occupations as determined by the board. 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 that is registered and approved by the United States Department of Labor, Bureau of Apprenticeship and Training as acceptable qualifications. Journeyman must have a state license.

F. Applicants for a trainee certificate need no prior experience. They shall prove they are working for a properly certified contractor.

303.1.2.5 Issuance of certificate of qualification or registration

A. A sheet metal contractor's certificate of qualification shall be issued to every person who makes application for such certificate, pays the required fee, proves required experience and training and successfully passes the examinations.

B. A sheet metal journeyman's certificate of qualification shall be issued to every person who makes application for such certificate, pays the required fee, proves 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, proves 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. Every person required to have a certificate of qualification shall obtain such certificate (1) within 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.

303.1.2.6 Re-Examination

A. Any person who fails to pass the examination may apply for reexamination after the expiration of 30 days. Should such person fail the second time, the board may refuse a third application until after the expiration of six months.

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

303.1.2.7 Expiration of certificates of qualification or registration

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

Except for certificates of qualification which have lapsed three or more years past the expiration date, all certificates of qualification and trainee registration cards that have expired beyond 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 will be charged.

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.

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

303.1.2.8 Revocation of certificates of qualification or registration

A. The Board of Examiners and Appeals may cancel or revoke any certificate of qualification or registration issued by it 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 be so canceled or revoked, another such certificate shall not be granted to such person within 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 deemed cause for revocation.

C. The Board of Examiners 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 this retesting will result in the revocation of the certificate. The person may apply for retesting after 30 days have elapsed.

303.1.3 Plumbing contractor.

303.1.3.1 Certificates of qualification. Definitions

A. A plumbing contractor certificate holder can obtain permits, install or repair plumbing, gas piping and mechanical equipment.

B. A 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.

C. A gas piping contractor certificate holder can install and repair gas piping, install and repair gas equipment and obtain permits for such work.

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

E. A gas certificate holder can install gas piping and gas equipment. He may also service said equipment. He will not be issued permits.

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

303.1.3.2 General provisions.

A. It shall be unlawful for any person to conduct, carry on, or engage in the business of plumbing or act in the capacity of a plumbing contractor without first having been issued a valid plumbing contractor's certificate of qualification.

B. It shall be unlawful for any person to labor at the trade of plumbing in the capacity of a journeyman plumber without first having been issued a valid journeyman plumber's certificate of qualification

C. No person, firm, or corporation except duly certified and licensed gas fitters or persons working under the immediate supervision and control of a licensee hereunder shall install, alter, or repair any gas piping for illuminating or fuel gas or install, alter, repair, or service any gas-burning devices connected thereto in or for any building or structure in the municipality without having a license acceptable to the Building Official authorizing said person, firm, or corporation to do so.

D. It shall be unlawful for any person to labor at the trade of plumbing while learning the trade of plumbing without first having been issued a valid trainee plumber certificate of registration.

E. It shall be unlawful for any person acting in the capacity of a plumbing or gas piping contractor or his responsible agent, manager, supervisor, superintendent, or foreman to knowingly or willfully order, instruct, or permit an employee, agent, or person under his supervision or control to do an act which violates the certificate of qualification or registration requirements set forth in this section.

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

303.1.3.3 Application for certificate of qualification or registration

A. Every person who is required to obtain a certificate of qualification and successfully passes the required test shall, within 30 days 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 other than an individual shall designate a supervisor member who shall be a responsible managing employee (RME) to take the required examination and who shall be designated as administrator under the license. No person may 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 60 days unless another administrator is qualified by the Board. Licenses issued to applicants are non-transferable.

D. Applicants for a plumbing contractor's certificate shall prove that they have had 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. No credit shall be allowed any applicant for experience gained while doing any plumbing work which is ordinarily incidental to or associated with non-mechanical occupations, as determined by the Board.

E. Applicants for a gas piping contractor's certificate shall prove that they have at least four years (8,000 hours minimum) of previous practical experience in the gas piping field.

F. Applicants for a journeyman plumber's certificate shall prove that they have had at least four years (8,000 hours minimum) of previous experience personally installing, altering and repairing plumbing, 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 plumbing. No credit shall be allowed any applicant for experience gained while doing any plumbing work which is ordinarily incidental to or associated with non-plumbing occupations, as determined by the Board. 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 that is registered and approved by the United States Department of Labor, Bureau of Apprenticeship and Training as acceptable qualification. A journeyman must have a state license.

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

H. Applicants for a trainee plumber license need no prior experience.

303.1.3.4 Issuance of certificate of qualification or registration

A. A plumbing contractor's certificate of qualification or registration shall be issued to every person who makes application for such certificate, pays the required fee, proves required experience and training and successfully passes the examination.

B. A journeyman plumber's certificate of qualification or registration shall be issued to every person who makes application for such certificate, pays the required fee, proves required experience and training, passes the examinations and has a current Alaska Certificate of Fitness complying with Alaska Statute 18.62.010.

C. A journeyman gas fitter's certificate of qualification or registration shall be issued to every person who makes application for such certificate, pays the required fee, proves required experience and training, successfully passes the examinations and has a current Alaska Certificate of Fitness complying with Alaska Statute 18.62.010.

D. A trainee plumber certificate of registration shall be issued to every person who makes application for such certificate, pays the required fee, and has a current Alaska Certificate of Fitness complying with Alaska Statute 18.62.010.

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

F. 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, proves required experience and training and successfully passes the examinations.

G. 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 4-day Backflow Assembly Certification class sponsored by the Municipality of Anchorage Building Safety Division, and successfully passes both the written and the hands-on examination.

H. In lieu of the above, an applicant may submit proof of attendance of a similar class as described in (A) above, and of successfully passing the required examination(s) of the similar class, provided further that the similar class is recognized as equal to the requirement(s) of (A) above, as determined by the administrative authority having jurisdiction.

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

J. Every person required to have a certificate of qualification shall obtain such certificate (1) within 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.

303.1.3.5 Reexaminations.

A. Any person who fails to pass the examinations may apply for reexaminations after the expiration of 30 days. Should such person fail the second time, the board may refuse a third application until after the expiration of six months.

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

303.1.3.6 Expiration of certificates of qualification or registration

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

Except for certificates of qualification which have lapsed three or more years past the expiration date, all certificates of qualification and trainee registration cards that have expired beyond 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 will be charged.

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.

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

303.1.3.7 Revocation of certificates of qualification or registration

A. The Board of Examiners may cancel or revoke any certificate of qualification or registration issued by it 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 be so canceled or revoked, another such certificate shall not be granted to such person within 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 deemed cause for revocation.

C. The Board of Examiners 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 this retesting will result in the revocation of the certificate. The person may apply for a retesting after 30 days have elapsed.

303.1.4 Electrical contractor.

303.1.4.1 Small electric permit, Municipality of Anchorage Policy #040

Small electrical projects not requiring a building permit and meeting the requirements of the Work Authorization Program may be performed after completion of a Work Authorization form. Use of this program is not mandatory, and an installer may choose to purchase an electrical permit.

In general, this work is limited to the following amount:

- up to six outlets on a single new 20 ampere circuit, or;
- up to six outlets added to an existing 20 ampere circuit, or;
- up to 1-30 amp dedicated circuit, or;
- mast or riser extensions, overhead to underground riser changes, and repairs to service meter/ disconnect equipment.

With prior approval of the electrical inspector, up to two forms may be used per project. Each reinspection will require the use of an additional form. See Municipality of Anchorage Policy #040, Work Authorization Program, for further requirements.

303.1.4.2 Certificate of fitness - right to inspection

Municipal electrical inspectors may contact any electrical workman performing work for which a certificate of fitness is required (under AS 18.60.580) and request that person to exhibit his/her certificate of fitness. The inspector may immediately serve upon that person a notice to cease any further work in that occupation until he/she has displayed said State of Alaska certificate of fitness.

303.1.5 Building contractor.

A. No person may engage in business as a building contractor without first obtaining a building construction contractor's license from the Building Official.

B. In this section, "building construction contractor" means 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 International Building Code as adopted and amended by this code. "Building construction contractor" includes those contractors generally classed as mechanical, general, or electrical contractors. "Building construction contractor" 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 his own use and benefit that would otherwise subject him to the licensing requirement of this section.

C. An application for a building construction contractor's license shall contain a certification by the applicant that he has in his possession a current copy of the applicable code pertaining to the work to be performed by the applicant.

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

E. Mechanical contractors shall employ at least one person certified or licensed as a plumber under applicable state and municipal codes. If a licensed mechanical contractor works with fuel tanks, that contractor must receive appropriate certification from the Building Department as a qualified gas fitter.

F. Prior to obtaining the license required by this section, electrical contractors must obtain all required state licenses or certifications for that activity.

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

303.2 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. 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 during which the work authorized thereby is in progress.

303.3 Validity of permit. The issuance of a permit or approval of plans, specifications and computations shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of this code or the technical codes, or of any other ordinance of the jurisdiction. Permits presuming to give authority to violate or cancel the provisions of this code or of other ordinances of the jurisdiction shall not be valid.

The issuance of a permit based on plans, specifications and other data shall not prevent the Building Official from thereafter requiring the correction of errors in said plans, specifications and other data, or from preventing building operations being carried on thereunder when in violation of these codes or of any other ordinance of this jurisdiction.

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

303.4 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 such permit is not commenced within 360 days from the date of such permit, or if the building or work authorized by such 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 will be deemed to have been suspended or abandoned if no inspections have occurred within 360 days. Before such work can 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 that such suspension or abandonment has not exceeded 18 months. In order to renew action on a permit after expiration, the permittee shall pay a new full permit fee.

A permittee holding an unexpired permit may apply for an extension of the time within which work may commence under that 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 365 days upon written request by the permittee showing that circumstances beyond the control of the permittee have prevented action from being taken. Permits shall not be extended more than once.

303.5 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.

SECTION 304
FEES

304.1 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 this jurisdiction.

304.2 Permit fees. The fee for each permit shall be as set forth in 23.10 Tables 3-A through 3-M. Where a technical code has been adopted by the jurisdiction for which no fee schedule is shown in this code, the fee required shall be in accordance with the schedule established by the legislative body.

The determination of valuation under the provisions of the code shall be based on the Building Valuation Data Chart in the most recent November/December issue of the Building Standards Magazine as published by the International Conference of Building Officials. The rates in the November/December issue will become effective on the following January 1st and continue to January 1st of the following year. The valuation will be calculated using the dollar per square foot method as provided in the Municipality of Anchorage Handout #45, "Building Permit Fees." The area of the building for determination of building permit fees shall be the gross floor area. The gross floor area shall be the total horizontal area of all the 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.

Plumbing, mechanical and electrical permit fees shall be calculated as a part of the plan review process. The fee assessment is to be presented to the contractor for payment upon application for permit.

304.3 Plan review fees. When a plan or other data are required to be submitted by subsection 302.2, plan review fee(s) shall be paid at the time of submitting plans and specifications for review.

> **Exception**: A Fire Department Plan Review fee is not required for R-3 single family and two family dwellings.

The plan review fees specified in this subsection are separate fees from the permit fees specified and are in addition to the permit fees.

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 23.10 Tables 3-A through 3-M.

A plan review fee for plans submitted simultaneously or within the current code cycle for identical structures within the same subdivision or planned unit development (pre-approved plans) shall be charged per 23.10, Table 3.B. Each identical structure shall be issued a separate building permit.

304.4 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 that circumstances beyond the control of the applicant have prevented action from being taken. An application shall not be extended more than once. An application shall not be extended if this code or any other pertinent laws or ordinances have been 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.

304.5 Investigation fees: work without a permit.

304.5.1 Investigation. Whenever work for which a permit is required by this code has been commenced without first obtaining a permit, a special investigation shall be made before a permit may be issued for such work.

304.5.2 Fee. When work is begun without proper permits, an investigation fee, in addition to the permit fee, shall be collected whether or not a permit is then or subsequently issued. The payment of such 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.

304.6 Fee refunds. The Building Official may authorize refunding of a fee paid hereunder, which was erroneously paid or collected.

The Building Official may authorize refunding of not more than 80 percent of the permit fee paid when no work has been done under a permit issued in accordance with this code.

The Building Official may authorize refunding of not more than 80 percent of a plan review fee paid when an application for a permit for which a plan review fee has been paid is withdrawn or canceled before any examination time has been expended.

The Building Official shall not authorize the refunding of any fee paid except upon written application filed by the original permittee not later than 360 days after the date of fee payment.

SECTION 305
INSPECTIONS

305.1 General. 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 continuous inspection as specified in Section 306.

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

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 this jurisdiction shall be liable for expense entailed in the removal or replacement of any material required to allow inspection.

A survey of the lot may be required by the Building Official to verify that the structure is located in accordance with the approved plans.

305.2 Inspection record card. Work requiring a permit shall not be commenced until the permit holder or the agent of the permit holder shall have posted or otherwise made available an inspection record card such as to allow the Building Official conveniently to make the required entries thereon regarding inspection of the work. This card shall be maintained available by the permit holder until final approval has been granted by the Building Official.

305.3 Inspection requests. It shall be the duty of the person doing the work authorized by the permit to notify the Building Official that such work is ready for inspection. The Building Official may require that 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.

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.

305.4 Approval required. 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 that that 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 which do not comply, shall be corrected and such portion shall not be covered or concealed until authorized by the Building Official.

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

305.5 Required building inspections. Reinforcing steel or structural framework of a part of a building or structure shall not be covered or concealed without first obtaining the approval of the Building Official. Protection of joints and penetrations in fire-resistive assemblies shall not be concealed from view until inspected and approved.

The Building Official, upon notification, shall make the following inspections:

1. **Foundation inspection.** To be made after excavations for footings are complete and required reinforcing steel is in place. For concrete foundations, required forms shall be in place prior to inspection. All materials for the foundation shall be on the job, except when concrete is ready-mixed in accordance with approved nationally recognized standards; the concrete need not be on the job. When the foundation is to be constructed of approved treated wood, additional inspections may be required by the Building Official.
2. **Concrete slab or under-floor inspection.** To be made after in-slab or under-floor building service equipment, conduit, piping accessories and other ancillary equipment items are in place but before any concrete is placed or floor sheathing installed, including the subfloor.

3. **Frame inspection.** To be made after the roof, framing, fire blocking and bracing is in place and all pipes, chimneys and vents are complete and the rough electrical, plumbing and heating wires, pipes, and ducts are approved.
4. **Lath and/or wallboard inspection.** To be made after lathing and wallboard, interior and exterior, is in place but before plaster is applied or before wallboard joints and fasteners are taped and finished.
5. **Final inspection.** To be made after finish grading and the building is completed and ready for occupancy.

305.5.1 Required mechanical inspections and testing.

The code official, upon notification from the permit holder or the permit holder's agent, shall make the following inspections and other such inspections as necessary, and shall either release that portion of the construction or shall notify the permit holder or the permit holder's agent of violations that must be corrected. The holder of the permit shall be responsible for the scheduling of such inspections.

1. **Underground inspection**. Shall be made after trenches or ditches are excavated and bedded, piping installed, and before backfill is put in place. When excavated soil contains rocks, broken concrete, frozen chunks and other rubble that would damage or break the piping or cause corrosive action, clean backfill shall be on the job site.
2. **Rough-in inspection.** Shall be made after the roof, framing, fire blocking and bracing are in place and all ducting and other components to be concealed are complete, and prior to the installation of wall or ceiling membranes.
3. **Final inspection.** Shall be made upon completion of the mechanical system.

The requirements of this section shall not be considered to prohibit the operation of any heating equipment or appliances installed to replace existing heating equipment or appliances serving an occupied portion of a structure provided that a request for inspection of such heating equipment or appliances has been filed with the department not more than 48 hours after such replacement work is completed, and before any portion of such equipment or appliance is concealed by any permanent portion of the structure.

305.5.2 Required plumbing inspections. All plumbing systems for which a permit is required by this code shall be inspected by the administrative authority. No portion of any plumbing system shall be concealed until inspected and approved. Neither the administrative authority nor the jurisdiction shall be liable for expense entailed in the removal or replacement of material required to permit inspection. When the installation of a plumbing system is complete, an additional and final inspection shall be made. Plumbing systems regulated by this code shall not be connected to the water, energy fuel supply, or the sewer system until authorized by the administrative authority.

1. **Inspection.** No water supply system or portion thereof, shall be covered or concealed until it first has been tested, inspected and approved.
2. **Scope.** All new plumbing work and such portions of existing systems as may be affected by new work, or any changes, shall be inspected by the administrative authority to insure

compliance with all the requirements of this code and to assure that the installation and construction of the plumbing system is in accordance with approved plans.

3. **Covering or using.** No plumbing or drainage system, building sewer, private sewer disposal system or part thereof, shall be covered, concealed, or put into use until it has been tested, inspected, and accepted as prescribed in this code.
4. **Uncovering.** Any drainage or plumbing system, building sewer, private sewage disposal system, or part thereof, which is installed, altered, or repaired is covered or concealed before being inspected, tested, and approved as prescribed in this code, it shall be uncovered for inspection after notice to uncover the work has been issued to the responsible person by the administrative authority.

305.6 Required building service equipment inspections.

305.6.1 General. Building service equipment for which a permit is required by this code shall be inspected by the Building Official. Building service equipment intended to be concealed by a permanent portion of the building shall not be concealed until inspected and approved. When the installation of building service equipment is completed, an additional and final inspection shall be made. Building service equipment regulated by the technical codes shall not be connected to the water, fuel or power supply, or sewer system until authorized by the Building Official.

305.6.2 Operation of building service equipment. The requirements of this section shall not be considered to prohibit the operation of building service equipment installed to replace existing building service equipment serving an occupied portion of the building in the event a request for inspection of such building service equipment has been filed with the Building Official not more than 48 hours after the replacement work is completed, and before any portion of such building service equipment is concealed by permanent portions of the building.

305.7 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 which are enforced by the code enforcement agency.

305.8 Reinspections. A reinspection fee may be assessed for each inspection or reinspection when such portion of work for which inspection is called is not complete or when corrections called for are not made.

This section is not to be interpreted as requiring reinspection 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 reinspection.

Reinspection fees may be assessed when the inspection record card is not posted or otherwise available on the work site, the approved plans are not readily available to the inspector, for failure to provide access on the date for which inspection is requested, or for deviating from plans requiring the approval of the Building Official.

To obtain a reinspection, the applicant shall file an application therefore in writing upon a form furnished for that purpose, and pay the reinspection fee.

In instances where reinspection fees have been assessed, additional inspection of the work will not be performed until the required fees have been paid.

SECTION 306
SPECIAL INSPECTIONS

306.1 General. Special inspection requirements shall be in accordance with International Building Code Chapter 17.

SECTION 307
STRUCTURAL OBSERVATION

307.1 General. Structural observation shall be in accordance with International Building Code Section 1709.

SECTION 308
CONNECTION TO UTILITIES

308.1 Energy connections. Persons shall not make connections from a source of energy, fuel or power to building service equipment which is regulated by the technical codes and for which a permit is required by this code, until approved by the Building Official.

308.2 Temporary connections. The Building Official may authorize the temporary connection of the building service equipment to the source of energy, fuel or power for the purpose of testing building service equipment, or for use under a temporary Certificate of Occupancy.

SECTION 309
CERTIFICATE OF OCCUPANCY

309.1 Use or occupancy. 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 has issued a Certificate of Occupancy therefore as provided herein.

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

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

309.3 Certificate issued.

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 which are 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, which shall contain 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 that portion of the building for which the certificate is issued
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.

309.4 Conditional certificate. If the Building Official finds that 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.

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

Expired conditional certificates may prevent the same permittee from receiving additional permits, as outlined in Section 303.1, second paragraph of the Anchorage Administrative Code.

309.5 Posting. The Certificate of Occupancy shall be posted in a conspicuous place on the premises and shall not be removed except by the Building Official.

309.6 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 that the building, structure, land use or portion thereof is in violation of an ordinance, regulation or the provisions of municipal code or state law.

23.10.Table 3-A Building Permit Fees

1. **Total Valuation**	**Building Permit Fee**
$1 to $500	$19.00
$501 to $2,000	$19.00 for the first $500 plus $2.00 for each additional $100 or fraction thereof, to and including $2,000.
$2,001 to $25,000	$49.00 for the first $2,000 plus $9.00 for each additional $1,000 or fraction thereof, to and including $25,000.

$25,001 to $50,000	$256.00 for the first $25,000 plus $8.00 for each additional $1,000 or fraction thereof, to and including $50,000.
$50,001 to $100,000	$456.00 for the first $50,000 plus $6.00 each additional $1,000 or fraction thereof, to and including $100,000.
$100,001 to $500,000	$756.00 for the first $100,000 plus $4.00 each additional $1,000 or fraction thereof, to and including $500,00.
$500,001 and up	$2,356.00 for the first $500,000 plus $3.00 for each additional $1,000 or fraction thereof.

2. Miscellaneous Building Permits

A.	Permanent flexible fabric structures, per square foot	$15
B.	Temporary/seasonal building	$200
C.	Demolition	$65

21.10.Table 3-B Plan Review Fees

1. Building Permits

A.	Building plan review	65% of the building permit fee as shown in Table 3-A
B.	Fire Department plan review	20% of the building permit fee as shown in Table 3-A
C.	Pre-approved plan	60% of the full plan review fee
D.	Land use plan review	15% of building permit fee as shown in Table 3-A

2. Electrical, Mechanical, Plumbing Permits

A.	Permit fee between $1 to $500	$60
B.	Permit fee between $501 to $1,000	$102
C.	Permit fee between $1,001 to $2,000	$170
D	Permit fee between $2,001 and $3,000	$255
E.	Permit fee between $3,001 and $4,000	$340
F.	Permit fee between $4,001 and $6,000	$425
G.	Permit fee greater than $6,000	$510

3. Grading/Excavation/Fill Permits

A.	Between 1 and 50 cubic yards	No fee
B.	Between 51 and 100 cubic yards	$23
C.	Between 101 and 1,000 cubic yards	$33
D.	Between 1,001 and 10,000 cubic yards	$45
E.	Between 10,001 and 100,000 cubic yards	$45 first 10,000 cubic yards, plus $23 each additional 10,000 cubic yards or fraction thereof
F.	Between 100,001 and 200,000 cubic yards	$248 first 10,000 cubic yards, plus $14 each additional 10,000 cubic yards or fraction thereof
G.	Greater than 200,001 cubic yards	$383 first 10,000 cubic yards, plus $6 each additional 10,000 cubic yards or fraction thereof

4. Miscellaneous

A.	Plan review or code research, change orders, miscellaneous, per hour, quarter-hour minimum	$100

23.10.Table 3-C Inspection Fees

1.	Inspector, per hour, minimum one hour	$100
2.	Inspection, unscheduled, each, per hour	$125
3.	Inspection outside normal business hours, per hour, per inspector; two-hour minimum	$150
4.	Inspection, Sundays and holidays, per hour, per inspector, two-hour minimum	$200
5.	Reinspection, per hour, per inspector, one-hour minimum	$150
6.	Reinspection, unscheduled, each, per hour	$175
7.	Reinspection, outside normal business hours, per hour, per inspector, two-hour minimum	$200
8.	Code compliance inspection, per hour, per inspector, one-hour minimum	$100
9.	Fine for failure to perform special inspection, per incident	$200
10.	Research, per hour, one-hour minimum	$100

23.10.Table 3-D Electrical Permit Fees

1. New Buildings or Additions

A.	Single family and duplexes (R-3)	.0013 ($1.30 per $1,000) of construction valuation, with a minimum $130
B.	R-1 occupancies, multi-family dwellings, each unit	$170
C.	All other new buildings or additions:	
	i. $0 to $55,000	$100
	ii. $55,000 to $500,000	$1.80 per $1,000
	iii. Over $500,000	$900 + $ .75 per $1,000 > $500,000

2. Work Other Than New or Added Square Footage, All Occupancies

A.	1 to 250 outlets	$95 + $2.50 per outlet
B.	251 to 500 outlets	$145 + $2.50 per outlet
C.	501 to 1000 outlets	$230 + $2.50 per outlet
D.	1001 to 1500 outlets	$330 + $2.50 per outlet
E.	1501 to 2000 outlets	$445 + $2.50 per outlet
F.	2001 to 3000 outlets	$550 + $2.50 per outlet
G.	3001 or more outlets	$650 + $2.50 per outlet

Definition of an outlet for purpose of defining permit fees: An outlet supplies, stores, measures, controls, transforms, utilizes or provides ready access for connection to electrical power. Examples: a generator, battery-powered emergency light, wall switch, any fire protection device, transformer, service meter, light fixture, receptacle, motor starter, combination motor starter/disconnect, exit sign, transfer switch, etc., are outlets for the purpose of permit fee calculation. A junction box or wireway would not be considered an outlet for fee purposes.

3. Small Electric Permit, Municipality of Anchorage Policy #069		
A.	Small electric permit	$40

4. Miscellaneous		
A.	Replacement, upgrade or relocation of existing building electrical meter/disconnect service equipment	$85
B.	Retrofit of electrical equipment:	$85
C.	Temporary services:	
	i. Single phase 220 volt 200 amperes or smaller	$40
	ii. Over 200 amperes (includes transformers, panelboards, and branch circuits used for temporary power on large projects)	$85
D.	Electrical sign connection within six feet of connection	$40
E.	State of Alaska load center, retrofit	$130
F.	Permanent flexible fabric structures, per square foot	$1.50

23.10.Table 3-E Mechanical Permit Fees

1. New Buildings or Additions		
A.	Issuance of each permit (not charged for single family/duplex)	$20
B.	Installation of a mechanical heating system including all attachments, per 1,000 input BTU or fraction thereof, up to and including 400,000 BTU (including burners in furnaces, direct-fired heaters, or unit heaters)	$ .35 per 1,000 BTU
C.	Installation of a mechanical heating system including all attachments, per 1,000 input BTU or fraction thereof over 400,000 BTU (including burners in furnaces, direct-fired heaters, or unit heaters).	$ .25 per 1,000 BTU
D.	Installation of a mechanical cooling or refrigeration system including all attachments, per 1,000 BTU or fraction thereof, up to and including 400,000 BTU.	$ .35 per 1,000 BTU
E.	Installation of a mechanical cooling or refrigeration system including all attachments, per 1,000 BTU or fraction thereof, over 400,000 BTU.	$ .25 per 1,000 BTU
F	i. Installation of each ventilation fan, exhaust fan, or air handler for the first 2,000 CFM. Fire dampers and duct connectors are extra, as scheduled below.	$7 1st 2,000 CFM + $2.50 for each additional 1,000 CFM or fraction thereof

	ii. Each additional 1,000 CFM	$2.50
G	Installation of each fume, or Class II hood	$10
H.	Installation of each commercial or industrial incinerator, or Class I hood	$60
I.	Installation of each fuel, waste oil, glycol, or other non-pressure tank not a part of a system for which a fee is already assessed	$50
J.	Fire damper, each	$7
	Listed ceiling radiation damper, each	$2.50
K.	*NOTE: Installation of combination mechanical cooling/heating systems, fees will be charged at the input, heating, or cooling, whichever is greater, in accordance with B through E above.*	
L.	For each duct connector, with or without a diffuser or grille	$1.25
M.	For each piece of equipment or system regulated by this code, including processes piping as defined in IMC, for which no fee is listed	The fee shall be by valuation in accordance with 23.10.Table 3-A.
N.	New residential single-family/duplex	.001 ($1 per $1,000) of construction valuation, with a minimum $100
O.	HRV heat-recovery ventilation system	$7 per unit + $1.25 per diffuser
P.	Snow melt system, existing boiler	$25 + $10 pressure test
Q.	Permanent flexible fabric structures, per square foot	$1.50
R.	Wood stove installation	$40

2. Retrofit (Replacement) Fees

A.	Commercial permit fees for boilers, furnaces and A/C units shall be charged at 50% of the input BTU rating of the equipment being installed.	
B.	Single family and duplex retrofit fee	$75
C.	Permit issuance, each boiler, furnace, air conditioning and air exchanger unit replaced	$20
D.	Winterization of hydronic system, each	$40

23.10.Table 3-F Plumbing Permit Fees

1. New Buildings or Additions

A.	Issuance of each permit (not charged for single family or duplex)	$20
B.	Plumbing fixture, each	$5
C.	Gas outlet, each	$5
D.	Commercial water heater over 200,000 BTU input, or fraction thereof, per 1,000 BTU, each	$.30 per 1,000 BTU
E.	Water heater 200,000 BTU input or less, each	$20
F.	Plumbing alteration work, each outlet	$5
G.	Sprinkler systems (fire protection, or lawn and garden), per head	$2.50
H.	Floor or roof drains	$5
I.	Dishwasher	$5
J.	Special wastes, fixtures, sumps and tanks	$5
K.	Laundry tray or washer	$5
L.	Approved testable reduced pressure principal or double check valve back flow preventer	$40
M.	Temporary gas, minimum fee per outlet (not to exceed $200.00)	$65
N.	Winterization of each potable water system	$40
O.	For each piece of equipment or system not regulated by this code, for which no fee is listed	The fee shall be by valuation in accordance with 23.10.Table 3-A.
P.	New single family/duplex	.00125 ($1.25 per $1,000) of construction valuation with a minimum $125
Q.	Test backflow preventer per hour	$100
R.	Permanent flexible fabric structures, per square foot	$1.50

2. Retrofit (Replacement) Fees

A.	Changes for the repair or replacement of a water heater with an input of less than 200,000 BTU	$40
B.	Commercial permit fees for water heaters over 200,000 BTU's	50% of the input BTU rating

23.10.Table 3-G Elevator, Escalator, And Dumbwaiter Permit Fees

NOTES: 1. Each separately powered unit shall be considered a separate conveyance; applications and permits shall be issued accordingly.

2. Installation fees including charges for electrical equipment installed in connection with any conveyance and such equipment shall not be subject to a separate electrical permit fee. (AO 83-123, AO 86-13, AO 86-57(S-1), AO 89-5, am AO 92-9).

1. New Installations and Relocations

A.	hydraulic elevators	$375 + $45 per hoistway opening
B.	cabled geared & gearless elevator	$700 + $50 per hoistway opening
C.	Residential elevators	$300
D.	Dumbwaiters, manual doors	$135 + $15 per hoistway opening
E.	Dumbwaiters, power doors	$135 + $35 per hoistway opening
F.	Escalators and moving walks	$1,000 + width in inches + run in feet + vertical rise in feet x $5
G.	Handicap lifts (vertical and inclined)	$230
H.	Material lift	$300 + $30 for 2nd and additional levels
I.	Roped hydraulic	$700 + $50 per hoistway opening

2. Alterations and Repairs

A.	Handicap lifts (vertical & inclined)	$115 + $25 per $1,000 valuation
B.	Other elevators -	$150 + $25 per $1,000 valuation
C.	Cosmetic alterations, with weight difference less than 5%	$150 + $25 per $1,000 valuation
D.	Cosmetic alterations, with weight difference greater than 5%	$150 + $25 per $1,000 valuation

3. Annual Certificate of Inspection Fees

A.	Hydraulic elevators	$145 + $12 per hoistway opening greater than two
B.	Cable elevators	$150 + $12 per hoistway opening greater than two
C.	Sidewalk elevators	$115
D.	Hand-powered elevators	$115
E.	Dumbwaiters	$115 + $12 per hoistway opening greater than two

F.	Escalators and moving walks	$170
G.	Handicap lifts (vertical and inclined)	$110 + $12 per hoistway opening greater than two
H.	Material lift	$125 + $30 per hoistway greater than two
I.	Altering or replacing door opening device	$180

23.10.Table 3-H Grading Permit Fees

1.	50 cubic yards or less	$23
2.	51 to 100 cubic yards	$33
3.	101 to 1,000 cubic yards	$33 for first 100 cubic yards, plus $15 each additional 100 cubic yards, or fraction thereof
4.	1,001 to 10,000 cubic yards	$168 for first 1,000 cubic yards, plus $14 each additional 1,000 cubic yards, or fraction thereof
5.	10,001 to 100,000 cubic yards	$294 for first 10,000 cubic yards, plus $60 each additional 10,000 cubic yards, or fraction thereof
6.	Greater than 100,001 cubic yards	$834 for first 100,000 cubic yards, plus $33 each additional 10,000 cubic yards, or fraction thereof

23.10.Table 3-I Mobile Home Permit Fees

1.	Set-up fee	$175

23.10.Table 3-J Swimming Pool, Spa And Hot Tub Fees

1.	Each permit issuance	$20
2.	Each swimming pool:	
	A. Public pool	$65
	B. Private pool	$45
3.	Replacing filter	$5
4.	Replacing piping	$5
5.	Backwash receptor	$5
6.	Miscellaneous replacements	$5
7.	For each piece of equipment or system regulated by this code, for which no fee is listed, the fee shall be by valuation in accordance with 23.10, Table 3-A.	

23.10.Table 3-K Sign Permit Fees

1.	Sign, other than electrical	$35

23.10.Table 3-L Plumber, Gas Fitter, and Sheet Metal Certificate Of Qualification Fees

1. Test Fees

A.	Contractor testing fee	$65
B.	Journeyman testing fee	$45

2. Issuance or Renewal Fees

A	Contractor license, 2 years	$250
B.	Journeyman license, 2 years	$100
C.	Trainee license, 2 years	$65
D.	Administrative late fee	$35

3. License Requirements

B.	Backflow Assembly Tester, renewal fee (one-day recertification training required)	$50

23.10.Table 3-M Miscellaneous Fees

1.	Code books and publications	cost
2.	Appeal fee, Board of Building Regulation Examiners & Appeals, each	$500
3.	Research, building permit, per hour	$30
4.	Fine, building code violations, civil penalty	$75 to $400
5.	Copies, standard 8-1/2"x11" page, each	$ .25
6.	Monthly permit list, customer picks up	$5
7.	Monthly permit list, mailed, annual subscription	$100
8.	Investigation fee for work begun without proper permit(s), in addition to permit fee, per permit	Permit fee required by this code, or $500, whichever is greater

Chapter 23.15
LOCAL AMENDMENTS TO THE INTERNATIONAL BUILDING CODE 2000 EDITION

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23.15.100 Local Amendments To The International Building Code, 2000 Edition

The amendments to the 2000 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.

23.15.202 "U" Definitions And Abbreviations

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.

23.15.302.1.1 Table 302.1.1 Incidental Use Areas

Amend Table 302.1.1 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.

23.15.302.3.3 Separated Uses

Add new amendment to section 302.3.3, Exception #2 to read as follows:

The private garage shall be separated from the residence and its attic with Type X gypsum board, as defined in GA 600, applied to the garage side.

Add the following to the end of the second sentence:

...and all such door openings shall have self-closing and latching devices or shall be automatic closing and latching.

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 1 to read as follows:

1 Family child care homes (R-3) operating between the hours of 6:00 a.m. and 10:00 p.m. may accommodate a total of twelve children of any age without conforming to the requirements of this regulation (E occupancy) except for smoke detectors as specified in Subsection 907.2.10, means of egress requirements of Section 1003, including emergency escape and rescue openings (as required by Section 1009) in napping or sleeping rooms, and fire extinguisher requirements as outlined in the *International Fire Code.*

23.15.308.3 Group I-2

Amend the last sentence to read:

A facility such as the above with five or fewer persons, including persons related to the staff, shall be classified as a Group R-3.

23.15.308.3.1 Child Care Facility

Amend paragraph to read:

A child care facility that provides care on a 24-hour basis to more than five children 2-1/2 years of age or less, including children related to the staff, shall be classified as Group I-2.

23.15.308.5 Group I-4, Day Care Facilities

Amend the second sentence to read:

A facility such as the above with five or fewer persons, including persons related to the staff, shall be classified as a Group R-3

23.15.501.3 Location on Property

Amend Chapter 5 by adding a new section to read as follows:

501.3 Location on Property. Buildings must adjoin or have access to a permanent public way or yard on not less than one side. Required yards must be permanently maintained.

23.15.504.4 Day Care Facilities

Add a new subsection to read as follows:

504.4 Day Care Facilities. Facilities that are operated in a primary residence (R-3) between the hours of 6:00 a.m. and 10:00 p.m., and accommodating up to a total of 12 children of any age may use the second story of the building without providing an automatic sprinkler system, or complying with Table 302.3.3, Table 602, and the Type VA requirements set out in Table 503 provided all other applicable legal provisions for an E Occupancy are met.

23.15.507.1 Unsprinklered, One-Story

Amend by deleting the words "or S-2."

23.15.601 Table 601, Footnote "d"

Amend footnote "d" by adding the following sentence to the end of the paragraph:

In group E occupancies, an automatic sprinkler system may be substituted for 1-hour fire-resistance-rated construction provided the system is designed in accordance with Section 903.3.1.1.

23.15.716.4.2 Groups R-1 and R-2

Amend paragraph to read as follows:

Draftstopping shall be provided in attics, mansards, overhangs or other concealed roof spaces of Group R-2 buildings with three or more dwelling units and in all Group R-1 buildings. The intervening space between any two draft stops or walls shall be designed for adequate cross ventilation in accordance with Section 1202.2. Draftstopping shall be installed above, and in line with, tenant and dwelling separation walls that do not extend to the underside of the roof sheathing above.

Amend Exception 3 to read as follows:

Exception 3: Draftstopping in attic spaces of Group R-1 and R-2 occupancies may be installed so that the area between draft stops that extends from the ceiling to the roof does not exceed 3,000 square feet, and the greatest horizontal dimension does not exceed 60 feet. Such draft stops do not have to be located directly above or in line with walls separating tenant spaces, unless part of construction dictated by other provisions of this code. Adequate cross ventilation shall be provided in accordance with Section 1202.2

23.15.803.8.1.1 Suspended Acoustical Ceilings

Amend last sentence by adding the following words:

"and Section 1621.2.5 for seismic requirements."

23.15.903.2 Where Required

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

All new buildings of type III, IV, or V construction that exceed a total floor area of 12,000 square feet shall be provided with an automatic sprinkler system meeting the standards of Section 903.3. Where an addition to an existing building of type III, IV, or V construction causes the total combined floor area to exceed 12,000 square feet, an automatic sprinkler system meeting the standards of Section 903.3 shall be provided throughout.

Exceptions:

1. R-3 and U Occupancies
2. Airport Control Towers
3. Open Parking Garages
4. Buildings used exclusively for participant sports where the main floor is located at the same level as the level of the main entrance and exit, and the observation occupant load does not exceed 300, and an automatic fire alarm system installed in accordance with NFPA 72 and Section 907.1.2 is provided.
5. F-2 Occupancies

23.15.903.2.2 Group E

Amend paragraph to read as follows:

An automatic sprinkler system shall be provided throughout all Group E occupancies. An automatic sprinkler system shall also be provided for every portion of educational buildings below the level of exit discharge.

Amend Exception 1 to read as follows:

Exception 1:. Buildings with E occupancies having an occupant load of 49 or less.

Add a new Exception 2 to read:

Exception 2:. Day care uses not otherwise required to have automatic sprinkler systems by other provisions of the code.

23.15.903.2.9 Group R-4

Amend by deleting the words "with more than eight occupants."

23.15.903.2.12.1 Stories and Basements Without Openings

Amend by deleting the words "where the floor area exceeds 1,500 square feet (139.4 m^2) and".

23.15.903.3 Installation Requirements

Amend by adding the following exception:

Exception: Elevator machine rooms may delete the sprinklers within the machine room where such room is: (1) separated from the remainder of the building in accordance with ASME A17.1 Safety Code for Elevators, (2) smoke detection is provided in accordance with NFPA 72 and, (3) notification of alarm activation is received at a constantly monitored location.

23.15.907.2.3 Group E

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

Rooms used for sleeping or napping purposes within a day care use of a Group E occupancy must be provided with smoke detectors that comply with Section 907.2.10.1.2.

23.15.907.2.8 Group R-1

Amend by deleting Exception 3.

23.15.907.2.9 Group R-2

Amend by deleting Exception 2.

Amend by revising the first sentence to read as follows:

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

23.15.1003.2.13.5.1 Size

Amend by adding a sentence to the end of the paragraph which reads as follows:

Wheel chair space shall not interfere with access to or use of the fire department hose connections and valves.

23.15.1003.3.1.2 Door Swing

Add the following to the end of the section:

For accessible entrances see Section 1105.

23.15.1003.3.1.9 Panic and Fire Exit Hardware

Amend second paragraph by changing the number "100" to "50."

23.15.1003.3.3 Stairways

Amend section by adding an exception to read as follows:

Exception: Stairs or ladders used only to attend equipment are exempt from the requirements of this section.

23.15.1005.2.1 Minimum Number of Exits

Amend section by adding an exception to read as follows:

Exception: Basements or the first level below the first story in all occupancies except R-3, used exclusively for the service of the building may have access to only one exit. For any other use except R-3, the basement or first level below the first story shall have at least two exits arranged in accordance with Section 1004.2.2. For the purpose of this exception, storage rooms, laundry rooms, maintenance offices and similar uses shall not be considered as providing service to the building.

23.15.1009.1 General

Amend section 1009.1 by deleting all exceptions.

23.15.1102 Definitions

Add the following definition:

CONVENTIONAL INDUSTRY TOLERANCES. Plus or minus ½ inch up to 36 inches and plus or minus 1 percent over 36 inches. Slopes may be plus or minus 1 percent.

23.15.1103.2.2 Existing Buildings

Delete "Section 3408" and replace with "Anchorage Existing Buildings Code, AMC 23.65."

23.15.1103.2.4 Detached Dwellings

Delete "one- and two-" and replace with "one-, two-, and three-"

23.15.1103.2.11 Residential Group R-1

Add the following at the end of the sentence "...are not required to be accessible."

23.15.1104.4 Multilevel Buildings and Facilities

Delete Exception 1 and replace with the following:

Exception 1. Elevators are not required in facilities that are less than three stories or that have less than 3000 square feet per story unless the building contains offices of health care providers (Group B or I) passenger transportation facilities and airports (Group A-3 or B) or multiple tenant facilities of Group M.

23.15.1105.1.1 Public Use Areas

Add new section, 1105.1.1 Public Use Areas, to read as follows:

1105.1.1 Public Use Areas. The door opening force shall not exceed a 5-pound force.

Exceptions:

1. A power-assisted door is installed.
2. Someone is within line of sight of the door and available for assistance during business hours.
3. An electronic signaling device is installed in accordance with ICC/ANSI 117.1 Section 702.

23.15.1106.1 Accessible Parking

Add the following at the end of the paragraph:

Accessible parking requirements. Accessible parking requirements for commercial, industrial, public, and institutional uses are as follows:

Total Car Spaces in Parking Lot	Minimum Car Accessible Spaces	Minimum Van Accessible Spaces	Total Accessible Parking Spaces, Required Minimum
1--25	0	1	1
26--50	1	1	2
51--75	2	1	3
76--100	3	1	4
101--150	4	1	5
151--200	5	1	6
200--300	6	1	7
301--400	7	1	8
401--500	8	1	9
501--549	9	1	10

550--599	10	1	11
600--649	11	1	12
650--699	12	1	13
700--749	13	1	14
750--799	14	1	15
800--849	14	2	16
850--899	15	2	17
900--949	16	2	18
950--999	17	2	19
1,000--1,099	18	2	20
1,100--1,199	19	2	21
1,200--1,299	20	2	22
1,300--1,399	21	2	23
1,400--1,499	21	3	24
1,500--1,599	22	3	25
1,600--1,699	23	3	26
1,700--1,799	24	3	27
1,800--1,899	25	3	28
1,900--1,999	26	3	29
2,000--2,099	27	3	30
2,100--2,199	28	3	31
2,200--2,299	28	4	32
2,300--2,399	29	4	33
2,400--2,499	30	4	34
2,500--2,599	31	4	35
2,600+	Total accessible spaces minus total van spaces	1 per each 8 accessible spaces	20 plus 1 for each 100 over 1,000 total car spaces

Accessible car spaces shall be at least eight feet wide with an access aisle at least five feet wide abutting the space. One in every eight accessible car spaces shall have an abutting aisle eight feet in width. Accessible car space access aisles shall be part of an accessible route to the building or facility entrance. Two accessible car spaces may share a common access aisle. Parked vehicle overhangs shall not reduce the clear width of an accessible route. Accessible car spaces and access aisles shall be level with surface slopes not exceeding one to 50 in all directions.

Accessible car spaces serving a particular building shall be located on the shortest accessible route of travel from adjacent parking to an accessible entrance. The accessible route of travel shall not pass behind parking spaces. In parking facilities that do not serve a particular building, accessible car spaces shall be located on the shortest accessible route of travel to an accessible pedestrian entrance of the parking facility. In buildings with multiple accessible entrances with adjacent parking, accessible car spaces shall be dispersed and located closest to the accessible entrances.

Accessible car spaces shall be designated as reserved by a sign showing the symbol of accessibility. Van-accessible spaces shall have an additional sign reading "Van-Accessible" mounted below the symbol of accessibility. Such signs shall be located so they cannot be obscured by a vehicle parked in the space.

23.15.1108.2 Toilet and Bathing Facilities

Amend ICC/ANSI 117.1-98 Section 609.4 by adding the following:

Exception 2:. Grab bar height above tank type water closets must be adjusted to meet Section 609.3 but in no case shall the grab bar exceed 38" in height above the finished floor.

23.15.1108.4 Kitchens, Kitchenettes and Wet Bars

Add the following exception:

Exception 1:. Wet bars in non-public use areas may be adaptable.

23.15.1109.1 Signs

Delete Item 1 and replace with the following:

1. Accessible parking spaces as required by Section 23.15.1106.1

23.15.1201 Interior Environment

Amend by adding a new section 1201.2 titled Vapor Retarders:

1201.2 Vapor Retarders. All exterior wall, ceiling, and roof assemblies which enclose heated spaced and which are exposed to outdoor ambient temperatures shall be protected against water vapor transmission. Assemblies not otherwise of impermeable construction shall have installed, on the heated side of the insulation or air spaces, vapor retarders having a perm rating of 0.06 minimum in accordance with ASTME 96 (equivalent to 6 mil polyethylene).

23.15.1202.2 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 section by deleting the exception in its entirety.

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.

23.15.1209.1 Floors

Amend paragraph to read as follows:

In other than dwelling units, toilet and bathing room floors shall have a smooth, non-porous, non-absorbent surface such as non-cushioned sheet vinyl, sealed concrete, or ceramic tile

with sealed joints or other approved materials. Base shall be of similar materials, shall extend up the wall five inches (127 mm) minimum, and shall be sealed to the flooring and wall surface and allowing differential movement without water penetration.

23.15.1209.2 Walls

Amend first paragraph to read as follows:

Walls within two feet (610 mm) of the front and sides of urinals and water closets shall have a smooth, non-porous, non-absorbent surface such as non-cushioned sheet vinyl, sealed concrete, ceramic tile with sealed joints, approved plastic panels, or other approved materials, to a height of four0 feet (1219 mm) minimum.

23.15.1403.2 Weather Protection

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

Amend third sentence by deleting the words "as described in Section 1404.2."

23.15.1404.2 Water-Resistive Barrier

Delete this section in its entirely.

23.15.1503 Weather Protection

Add new Section 1503.6 to read as follows:

1503.6 Protection from falling ice and snow. All exits shall be protected from falling ice and snow.

23.15.1507.1 Requirements for Roof Covering/Scope

Add after first paragraph:

Eave underlayment consisting of self-adhering modified bitumen shall be installed from the eaves to a line 36 inches inside the exterior wall line. Install one layer of 15 lb felt with 18 inch (457 mm) lap over eave underlayment with subsequent laps at two inches horizontally and four inches vertically continuing to the ridge.

23.15.1507.2 Asphalt Shingles

Delete reference to Table 1507.2.

23.15.1507.2 Table Asphalt Shingle Application

Delete Table in its entirety.

23.15.1507.2.2 Slope

Delete paragraph and replace with the following:

Asphalt shingles shall only be installed on roof slopes of three units vertical in 12 units horizontal or greater.

23.15.1507.2.3 Underlayment (Asphalt Shingles)

Amend by adding a second sentence to read as follows:

Asphalt shingles shall be underlayed with self-adhering polymer modified bitumen sheet complying with ASTM D 1970 from the eaves edge to a point 36" past the inside wall line. Remainder to be covered in minimum 15lb felt.

23.15.1507.2.5 Asphalt Shingles

Add the following new sentence to the end of the paragraph:

Asphalt shingles shall be not less than 235 pounds per square.

23.15.1507.2.8 Underlayment Application

Delete paragraph and replace with the following:

Underlayment shall be installed per manufacturer's installation requirements.

23.15.1507.3.3 Underlayment

Add the following at the end of the paragraph:

Underlayment shall be self-adhering polymer modified bitumen sheet covering the entire roof.

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.

23.15.1507.4 Metal Roof Panels

Add a new subsection 1507.4.5 to read as follows:

1507.4.5 Underlayment. Underlayment for metal roof panels shall be installed per Section 1507.2.3.

23.15.1507.5.3 Underlayment

Delete paragraph and replace with the following:

Underlayment for metal roof shingles shall be installed per Section 23.15.1507.2.3.

23.15.1507.6.3 Underlayment

Delete section and replace with the following:

Underlayment for minimum surface roll roofing shall be installed per Section 23.15.1507.2.3.

23.15.1507.7.3 Underlayment (Slate Shingles)

Delete the paragraph in its entirety and replace with the following to read as follows:

Slate shingles shall be underlayed with self-adhering polymer modified bitumen sheet complying with ASTM D 1970 from the eaves edge to a point 36" past the inside wall line. Remainder to be covered in minimum 15lb felt.

23.15.1507.8 Table Wood Shingle and Shake Installation

Delete Table 1507.8 in its entirety.

23.15.1507.8.3 Underlayment (Wood Shingles)

Delete the paragraph in its entirety and replace with the following to read as follows:

Wood shingles shall be underlayed with self-adhering polymer modified bitumen sheet complying with ASTM D 1970 from the eaves edge to a point 36" past the inside wall line. Remainder to be covered in minimum 15lb felt.

23.15.1507.9.3 Underlayment (Wood Shakes)

Delete the paragraph in its entirety and replace with the following to read as follows:

Wood shakes shall be underlayed with self-adhering polymer modified bitumen sheet complying with ASTM D 1970 from the eaves edge to a point 36" past the inside wall line. Remainder to be covered in minimum 15lb felt.

23.15.1608.3 Flat Roof Snow Loads

Add the following sentence at the end of the first paragraph:

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

23.15.1609.3 Basic Wind Speed

Amend paragraph by deleting reference to "Figure 1609" and replacing with the reference "Anchorage Three Second Gust Wind Zone map."

23.15.1609.3 Figure

Replace Figure 1609 with the following:

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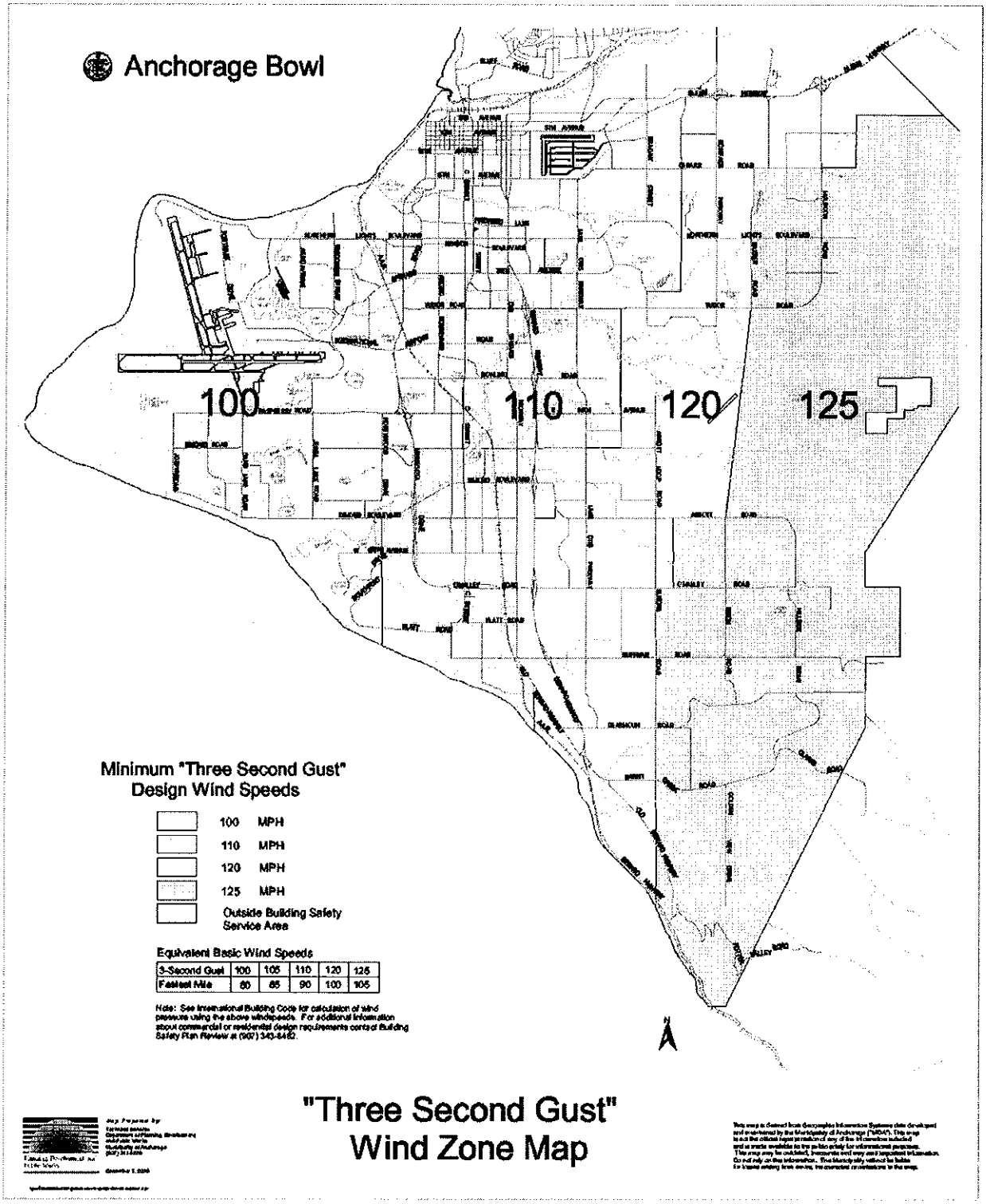
Anchorage Bowl
100
110
120
125
Minimum "Three Second Gust"
Design Wind Speeds
100 MPH
110 MPH
120 MPH
125 MPH
Outside Building Safety
Service Area
Equivalent Basic Wind Speeds
3-Second Gust 100 105 110 120 125
Fastest Mile 80 85 90 100 105
Note: See International Building Code for calculation of wind
pressure using the above wind-speeds. For additional information
about commercial or residential design requirements contact Building
Safety Plan Review at (907) 343-8482.
N
"Three Second Gust"
Wind Zone Map

1
2

23.15.1609.3.1 Exposure Category

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

The SHORELINE shall be defined as the high tide line (as indicated by the edge of vegetation on the most recent Municipality of Anchorage base aerial photograph set). UNOBSTRUCTED shall be defined as any site not sheltered from the shoreline by vegetation or other impediments at least four feet high and covering at least 60 percent of an area extending at least 30 feet perpendicular to a line connecting the building to any point of the shoreline.

23.15.1621.2.5.2.2 Seismic Design Categories D, E or F

Delete Item 8 in its entirety.

23.15.1704.1 Special Inspections

Amend in two places:

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.

Delete General Exception 3.

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 the Municipality of Anchorage Building Safety Personnel.

23.15.1704.3 Steel Construction

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

2.6. Welds listed under exception 2 will not require Special Inspection if design stresses are less than half of the allowable stresses and welds are placed by AWS certified welders. The Engineer of Record shall indicate on the drawings which welds, if any, do not require Special Inspection.

23.15.1704.3.1 Welding

Add a new paragraph as follows:

For Special Moment-Resisting Frames, the Special Inspector shall be a qualified, AWS Certified Weld Inspector.

23.15.1704.11 Sprayed Fire-Resistant Materials

Add the following:

Exception: Shotcrete work not of a structural nature or not for water retention structures, which is fully supported on earth, which is for minor repairs or when no special hazard exists and special inspection is waived by the Building Official.

23.15.1802.1 General

Delete the second sentence and replace with:

The classification and investigation of the soil shall be made by an Alaska registered civil engineer.

23.15.1802.2.2 Expansive soils

Delete subsection in its entirety.

23.15.1802.2.6 Seismic Design Category C

Add to the following after the paragraph:

Evaluation of liquefaction, slope stability, and surface rupture due to faulting or lateral spreading shall show through historic record, subsurface exploration, and analysis that the building site and all natural, permanent cut, fill, or stabilized slopes exhibit an acceptable factor of safety or risk. The level of evaluation shall be a function of the Seismic Use Group of the structure and setting, relative to the mapped Seismically-Induced Ground Failure Zone (Ref: *Municipality of Anchorage 1980 Anchorage Coastal Resource Atlas, Volume I*)

Liquefaction: The evaluation of liquefaction potential for Seismic Use Group I 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 Seismic Use Group II and III structures and Seismic Use Group I 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 for a site peak ground acceleration, duration, and magnitude

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 highly sensitive materials.

Method 1) Pseudo-Static Analysis: Following a Limit-Equilibrium model, the building site and all natural, permanent cut, fill, or stabilized slopes shall exhibit a minimum factor of safety of 1.5 under statically applied load conditions; and a minimum factor of safety of 1.1 for seismic load conditions, when applying the minimum horizontal inertia force determined by multiplying the acceleration factor in Table 2315.1802.2.6 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 23.15.1802.2.6.

TABLE 23.15.1802.2.6
SEISMIC HORIZONTAL ACCELERATION FACTORS

METHOD OF EVALUATION	HORIZONTAL ACCELERATION FACTOR
1) Limit-Equilibrium	
Zone[(a)] 1, 2, and 3	0.3
Zone[(a)] 4 and 5	0.2
2) Dynamic Analysis	Peak surface acceleration corresponding with a 475-year return period ground motion (in bedrock), as modified for the site conditions (Ref: Sections 1615.1 and 1615.2).

(a) Seismically-Induced Ground Failure Zones (Ref: *Municipality of Anchorage 1979 Geotechnical Hazard Assessment Study*)

23.15.1802.2.7 Seismic Design Category D, E, or F.

In item 2, delete the last sentence and replace with:

The peak ground acceleration used shall be $S_{DS}/2.5$, where S_{DS} is determined in accordance with Section 1615.1 or 1615.2.

Delete the Exception.

23.15.1802.2.8 Permafrost.

Add a new subsection 1802.2.8 to read as follows:

A subsurface investigation shall be performed to determine 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.

23.15.1802.6 Reports

Amend in two places:

Delete paragraph and replace with the following:

The soil classification and design bearing capacity shall be shown on the plans. When a soils classification is required in accordance with Section 1802.1, a written report prepared by a civil engineer licensed in the State of Alaska shall be submitted to the Building Official that shall include, but need not be limited to, the following information:

Add the following items after item 9:

10. 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.

11. 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.

12. The soils report shall provide a summary of the methods, parameters and assumptions used to evaluate the hazards of liquefaction, slope stability, and surface rupture due to faulting or lateral spreading.

23.15.1803.3 Site Grading

Add the following at the end of the first paragraph:

Car-washing establishments and other activities from which water may be carried or tracked into streets shall be arranged in a manner to preclude such dispersal of water onto driving surfaces. (AO 83-53)

23.15.1805 Footings and Foundations

23.15.1805 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 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 18 inches of the footing or stem wall.

23.15.1805.2.1 Frost Protection

Add the following at the end of the paragraph:

Minimum footing depths shall be as indicated in Table 23.15.1805.2.1. Footings shall bear on undisturbed natural inorganic soil, or suitably compacted fill.

Cast-in-place concrete piers shall be founded at a depth suitable for structural support or as indicated in Table 23.15.1805.2.1 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 structures shall be accounted for in the design of these elements.

Table 23.15.1805.2.1

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)

(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 inches (203 mm). Basements or crawl space walls supporting more than five 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 30 inches (702 mm) 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 sides of cold foundations.

(5) Foundations installed in non-frost-susceptible material may be 60 inches (five feet) (1524 mm).

(6) Non-load-bearing site structures which are not attached to the building, such as fences, light poles, sign posts, shall have a footing depth which is based on an analysis of the vertical and lateral loads on the structure and the structure's susceptibility to damage from frost action.

23.15.1805.2.4 Footing Definitions

Add a new subsection 1805.2.4 as follows:

1085.2.4 Footing Definitions

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

Cold Foundation: Any foundation where temperatures of the bearing soils are normally subject to freezing.

23.15.1805.3 Footings On Or Adjacent To Slopes

Add the following paragraph before the first sentence:

When a foundation investigation is required in accordance with Section 23.15.1802.2.7, the minimum building and structure clearances and setbacks shall be as defined in Section 1805.3.1 and Section 1805.3.2, or 15 feet (4572 mm) from the surface projection of the most critical theoretical failure plane determined from the slope stability analysis, whichever is greater.

23.15.1805.3.5 Alternate Setbacks And Clearance

Delete paragraph in its entirety and replace with the following:

The Building Official may approve alternate setbacks and clearances, if based on a foundation investigation in accordance with Section 23.15.1802.2.7.

23.15.1805.4.1 Footing Design

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.

23.15.1805.4.6 Wood Foundations

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 by 5/8-inch nominal diameter embedded at least seven inches (178 mm) into the concrete. Treated wood foundation plates or sills shall be installed in accordance with AMC 23.15.1805.6.

23.15.1805.5 Foundation Walls

Add the following after the paragraph:

Foundation walls shall be restrained at the footing line by the following methods:

1. Basement

   A four-inch (102 mm) concrete slab either poured against a minimum one-inch (25.4 m) x four-inch (102 mm) treated wood screed or a four-inch (102 mm) concrete slab poured against a keyway between the studs.

2. Crawl Space

   A minimum four-inch (102 mm) x four-inch (102 mm) nominal size pressure-treated or decay-resistant member installed immediately adjacent to the wall and bolted to the footing with 5/8-inch (15.9 mm) diameter anchor bolts maximum two feet 0 inches (610 mm) on center. The maximum soils height against the wall is three feet 0 inches (914 mm).

Exception: The above need not apply if a suitable alternate design is prepared by an civil engineer registered in the State of Alaska and approved by the building official.

23.15.1805.6 Foundation Plates Or Sill Bolting

Add the following at the end of the paragraph:

Foundation plates or sills shall be bolted to the foundation or foundation wall with galvanized steel bolts.

23.15.1806.1 Where Required

Add the following sentence at the end of the paragraph:

All crawlspace walls below exterior grade shall be dampproofed.

23.15.1806.1.3 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.

23.15.1806.2.2 Walls

Add a third paragraph to read as follows:

Approved dampproofing shall be applied over the below-grade portion of exterior crawl space walls prior to backfilling. A treated lumber or plywood strip shall be attached to the wall to cover the top edge of the approved damp proofing. The wood strip shall extend at least two inches (50.8 mm) above and five inches (127 mm) below finish grade level to protect the approved dampproofing 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 dampproofing shall extend down to the bottom of the concrete footing.

23.15.1806.3 Waterproofing Required

Add the following at the end of the paragraph:

In addition, all exterior below grade walls enclosing habitable spaces shall be waterproofed in accordance with Section 1806.3.2.

23.15.1905.12 Cold Weather Requirements

Amend by adding the following sentence at the end of Item 1.

For purposes of near freezing weather considerations, 40°F shall be used. The protection must be capable of maintaining the temperature of the curing concrete at or above the required 50°F for the required time periods mentioned in Section 1905.11.

23.15.1907.5 Placing Reinforcement

Amend in two places:

Amend by deleting the reference to "1907.5.4" and replacing with the reference "1907.5.5."

Amend by adding a new section 1907.5.5 to read as follows:

1907.5.5 Installation of Anchors. Anchors shall be in place prior to placing concrete.

Exception:. Anchors having a required embedment depth of seven inches or less may be field placed while concrete is in plastic condition.

23.15.1913.9 Installation of Anchors

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

Anchors shall be in place prior to placing concrete.

Exception.: Anchors having a required embedment depth of 7 inches or less may be field placed while concrete is in plastic condition.

23.15.2104.6 Installation of Anchors

Add a new section 2104.6 to read as follows:

2104.6 Installation of Anchors. Anchors shall be in place prior to grouting.

Exception: Anchors having a required embedment of 13 inches or less may be field placed while grout is in plastic condition.

23.15.2302.1 Definitions

Add the following sentence at the end of the definition of Diaphragm Rigid:

Wood structural panel diaphragms may be considered flexible.

23.15.2305.3.7 Shear Walls with Openings

Add the following sentence at the end of the first paragraph:

Perforated shear wall requirements in NEHRP 2000, Provisions For Seismic Regulations For New Buildings And Other Structures, shall be permitted.

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.

23.15.2308.10.1 Wind Uplift

Amend in two places:

Add as follows:

Metal framing anchors with a 400 pound uplift capacity shall be spaced no further apart than 48 inches (1,219 mm) for roof rafters or trusses with spans less than 20 feet (6,096 mm) in length, and no further apart than 24 inches (610 mm) for spans greater than 20 feet (6,096 mm) in length. Where walls have structural panel sheathing, the anchor may be placed on the inside of the wall without direct anchorage to studs below. The continuity of the load path through the walls and floors below shall be considered. For roof rafters or trusses with spans greater

than 40 feet (12,192 mm), properly substantiated calculations shall be submitted to the Building Official for review.

[These values are now in code - although the new table does not include 120 mph…]

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

Uplift anchors shall be installed on each truss end.

23.15.2508.1 General

Add the following sentence at the end of the first paragraph:

Where horizontal assemblies are attached to wood framing the gypsum board shall be attached with screws.

23.15.3001.1 Scope

Delete paragraph and replace with the following:

This chapter governs the design, construction, installation, alteration, operation, maintenance, and repair of elevators and conveying systems, such as dumbwaiters, escalators, moving walkways, and material lofts, and their components.

23.15.3001.2 Reference Standards

Amend in two places:

Add the following referenced standards after A17.1:

…with supplements A17.1c-1999 addenda and A17.1d-2000 addenda,

Add the following after ASME B20.1:

…,ANSI A10.4,

23.15.3001.4 Change in Use

Add new paragraph to read as follows:

Any change of use shall not be made without the approval of the building official. Said approval shall be granted only after it is demonstrated that the installation conforms to the requirements of ASME A17.1 and its supplements.

23.15.3002.1 Hoistway Enclosure Protection

Amend in three places:

Add the word "escalator," after the word elevator.

Add second sentence to read:

Refer to ASME A17.1, Chapter VIII, Section 801.

Add new paragraph to read as follows:

Elevator hoistway shaft enclosure walls not required to have a fire resistive rating may be constructed with glass. Such glass shall be laminated glass that passes the requirements of ANSI A17.1.

23.15.3003.2 Fire-Fighters' Emergency Operation

Add a second paragraph to read as follows:

Elevators shall be tested on normal and on emergency power. Elevators shall be tested by activating the smoke detectors and by use of the recall key switch. These tests shall be performed at intervals not to exceed one year after certification, and yearly thereafter.

23.15.3004.1 Vents Required

Amend in two places:

Replace paragraph with the following:

Hoistways of elevators and dumbwaiters penetrating more than three stories and above extending through two floor levels shall be provided with a means for venting smoke and hot gases to the outer air in case of fire.

Add the following paragraphs after the exceptions:

Refer to Section 3004.3 of this code. Vents shall be mechanically operated and shall be activated upon operations of any elevator lobby smoke detector. An approved fire alarm system or sprinkler system, for activation purposes, may be used in lieu of the elevator lobby detectors. A manual override shall be provided in an approved location, for fire department use and to address potential power failures. Vents shall be equipped with a fail-safe device to open when power failure occurs.

The venting of each individual hoistway shall be independent from any other hoistway venting, and the interconnection of separate hoistways for the purpose of venting is prohibited.

23.15.3005.4 Personnel and Material Hoists

Amend in two places:

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 months thereafter while it remains installed at the project site. Such inspection shall include, but shall 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 above grade 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.

23.15.3007 Elevator Sprinkler Requirements

Add new section 3007 as follows:

3007 Elevator Sprinkler Requirements

3007.1 General Requirements. Sprinkler systems shall generally not be allowed in elevator machine rooms. Machine rooms shall be provided with one or more smoke detectors giving notification to initiate Fireman's Service Phase I recall.

Should sprinkler be installed in machine rooms, the requirements for a shunt trip shall follow section 3006.5.

23.15.3008 Underground Hydraulic Elevator Pipes, Fittings, and Cylinders

Add new section 3008 as follows:

3008 Underground Hydraulic Elevator Pipes, Fittings, and Cylinders

All newly installed underground pressure cylinders and pipes containing hydraulic elevator fluids shall be encased by an outer plastic containment system meeting the following requirements:

a. The plastic casing shall be constructed of polyethylene or polyvinyl chloride (PVC). The plastic pipe wall thickness shall not be less than 0.125 inches (3.175 mm). The casing shall be capped at the bottom and all joints shall be solvent or heat welded.

b. The casing shall be sealed and dry around the hydraulic pipe and cylinder to contain any leakage into the ground and to prevent electrolysis to hydraulic pipe and cylinder. Dry sand may be used to stabilize the hydraulic cylinder.

c. A 0.50 inch (12.7 mm) pipe nipple with a one-way check valve shall be located between the casing and cylinder for monitoring purposes.

d. On new and existing hydraulic installations there shall be a log kept in the machine room of the oil level, usage, and loss. Any unaccounted loss in hydraulic fluids shall require shut down of the elevator and full load static test to determine continued capacity. Elevators shall not be returned to service until loss source is identified and corrections are made, followed by inspection.

23.15.3009 Seismic Safety Device

Add new section 3009 as follows:

3009 Seismic Safety Device

All electric and hydraulic elevators shall be equipped with a seismic safety in accordance with the requirements of Seismic Requirements, Part XXIV of ASME A17.1

3009.1 Existing Elevator Seismic Upgrade Requirements. All electric and hydraulic elevators within the jurisdiction of the Municipality of Anchorage shall be upgraded to include an appropriate seismic safety device within five years of the date of adoption of these amendments to the 2000 International Building Code. The minimum requirements for such elevators shall be:

1. Electric Elevators: A counterweight displacement switch shall be installed in accordance with rule 2409 of ASME A17.1.
2. Hydraulic Elevators: An elevator safety valve shall be installed in accordance with rule 2410.6 of ASME A17.1 to be located at the elevator pit level.
3. Permit, Inspection, and Approval: A permit for installation of the seismic upgrade shall be taken out by a licensed elevator contractor. Once complete, inspections shall be called for to verify completeness of installation.

3009.2 Roped Hydraulic Elevators. Roped hydraulic elevators shall have snag guards installed as part of their seismic safety system.

23.15.3010 Reporting Injuries or Unsafe Conditions

Add new section 3010 as follows:

3010 Reporting Injuries or Unsafe Conditions

Refer to ASME 17.1 and supplements.

3010.1 Reporting Requirements. An owner or operator must report, in detail and within 48 hours, any accident involving an elevator or escalator which results in injury to a person. If the deadline for the report falls on a weekend or holiday, the report must be made at the beginning of the next municipal working day. The report must be in the form of a written narrative to the building official. Report shall be signed by author.

3010.2 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 inspection and such unsafe condition. If the building official finds that the unsafe condition endangers human life, the building official shall cause to be placed on such elevator, escalator, or moving walk, in a conspicuous place, a notice stating that such conveyance is unsafe and 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. The owner shall see to it that such notice of unsafe conditions is legibly maintained where placed by the building official. The building official shall also issue an order in writing to the owner requiring the repairs or alterations to be made to such conveyance that are necessary to render it safe and may order the operation thereof discontinued until the repairs or alterations are made or the unsafe conditions are removed. A posted notice of unsafe conditions shall be removed only by the building official when satisfied that the unsafe conditions have been corrected.

23.15.3011 Top-of-Car Inspection of Existing Elevators

Add new section 3011 as follows:

3011 Top-of-Car Inspection of Existing Elevators

All existing elevators shall have top-of-car operating devices as specified below:

1. Elevators with 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).
2. 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 crosshead and the side of the car nearest the hoistway entrance normally used for access to the car top.

23.15.3012 Access To Hoistway On Existing Elevators

Add new section 3012 as follows:

3012 Access To Hoistway On Existing Elevators

All existing elevators must have mechanical (lunar key) means to access hoistway at top and bottom landing.

Hoistway door unlocking devices shall conform to the following:

1. The device shall unlock and permit the opening of the hoistway door from the access landing irrespective of the position of the car.
2. The device shall be installed at the access landings, and may be provided at other landings for emergency use (see Rule 111.10, ASME A17.1).
3. The device shall be designed to prevent unlocking the door with common tools.
4. The operating means for unlocking the door shall be available to and used only by inspectors, maintenance personnel, and repairmen.
5. The unlocking-device keyway shall be located at a height not greater than 6 feet 11 inches (2.11m) above the floor.

23.15.3013 Residential Elevator Inspections

Add new section 3013 as follows:

3013 Residential Elevator Inspections

Certificates of inspection shall not be required for conveyances within one and two family dwelling units.

23.15.3014 Inspection Periods

Add new section 3014 as follows:

3014 Inspection Periods

Power passenger elevators, material lifts, escalators, and moving walks shall be reinspected and recertified every 12 months.

23.15.CH.34 Existing Structures

Delete Chapter 34 in its entirety and refer to the Anchorage Existing Buildings Code.

23.15.CH.35 Referenced Standards

Revise by changing the referenced standards' publication dates from those listed to the following:

N.F.P.A. 12-2000	*Carbon Dioxide Extinguishing System*
N.F.P.A. 12A-1997	*Halon 1301 Fire Extinguishing System*
N.F.P.A. 13-1999	*Installation of Sprinkler Systems*
N.F.P.A. 13D-1999	*Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes*
N.F.P.A. 13R-1999	*Installation of Sprinkler Systems in Residential Occupancies Up to and Including Four Stories in Height*
N.F.P.A. 14-2000	*Standpipe and Hose System*
N.F.P.A. 20-1999	*Installation of Centrifugal Fire Pumps*
N.F.P.A. 72-1999	*National Fire Alarm Code*
N.F.P.A. 2001-2000	*Clean Agent Fire Extinguishing Systems*

23.15.APP.CH.D Fire Districts

Delete Appendix Chapter D in its entirety.

23.15 Appendix

Adopt Appendices A-C, G and H.

23.15 APP. CH.H Signs

23.15.H.101.2 Signs Exempt from Permits

Delete subsection in its entirety and substitute the following:

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

A. 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.

B. 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 which requires a sign permit unless structural change is made.

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

D. Signs not exceeding six square feet in area on any one of its faces.

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

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

23.15.H.101.3 Permits Required

Add a new section H.101.3 as follows:

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

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 upon forms prescribed by the Building Official and shall be complete only if accompanied by:

1. The location by street and number of the proposed sign structure;
2. The name, address, and telephone number of owner of the property on which the sign is to be erected;
3. The name, address, and telephone number of the sign contractor or erector;
4. A drawing to scale showing the design of the sign, including dimensions, sign size, method of attachment, structural specifications, source of illumination and showing the relationship to any building or structure to which it is or is proposed to be installed or affixed to which it relates;
5. For permanent, freestanding signs only, a plot plan to scale, indicating the 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, which the Building Official determines is reasonable necessary to an evaluation of the proposed sign's compliance with this code.

CHAPTER 23.20
LOCAL AMENDMENTS TO THE INTERNATIONAL MECHANICAL CODE 2000 EDITION

SECTIONS

23.20.306.5	Equipment and Appliances On Roofs or Elevated Structures
23.20.TABLE 401.6	Opening Sizes in Louvers, Grilles and Screens Protecting Outdoor Exhaust and Air Intake Openings
23.20.403.3	Ventilation Rate
23.20.406.1	General
23.20.501.3	Outdoor Discharge
23.20.505.1	Domestic Systems
23.20.506.5	Kitchen Ventilation Heat Recovery Equipment
23.20.511.1	Dust, Stock and Refuse Conveying Systems
23.20.601.3	Contamination Prevention
23.20.602.1	General
23.20.603.8	Joints, Seams and Connections
23.20.604.1	General
23.20.700	Combustion Air
23.20.701.3	Conditions Created By Mechanical Exhausting
23.20.701.4.2	Attic Space
23.20.801.20	Locations and Support Of Venting Systems Other Than Masonry Chimneys
23.20.802.9	Vent Terminals - Ice Dam Protection
23.20.804.3.4	Horizontal Terminations
23.20.923.2	Small Ceramic Kilns - Ventilation
23.20.1001.1	Scope
23.20.1006.7	Boiler Safety Devices
23.20.1006.7	Table 10A Controls and Limit Devices for Automatic Boilers
23.20.1006.8	Electrical Requirements
23.20.1007	Boiler Low-Water Cutoff
23.20.1104.2.2	Industrial Occupancies and Refrigerated Rooms
23.20.1105.3	Refrigerant Detector
23.20.1105.6.2	Make-up Air
23.20.1204.2	Required Thickness
23.20.1301.1	Scope

23.20.International Fire Code Compressed Gases, International Fire Code Chapter 30

23.20.International Fire Code Service Stations and Repair Garages, International Fire Code Chapter 22

23.20.100 Local Amendments To The International Mechanical Code, 2000 Edition

The amendments to the 2000 Edition of 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 2000 Edition).

Delete entire chapter except for Section 101 - General,

23.20.202 Definitions

Amend by adding the following definitions:

Heat Recovery Device - is an assembly containing a heat recovery element.

Heat Recovery Element - is a device or series of devices whose purpose is to reclaim only the heat content of air, vapors, gases, and/or fluids that were being expelled through the exhaust system, and transferring the thermal energy so reclaimed to a location whereby a useful purpose may be served.

23.20.301.14 Prohibited Location

Amend sentence to read as follows:

Mechanical systems shall not be located in an elevator shaft with the exception of mechanical equipment and devices exclusively serving the elevator.

23.20.303.3 Prohibited Locations

From the third exception delete the words "weather stripped in accordance with the exterior door air leakage requirements of the International Energy Conservation Code and."

Insert the words "tightly gasketed" before "solid" to read "tightly gasketed solid door."

23.20.303.8 Elevator Shafts

Amend sentence to read as follows:

Mechanical systems shall not be located in an elevator shaft except mechanical equipment and devices exclusively serving the elevator.

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 administrative authority.

23.20.306.5 Equipment and Appliances On Roofs or Elevated Structures

Amend by deleting Section 306.5 and replace with the following:

Where new or replaced equipment and appliances requiring access are installed on roofs or elevated new or existing structures at a height exceeding 16 feet (4877 mm), such access shall be provided by a permanent approved means of access, the extent of which shall be from grade or floor level to the equipment and appliances' level service space. Such access shall be located interior to the building and shall not require climbing over obstructions greater than 30 inches (762 mm) high or walking on roofs having a slope greater than 4 units vertical in 12 units horizontal (33-percent slope). Permanent roof access shall be provided

for new construction, single story buildings where roof heating, ventilation, air conditioning or similar equipment requiring regular maintenance are installed on the roof.

Exception: Existing or replaced equipment may be accessed by portable ladder on the single story portion of an existing building that does not exceed 16 feet (4880 mm) in height.

23.20.TABLE 401.6 Opening Sizes in Louvers, Grilles and Screens Protecting Outdoor Exhaust and 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
Exhaust openings	½ inch
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 Ventilation Rate

Amend by adding to the end of the first sentence the words "or in accordance with the latest version of ASHRAE Standard 62."

23.20.406.1 General

Delete Section 406.1.

23.20.501.3 Outdoor Discharge

Delete Exception to 501.3

23.20.505.1 Domestic Systems

Delete Exception 1 to 505.1

23.20.506.5 Kitchen Ventilation Heat Recovery Equipment

Amend by adding new Section 506.5 as follows:

506.5.1 General. The provisions of this section apply to installation of kitchen ventilation heat recovery equipment installed within the interior of the building.

506.5.2 Ceiling Penetrations. Any grease duct or hood penetrating a ceiling (whether or not the ceiling is rated) shall be considered concealed and must be enclosed within a rated duct enclosure per Section 506.3.11

506.5.3 Equipment Installations. Only fans associated with heat recovery devices, and heat recovery devices serving Type I hoods may be located in the grease duct within a rated enclosure. This equipment must be specifically listed or the equipment housing must maintain the integrity of the externally welded liquid tight duct up to the entrance of and the exit from the exhaust fan and/or heat recovery element for kitchen ventilation application.

Provisions shall be made for access to the equipment and internal components of devices containing fans and/or heat recovery elements for proper maintenance and cleaning. Duct access doors shall comply with Section 506.3.9. Access doors to enclosure shall comply with Section 506.3.12

506.5.4 Duct and Equipment Enclosure. A grease duct enclosure may be enlarged to enclose equipment or may connect to the equipment housing if the equipment housing meets the rating of the grease duct enclosure. The duct may be run exposed within the rated equipment enclosure to the entrance of, and the exit from, the equipment which complies with new Section 506.5.3

506.5.5 Fire Dampers. Other associated duct work located within the grease duct enclosure per new Section 506.5.3 shall be fire dampered where penetrations of the enclosure occur.

506.5.6 Exhaust Outlets. The grease duct shall terminate above the roof per Section 506.3.13 and Section 506.4. A grease duct enclosure that stops at the rated equipment enclosure shall be vented to the exterior as if the rated equipment enclosure were a continuation of the duct enclosure.

23.20.511.1 Dust, Stock and Refuse Conveying Systems

Amend by adding the following exception to 511.1 to read as follows:

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

23.20.601.3 Contamination Prevention

Amend by adding the following exception to 601.3 to read as follows:

Exception: Environmental air exhaust ducts under positive pressure may extend into or through ducts or plenums if one of the following design approaches is used:

1. Route environmental air exhaust ducts inside a shaft when passing through a duct or plenum.
2. 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.
3. Seal the environmental air exhaust ducts along all seams and joints using a listed low to medium pressure duct sealant which is typically applied by brush, trowel, or caulking gun. Install sealant per manufacturer's recommendations.
4. Provide flexible duct with no seams in the duct or plenum only to a limit of 8'. The8' limit is due to high static losses. Also, sleeving the metal duct with flexible seamless duct is acceptable.

23.20.602.1 General

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

Add the following sentence to the end of the paragraph: "Underfloor crawlspaces shall not be used as plenums."

23.20.603.8 Joints, Seams and Connections

Delete paragraph and replace with the following:

All joints, longitudinal and transverse seams, and connections in ductwork, shall be securely fastened and sealed with welds, gaskets, mastics (adhesives), mastic-plus-embedded-fabric systems, or tapes. Tapes and mastics used to seal ductwork shall be listed and labeled in accordance with UL 181A or UL 181B. Duct connections to flanges of air distribution system equipment shall be sealed and mechanically fastened. Duct tape is not permitted as a sealant on any metal ducts.

Add the following exception:

Exception. Continuously welded and locking-type longitudinal joints and seams on ducts operating at static pressures less than 2 inches w.g. (500 Pa) pressure classification.

23.20.604.1 General

Delete the words "and the International Energy Conservation Code."

Add to the end of the paragraph:

All supply and return air ducts and plenums shall be insulated with a minimum of R-5 insulation when located in unconditioned spaces and with a minimum of R-8 insulation when located outside the building envelope. When located within a building envelope assembly, the duct or plenum shall be separated from the building exterior or unconditioned or exempt spaces by a minimum of R-8 insulation.

Exceptions:

1. When located within equipment.
2. When the design temperature difference between the interior and exterior of the duct or plenum does not exceed 15°F (8°C).
3. When located within the under floor crawlspace of a one or two family dwelling unit.

23.20.700 Combustion Air

Amend Chapter 7 by adding new Section 711 titled Cold Climate Alternate Requirement for Combustion and Ventilation Air:

Section 711 Cold Climate Alternate Requirements For Combustion and Ventilation Air.

711.1 Purpose

711.1 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.

711.2 Scope

711.2.1 Scope. The requirements of this section apply to all fuel gas burning appliances.

Exceptions: Direct vent appliances, listed cooking appliances, appliances having separated combustion system, enclosed furnaces, refrigerators and domestic clothes dryers.

711.3 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.

COMBUSTION AIR is that air required for stoichiometric combustion, plus excess air, plus flue dilution air.

VENTILATION AIR is that air required for cooling of the appliance enclosure to maintain temperatures required for proper equipment operation.

FREE AREA is the net actual open area of a louver, screen, duct, or intake grille.

711.4 General

711.4.1 Air Supply. Fuel-burning equipment shall be provided with a sufficient supply of combustion and ventilation air.

711.4.1.1 Enclosures Containing Fuel Burning Appliances. Enclosures shall be provided with minimum unobstructed combustion air openings as specified in Section 711.9 and arranged as specified in Sections 711.5 and 711.6 of this code and ventilation air systems shall be as specified in Section 711.10.

711.4.1.2 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 711.9 and 711.10.

711.5 Combustion Air Openings

711.5.1 Location. The combustion air opening(s) may be located anywhere in the enclosure provided that there is an unobstructed area extended to the fire box that does not increase the total combustion air system static pressure requirements.

711.5.2 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: Motor operated dampers interlocked with appliance controls to open damper prior to firing appliance. If damper blade actuated end switch are provided to prevent appliance operation should dampers fail to open.

711.5.3 Screening. Combustion air openings shall be covered with corrosion-resistant screen of 1/2 inch (12.8 mm) mesh, except as provided in Section 711.7.3.

Exception: Combustion air openings serving a nonresidential portion of a building may be covered with a screen having openings larger than 1/2 inch (12.8 mm) but in no case larger than 1 inch (25.4 mm).

711.6 Sources Of Combustion And Ventilation Air

711.6.1 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.

711.6.2 Under-Floor Supply. Combustion and ventilation air openings may connect with under-floor areas conforming to the following requirements:

1. Under-floor spaces having unobstructed openings to the exterior which are sized to not exceed the maximum system static pressure requirements specified in Sections 711.9 and 711.10.
2. The height of the under-floor space shall comply with the requirements of the Building Code and be without obstruction to the free flow of air.

711.6.3 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.

711.6.4 Prohibited Sources. Openings and ducts shall not connect appliance enclosures with space in which 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.

711.7 Combustion And Ventilation Air Ducts

711.7.1 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 3 inches.
3. Serve a single appliance enclosure.

711.7.2 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.

711.7.3 Screen. Neither end of the ducts, which terminate in an attic shall be screened.

711.8 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.

711.9 Area Of Combustion Air Openings

711.9.1 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) that freely communicate with outdoors and shall be sized in accordance with Table No. 7-1.

711.10 Ventilation Air

711.10.1 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, mechanical make-up air fan must be installed to make-up exhausted air. Natural or gravity make-up air is not allowed.

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TABLE NO. 7-1 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
LIQUID (Light Oil, Heavy Oil)	0.02" WG	0.02" WG	0.05" WG	27.1 CFM / 100,000 BTUH
SOLID (Coal, Coke)	0.02" WG	0.02" WG	0.05" WG	30.8 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.

Note 2: 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

1 gallon No. 2 fuel oil requires 106 lbs. air

1 lb. semi bituminous coal requires 11.2 lbs. air

Convert to CF/1000 Btu/h

GAS: $\frac{9.6 \text{ cu. ft. air}}{1 \text{ cu. ft. gas}}$ X $\frac{1 \text{ cu. ft. gas}}{1000 \text{ Btuh}}$ = 9.6 cu. ft. air/1000 Btuh (14.4 @ 50% excess)

OIL:

$\frac{106 \text{ lbs. air}}{1 \text{ gallon oil}}$ X $\frac{1 \text{ cu. ft. air}}{0.0698 \text{ lbs.*}}$ X $\frac{1 \text{ gallon oil}}{140{,}000 \text{ Btuh}}$ X 1000 = 10.85 cu. ft. air/1000 Btuh (16.3 @ 50% excess)

COAL**:

11.2 lbs. air	X	1 cu. ft. air	X	1 lb. coal	X	1000 = 12.3 cu. ft. air/1000 Btu
1 lb. coal		0.0698 lbs.*		13,000 Btu		(18.5 @ 50% excess)

*Air at 2000 feet above sea level. Installations above this must derate appliance output 4%/1000 feet.

**Confirm heat capacity of coal, since it varies with type of coal.

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 Btuh/cu. ft.	100,000 Btuh	100,000 Btuh
No. 2 Fuel Oil	18.1 CFM	27.1 CFM
140,000 Btuh/gal.	100,000 Btuh	100,000 Btuh
Coal - Semi Bituminous	20.5 CFM	30.8 CFM
13,000 Btuh/lb	100,000 Btuh	100,000 Btuh

23.20.701.3 Conditions Created By Mechanical Exhausting

Amend by adding the following paragraph to Section 701.3

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.

23.20.701.4.2 Attic Space

Delete the wording of this section and replace with the following:

Combustion air shall not be obtained from the attic unless prior written approval is obtained from the administrative authority.

23.20.801.20 Locations And Support Of Venting Systems Other Than Masonry Chimneys

Add a new Section 801.20 as follows:

Unless a vent listed for exterior use in cold weather climates is installed, a venting system installed exterior to the building outside the thermal envelope shall be installed in an insulated (R-19 minimum) shaft. The portion of the vent system that is 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.

23.20.802.9 Vent Terminals - Ice Dam Protection

Amend by adding new Paragraph 802.9 as follows:

Vent terminations that penetrate a metal roof with a pitch shall be protected by an ice dam or deflector of an approved type acceptable to the Administrative Authority.

23.20.804.3.4 Horizontal Terminations

Add the following two sentences to Item 6:

An anticipated snow depth of 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.

23.20.923.2 Small Ceramic Kilns - Ventilation

Amend by adding Section 923.2 as follows:

923.2 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 (0.61mm) (No. 24 U.S. gauge) galvanized steel or equivalent and be supported at a height of between 12 inches (305 mm) and 30 inches (750 mm) 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 12 inches (305 mm) above any portion of a building within four feet (1.22 m) and terminate no less than four feet (1.22 m) 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.

23.20.1001.1 Scope

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

23.20.1006.7 Boiler Safety Devices

Amend by adding "Table 10-A" after the word "instructions."

23.20.1006.7 Table 10A Controls and Limit Devices for Automatic Boilers

Table 10-A –CONTROLS AND LIMIT DEVICES FOR AUTOMATICE BOILERS

Boiler Group	Fuel	Fuel Input Range[1] (Inclusive) (x0.293071 for W)	Trial for Main Burner Flame Control Timing (Maximum Time in Seconds): 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 Temperature 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	400,001-2,500,000 Btu/h	Interrupted or intermittent	15	15	15	2-4	Not required	Required	Not required	Not required	Required	Required	Not required	Required
C	Gas	2,500,001-5,000,000 Btu/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	Electric	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.

[2.2] 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 that 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 which have been 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 will 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 400,001) Btu (117 kW) per combustion chamber, shall be provided with low fire start of its main burner system to permit smooth light off. This will 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 complete air changes of the furnace, including combustion chamber up to the first pass, will 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 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 must be provided which puts these closures in a normally open position for four 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 high-temperature limit controls with a manual reset on the control with the higher setting interlocked to shut off the main fuel supply, except that manual reset on the high-temperature limit control shall not be required on any automatic package boiler not exceeding 400,000 Btu/h (117 kW) input and which has been 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 so installed as 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 units and in Group M Occupancies and further, except that the low-water-level limit control is not required on package hot-water-supply boilers approved by a nationally recognized testing agency. 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 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 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 will be subjected to pressures in excess of 10 psi (69 kPa) 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 (6.9 kPa) pressure or having a trapped combustion chamber or employing horizontal fire tubes, shall be equipped with two 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 (6.9 kPa) 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 that, 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 deenergized 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.

23.20.1104.2.2 Industrial Occupancies and Refrigerated Rooms

Revise section heading by adding "and commercial" after "industrial" to read:

1104.2.2 Industrial and Commercial Occupancies and Refrigerated Rooms

23.20.1105.3 Refrigerant Detector

Add a second sentence to read as follows:

Refrigerant detectors shall alarm 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.

23.20.1204.2 Required Thickness

Revise section heading and paragraph to read as follows:

1204.2 Required Insulation. The surface temperature of piping located within normal reach of building occupants shall not exceed 120.

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.

23.20.International Fire Code Compressed Gases, International Fire Code Chapter 30

Chapter 30 of the International Fire Code is hereby adopted by reference.

23.20.International Fire Code Service Stations and Repair Garages, International Fire Code Chapter 22

Service Stations and Repair Garages from the International Fire Code are hereby adopted by reference.

CHAPTER 23.25
LOCAL AMENDMENTS TO THE UNIFORM PLUMBING CODE 2000 EDITION

SECTIONS

1	23.25.603.0	Cross-Connection Control
2	23.25.603.3	General Requirements
3	23.25.603.4.9	Water Cooled Compressors, Degreasers
4	23.25.603.4.11	Potable Water Makeup Connections To Steam Or Hot Water Boilers
5	23.25.603.4.23	Potable Water Supply To Dental Chairs
6	23.25.604.1	Materials - Water Pipe And Fittings
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9	23.25.608.0	Water Pressure, Pressure Regulators And Pressure Relief Valves
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16	23.25.801.3	Bar And Fountain Sink Traps
17	23.25.811.9	Chemical Wastes - Dental Vacuum Systems
18	23.25.815.0	Condensate Wastes and Control
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20	23.25.TABLE 10-1	Horizontal Distance Of Trap Arms
21	23.25.1007.0	Trap Seal Protection
22	23.25.1014.8	Grease Interceptors for Commercial Kitchens
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34	23.25.1317.0	Materials – Medical Gas Systems
35	23.25.APPENDIX L	Alternate Plumbing Systems

23.25.100 Local Amendments To The Uniform Plumbing Code, 2000 Edition

Amendments to the 2000 Uniform Plumbing Code and appendices A, B, D, I, and L thereto except for Chapters 12 and 15 are adopted and listed hereafter by section. The last digits after the title and chapter digits of the section number 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.

23.25.103.3.6 Administrative Requirements

Add a new section to read as follows:

Refer to the Administrative Code for administrative requirements.

23.25. 204.0 "B" Definitions

Amend by deleting the definition of BATIIROOM and substitute the following:

BATHROOM: Any room or space containing a bathtub, shower, hot tub, Jacuzzi or swimming pool.

23.25.313.7

Amend paragraph by deleting all wording following "Building Code." Paragraph shall read as follows:

All piping penetrations of fire resistance rated walls, partitions, floors, floor/ceiling assemblies, roof/ceiling assemblies, or shaft enclosures shall be protected in accordance with the requirements of the Building Code.

23.25.314.5.1

Amend paragraph by deleting the words "In seismic zones 3 and 4," beginning the sentence with Hubless to read as follows:

Hubless cast iron piping.....

23.25.315.0 Trenching, Excavation, And Backfill

Amend paragraph 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.

23.25.409.2.2

Amend by adding the words, or for private use, after "dwelling units" to read as follows:

409.2.2 All water closet seats, except those within dwelling units or for private use, shall be of the open front type.

23.25.413.0 Minimum Number of Required Fixtures

Delete Section 413.0 and refer to 2000 International Building Code, Chapter 29 and Table 2902.1.

23.25.507.0 Combustion Air

Delete Section 507.0 Combustion Air and refer to the 2000 International Mechanical Code and the 2000 International Fuel Gas Code.

23.25.509.0 Prohibited Locations

Amend by adding new paragraph to Section 509.0 as follows:

Installation of water heaters in crawl spaces is prohibited unless prior approval is obtained from the administrative authority.

23.25.510.8 Relief Valve Discharge

Delete Section 510.8.

23.25. 510.9 Water Heater Enclosure

Add new paragraph 510.9 as follows:

510.9 Water heaters shall be provided with an approved floor drain within the water heater enclosure. Floor drains shall be readily accessible. In lieu of the floor drain, a water heater may be installed in a liquid tight pan provided with a minimum 3/4" (19 mm) O.D. drain opening located within 2" (50.8 mm) of the pan bottom. Pans shall be of an approved type acceptable to the administrative authority, and pan drains shall terminate at a floor drain or other approved location.

Exception: Water heaters installed on a concrete slab or grade, resting on the ground.

23.25.512-525

Delete sections 512 through 525.

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 that a conflict exists between the technical publications adopted herein and the Uniform Plumbing Code, the most stringent provision shall apply.

UNSAFE FACILITIES: The Municipality of Anchorage 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, which will endanger the quality of the purveyor's water supply, shall be unlawful and is prohibited.

ADMINISTRATIVE AUTHORITY: The Building Official or his authorized representative.

PURVEYOR: The operator or owner of a water supply.

PREMISES: Real property, including any house or building thereon, located within the Municipality of Anchorage.

CROSS-CONNECTION INSPECTIONS: No water shall be delivered to any structure hereafter built within the Municipality of Anchorage until it has been inspected by the Administrative Authority for possible cross-connections and been approved as being protected from such cross-connections.

Inspections will 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, could 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 which make it impractical to ascertain whether or not cross-connections in fact exist.
- Premises where entry is restricted so that inspection for cross-connections cannot be made with sufficient frequency or at sufficiently short notice to assure that 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 that if back siphonage should occur, a health hazard might result.
- The following facilities, when connected to a potable water supply, require backflow prevention assemblies or devices unless the Administrative authority determines that no hazard exists:
    - 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 603.3.1 as follows:

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

23.25.603.4.9 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.

23.25.603.4.11 Potable Water Makeup Connections To Steam Or Hot Water Boilers

Amend by deleting paragraph 603.4.11 its entirety and substitute the following:

603.4.11 Potable water make-up connections to heating and/or cooling systems shall be provided with the minimum backflow protection as set forth below:

1 Hydronic Heating/Cooling systems using plain water or water/propyleneglycol mixture require, a double check valve backflow preventer with intermediate atmospheric vent. Water/propylene glycol mixtures must contain a food grade powder dye. Liquid food coloring is not acceptable. A warning label must be prominently installed on the backflow preventer or boiler stating the following information: "System contains propylene glycol. Use no substitute."

2. Hydronic Heating/Cooling systems containing any additives other than described in "1" above, require a listed reduced pressure principle backflow preventer
3. Steam boilers require a listed reduced pressure principle backflow preventer or air gap separation.
4. Cooling towers require a reduced pressure principle backflow preventer or air gap separation.

23.25.603.4.23 Potable Water Supply To Dental Chairs

Add new paragraph 603.4.23 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.

23.25.604.1 Materials - Water Pipe And Fittings

Delete the second sentence of Paragraph 604.1.

23.25.604.2 Materials - Copper Tube

Amend Section 604.2 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 to a building or premises.

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 will 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 that 2 feet (610 MM) nor less than 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.

23.25.609.10.1 Air Chambers

Delete paragraph 609.10.1 in its entirety and substitute the following:

609.10.1 Air chambers a minimum of 12 inches (305 mm) in length and the same diameter as the fixture supply shall be installed at all fixtures, or other approved mechanical devices shall be provided to reduce water hammer or line noises to such an extent that no pressure hazard to the piping system will exist.

23.25.610.8 Size Of Meter And Building Supply Pipe Using Table 6-5

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

No 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 Section 612.0 Indoor Water Meter Setter and paragraphs 612.1, 612.2, and 612.3 as follows:

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 which is not concealed by an appliance, furnace, water heater or standard building material. When the meter is to be installed in under floor or crawl spaces, the maximum distance from the access opening to the meter shall not exceed 10 feet (3048 mm).

612.2 A horizontal section of pipe may be used in lieu of the indoor meter setter provided that 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 20" in (508 mm) 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 will furnish two meters and remote feed-outs at its expense and its crews will install remote read-out meters at the time of actual meter installation.

23.25.701.1.2

Amend paragraph by deleting the words: Chapter 15 "Firestop Protection for DWV and Stormwater Application." and replace with the words: the building code.

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 feet (610 mm) outside building and shall be of same material as building drain.

23.25.TABLE 7-7 Minimum Horizontal Distance Required From Building Sewer

Amend Table 7-7, on-site domestic water service line as follows:

Change one (1) foot (0.3 mm) in right hand column to ten (10) feet (3048 mm).

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 "15 feet."

23.25.811.9 Chemical Wastes - Dental Vacuum Systems

Add paragraph 811.9 as follows:

811.9Vacuum dental systems may be installed with schedule 40 PVC pipe and fittings, above and below grade. Piping and fittings installed in plenums or penetrating fire rated assemblies shall have a flame spread index of not more than 25 and a smoke-developed rating of not more than 50 when tested in accordance with the test for Surface Burning Characteristics of Building

Materials, U.B.C. Standard 8-1, or to be protected by an approved fire and smoke rated material.

23.25.815.0 Condensate Wastes and Control

Delete Section 815.0.

23.25.903.1.2

Amend paragraph by deleting reference to "Chapter 15 Firestop Protection for DWV and Stormwater Application" and replacing with "the Building Code."

23.25.TABLE 10-1 Horizontal Distance Of Trap Arms

Add ** and *** 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.

*** A maximum of two (2) unvented floor drains may be installed in residential garages. Each drain shall have a three-inch (3") minimum trap and trap arm and two-inch (2") floor drain. The tail piece need not be vented. Both traps must tie into the main building drain separately.

23.25.1007.0 Trap Seal Protection

Amend section by adding the following exception:

Exception: R-3 occupancies (one- and two- family dwelling units).

23.25.1014.8 Grease Interceptors for Commercial Kitchens

Delete this section in its entirety.

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 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 for DWV and Stormwater Application." and replacing with "the Building Code."

23.25.1101.5. Subsoil Drains

Amend Section 1101.5.1 by adding to the beginning of the paragraph:

When required by the administrative authority…

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 administrative authority…

23.25.1101.11.1 Primary Roof Drainage

Delete the first sentence and replace with the following, to read as follows:

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 Secondary Roof Drainage

Delete from the first sentence the words "shall be separate from the primary system and"

23.25.1102.0 Materials – Storm Drainage

Delete paragraph 1102.3 in its entirety and substitute the following:

Underground building storm drains shall be of service weight cast iron soil pipe, type DWV copper tube, or other approved materials.

23.25.1108.0 Controlled-Flow Roof Drainage

Delete Sections 1108.1 and 1108.2 in their entirety.

23.25.CH 12 Fuel Piping

Chapter 12 has not been adopted. Refer to the International Fuel Gas Code. The sizing methods in Sections 1217 and 1218 shall be considered acceptable methods of sizing gas piping.

23.25.1317.0 Materials – Medical Gas Systems

Amend Section 1317.4 by adding a second paragraph as follows:

Vacuum dental systems may be installed with schedule 40 PVC pipe and fittings, above and below grade. Piping and fittings installed in plenums or penetrating fire rated assemblies shall have a flame spread index of not more than 25 and a smoke-developed rating of not more than 50 when tested in accordance with the test for Surface Burning Characteristics of Building Materials, U.B.C. Standard 801, or to be protected by an approved fire and smoke rated material.

23.25.APPENDIX L Alternate Plumbing Systems

Delete Item L 3.2 in its entirety.

CHAPTER 23.30
LOCAL AMENDMENTS TO THE NATIONAL ELECTRICAL CODE
1999 EDITION

SECTIONS:

23.30.240-24(f)	Areas Not Permitted for Overcurrent Devices
23.30.250-50	Metal Underground Water Pipes
23.30.250-50(a)(2)	Metal Underground Water Pipes
23.30.250-118	Types of Equipment Grounding Conductors
23.30.300-4(g)&(h)	Protection Against Physical Damage
23.30.300-5(d)	Protection from Damage - Buried Cables
23.30.310-13	Conductor Construction and Applications
23.30.331-4	Uses Not Permitted
23.30.334-12	Insulating Bushing
23.30.336-4	Uses Permitted
23.30.336-5(a)(10)	Uses Not Permitted
23.30.336-30(b)	Conductors
23.30.410-8	Fixtures in Clothes Closets
23.30.680-40	Outdoor Installations

23.30.010 LOCAL AMENDMENTS TO THE NATIONAL ELECTRICAL CODE 1999 EDITION

The amendments to the 1999 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, 1999 Edition.

23.30.020 CERTIFICATE OF FITNESS - RIGHT TO INSPECTION

Municipal electrical inspectors may contact any electrical workman performing work for which a certificate of fitness is required (under AS 18.60.580) and request that person to exhibit his/her certificate of fitness. The inspector may immediately serve upon that person a notice to cease any further work in that occupation until he/she has displayed said State of Alaska certificate of fitness.

23.30.210-8(a) DWELLING UNITS

Delete from 210-8(a)(7), the words "wet bar" from the entire paragraph.

23.30.210-8(b) OTHER THAN DWELLING UNITS

Add paragraphs 210-8(b)(3) and 210-8(b)(4) as follows:

(3) Outdoors where accessible from ground level.

(4) Sinks. Where the receptacles are installed to serve countertop surfaces and are located within 6 feet of the outside edge of the sink, receptacle outlets shall not be installed in a face-up position in the work surfaces or countertop.

23.30.210-23(e) OUTLETS PER CIRCUIT

Add a subsection (e) to section 210-23 to read as follows:

Outlets per circuit. In dwelling units, no more than 13 outlets are allowed on one branch circuit. Appliance circuits are limited to six 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) as follows:

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

Add exception to new subsection (i) as follows:

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 heating parking locations.

23.30.230-1 SCOPE

Add the following:

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

23.30.240-24(f) AREA NOT PERMITTED FOR OVERCURRENT DEVICES

Add a subsection (f) as follows:

Areas not permitted. Overcurrent devices shall not be installed in stairways.

23.30.250-50 METAL UNDERGROUND WATER PIPES

Delete Exception

23.30.250-50(a)(2) METAL UNDERGROUND WATER PIPES

Delete Exception

23.30.250-118 TYPES OF EQUIPMENT GROUNDING CONDUCTORS

Delete from paragraph:

> (2) rigid metal conduit; (3) intermediate metal conduit; (4) electrical metallic tubing; (5) flexible metal conduit where both the conduit and fittings are listed for grounding; (6) listed flexible metal conduit that is not listed for grounding; (7) listed liquidtight flexible metal conduit; (8) flexible metal tubing; (9) armor of Type AC cable; (11) the metallic sheath of Type MC cable; (12) cable trays as permitted in Sections 318-3(c) and 318-7; (13) cablebus framework as permitted in Section 365-2(a); (14) other electrically continuous metal raceways listed for grounding.

Revise (10) to be (2).

23.30.300-4(g) & (h) PROTECTION AGAINST PHYSICAL DAMAGE

Amend by adding new subsection (g) and (h)

(g) Wallboard, paneling and other surfacing materials should be cut to fit electrical outlets before installation. When surfacing materials are installed and then cut to fit with routers, drywall saws, etc., outlets and wiring must be inspected for damage before devices and trim plates are installed.

(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(d) PROTECTION FROM DAMAGE - BURIED CABLE

Add a paragraph as follows:

(k) When direct buried cables are parallel to or cross sewers, water lines, fuel lines, steam lines, other supply or communication conductors, a 12 inch (26.88 cm) separation, vertical and horizontal, shall be maintained.

23.30.310-13 CONDUCTOR CONSTRUCTION AND APPLICATIONS

Amend by adding the following paragraph:

Thermoplastic type insulation shall not be installed when the temperature is less than 7C(20F)

23.30.331-4 USES NOT PERMITTED

Add a paragraph following (9)

(10) When the temperature in a building is lower than 7C (20F), electrical non-metallic tubing shall not be installed nor have wires installed in it.

23.30.334-12 INSULATED BUSHING

Add the following words to the bottom 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. Only those MC cable types specifically designed to be without an insulating bushing may be installed without this protection.

23.30.336-4 USES PERMITTED

Delete "and other structures" from part (2)

23.30.336-5 (a)(10) USES NOT PERMITTED

(10) When the temperature in a building is lower than 7 C (20 F), non metallic sheathed cable shall not be installed.

23.30.336-30(b) CONDUCTORS

Amend the second paragraph by substitution of the words:

"No. 12 through 2 with copper conductors" for the words "No. 14 through 2 with copper conductors"; and substitute the words "No. 10 through 2 with aluminum" for the words "No. 12 through 2 with aluminum."

23.30.410-8 FIXTURES IN CLOTHES CLOSETS

Delete the word "clothes" from the entire section.

23.30.680-40 OUTDOOR INSTALLATIONS

Add 680-40(c) to read as follows:

An approved cable assembly with an insulated or covered equipment grounding conductor, installed inside the structure of a dwelling unit, may be used to connect the service equipment or branch circuit panelboard with a listed packaged unit utilizing a factory-

installed remote panelboard. Outside wiring to the unit must be installed as to the other requirements of article 680-40.

CHAPTER 23.45
LOCAL AMENDMENTS TO THE INTERNATIONAL FIRE CODE, 2000 EDITION

SECTIONS

23.45.907.2.9 Group R-2
23.45.907.15.1 Connection To Municipal Fire Alarm Circuit
23.45.1011.1 Means Of Egress Obstructions
23.45.3404.2.13.1.3 Under ground Tanks Out Of Service One Year
23.45.3404.2.14.1 General
23.45.APPENDIX B, Section B103.3
23.45.APPENDIX B, Table B105.1

23.45.100 Local Amendments To The International Fire Code, 2000 Edition

The amendments to the 2000 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 (2000 Edition).

The 2000 International Fire Code and its Appendices except for Appendix A 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 Anchorage Existing Buildings Code.

23.45.105.1.2 Types of Permit

Delete Item 2, Construction Permit.

23.45.105.2.2 Inspection Authorized

Amend paragraph to read:

> Except as otherwise provided in AMC 15.35.100A.7, before a permit may be issued, the code official or his authorized representative is authorized to inspect and approve the receptacles, vehicles, buildings, devices, premises, storage spaces or areas to be used to determine compliance with this code or any operational restraints required.

23.45.105.6 Required Operational Permits

Amend 105.6 as follows:

Delete sections 105.6 and subsections 105.6.1 through 105.6.46

Replace 105.6 with the following:

> The code official is authorized to issue operational permits for the operations set forth in 105.6.1 through 105.6.7.

Add seven new subsections as follows:

> 105.6.1 Amusement Buildings. An operational permit is required to operate a special amusement building as defined in Section 202 of this code.

105.6.2 Carnivals and Fairs. An operational permit is required to operate a carnival or fair.

105.6.3 Battery Systems. A permit is required to install stationary lead-acid battery systems having a liquid capacity of more that 50 gallons (189 L).

105.6.4 Connection to Municipal Fire Alarm. An operational permit is required to connect a private fire alarm system to the municipal fire alarm circuit.

105.6.5 Places of Assembly. An operational permit is required to operate a place of assembly with an occupant load of 500 or more.

105.6.6 Pyrotechnics Special Effects Material. An operational permit is required for use and handling of pyrotechnic special effects material as defined in Section 3302.1 of this code.

105.6.7 Temporary Membrane Structures, Tents and Canopies. An operational permit is required to operate an air-supported temporary membrane structure or tent having an area in excess of 200 square feet (19 m2), or a canopy in excess of 400 square feet (37 m2).

Exceptions:

1. Tents used exclusively for recreational camping purposes.
2. Fabric canopies and awnings open on all sides which comply with all the following:
   - 2.1 I ndividual canopies shall have a maximum size of 700 square feet (65 m2).
   - 2.2 The a ggregate area of multiple canopies placed side by side without a fire break clearance of 12 feet [3658 mm] shall not exceed 700 square feet [65 m2] total.
   - 2.3 A minimum clearanc e of 12 feet [3658 mm] to structures and other tents shall be provided.

23.45.202 "A" Definitions And Abbreviations

Amend by adding the following new definition between "Ammonium Nitrate" and "Annunciator":

ANFIRS is the Alaska National Fire Incident Reporting System.

23.45.202 [B] Educational Group E, Day Care

Amend paragraph to read as follows:

The use of a building or structure, or portion thereof, for education, 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 an E occupancy.

Add Exception to read as follows:

Exception: Family child care homes (R-3) operating between the hours of 6:00 a.m. and 10:00 p.m. may accommodate a total of twelve children of any age without conforming to the requirements of an E occupancy except for smoke detectors as specified in Subsection 907.2.10, means of egress requirements of Section 1003, including emergency escape and

rescue openings (as required by Section 1009) in napping or sleeping rooms, and fire extinguisher requirements as outlined in Section 906.

23.45.202 [B] Institutional Group I, Group I-2

Amend last sentence to read as follows:

A facility such as the above with five or fewer persons, including persons related to the staff, shall be classified as Group R-3.

23.45.202 [B] Institutional Group I, Group I-2, Child Care Facility

Amend paragraph to read as follows:

A child care facility that provides care on a 24-hour basis to more than five children 2-1/2 years of age or less, including children related to the staff.

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 a new subsection 401.3.4 to read as follows:

401.3.4 False Alarm Charges.

Except as otherwise provided herein, the owner of a building containing a fire alarm system shall pay a charge in accordance with this section for each and every false alarm to which the Fire Department responds:

Exceptions:

1. First two false alarms at each identified separate location during a calendar year: No Charge
2. Each false alarm in excess of two at each identified separate location during a calendar year: $300.00

The Municipality shall bill the owner for false alarms at the end of every six months, and the owner shall pay those charges in the manner provided by the Municipality. If an owner fails to pay charges assessed pursuant to this section, the Municipality may seek payment by any lawful means.

All false alarm charges shall be deposited in the Fire Service Area Fund.

As used in this section, "false alarm" means an alarm signal generated by a privately owned fire alarm system reporting an alarm for which no fire or emergency actually exists; it includes system malfunctions, faulty operation of detectors, and false alarms not classified above. It does not include those 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 Alarms.

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

23.45.408 Use and Occupancy-Related Requirements

Amend by adding a new subsection 408.3.5 to read as follows:

408.3.5 False Alarms.

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

23.45.508.2 Type Of Water Supply

Amend by adding a second paragraph and a new exception to 508.2 to read as follows:

The water system shall be designed to the standards of, and have the approval of the water utility which provides 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 which are not served by a water utility, the requirements for water systems as outlined in Sections 508 need not be met, provided all structures other than R-3 and U occupancies are at least type A construction as defined in the International Building Code, 2000 Edition, or are provided with a fire extinguishing system designed in accordance with Section 903.3.1.1 of this code.

23.45.508.3 Fire Flow

Amend by deleting the existing paragraph and replace with the following paragraph:

Water supplies for the fire flow requirements for buildings or portions of buildings and facilities shall be calculated using the provisions of Appendix Chapter B and Table B105.1.

23.45.508.5.4 Obstructions

Amend by adding a third sentence at the end of the paragraph to read as follows:

No vehicle shall be parked within 15 feet of the front and 10 feet of the sides of a fire hydrant, fire department connection, or fire protection control valve on private or public property.

23.45.901.4 Marking Of Fire Protection Equipment And Fire Hydrants

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

Fire Department connection devices for building sprinkler systems in new and existing buildings shall be identified by the installation of approved reflective markers or signs installed above the device in an unobstructed location at approximately 7 feet above grade.

23.45.901.6.2.1 Reports

Add a new subsection 901.6.2.1 to read as follows:

901.6.2.1 Reports. A copy of all services reports shall be sent to the Fire Prevention Division. Each system shall be tagged by the inspection agency, indicating the date of service and whether or not the system is in conformance with the associated standards.

23.45.901.9 Certification

Add a new subsection to read as follows:

901.9 Certification. Companies installing and/or performing maintenance on sprinkler systems shall have at least one individual certified to a minimum of NICET Level II in Sprinkler Systems as required under 13AAC 50.035.

23.45.901.10 Damage Protection

Add a new subsection to read as follows:

901.10 Damage Protection. When exposed to probable vehicular damage due to proximity to alleys, driveways or parking areas, standpipes, post indicator valves and sprinkler system or standpipe system, connections shall be protected in an approved manner.

23.45.903.2 Where Required

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

All new buildings of type III, IV, or V construction that exceed a total floor area of 12,000 square feet shall be provided with an automatic sprinkler system meeting the standards of Section 903.3. Where an addition to an existing building of type III, IV, or V construction causes the total combined floor area to exceed 12,000 square feet, an automatic sprinkler system meeting the standards of Section 903.3 shall be provided throughout.

Exceptions:

1. R-3 and U Occupancies
2. Airport Control Towers
3. Open Parking Garages
4. Buildings used exclusively for participant sports where the main floor is located at the same level as the level of the main entrance and exit, and the observation occupant load does not exceed 300, and an automatic fire alarm system installed in accordance with NFPA 72 and Section 907.1.2 is provided.
5. F-2 Occupancies

23.45.903.2.2 Group E

Delete paragraph and substitute with the following:

An automatic sprinkler system shall be provided throughout all Group E occupancies. An automatic system shall also be provided for every portion of educational buildings below the level of exit discharge.

Exceptions:

1. Buildings with E occupancies having an occupant load of 49 or less.
2. Day care uses not otherwise required to have automatic sprinkler systems by other provisions of the code.

Day care uses that are licensed to care for more than 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 Section 903.3.1.3 or an approved equivalent system.

23.45.903.2.9 Group R-4

Amend paragraph by deleting the words "with more than eight occupants."

23.45.903.2.12.1 Stories and Basements Without Openings

Amend paragraph by deleting the words "where the floor area exceeds 1,500 square feet and"

23.45.903.3.1.1.1 Exempt Locations

Amend by adding a new item to read as follows:

6. Elevator machine rooms may delete the sprinklers within the machine room where such room is: (1) separated from the remainder of the building in accordance with the International Building Code Section 3006.4; (2) smoke detection is provided in accordance with NFPA 72 and, (3) notification of alarm activation is received at a constantly monitored location.

23.45.903.4.1 Signals

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

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

23.45.903.6.2 Alterations and Additions to E Occupancies

Add a new subsection 903.6.2 to read as follows:

903.6.2 Alterations and Additions to E Occupancies. An approved automatic fire extinguishing system must be installed in an E Occupancy in accordance with Section 903.2.2 whenever alterations or additions are made to an existing structure containing an E Occupancy.

23.45. 907.2.1.1 System Initiation In Group A Occupancies With An Occupancy Load of 1,000 or More

Amend by adding a new exception 2 to read as follows:

2. Churches that are sprinklered throughout.

23.45.907.2.8 Group R-1

Amend by deleting exception 3.

23.45.907.2.9 Group R-2

Amend in two places:

Amend by deleting exception 2.

Amend first paragraph to read as follows:

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

23.45.907.15.1 Connection To Municipal Fire Alarm Circuit

Amend by adding a new section 907.15.1 to read as follows:

907.15.1 Connection to municipal fire alarm circuit. 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 that the connection:

1. Will be compatible with the municipal fire alarm circuit or system.
2. Will connect an adequate, properly installed and maintained private alarm system.
3. Will substantially benefit the municipal fire prevention system.

The permit required by this section will 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.

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 that 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.

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 must 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.

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.

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

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 who violates this section shall be guilty of a misdemeanor and shall be subject to the penalties and remedies set forth in AMC 23.10.025.

23.45.1011.1 Means Of Egress Obstructions

Amend by adding a new paragraph after the first paragraph to read as follows:

No kiosks, merchandise or similar obstructions may be placed in such a way to restrict the minimum clear width required by the International Building Code.

23.45.3404.2.13.1.3 Underground Tanks Out Of Service One Year

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

This shall not apply to residential R-3 occupancies (single family and duplex) properties.

23.45.3404.2.14.1 General

Amend by adding new item 6 to read as follows:

6. The internal tank environment shall be monitored by a combination gas detector during the removal of the tank.

23.45.APPENDIX B, Section B103.3

Amend by deleting the reference to "NFPA 1231" and replace with "NFPA 1142."

23.45.APPENDIX B, Table B105.1

Amend by deleting top three rows of the table and replace with the following:

0-12,000	0-7,000	0-4,700	0-3,200	0-2,000	1,000
12,001-16,500	7,001-9,500	4,701-6,500	3,201-4,400	2,001-2,700	1,250
16,501-38,700	9,501-21,800	6,501-12,900	4,401-9,800	2,701-6,200	2,000

CHAPTER 23.55
FIRE PROTECTION SERVICE OUTSIDE SERVICE AREAS

SECTIONS:

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. (new, am AO 78-105, AO 80-1).

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 24 hours per day, seven days per week throughout the year. (new, am AO 78-105, AO 80-1).

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 must 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.

C. The third obligation is to other areas. (new, am AO 78-105, AO 80-1).

23.55.400 Cost Of Services

In areas outside of fire service areas, $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:

pumper - $75.00 per hour;
tanker - $75.00 per hour;
brush tank - $75.00 per hour;
bulldozer - $75.00 per hour.

23.55.500 Responsibility For Payment

The responsibility for payment of the charges in Section 23.55.040 shall rest jointly and severally upon the following:

A. Owners of the property upon which the fire originated;

B. Tenants of the property upon which the fire originated;

C. Persons residing on the property upon which the fire originated; and

D. Any person legally responsible for the fire by reason of negligence or otherwise.

For the purpose of this section only, the term "fire" is meant to include not only fires but any action or omission to act which results in a needless or accidental alarm. (new, am AO 78-105, AO 80-1).

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. (new, am AO 78-105, AO 80-1).

CHAPTER 23.60
ENERGY CONSERVATION IN NEW BUILDING DESIGN

SECTIONS:

23.60.100 Applicability

Except as otherwise expressly provided, the provisions of ASHRAE Standard Energy Conservation in New Building Design, ANSI/ASHRAE/IES 90A-1980, ANSI/ASHRAE/IES 90.1-1989, ASHRAE/IES 90B-1975, and ASHRAE 90C-1977, published by the American Society of Heating, Refrigerating, and Air-Conditioning Engineers and Illuminating Engineering Society of North America, shall apply to the construction, alteration and repair of any building or structure within the municipality.

Additions, alterations, repairs and changes of use or occupancy in all buildings and structures shall comply with the provisions for new buildings and structures except as otherwise provided in the International Building Code.

23.60.200 Local Amendments

The amendments to the provisions of ANSI/ASHRAE/IES 90.1-1989 and ASHRAE/IES 90B-1975 are listed hereafter by section. The last digits of the section number (after the title and chapter numbers) are the section number of ANSE/ASHRAE/IES 90.1-1989 and ASHRAE/IES 90B-1975 to which the amendment refers, i.e., 23.65.4.3.2.2 refers to amendments to Section 4.3.2.2 of ANSE/ASHRAE/IES 90A-1989.

23.60.4.3.2.2 Roof/Ceiling

Amend by deleting Exception following subsection 4.3.2.2.

Chapter 23.65

Anchorage Existing Buildings Code

Chapter 1
TITLE AND SCOPE

SECTION 101
TITLE

These regulations shall be known as the *Anchorage Existing Buildings Code* (AEBC), may be cited as such, and will be referred to herein as "this code."

SECTION 102
PURPOSE

The purpose of this code is to encourage the continued use or reuse of legally existing buildings and structures.

SECTION 103
SCOPE

The requirement of Sections 607, 703, 704, 806, 903.6, 905.11, 907.3, 912.3.3, and 1010 of the International Fire Code and the provisions of this code shall constitute the minimum standards

for voluntary upgrades for change of occupancy, alteration or repair of existing buildings and structures. The underlying provision of this code is that the building under consideration complies with the codes at the time the building was built. Whenever reference is made to an appendix, the provisions of the appendix shall not apply unless specifically adopted.

SECTION 104
NONCONFORMING RIGHTS

Buildings in existence at the time of the adoption of this code may have their existing use or occupancy continued if such use or occupancy was legal at the time of the adoption of this code, provided such continued use is not dangerous to life and that subsequently adopted regulations specifically applicable to existing buildings or structures are satisfied.

Nothing in this code shall be construed to allow the degradation of those systems, devices and equipment required by the code under which the building was constructed.

SECTION 105
ADDITIONS, ALTERATIONS AND REPAIRS

105.1 Additions, alterations and repairs. Buildings and structures to which additions, alterations or repairs are made shall comply with all the requirements of the codes for new construction except as specifically provided in this code. Additions, alterations or repairs may be made to any building or structure without requiring the existing building or structure to comply with all the requirements of the codes, provided:

1. Additions shall conform to requirements for a new building or structure.
2. Any building plus new additions shall not exceed the height, number of stories and area specified for new buildings.
3. Any building so altered, which involves a change in use or occupancy, shall not exceed the height, number of stories and area permitted for new buildings except as permitted in this code.
4. Additions or alterations shall not be made to an existing building or structure that will cause the existing building or structure to be in violation of any of the provisions of this code.

   An unsafe condition shall be deemed to have been created if a past or proposed addition or alteration has or will cause the existing building or structure to become structurally unsafe or overloaded, does or will not provide adequate egress in compliance with the provisions of this code, or will obstruct existing exits, does or will create a fire hazard, does or will reduce required fire resistance, does or will otherwise create conditions dangerous to human life.
5. Alterations or repairs to an existing building or structure that are nonstructural and do not adversely affect any structural member or any part of the building or structure having required fire resistance may be made with the same materials of which the building or structure is constructed, except as required by the individual chapters of this code. See Chapter 4 of this code for requirements for the installation or replacement of glass.

105.2 Added lateral–force–resisting elements.

Alterations of existing structural elements or additions of new structural elements, which are not required by other sections of this code and are initiated for the purpose of increasing the lateral–force– resisting strength or stiffness of an existing structure, need not be designed for forces conforming to these regulations provided that an engineering analysis is submitted to show that:

1. The capacity of existing structural elements required to resist forces is not reduced;
2. The lateral loading to required existing structural elements is not increased beyond their capacity;
3. New structural elements are detailed and connected to the existing structural elements as required by these regulations;
4. New or relocated nonstructural elements are detailed and connected to existing or new structural elements as required by these regulations; and
5. An unsafe condition as defined above is not created.

105.3 Structures damaged by the occurrence of a natural disaster

105.3.1 Purpose. The purpose of this division is to provide a defined level of repair for buildings damaged by a natural disaster where a formal state of emergency has been proclaimed.

105.3.2 General. Required repair levels shall be based on the ratio of the estimated value of the repairs required to restore the structural members to their pre-disaster condition to the estimated replacement value of the building or structure.

105.3.3 Structural repairs. When the damage ratio described in Section 105.3.2 does not exceed 10 percent, as determined by design professionals who are professional architects or professional engineers who meet the requirements of Alaska Statue 08.48, buildings and structures, except essential service facilities included as Category III buildings and structures in Table 1604.5 of the International Building Code (IBC), 2000 edition, must, at a minimum, be restored to their pre-disaster condition.

When the ratio as described in Section 105.3.2 is greater than 10 percent but less than 50 percent, buildings and structures, except essential service facilities included as Category III buildings and structures in Table 1604.5 of the IBC, must have the damaged structural members, including all critical ties and connections associated with the damaged structural members, all structural supported by the damaged member, and all structural members supporting the damaged members repaired and strengthened to bring them into compliance with the force levels and connection requirements of the IBC. These requirements apply to essential service facilities when the damage ratio is less than 30 percent.

Exception: For buildings with rigid diaphragms where the above-required repair and strengthening increases the rigidity of the resisting members, the entire lateral force-resisting system of the building must be investigated.

When, in the opinion of the code official, an unsafe or adverse condition has been created as a result of the increase in rigidity, the condition must be corrected.

When the ratio described in Section 105.3.2 is greater than 50 percent, buildings and

structures, except essential service facilities included as Category III buildings and structures in Table 1604.5 of the IBC, must, at a minimum, have the entire building or structure strengthened to comply with the force level and connection requirements of the IBC. These requirements apply to essential service facilities when the ratio described in Section 105.3.2 is greater than or equal to 30 percent.

105.3.4 Nonstructural repairs to light fixtures and suspended ceilings. Under all ratios calculated under Section 105.3.2, when light fixtures and the suspension system of a suspended ceiling are damaged, the damaged light fixtures and suspension systems must be repaired to fully comply with the requirements of Subsection 803.8.1.1 of the IBC.

SECTION 106
CHANGE OF OCCUPANCY

Any change in the use or occupancy of an existing building or structure shall comply with the provisions of this code. Any building that involves a change in use or occupancy shall not exceed the height, number of stories and area permitted for new buildings, except as permitted in this code.

SECTION 107
MAINTENANCE

All buildings and structures and all parts thereof shall be maintained in a safe and sanitary condition. All systems, devices or safeguards that were required by the code under which the building was constructed shall be maintained in conformance with the requirements of that code. The owner or the owner's designated agent shall be responsible for the maintenance of buildings and structures. To determine compliance with this section, the building official may cause any structure to be re-inspected.

SECTION 108
ALTERNATE MATERIALS, ALTERNATE DESIGN AND METHOD OF CONSTRUCTION

The provisions of this code are not intended to prevent the use of any material, alternate design or method of construction not specifically prescribed by this code, provided any alternate has been approved and its use authorized by the code official.

The code official may approve any such alternate, provided the code official finds that the proposed design is satisfactory and complies with the provisions of this code and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed in this code in suitability, strength, effectiveness, fire resistance, durability, safety and sanitation.

The code official shall require that sufficient evidence or proof be submitted to substantiate any claims that may be made regarding its use. The details of any action granting approval of an alternate shall be recorded and entered in the files of the code enforcement agency.

SECTION 109
MODIFICATIONS

When there are practical difficulties involved in carrying out the provisions of this code, the code official may accept compliance alternatives or grant modifications for individual cases. The code official shall first find that a special individual reason makes the strict letter of this code impractical and that the compliance alternative or modification is in conformance with the intent and purpose of this code and that such compliance alternative or modification does not lessen health, life and the intent of any fire–safety requirements or any degree of structural integrity. The details of any action granting modifications or the acceptance of a compliance alternative shall be recorded and entered in the files of the code enforcement agency.

SECTION 110
TESTS

Whenever there is insufficient evidence of compliance with any of the provisions of this code or evidence that any material or construction does not conform to the requirements of this code, the code official may require tests as proof of compliance to be made at no expense to this jurisdiction.

Test methods shall be as specified by this code, the building codes or by other recognized test standards. If there are no recognized and accepted test methods for the proposed alternate, the code official shall determine test procedures.

All tests shall be made by an approved agency. Reports of such tests shall be retained by the code official for the period required for the retention of public records.

SECTION 111
MOVED BUILDINGS

111.1 BUILDINGS MOVED WITHIN THE ANCHORAGE BUILDING SAFETY SERVICE AREA.

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

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.

111.2 BUILDINGS MOVED INTO THE ANCHORAGE BUILDING SAFETY SERVICE AREA.

Buildings moved into the Anchorage Building Safety Service Area shall have a code compliance inspection by the Municipality of Anchorage prior to the move. Structures moved shall comply with the Building Code.

SECTION 112
CONVERSION OF EXISTING STRUCTURES TO ESSENTIAL FACILITIES

All existing structures being converted to essential facilities as defined in IBC section 1602, and IBC table 1604.5 category III, shall be upgraded to meet current seismic code requirements for new buildings

Chapter 2

ENFORCEMENT AND PERMITS

SECTION 201
ADMINISTRATION

The code official is hereby authorized to enforce the provisions of this code. The code official shall have the power to render interpretations of this code and to adopt and enforce rules and regulations supplemental to this code as deemed necessary in order to clarify the application of the provisions of this code. Such interpretations, rules and regulations shall be in conformity with the intent and purpose of this code.

SECTION 202
PERMITS REQUIRED

Buildings or structures regulated by this code shall not be enlarged, altered, repaired, improved or converted unless a separate permit for each building or structure has first been obtained from the code official in accordance with and in the manner prescribed in the applicable codes of the jurisdiction.

SECTION 203
INSPECTION OF WORK

All buildings or structures within the scope of this code and all construction or work for which a permit is required shall be subject to inspection by the code official in accordance with and in the manner prescribed in this code and the codes adopted by this jurisdiction.

SECTION 204
RIGHT OF ENTRY

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

SECTION 205
LIABILITY

The code official charged with the enforcement of this code, acting in good faith and without malice in the discharge of the duties required by this code or other pertinent law or ordinance shall not thereby be rendered personally liable for damages that may accrue to persons or property as a result of an act or by reason of an act or omission in the discharge of such duties. A suit brought against the code official or employee because of such act or omission performed by the code official or employee in the enforcement of any provision of such codes or other pertinent laws or ordinances implemented through the enforcement of this code or enforced by the code enforcement agency shall be defended by this jurisdiction until final termination of such proceedings, and any judgment resulting there from shall be assumed by this jurisdiction.

This code shall not be construed to relieve from or lessen the responsibility of any person owning, operating or controlling any building or structure for any damages to persons or property caused by defects, nor shall the code enforcement agency or its parent jurisdiction be held as assuming any such liability by reason of the inspections authorized by this code or any permits or certificates issued under this code.

SECTION 206
UNSAFE BUILDINGS OR STRUCTURES

All buildings or structures regulated by this code that are structurally unsafe or not provided with adequate egress, or which constitute a fire hazard, or are otherwise dangerous to human life are, for the purpose of this section, unsafe.

Building service equipment regulated by codes adopted by this jurisdiction, which constitutes a fire, electrical or health hazard, or unsanitary condition, or is otherwise dangerous to human life is, for the purpose of this section, unsafe. Any use of buildings, structures or building service equipment constituting a hazard to safety, health or public welfare by reason of inadequate maintenance, dilapidation, obsolescence, fire hazard, disaster, damage or abandonment is, for the purpose of this section, an unsafe use.

Parapet walls, cornices, spires, towers, tanks, statuary and other appendages or structural members that are supported by, attached to, or a part of a building and that are in deteriorated condition or otherwise unable to sustain the design loads that are specified in this code are hereby designated as unsafe building appendages.

All such unsafe buildings, structures or appendages and building service equipment are hereby declared to be public nuisances and shall be abated by repair, rehabilitation, demolition or removal in accordance with the procedures set forth in the Dangerous Buildings Code or such alternate procedures as may have been or as may be adopted by this jurisdiction. As an alternative, the code official, or other employee or official of this jurisdiction as designated by the governing body, may institute any other appropriate action to prevent, restrain, correct or abate the violation.

Chapter 3
DEFINITIONS
SECTION 301

DEFINITIONS

For the purpose of this code, certain terms, phrases, words and their derivatives shall be construed as specified in this chapter. 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. Any term not defined herein, which is defined in any other code applicable to these provisions shall have the meaning as defined in that code. Where a term is defined in these provisions and is also defined in another code, then the term shall have the meaning as defined herein wherever it is used in these provisions. Words used in the present tense include the future.

Where terms are not defined, they shall have their ordinary accepted meanings within the context in which they are used. *Webster's Dictionary of the English Language* shall be considered as providing ordinarily accepted meanings.

ABANDONED STRUCTURE is a structure that has been vacant for a period in excess of 12 months or any period less than 12 months when a vacant structure or portion thereof constitutes an attractive nuisance or hazard to the public. A structure shall not be considered abandoned if it is available for lease and ready for occupancy in compliance with the applicable provisions of Title 23. (AO 93-147)

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

AGREEMENT OR CONTRACT TO REPAIR/WORK is a written agreement in which an owner of a structure agrees to carry out repair/work on any abandoned, unsafe, dangerous structure, or structures between a specified commencement and completion date.

ALTER or ALTERATION is any change, addition or modification in construction or occupancy.

APPROVED AGENCY is an established and recognized agency regularly engaged in conducting tests or furnishing inspection services, when such agency has been approved by the code official.

BUILDING SERVICE EQUIPMENT refers to the plumbing, mechanical, electrical and elevator equipment, including piping, wiring, fixtures and other accessories that provide sanitation, lighting, heating, ventilation, cooling, refrigeration, fire fighting and transportation facilities essential for the habitable occupancy of the building or structure for its designated use and occupancy.

CODE or CODES are the currently adopted applicable codes of this jurisdiction.

CODE OFFICIAL is the officer or other designated authority charged with the administration and enforcement of this code as applicable to buildings, or duly authorized representative.

COMPLIANCE ALTERNATIVE is conformance with the intent of this code, using means, materials or design features that can be demonstrated to the satisfaction of the code official to perform in a manner equivalent to those specifically required by this code.

DANGEROUS BUILDING is any building or structure deemed to be dangerous as defined in Chapter 7 of this code or such alternate procedures as may have been adopted by this jurisdiction.

DERELICT BUILDING is any building, structure or portion thereof which is unoccupied and meets any of the following criteria:

1. Has been ordered vacated by the Building Official pursuant to Section 704 of this code;
2. Has been issued a correction notice by the Building Official pursuant to Section 704 of this code;
3. Has been posted for violation of Section 704 of this code, more than once in any two year period; or
4. Is unsecured. (AO-93-147)

ELECTRICAL CODE is the electrical code of this jurisdiction.

EQUIPMENT or FIXTURE is any plumbing, heating, electrical, ventilating, air conditioning, refrigerating and fire protection equipment, and elevators, dumb waiters, escalators, boilers, pressure vessels and other mechanical facilities or installations essential for the habitable occupancy of the building or structure for its designated use and occupancy.

Equipment or fixture shall not include manufacturing, production or process equipment, but shall include connections from building service to process equipment.

EQUIVALENCY is meeting the intent of this code by means other than those detailed in specific code provisions.

EXISTING BUILDING is a building or structure erected prior to the adoption of the current codes of the jurisdiction and has been issued a certificate of occupancy or has been legally occupied.

HISTORIC BUILDING is a building or structure classified as historic by the federal, state or local government authority, or deemed eligible for such classification.

IMMINENT HAZARD is a condition that has a reasonable possibility of causing serious or life–threatening injury or death.

LOAD BEARING ELEMENT is any column, girder, beam, joist, truss, rafter, wall, floor or roof sheathing which supports any vertical load in addition to its own weight, and/or any lateral load.

MATERIALS AND METHODS REQUIREMENTS are those requirements in the building, plumbing, electrical, mechanical and fire codes that specify material standards, details of installation and connection, joints, penetrations and continuity of any element, component or system in the building. The required quantity, fire resistance, flame spread, acoustic or thermal performance, or other performance attribute is specifically excluded from materials and methods requirements.

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

REHABILITATE is to return a building or structure to a state of utility through additions, alterations or repairs. As applied to historic structures, it includes the preservation of those portions or features that are of historical, architectural and cultural value.

REPAIR is the patching, restoration or minor replacement of materials, elements, components, equipment and fixtures for the purposes of maintaining such materials, elements, components, equipment and fixtures in good or sound condition.

SUBSTANDARD BUILDING is any building defined as substandard by the adopted codes of the jurisdiction.

TECHNICALLY INFEASIBLE is a change to a building that has little likelihood of being accomplished because the existing structural conditions require the removal or alteration of a load–bearing member that is an essential part of the structural frame, or because other existing physical or site constraints prohibit modification or addition of elements, spaces or features which are in full and strict compliance with applicable requirements.

UNOCCUPIED means not being used for lawful occupancy. (AO 93-147)

UNSECURED means the lack of a secure means of ingress and egress thus allowing for occupancy or use of a building or structure by unauthorized persons. (AO 93-147)

WORK AREA is that portion of a building affected by any repair or alteration work as specified in the approved plans and permit. Work area excludes other portions of the building where incidental work entailed by the intended work must be performed, and portions of the building where work not initially intended by the owner is specifically required for an alteration, repair or reconstruction as per this code.

WORK AREA COSMETIC IMPROVEMENTS not included such as floor covering, painting, wall covering, cabinets, and ceiling tile replacement do not have to be included as part of overall percent of the amount of work.

Chapter 4
ALTERATIONS AND REPAIRS TO EXISTING BUILDINGS
SECTION 401
GENERAL

401.1 General. Existing buildings or structures within the scope of this code shall meet the minimum standards set forth in this chapter, as well as any specific occupancy requirements set forth in this code. Buildings and structures undergoing a change of occupancy or a change in the character of their use shall also meet the requirements of Chapter 5. Historic buildings and structures shall meet the requirements of Chapter 6 and the provisions of this chapter where applicable. Buildings or structures shall meet the minimum level of performance specified in this chapter through compliance with the specific provisions of this code.

401.1.1 Accessibility. Alterations to existing buildings shall comply with the accessibility regulations adopted by the jurisdiction and this code and the applicable appendix for alterations.

401.2 Repairs.

401.2.1 General. Except as is otherwise allowed herein, work shall be done using like materials or materials permitted by the applicable code for new construction. The work shall not make the building less conforming with the building, plumbing, mechanical, electrical or fire codes, or with any previously approved alternative arrangements, than it was before the repair was undertaken.

401.2.2 Glazing. Replacement glazing in hazardous locations shall comply with the safety glazing requirements of the codes.

401.2.3 Water closet. When any water closet is replaced, the replacement water closet shall comply with all applicable regulations governing water conservation.

Exception. Where the code official determines that the required toilets will not function with the existing waste disposal system of the building, other type toilets are permitted.

401.2.4 Structural. The work shall cause no diminution of structural strength below current allowable code requirements.

401.2.5 Hazardous materials. Hazardous materials no longer permitted, such as asbestos and lead–based paint, shall not be used.

401.2.6 Plumbing. The following plumbing materials and supplies shall not be used:

1. All purpose solvent cement;
2. Flexible traps and tailpieces;
3. Sheet and tubular copper and brass trap and tailpiece fittings less than B&S 17 gauge 0.045 inch (1.143 mm); and
4. Solder having more than 0.2 percent lead in the repair of potable water systems.

401.2.7 Electrical. Except for the following requirements, existing electrical wiring and equipment shall be allowed to be repaired with like material with the following conditions:

1. Replacement of electrical receptacles shall comply with the applicable requirements of the Electrical Code.
2. Plug fuses of the Edison–base type shall be used for replacements only where there is no evidence of over fusing or tampering, per applicable requirements of the Electrical Code.
3. For r eplacement of non-grounding–type receptacles with grounding–type receptacles, and for branch circuits that do not have an equipment grounding conductor in the branch circuitry, the grounding conductor of a grounding–type receptacle outlet shall be permitted to be grounded to any accessible point on the grounding electrode system, or to any accessible point on the grounding electrode conductor, as allowed and described in applicable sections of the Electrical Code.
4. Non–"hospital grade" receptacles in patient bed locations of Use Group 1–2 shall be replaced with "hospital grade" receptacles, as required by NFPA 99.
5. Frames of electric ranges, wall–mounted ovens, counter–mounted cooking units, clothes dryers, and outlet or junction boxes that are part of the existing branch circuit for these appliances shall be permitted to be grounded to the grounded circuit conductor if all the applicable conditions of the Electrical Code are met.

SECTION 402
HEIGHTS AND AREAS

402.1 General. The heights and areas of existing buildings or structures shall be acceptable, provided the requirements of this chapter are satisfied. Requirements for buildings and structures undergoing a change of occupancy shall be as provided in Chapter 5.

SECTION 403
LIFE SAFETY

403.1 General. Safety to life in existing buildings and structures shall meet the intent of the codes. The provisions of this section shall be deemed as meeting the intent of the codes for existing buildings, provided that none of the life–safety features required by the code under which the building was constructed will be reduced below the level established by that code or equivalent provisions of the currently adopted codes.

403.2 Means of egress. Means of egress system capacity and the arrangement of exits shall comply with the requirements of the codes under which they were constructed. Means of egress systems complying with Sections 403.1 through 403.21 shall be deemed as meeting the intent of the codes for existing buildings, provided that an exit system evaluated under the provisions of this code is judged by the code official to be at least equivalent to the exit system that was required by the code under which the building was constructed or equivalent provisions of the currently adopted codes. Every required means of egress shall have access to a public way, directly or through yards, courts or similar spaces, and such access shall be permanently maintained clear of any obstruction that would impede egress.

Exceptions:

1. Buildings in which the reconfiguration of space affecting exits and/or shared egress access is exclusively the result of compliance with the accessibility requirements of this code shall not be required to fully comply with this chapter.
2. Existing dead end corridors may be extended in accordance with Section 403.18.

403.2.1 Number of means of egress. Every story utilized for human occupancy on which there is a work area shall be provided with the minimum number of exits required by the IBC. Occupants of every floor above the first story and basements shall have access to at least two separate means of egress.

Exceptions:

1. In all B, F, M, R-1, R-2, and S occupancies, except H-1, H-2, and H-3, second stories with an occupant load of less than 10 may have one means of egress.
2. Only one means of egress need be provided from the second story within an individual dwelling unit that has an occupant load of less than 10.
3. Two or more dwelling units on the second story may have access to only one common means of egress when the total occupant load does not exceed 10.
4. Basem ents or the first level below the first story in all occupancies except R-3, used exclusively for the service of the building may have access to only one exit. Any other use of the basement or first level below the first story must have at least two exits arranged in accordance with the IBC Section 1004.2.2. For the purposes of this exception, storage rooms, laundry rooms, maintenance offices and similar uses may not be considered as providing service to the building.
5. Basements within an individual dwelling unit having an occupant load of less than 10 may have one means of egress.
6. Occupied roo fs on Group R, Division 3 Occupancies may have one means of egress if such occupied areas are less than 500 square feet (46.45 m^2) and located no higher than immediately above the second story.
7. In multi-level dwelling units in buildings of Use Groups R-1 or R-2, an exit shall not be required from each level of the dwelling unit provided that the following conditions are met:

    1.1 The building in which such dwelling units are contained is of Type 1 or Type 2 construction and the travel distance within the dwelling unit does not exceed 75 feet (22860 mm): or

    1.2 The building in which such dwelling units are contained is not more than three stories in height and all third floor space is part of one or more dwelling units located in part on the second floor and no habitable room within any such dwelling unit shall have a travel distance that exceeds 50 feet (15240 mm) from the outside of the habitable room entrance door to the inside of the entrance door to the dwelling unit.

403.3 Stairways. Existing winding or spiral stairways may serve as one means of egress from a building, provided that a complying handrail is located at the stair's outside perimeter. A winding or spiral stairway may not be the principal means of egress when used in conjunction with a fire escape as a second means of egress. Means of egress width shall comply with the codes.

403.3.1 Rise and run of stair dimensions for existing stairs. Existing stairs in buildings shall be permitted to remain if the rise does not exceed 8.25 inches (210 mm) and the run is not less than 9 inches (229 mm). The largest tread run within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm). The greatest riser height within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm). Existing stairs meeting the above requirements can be refurbished.

Exception: Other stairs approved by the code official.

403.3.2 Winders. Existing winders shall be allowed to remain in use if they have a minimum tread depth of 6 inches (152 mm) and a minimum tread depth of 9 inches (229 mm) at a point 12 inches (305 mm) from the narrowest edge.

403.3.3 Circular stairways. Existing circular stairs shall be allowed to continue in use provided the minimum depth of tread is 10 inches (254 mm) and the smallest radius shall not be less than twice the width of the stairway

403.4 Handrails. The following requirements shall apply from the highest work area floor to the level of exit discharge.

403.4.1 Every required exit stairway that is part of the means of egress for any work area that has three or more risers and is not provided with at least one handrail, or in which the existing handrails are judged to be in danger of collapsing, shall be provided with handrails for the full length of the run of steps on at least one side. All exit stairways with a required egress width of more than 66 inches (1676 mm) shall have handrails on both sides. Spiral and winding stairways shall have a handrail on the outside perimeter.

403.4.2 Where there are no handrails or where the existing handrails must be replaced in accordance with Section 403.4, the handrails shall be designed and installed in accordance with the provisions of the codes.

403.5 Guardrails. All unenclosed floor and roof openings, open and glazed sides of stairways, landings and ramps, balconies or porches that are more than 30 inches (762 mm) above grade or the floor below, and roofs used for other than service of the building shall be protected by a guardrail. This section shall apply from the highest work area floor to the level of exit discharge, but shall be confined to the egress path of any work area.

Exception: Guardrails need not be provided at the following locations:

1. On the loading side of loading docks.
2. On the auditorium side of a stage or enclosed platform.
3. On private stairways 30 inches (762 mm) or less in height.

403.5.1 Height of guards. Existing guardrails, other than guardrails located on the open side of a stairway, which are at least 36 inches (914 mm) in height, shall be permitted to remain.

Guardrails lower than 36 inches (914 mm) in height shall be augmented or corrected to raise their effective height to 36 inches (914 mm). Guardrails for stairways, exclusive of their landings, may have a height that is not less than 30 inches (762 mm) measured above the nosing of treads.

When approved by the code official, the spacing between existing intermediate railings or openings in existing ornamental patterns may be accepted. See Section 603.9 of this code for existing guardrails in historical structures.

403.5.2 Openings. Openings in existing guardrails shall be protected according to IBC, Section 1003.2.12.2. Where there are no guards or where the existing guards must be replaced in accordance with Section 403.5 the guards shall be designed and installed in accordance with the building code.

403.6 Fire escape construction requirements. Fire escapes shall meet the following requirements. Fire escapes shall be subject to reinspection as required by the code official. The code official may require documentation to show compliance with the requirements of this section.

Fire escapes shall comply with the following:

1. Openings within 10 feet (3048 mm) of fire escape stairs shall be protected by fire assemblies having a minimum of 3/4 –hour fire-resistance rating.

   Exception: In buildings equipped throughout with an approved automatic sprinkler system, opening protection is not required.

   Fire escape stairs shall meet the minimum width, capacity, riser height and tread depth as specified in Section 403.3.

2. Fire escape stairways and their balconies shall support their dead load plus a live load of not less than 100 pounds per square foot (4788 Pa) or a concentrated load of 300 pounds (1334 N) placed anywhere on the balcony or stairway to produce the maximum stress conditions. The stairway shall have a slope not to exceed 60 degrees (1 rad) from the horizontal and shall have a minimum width of 18 inches (457 mm). The stairway shall be provided with a top and intermediate railing on each side. Treads shall not be less than 4 inches (102 mm) in width and the rise between treads shall not exceed 10 inches (254 mm). All stairway and balcony railings shall support a horizontally applied force of not less than 50 pounds per lineal foot (218.9 N/m) of railing or a concentrated load of 200 pounds (890 N) placed anywhere on the railing to produce the maximum stress conditions.

3. Fire escape balconies shall not be less than 44 inches (1118 mm) in width with no floor opening greater than $^{5}/_{8}$ inch (15.9 mm) in width except the stairway opening. Stairway openings in such balconies shall not be less than 22 inches by 44 inches (559 mm by 1118 mm). The guardrail of each balcony shall not be less than 36 inches (914 mm) high with not more than 9 inches (229 mm) between intermediate rails.

4. Fire escapes shall extend to the roof or provide an approved gooseneck ladder between the top floor landing and the roof when serving buildings four or more stories in height having roofs with a slope not exceeding 4 units vertical in 12 units horizontal (33.3

percent slope). Such ladders shall be designed and connected to the building to withstand a horizontal force of 100 pounds per lineal foot (1459 N/m); each rung shall support a concentrated load of 500 pounds (2224 N) placed anywhere on the rung to produce the maximum stress conditions. All ladders shall be at least 15 inches (381 mm) in clear width, be located within 12 inches (305 mm) of the building and shall be placed flatwise relative to the face of the building. Ladder rungs shall be $^3/_4$ inch (19.1 mm) in diameter and shall be located 10 inches to 12 inches (254 mm to 305 mm) on center. Openings for roof access ladders through cornices and similar projections shall have minimum dimensions of 30 inches by 33 inches (762 mm by 838 mm).

5. The lowest balcony shall not be more than 18 feet (5486 mm) from the ground. Fire escapes shall extend to the ground or be provided with counterbalanced stairs reaching to the ground.
6. Fire escapes shall be kept clear and unobstructed at all times and maintained in good working order.
7. The fire escape shall have a clearance from electrical service conductors as required by the Electrical Code.

403.7 Mezzanines. Mezzanines in the work area and with an occupant load of more than 50 or in which the travel distance to an exit exceeds 75 feet (22860 mm) shall have access to at least two independent means of egress.

Exception: Two independent means of egress are not required where the travel distance to an exit does not exceed 100 feet (30480 mm) and the building is protected throughout with an automatic sprinkler system.

403.8 Single exit buildings. In buildings having only one exit, the single exit condition serving the work area shall be permitted to continue if the building complied with code at time of construction and meets the following:

1. I n buildings permitted to have a single exit in accordance with the codes.
2. I n buildings of Use Group R–3.
3. I n buildings of Use Groups R–1 and R–2, from floors that are not more than 16 feet (4877 mm) above exterior grade, except that in community residences for the developmentally disabled, the maximum occupant load, excluding staff, is 12.
4. I n buildings of Use Groups R–1 and R–2, not more than two stories in height, from floors that are more than 16 feet (4877 mm) above exterior grade, when there are not more than four dwelling units per floor and the exit access travel distance does not exceed 50 feet (15240 mm), except that in community residences for the developmentally disabled, the maximum occupant load, excluding staff, is 12. The minimum fire–resistance rating of the exit enclosure and of the opening protection shall be one hour.
5. An y building of Use Group R–2 of three stories or less shall be permitted to have a single exit provided the following conditions are met:
    5.1 The stairway is separated from the rest of the building by construction having a minimum fire–resistance rating of one hour with self–closing one–hour fire doors protecting all openings between the stair enclosure and the building, and

5.2 The stairway does not serve more than one–half story below the level of exit discharge, and

5.3 All corridors serving as access to exits from the work area have a minimum fire–resistance rating of 20 minutes, and

5.4 There is not more than 35 feet (10.7 m) of travel distance from the entrance door of any living unit in the work area to an exit, and

5.5 Twenty–minute fire–resistance rated horizontal and vertical separation between living units in the work area is provided.

6. In buildings of Use Group R–2 of any height with not more than four living units per floor, with a smokeproof enclosure or outside stair as an exit, and with such exit within 20 feet (6096 mm) of travel to the entrance doors to all living units served thereby.

7. I n buildings of Use Group B, F–2 or S–2, not more than two stories in height, which are not greater than 3,000 square feet (278.7 m^2) per floor, when the exit access travel distance does not exceed 75 feet (22860 mm). The minimum fire resistance rating of the exit enclosure and of the opening protection shall be one hour.

8. I n open parking structures where vehicles are mechanically parked.

403.9 All buildings of Use Assembly Group A shall comply with IBC Section 1008.

403.10 Capacity of means of egress. The capacity of the means of egress in each work area and throughout the egress path of each work area shall be sufficient for the occupant load thereof. Capacity shall be determined in accordance with the codes. The occupant load of a space shall be determined by whichever of the following methods provides the higher number:

1. Divide the floor area by the occupant load factor for this use group as provided in the codes.

2. The actual numbe r of occupants for whom the work area is designed.

Exception: The code official shall be permitted to establish the occupant load as the number of persons for which existing means of egress is adequate, provided that measures are established to prevent occupancy by a greater number of persons.

403.11 Means of egress lighting.

403.11.1 Means of egress in all areas shall be provided with artificial lighting in accordance with the following requirements:

403.11.1.1 Exit sign illumination. Exit signs shall be internally or externally illuminated. The face of an exit sign illuminated from an external source shall have an intensity of not less than 5 foot-candles (54 lux). Internally illuminated signs shall provide equivalent luminance and be listed for the purpose.

Exception: Approved self-luminous signs that provide evenly illuminated letters shall have a minimum luminance of 0.06 foot-lamberts (0.21 cd/m^2).

403.11.1.2 Power source. Where emergency illumination is required, exit signs shall be visible under emergency illumination conditions.

Exception: Approved signs that provide continuous illumination independent of external power sources are not required to be connected to an emergency electrical system.

403.11.1.3 Illumination emergency power. The power supply for means of egress illumination shall normally be provided by the premises' electrical supply. In the event of power supply failure, illumination shall be automatically provided from an emergency system for the following occupancies where such occupancies require two or more means of egress:

1. Group A having more than 50 occupants.

   Exception: Assembly occupancies used exclusively as a place of worship and having an occupant load of less than 300.

2. Group B buildings three or more stories in height, buildings with 100 or more occupants above or below the level of exit discharge, or buildings with 1,000 or more total occupants.
3. Group E in interior stairs, corridors, windowless areas with student occupancy, shops and laboratories.
4. Group F having more than 100 occupants.

   Exception: Buildings used only during daylight hours, which are provided with windows for natural light in accordance with the International Building Code.

5. Group I.
6. Group M.

   Exception: Buildings less than 3,000 square feet (279 m^2) in gross sales area on one story only, excluding mezzanines.

7. Group R-1.

   Exception: Where each guestroom has direct access to the outside of the building at grade.

8. Group R-2 as applicable in Section 1003.2.11 of the IBC.
9. Group R-4.

   Exception: Where each sleeping room has direct access to the outside of the building at ground level.

The emergency power system shall provide power for not less than 60 minutes and consist of storage batteries, unit equipment or an on-site generator. The installation of the emergency power system shall be in accordance with the International Fire Code Section 1212.5.

403.11.2 Where the work area on any floor exceeds 50 percent of that floor area, means of egress throughout the floor shall be provided with artificial lighting in accordance with the requirements of the Section 403.11.1.

Exception: Means of egress within a tenant space that is entirely outside the work area need not comply.

403.11.3 In a building with work areas involving over 50 percent of the aggregate floor area within the building, means of egress from the floor of the highest work area to the floor of exit discharge, and all intermediate floors, shall be provided with artificial lighting within the exit enclosure in accordance with the requirements of Section 403.11.1.

403.12 Exit signs.

403.12.1 Means of egress in all work areas shall be provided with exit signs in accordance with the requirements of the codes.

403.12.2 Where the work area on any floor exceeds 50 percent of that floor area, means of egress throughout the floor shall be provided with exit signs in accordance with the requirements of the codes.

Exception: Means of egress within a tenant space that is entirely outside the work area need not comply.

403.12.3 In a building with work areas involving over 50 percent of the aggregate floor area within the building, means of egress from the floor of the highest work area to the floor of exit discharge shall be provided with exit signs in accordance with the requirements of the codes.

403.13 Egress doorways.

403.13.1 In any work area, all rooms and spaces having an occupant load greater than 50 or in which the travel distance exceeds 75 feet (22860 mm) shall have a minimum of two egress doorways.

Exceptions:

1. Storage rooms having a maximum occupant load of 10.
2. Where the work area is served by a single exit in accordance with Section 403.8

403.13.2 In buildings of Use Group I–2, any patient sleeping room or suite of rooms greater than 1,000 square feet (92.9 m^2) in the work area shall have a minimum of two egress doorways.

403.14 Corridors. Corridors serving as a part of the means of egress system that have an occupant load of 30 or more in a Group A, B, E, F, I, H, M or S Occupancy or an occupant load of 10 or more in a Group R, Division 1 Occupancy shall have walls and ceilings of not less than one–hour fire–resistive construction. Existing walls and ceilings surfaced with wood lath and plaster or $^1/_2$–inch–thick (12.7 mm) gypsum wallboard may be permitted in lieu of one–hour fire–resistive construction, provided the surfaces are in good condition. Corridors shall be in compliance with the International Building Code, Section 1004.3.2.

403.14.1 Corridor doors.

403.14.1.1 Door openings into corridors shall be protected by a tight–fitting smoke– and draft–control assembly having a fire–protection rating of not less than 20 minutes when such opening protection was required by the code under which the building was

constructed. Door–closing devices, door gaskets and other requirements imposed by the code under which the building was constructed shall be maintained. Corridor doors in the work area shall not be constructed of hollow core wood and shall not contain louvers.

When the building was constructed under a code that did not require 20–minute smoke– and draft–control assemblies, doorway openings shall be protected by doors having a fire–protection rating of not less than 20 minutes or by a minimum 1 ¾ –inch–thick solid–bonded woodcore door or an equivalent insulated steel door. In such case, the frames need not have a fire–resistive time period. Doors shall be maintained self–closing or shall be automatic closing by activation of a smoke detector.

403.14.1.2 All dwelling units, guest room or rooming unit corridor doors in work areas in buildings of Use Groups R–1, R–2, and I–l shall be at least 1 ¾ inch solid core wood or approved equal with approved door closers and shall not have any glass panels, other than approved wired glass or other approved glazing material in metal frames. All replacement doors shall be $1^3/_4$ inch solid bonded wood core or approved equal, unless the existing frame will accommodate only a $1^3/_8$ inch door.

Exceptions:

1. Corridor doors within a dwelling unit or guest room.
2. Exist ing doors in buildings protected throughout with an approved automatic sprinkler system shall be required only to resist smoke; shall not contain louvers; and shall be reasonably tight fitting.
3. I n group homes with a maximum of 15 occupants, and which are protected with an approved automatic detection system, closing devices may be omitted.

403.14.1.3 Transoms. Transoms and openings other than doors from corridors to rooms shall be protected as required by the codes. When the code under which the building was constructed permitted unprotected transoms or other unprotected openings, other than doors, such transoms or openings shall be covered with a minimum of $^3/_4$–inch–thick (19.1 mm) wood structural panel or $^1/_2$–inch–thick (12.7 mm) gypsum wallboard or equivalent material on the room side. Openings with fixed wired glass or other approved material set in steel frames are permitted in corridor walls and ceilings. In all buildings of Use Group I–1, R–1 and R–2 all transoms in corridor walls of work areas shall be either glazed with $^1/_4$–inch wired glass set in metal frames or other glazing assemblies having a fire–protection rating as required for the door and permanently secured in the closed position or sealed with materials consistent with the corridor construction.

Exception: Existing corridor walls, ceilings and opening protection not in compliance with the above may be continued when the building is protected with an approved automatic sprinkler system throughout.

403.14.1.4 Other corridor openings. In any work area, any other sash, grill or opening in a corridor, and any window in a corridor not opening to the outside air, shall be protected with materials consistent with the corridor construction.

403.14.1.4.1 The requirements of Sections 403.14.1.1 through 403.14.1.4 shall apply on the entire floor when the work area exceeds 50 percent of the floor area.

403.15 Door swing. In the work area and in the egress path from any work area to the exit discharge, all egress doors serving an occupant load greater than 50 shall swing in the direction of exit travel.

403.16 In any work area all doors opening onto an exit passageway at grade or exit stair shall be self–closing or automatic closing by listed closing devices.

Exception: Where exit enclosure is not required by the codes.

403.16.1 Panic Hardware. In any work area, and in the egress path from any work area to the exit discharge, in a building or portions thereof of Use Group A and Group H-1, H-2, H-3, or H-5 with an occupant load greater than 100 all required exit doors shall be equipped with approved panic hardware.

403.16.2 The requirements of Sections 403.15 through 403.16.1 shall apply on the entire floor when the work area exceeds 50 percent of the floor area.

Exception: Means of egress within a tenant space that is entirely outside the work area need not comply.

403.17 Work areas in buildings of Use Group I–3 having remote power unlocking capability for locks shall be provided with an emergency power source for such locks. Power shall be arranged to automatically operate upon failure of normal power within 10 seconds and for a duration of not less than one hour.

403.18 Dead-end corridors. Where more than one exit or exit access doorway is required, the exit access shall be arranged such that dead ends do not exceed the limits specified in IBC, Section 1004.3.2.3.

Exception: A dead-end passageway or corridor shall not be limited in length where the length of the dead-end passageway or corridor is less than 2.5 times the least width of the dead-end passageway or corridor.

403.19 Exit access tr avel distance. Exits shall be located so that the maximum length of exit access travel, measured from the most remote point to an approved exit along the natural and unobstructed path of egress travel, does not exceed the distances given in the International Fire Code Table 1004.2.4.

403.20 Common path of egress travel. The common path of egress travel shall not exceed the distances given in International Fire Code Table 1004.2.5.

403.21 Special requirements. The International Fire Code shall be complied with regarding requirements for egress features in existing buildings as follows:

1. Elevators, Section 1003.2.13.3
2. Revolving Doors, Section 1003.3.1.3.1
3. Ramps, Section 1003.3.4
4. Stairway Identification, Section 1003.2.10.3
5. Exterior Stairways, Section 1003.3.3.5.2
6. Aisles, Section 1008.7

SECTION 404
INTERIOR FINISH

404.1 The interior finish of walls and ceilings in any work area shall comply with the requirements of the codes. All existing interior finish materials which do not comply with the requirements of this section shall be removed, protected, or shall be treated with an approved fire–retardant coating in accordance with the manufacturer's instructions to secure compliance with the requirements of this section.

The code requirements for interior finish materials may involve testing other than the traditional tunnel test which provides flame spread ratings. For example, some materials are now required to be subjected to a room corner test.

404.1.1 Where the work area on any floor exceeds 50 percent of that floor area, the requirements of Section 404.1 shall apply to the interior finish in exits and corridors serving the work area on the entire floor.

Exception: Interior finish within a tenant space that is entirely outside the work area need not comply.

404.1.2 In a building with work areas involving over 50 percent of the aggregate floor area within the building, the requirements for interior finishes in exits shall apply from the floor of the highest work area to the floor of exit discharge, and to all intermediate floors

SECTION 405
FLOOR OPENINGS AND SHAFT ENCLOSURES

405.1 General. In any work area, newly constructed vertical openings connecting two or more floors shall comply with the requirements of the following sections and Table 405.1.

405.2 Interior vertical openings. In any work area, all existing interior vertical openings connecting two or more floors shall be enclosed with approved assemblies having a fire–resistance rating of not less than one hour with approved opening protection.

405.3 Enclosure. Interior vertical shafts, including but not limited to stairways, elevator hoistways, service and utility shafts, that connect two or more stories of a building shall be enclosed or protected as specified in Table 405.1. When openings are required to be protected, openings into such shafts shall be maintained self-closing or automatic-closing by smoke detection. Existing fusible-link-type automatic door-closing devices are permitted if the fusible link rating does not exceed 135° F (57° C).

TABLE 405.1

VERTICAL OPENING PROTECTION REQURIED

Occupancy Classification	Conditions	Protection Required
Group I	Vertical openings connecting two or more stories	1-hour protection
All, other than Group I	Vertical openings connecting two stories	No protection required [a, b]
All, other than Group I	Vertical openings connecting three to five stories	1-hour protection or automatic sprinklers throughout [a, b]
All, other than Group I	Vertical openings connecting more than five stories	1-hour protection [a, b]
All	Mezzanines open to the floor below	No protection required [a, b]
All, other than Group I	Atriums and covered mall buildings	1-hour protection or automatic sprinklers throughout
All, other than Groups B and M	Escalator openings connecting four or less stories in a sprinklered building. Openings must be protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13	No protection required
Group B and M	Escalator openings in a sprinklered building protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13	No protection required

a. Vertical opening protection is not required for Group R-3 occupancies.

b. Vertical opening protection is not required for open parking garages and ramps.

SECTION 406
FIRE SEPARATION AND SMOKE BARRIERS

406.1 Use group I–2.

406.1.1 Where the work area is on a story used for sleeping purposes for more than 30 patients, the story shall be divided into not less than two compartments by smoke barrier walls complying with the technical requirements of Section 406.1.2, such that each compartment does not exceed 22,500 square feet (2090.2m^2) and the travel distance from any point to reach a door in the required smoke barrier shall not exceed 200 feet (60960 mm).

Exception: Where neither the length nor width of the smoke compartment exceeds 150 feet, (45790 mm) the travel distance to reach the smoke barrier door shall not be limited.

406.1.2 The smoke barriers specified in Section 406.1.1 shall bc constructed in accordance with the following provisions:

1. Smoke barriers shall have a fire–resistance rating of not less than $^5/_8$ inch thick Type X gypsum wallboard or other one–half hour assembly and shall form an effective membrane continuous from outside wall to outside wall and from floor slab to floor or roof deck above, including continuity through all concealed spaces, such as those found above suspended ceilings, and including interstitial structural and mechanical spaces. Transfer grilles, whether equipped with fusible link–operated dampers or not, shall not be used in these partitions.
2. Smoke barriers are not required in interstitial spaces when such spaces are designed and constructed with ceilings that provide resistance to the passage of fire and smoke equivalent to that provided by smoke barriers.
3. Doors in smoke barriers shall have a fire–protection rating of not less than 20 minutes when tested in accordance with ASTM E152 without the hose stream and labeled by an approved agency, or shall be $1^3/_4$–inch solid bonded wood core doors. Newly installed double egress corridor doors shall have approved vision panels. The doors shall close the openings with only the clearance necessary for proper operation under self–closing or automatic closing and shall be without undercuts, louvers or grilles. Rabbets or astragals are required at the meeting edges of newly installed double egress doors, and stops are required on the head and jambs of all doors in smoke barriers. Positive latching devices are not required on double egress corridor doors, and center mullions are prohibited.
4. Protection at the meeting edges of doors and stops at the head and sides of door frames shall not be required in buildings equipped with an approved engineered smoke control system. The engineered smoke control system shall respond automatically, preventing the transfer of smoke across the barrier.
5. Doors in smoke barriers shall be self–closing or shall be provided with approved door hold–open devices of the fail–safe type, which shall release the doors causing them to close upon the actuation of smoke detectors as well as upon the application of a maximum manual pull of 50 pounds (22.7 kg) against the hold–open device.

6. An approved damper designed to resist the passage of smoke shall be provided at each point a duct penetrates a smoke barrier. The damper shall close upon detection of smoke by an approved smoke detector located within the duct.
7. In lieu of an approved smoke detector located within the duct, ducts which penetrate smoke barriers above doors are permitted to have the approved damper arranged to close upon detection of smoke on either side of the smoke barrier door opening.
8. Dampers are not required:
   8.1 Where not required by the codes.
   8.2 In buildings equipped with an approved engineered smoke control system.
   8.3 Where the openings in ducts are limited to a single smoke compartment and the ducts are of steel construction.
   8.4 In fully ducted systems where both sides of the smoke barrier are protected with an automatic sprinkler system.

SECTION 407
FIRE SUPPRESSION SYSTEMS

407.1 All work areas in any building or portion thereof that is required to have a fire–extinguishing system in accordance with the codes shall be provided with an automatic fire–suppression system.

407.1.1 Alterations and additions to E occupancies. An approved automatic fire extinguishing system must be installed whenever alterations or additions are made to an existing structure containing an E Occupancy.

Exceptions:

1. In other than high–rise structures or E occupancies, where an automatic water supply for sprinkler protection is not available at that floor level, the code official shall be permitted to accept alternative protection.
2. Partial automatic sprinkler systems shall be permitted if appropriate fire barriers are provided to separate the sprinklered area of the building from the area without sprinkler protection.

407.2 Where the work area on any floor exceeds 50 percent of that floor area, Section 407.1 shall apply to the entire floor.

Exceptions:

1. In other than high–rise structures or E occupancies, where an automatic water supply for sprinkler protection is not available at that floor level, the code official shall be permitted to accept alternative protection.
2. Partial automatic sprinkler systems shall be permitted if appropriate fire barriers are provided to separate the sprinklered area of the building from the area without sprinkler protection.

407.3 In a building with work areas involving over 50 percent of the aggregate building area, Section 407.1 shall apply to the highest floor containing a work area and all floors below.

407.4 Mixed use. In buildings containing mixed uses, one or more of which requires automatic suppression in accordance with Sections 407.1 or 407.2, suppression will not be required throughout the building, provided that the uses requiring suppression are separated from those not requiring suppression by fire–resistive construction having a minimum two–hour rating for Use Group H, and a minimum one–hour rating for all use groups other than Use Group H.

407.5 Supervision. Fire suppression systems required by this Section shall be supervised as determined by the fire official:

1. Approved c entral station system in accordance with NFPA 72;
2. Approved proprietary system in accordance with NFPA 72;
3. Approved r emote station system of the jurisdiction in accordance with NFPA 72; or
4. Approved loc al alarm service which will cause the sounding of an alarm in accordance with NFPA 72.

Exceptions:

1. Under ground gate valve with roadway boxes;
2. Halogenated extinguishing systems;
3. Carbon dioxide extinguishing systems;
4. Dry and wet chemical extinguishing systems;
5. Limited area sprinkler systems; and
6. Occupan cies in Use Group R complying with NFPA 13R or NFPA 13D, as appropriate.

407.6 Standpipes. Any building that is required to be provided with a standpipe system by the codes shall be provided with standpipes located and installed in accordance with the codes.

Exceptions:

1. No pump shall be require d provided that the standpipes are capable of accepting delivery by fire department apparatus of a minimum of 250 gallons per minute at 65 psi to the topmost floor in buildings equipped throughout with an automatic sprinkler system or a minimum of 500 gallons per minute at 65 psi (448.2 kPa) to the topmost floor in all other buildings. Where the standpipe terminates below the topmost floor, the standpipe shall be designed to meet these requirements (gallons per minute/psi) for possible future extension of the standpipe.
2. The interconnection of multiple standpipe risers shall not be required.

SECTION 408
FIRE ALARMS

408.1 Smoke Detectors.

408.1.1 Alterations, repairs and additions. When alterations, repairs or additions in the interior habitable space requiring a permit occur, or when one or more sleeping rooms are

added or created in existing dwellings, the entire building shall be provided with smoke detectors located as required for new dwellings; the smoke detectors are not required to be interconnected unless other remodeling considerations require removal of the appropriate wall and ceiling coverings to facilitate concealed interconnected wiring.

408.1.2 Power Source. Required smoke detectors shall receive their primary power from the building wiring when such wiring is served from a commercial source, and when primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than those required for overcurrent protection. Smoke detectors may be battery operated when installed in buildings without commercial power.

Exception: In the case of alterations, repairs and additions, minimum 10-year battery-powered single station smoke detectors which are listed and approved shall be permitted outside the work area.

408.2 Manual fire alarm systems.

408.3 Where required-retroactive in existing buildings and structures. An approved manual, automatic or manual and automatic fire alarm system shall be installed in existing buildings and structures. Where an approved automatic sprinkler protection is provided and connected to the building fire alarm system, automatic heat detection required by this section shall not be required.

An approved automatic fire detection system shall be installed in accordance with the provisions of this code and NFPA 72. Devices, combinations of devices, appliances and equipment shall be approved. The automatic fire detectors shall be smoke detectors, except an approved alternative type of detector shall be installed in spaces such as boiler rooms where, during normal operation, products of combustion are present in sufficient quantity to actuate a smoke detector.

408.3.1 Occupancy requirements. An approved fire alarm system shall be installed.

Exception: Occupancies with an existing, previously approved fire alarm system.

408.3.1.1 Group E. A fire alarm system shall be installed in existing Group E occupancies.

Exceptions:

1. A building with a maximum area of 1,000 square feet ($93m^2$) that contains a single classroom and is located no closer than 50 feet (15240 mm) from another building.
2. Group E with an oc cupant load less than 50.

408.3.1.2 Group I-1. A fire alarm system shall be installed in existing Group I-1 residential care/assisted living facilities.

Exception: Where each sleeping room has a means of egress door opening directly to an exterior egress balcony that leads directly to the exits, and the building is not more than three stories in height.

408.3.1.3 Group I-2. A fire alarm system shall be installed in existing Group I-2 occupancies.

408.3.1.4 Group I-3. A fire alarm system shall be installed in existing Group I-3 occupancies.

408.3.1.5 Group R. A fire alarm system shall be installed in existing Group R occupancies.

408.3.1.6 Group R-1. A fire alarm system shall be installed in existing Group R-1 hotels and motels more than three stories or with more than 20 guestrooms.

Exception: Buildings less than two stories in height where all guestrooms, attics and crawl spaces are separated by 1-hour fire-resistance-rated construction and each guestroom has direct access to a public way, exit court or yard.

408.3.1.7 Group R-1. A fire alarm system shall be installed in existing Group R-1 boarding and rooming houses.

Exception: Buildings that have single-station smoke alarms meeting or exceeding the requirements of International Fire Code Section 907.2.10.1 and where the fire alarm system includes at least one manual fire alarm box per floor arranged to initiate the alarm.

408.3.1.8 Group R-2. A fire alarm system shall be installed in existing Group R-2 apartment buildings with more than three stories or with more than 16 dwelling units.

Exceptions:

1. Where each living unit is separated from other contiguous living units by fire barriers having a fire-resistance rating of not less than ¾ hour, and where each living unit has either its own independent exit or its own independent stairway or ramp discharging at grade.
2. A separate fire alarm system is not required in buildings that are equipped throughout with an approved supervised automatic sprinkler system and having a local alarm to notify all occupants.

408.3.1.9 Group R-4. A fire alarm system shall be installed in existing Group R-4 residential care/assisted living facilities.

Exceptions:

1. Where there are interconnected smoke alarms and there is at least one manual fire alarm box per floor arranged to sound continuously the smoke alarms.
2. Other manually activated continuously sounding alarms approved by the code official.

SECTION 409
HIGHRISE BUILDINGS

409.1 Any building or structure having one or more floors more than 75 feet (22860 mm) above the lowest level accessible to a fire department vehicle shall comply with the requirements of this section.

409.2 Recirculating air or exhaust systems. When the work area is on a floor that is served by a recirculating air or exhaust system serving more than one floor, the recirculating air or exhaust system that serves the work area shall be equipped with approved smoke and heat detection devices installed in accordance with the Mechanical Code. The devices shall stop the fan(s) automatically and shall be of the manual reset type. Automatic fan shutdown is not required when the system is part of an approved smoke removal or smoke control system.

409.3 Smoke barriers. Where the work area on any floor exceeds 50 percent of that floor area and is on a floor that is above the main floor level in Use Groups R–1 and R–2, smoke barriers conforming to the requirements of Section 406.1.2 shall be provided around all elevator landings on the work area floor.

Exceptions:

1. The smoke barriers shall be permitted to terminate at the ceiling provided the ceiling membrane provides resistance to the passage of smoke equivalent to that provided by the smoke barriers.
3. The smoke barriers shall not be required in buildings protected throughout by an automatic sprinkler system.

SECTION 410
BOILER/FURNACE EQUIPMENT ROOMS

410.1 Boiler/furnace equipment rooms shall be enclosed by one–hour fire rated construction when the work area is in any of the following facilities: day nurseries, children's shelter facilities, residential child care facilities and similar facilities with children below the age of 2–1/2 years, and which may be classified as Use Group I–2, shelter facilities, residences for the developmentally disabled, group homes, teaching family homes, transitional living homes, rooming and boarding houses, hotels, and multiple dwellings.

Exceptions:

1. Furnace and boiler equipment of low pressure type (operating at pressures of 15 psig or less for steam equipment or 160 psig or less for hot water equipment), when installed in accordance with manufacturer recommendations or furnace and boiler equipment of residential (R–3) type [200,000 BTU (211 011 J) per hour input rating or less] is not required to be enclosed.
2. Furna ce rooms protected with automatic sprinkler protection.

410.2 Emergency controls shall be provided in all structures classified as day nurseries, children's shelter facilities, residential child care facilities and similar facilities with children below the age of $2^1/_2$ years, and which may be classified as Use Group 1–2, and in group homes, teaching family homes, and supervised transitional living homes in accordance with the following:

1. Emergency shutoff switches for furnaces and boilers in basements must be at the top of the stairs leading to the basement; and
2. Emergency shutoff switches for furnaces and boilers in other enclosed rooms must be located outside of the room.

SECTION 411
STRUCTURAL REQUIREMENTS

411.1 Structural safety. A building, structure or its individual structural members that exceed the limits established by Chapter 7 of this code shall be replaced or strengthened in order that the building, structure or individual structural members will comply with the requirements of the codes for new construction or the applicable appendices of this code.

Additions or alterations to an existing structure shall not increase the force in any structural element by more than 5 percent, unless the increased forces on the element are still in compliance with the code for new structures, nor shall the strength of any structural element be decreased to less than that required by this code for new structures. Where repairs are made to structural elements of an existing building, and uncovered structural elements are found to be unsound or otherwise structurally deficient, such elements shall be made to conform to the requirements for new structures. Any new members shall be designed according to the Building Code.

Wood framing is permitted to use the design stresses specified in the code under which the building was constructed or other stress criteria approved by the code official.

411.1.1 Seismic Load Resisting Systems. If the base shear is increased by no more than 5 percent, no remedial work will be required. Additions or alterations shall not reduce the strength or stability of the building, structure, or any member thereof, except when the reduction shall provide structural strength and stability that is not less than required by the IBC. Except for work completed under the provisions of Section 105.2, new members and existing members whose load is increased by more than 5 percent shall be designed to meet the requirements of the IBC.

411.2 Unreinforced masonry buildings. Unreinforced masonry buildings located in Anchorage shall have parapet bracing and wall anchors installed at the roof line whenever a reroofing permit is issued. Such parapet bracing and wall anchors shall be designed in accordance with the building code.

411.3 Unreinforced masonry buildings undergoing structural alterations where the work area exceeds 50 percent of the building area located in Anchorage shall be strengthened in accordance with the requirements of the building code.

> **Exception:** Buildings of Use Group R with no more than five dwelling units or guest rooms, and used solely for residential purposes.

SECTION 412
WEATHER PROTECTION

412.1 General. Every building shall be weather protected to provide shelter for the occupants against the elements and to exclude dampness.

412.2 Roofs. The roof of every building or structure shall provide weather protection for the building. All devices that were provided or are required to prevent ponding or flooding or to convey the roof water shall be capable of fulfilling that purpose. Overflow drains are not required provided existing drains have functioned properly in the past.

412.3 Other enclosing elements. All weather–exposed surfaces of every existing building or structure shall provide weather protection.

SECTION 413
ELECTRICAL, PLUMBING AND MECHANICAL SAFETY REQUIREMENTS

413.1 Electrical. The electrical service, lines, switches, outlets, fixtures and fixture coverings, and supports in every building or structure shall be in good repair. Broken, loose, frayed, inoperative, defective or missing portions shall be repaired or replaced. All unsafe conditions shall be corrected in work area.

413.2 Electrical equipment and wiring.

413.2.1 New equipment or wiring. All newly–installed electrical equipment and wiring relating to work done in any work area shall comply with the materials and methods requirements as defined in 1999 NEC.

Exception: Electrical equipment and wiring in newly installed partitions and ceilings shall comply with all applicable requirements of the Electrical Code.

413.2.2 Existing wiring.

413.2.2.1 Existing wiring in all work areas in Use Groups A–1, A–2, A–5, H and I shall be upgraded to meet the materials and methods requirements as defined in 1999 NEC.

413.2.2.2 In a building with automatic air handling shut down, existing non-rated wiring may remain in plenum spaces. This exception shall not apply to Occupancy R-4 or egress corridors.

413.2.3 Service and/or feeder in Use Groups R–2, R–3 and R–4. Service to existing dwelling units in any work area shall be a minimum of 100 ampere, three–wire capacity, and service equipment shall be dead front, having no live parts exposed whereby accidental contact could be made. Type "S" fuses shall be installed when fused equipment is used.

Exception: Existing service of 60 ampere three–wire capacity, and feeders of 30 ampere or larger, two– or three–wire capacity, shall be accepted if adequate for the electrical load being served.

413.2.4 In Use Groups R–2, R–3 and R–4, when the work area includes any of the following areas within a dwelling unit, the following requirements shall apply:

413.2.4.1 All enclosed areas, other than closets, kitchens, basements, garages, hallways, laundry areas and bathrooms, shall have a minimum of two duplex receptacle outlets or one duplex receptacle outlet and one ceiling or wall type lighting outlet.

413.2.4.2 Kitchen areas shall have a minimum of two duplex receptacle outlets.

413.2.4.3 Laundry areas shall have a minimum of one duplex receptacle outlet located near the laundry equipment and installed on an independent circuit.

413.2.4.4 Ground fault circuit interruption shall be provided on newly installed receptacle outlets if required by the Electrical Code.

413.2.4.5 At least one lighting outlet shall be provided in every bathroom, hallway, stairway, attached garage and detached garage with electric power, and to illuminate outdoor entrances and exits.

413.2.4.6 At least one lighting outlet shall be provided in utility rooms and basements where these spaces are used for storage or contain equipment requiring service.

413.2.4.7 Clearance for electrical service equipment shall be provided in accordance with the Electrical Code.

413.3 Plumbing. Leaking drain or supply lines shall be repaired or replaced. All unsafe conditions shall be corrected. Any cross– connections or siphonage between fixtures shall be corrected in work area.

413.3.1 Plumbing fixtures. Where the work area is more than 20 percent of the floor area and the code official determines that the occupant load will be increased by a 20 percent increase as a result of the alteration, plumbing fixtures in all work areas shall be provided in quantities specified in the codes, based on the increased occupant load.

413.4 Mechanical. Mechanical systems shall have any unsafe conditions corrected in work area.

413.4.1 All altered spaces intended for occupancy and all spaces converted to habitable or occupiable space in any work area shall be provided with either natural or mechanical ventilation.

413.4.1.1 Natural ventilation shall comply with the requirements of the codes.

413.4.1.2 Newly–installed mechanical ventilation systems shall comply with the requirements of the Mechanical Code.

Exception: Existing mechanical ventilation systems shall comply with the requirements of Section 510.1.

413.4.1.3 In mechanically ventilated spaces, existing mechanical ventilation systems that are altered, reconfigured or extended shall provide not less than 5 cubic feet per minute (cfm) per person of outdoor air and not less than 15 cfm of ventilation air per person; or not less than the amount of ventilation air determined by the Indoor Air Quality Procedure of ASHRAE Standard 62.

413.4.1.4 All newly introduced devices, equipment or operations that produce airborne particulate matter, odors, fumes, vapor, combustion products, gaseous contaminants, pathogenic and allergenic organisms, and microbial contaminants in such quantities as to adversely affect or impair health, or cause discomfort to occupants, shall be provided with local exhaust.

SECTION 414
ACCESSIBILITY FOR EXISTING BUILDINGS

414.1 Scope. The provisions of Sections 414.2 through 414.8.5 apply to maintenance, change of occupancy, additions and alterations to existing buildings, including those identified as historic buildings.

Exception: Type B dwelling units required by IBC Section 1107.5.4 are not required to be provided in existing buildings and facilities.

414.2 Maintenance of facilities. A building, facility or element that is constructed or altered to be accessible shall be maintained accessible during occupancy.

414.3 Change of occupancy. Unless technically infeasible, provisions for new construction shall apply to those portions of existing buildings which are altered concurrently with a change of occupancy. In addition, existing buildings that undergo a change of group or occupancy shall have all of the following accessible features:

1. At least one accessible entrance.
2. At least one accessible route from an accessible entrance to primary function areas.
3. Signage complying with IBC Section 1109.
4. Accessible parking, where parking is being provided.
5. At least one accessible passenger loading zone, where loading zones are provided.
6. At least one accessible route connecting accessible parking and accessible passenger loading zones to an accessible entrance.

Where it is technically infeasible to comply with the new construction standards for any alteration or additional requirements for a change of group or occupancy, the provisions of Sections 414.5 and 414.7 shall apply. Where an area of primary function is altered concurrently with a change of group or occupancy, Section 414.6 shall apply.

414.4 Additions. Provisions for new construction shall apply to additions. An addition that affects the accessibility to, or contains an area of primary function, shall comply with the requirements in Section 414.6 for accessible routes.

414.5 Alterations. A building, facility or element that is altered shall comply with the applicable provisions in IBC Chapter 11 and ICC/ANSI A117.l, unless technically infeasible. Where compliance with this section is technically infeasible, the alteration shall provide access to the maximum extent technically feasible.

Exceptions:

1. The altered element or space is not required to be on an accessible route, unless required by Section 414.6.
2. Accessible means of egress required by IBC Chapter 10 are not required to be provided in existing buildings and facilities.

414.5.1 Extent of application. An alteration of an existing element, space, or area of a building or facility shall not impose a requirement for greater accessibility than that which would be required for new construction.

Alterations shall not reduce or have the effect of reducing accessibility of a building, portion of a building, or facility.

414.6 Alterations affecting an area containing a primary function. Where an alteration affects the accessibility to, or contains an area of primary function, the route to the primary function area shall be accessible. The accessible route to the primary function area shall include toilet facilities or drinking fountains serving the area of primary function.

Exceptions:

1. The costs of providing the accessible route is not required to exceed 20 percent of the costs of the alterations affecting the area of primary function.
2. This provision does not apply to alterations limited solely to windows, hardware, operating controls, electrical outlets and signs.
3. This provision does not apply to alterations limited solely to mechanical systems, electrical systems, installation or alteration of fire-protection systems, and abatement of hazardous materials.
4. This provision does not apply to alterations undertaken for the primary purpose of increasing the accessibility of an existing building, facility or element.

414.7 Scoping for alterations. The provisions of Section 414.7.1 through 414.7.14 shall apply to alterations to existing buildings and facilities.

414.7.1 Elevators. Altered elements of existing elevators shall comply with ASME A17.1 and 1CC/ANSI A117.1. Such elements shall also be altered in elevators programmed to respond to the same call control as the altered elevator.

414.7.2 Platform lifts. Platform (wheelchair) lifts complying with ICC/ANSI A17.1 and installed in accordance with ASME A17.1 shall be permitted as a component of an accessible route.

414.7.3 Stairs and escalators in existing buildings. In alterations where an escalator or stair is added where none existed previously an accessible route shall be provided in accordance with IBC Sections 1104.4 and 1104.5.

414.7.4 Ramps. Where steeper slopes than allowed by IBC Section 1003.3.4.1 are necessitated by space limitations, the slope of ramps in or providing access to existing buildings or facilities shall comply with Table 414.7.4.

TABLE 414.7.4 RAMPS

SLOPE	MAXIMUM RISE
Steeper than 1:10 but not steeper than 1:8	3 inches
Steeper than 1:12 but not steeper than 1:10	6 inches

414.7.5 Dining areas. An accessible route to raised or sunken dining areas, or to outdoor seating areas is not required provided that the same services and decor are provided in an accessible space usable by any occupant and not restricted to use by people with a disability.

414.7.6 Performance areas. Where it is technically infeasible to alter performance areas to be on an accessible route, at least one of each type of performance area shall be made accessible.

414.7.7 Assembly areas. Seating shall adjoin an accessible route that also serves as a means of egress. Where it is technically infeasible to disperse accessible seating throughout an altered assembly area, the minimum required number of wheelchair space clusters shall be one-half of that required by IBC Section 1107.2.2.1. In existing assembly seating areas with a mezzanine, where the main level provides three-fourths or more of the total seating capacity, wheelchair space clusters are permitted to be dispersed on the main level. Each accessible seating area shall have provisions for companion seating.

414.7.8 Sleeping rooms and accommodations. Where 1-1 sleeping rooms, 1-2 sleeping rooms or patient rooms, 1-3 residential units, or R-l and R-2 sleeping accommodations are being altered or added, the requirements of IBC Section 1107 for accessible rooms and Chapter 9 for accessible alarms apply only to the quantity of spaces being altered or added.

414.7.9 Toilet rooms. Where it is technically infeasible to alter existing toilet and bathing facilities to be accessible, an accessible unisex toilet or bathing facility is permitted. The unisex facility shall be located on the same floor and in the same area as the existing facilities.

414.7.10 Dressing, fitting and locker rooms. Where it is technically infeasible to provide accessible dressing, fitting or locker rooms at the same location as similar types of rooms, one accessible room on the same level shall be provided. Where separate sex facilities are provided, accessible rooms for each sex shall be provided. Separate sex facilities are not required where only unisex rooms are provided.

414.7.11 Check-out aisles. Where check-out aisles are altered in facilities having a selling space of 5,000 square feet (465^2) or more, at least one check-out aisle serving each function shall be made accessible.

414.7.12 Dispersion of seating at fixed or built-in tables, counters, or work surfaces. Accessible seating at fixed or built-in tables, counters or work surfaces shall be distributed throughout the space or facility as much as technically feasible.

414.7.13 Sales and service counters. Where it is technically infeasible for existing counters for sales or distribution of goods or services to be made accessible, an accessible auxiliary counter shall be provided.

414.7.14 Thresholds. The maximum height of thresholds at doorways shall be 3/4 inch (19.1 mm). Such threshold shall have beveled edges on each side.

414.8 Historic buildings. These provisions shall apply to buildings and facilities designated as historic structures that undergo alterations or a change of occupancy, unless technically infeasible. Where compliance with the requirements for accessible routes, ramps, entrances, or toilet facilities would threaten or destroy the historic significance of the building or facility, as determined by the authority having jurisdiction, the alternative requirements of Section 414.8.1 through 414.8.5 for that element shall be permitted.

414.8.1 Site arrival points. At least one accessible route from a site arrival point to an accessible entrance shall be provided.

414.8.2 Multilevel buildings and facilities. An accessible route from an accessible entrance to public spaces on the level of the accessible entrance shall be provided.

414.8.3 Entrances. At least one main entrance shall be accessible.

Exception: If a main entrance cannot be made accessible, an employee or service entrance that is unlocked while the building is occupied shall be made accessible.

The accessible entrance shall have a notification system or be provided with remote monitoring.

414.8.4 Toilet and bathing facilities. Where toilet rooms are provided at least one accessible toilet room complying with IBC Section 1108.2.1 shall be provided.

414.8.5 Ramps. The slope of a ramp run of 24 inches (610 mm) maximum shall not be steeper than one unit vertical and eight units horizontal (12-percent slope).

Chapter 5
MINIMUM PROVISIONS FOR CHANGE OF OCCUPANCY

SECTION 501
GENERAL

501.1 Change of occupancy. The character of the occupancy of existing buildings and structures may be changed, provided the building or structure meets the requirements of this chapter and the requirements of Chapter 4 are applied throughout the building for the new use. Where no specific requirements are included herein, the building or structure shall comply with the codes.

Every change of occupancy to one classified in a different group or a different division of the same group shall require a new certificate of occupancy regardless of whether any alterations to the building are required by this code.

Exceptions:

1. An y repairs and alterations work undertaken in connection with a change of occupancy that does not involve a change of Use Group shall conform to the requirements of Chapters 4 and 5, respectively, for the applicable Use Group.
2. Compliance with all the provisions of Chapter 4 is not required where the change of use complies with the requirements of Section 501.6.
3. As modified in Section 604 for historic buildings.
4. Existing stairways shall not be required to comply with the requirements for a new stairway where the existing space and construction will not allow a reduction in pitch or slope.

501.2 Special use and occupancy.

501.2.1 Where the cha racter of use of an existing building or part of an existing building is changed to one of the following special use or occupancy categories as defined in Chapter 4

of this code, the building shall comply with all of the applicable requirements of that chapter, regardless of whether a change of Use Group is involved:

1 Covered mall buildings,

2. Atriums,

3. Private garages,

4. Public garages,

5. Motion picture projectio n rooms, screening rooms and sound stages,

6. S tages and platforms,

7. Special amusement buildings, and

8. HPM facil ities.

501.2.2 An underground building in which there is a change of use shall comply with the requirements of the code applicable to underground structures.

501.3 Part change of use group.

501.3.1 Where a portion of an existing building is changed to a new Use Group and that portion is not separated from the remainder of the building with fire separation assemblies having a fire–resistance rating as required in the code for the separate Use Groups, or with approved compliance alternatives, the entire building shall comply with all the requirements of Chapter 4 applied throughout the building for the new Use Group, and with the requirements of this chapter.

Exception: Compliance with all the provisions of Chapter 4 is not required when the change of use complies with the requirements of Section 501.6.

501.3.2 Where a portion of an existing building is changed to a new Use Group and that portion is separated from the remainder of the building with fire separation assemblies having a fire–resistance rating as required in the code for the separate Use Groups, or with approved compliance alternatives, the portion changed shall comply with all the requirements of Chapter 4 for the new Use Group, and with the requirements of this Chapter.

Exception: Compliance with all the provisions of Chapter 4 is not required when the change of use complies with the requirements of Section 501.6.

501.4 Accessibility . Every building undergoing a change of occupancy shall comply with the accessibility requirements adopted by the jurisdiction and this code and the applicable appendix to a change of occupancy.

501.5 Hazard catego ry classifications. The relative degree of hazard between different occupancy groups or between divisions of the same group shall be as set forth in the hazard category classifications, Tables 5–A through 5–E.

501.5.1 An existing building or portion ther eof may have its use changed to a Use Group within the same hazard classification category or to a Use Group in a lower hazard classification category (higher number) in all five hazard category classifications, provided it complies with the provisions of Chapter 4 for the new Use Group, applied throughout the

building or portion thereof. The special provisions of this chapter shall apply, where applicable. in accordance with this chapter., to Section 501.3.2, Section 505.1 (Live Loads) and 505.2 (Vertical Loads on Roofs), and with Sections 506 (Handrails and Guards) and 507 (Health and Hygiene).

Exception: Compliance with all the provisions of Chapter 4 is not required where the change of use complies with the requirements of Section 501.6.

501.5.2 An existing building shall comply with the requirements of the codes, except as specified in this chapter, when a change in occupancy will place it in a higher hazard group or when the occupancy is changed to Group A, Division 1 or 2; or Group E, H or I.

501.5.3 An existing building shall comply with all the applicable requirements of this chapter when a change in use will place it in a higher hazard category or when its use is changed within Use Group II.

501.5.4 An existing building may have its use changed to a higher hazard rating (lower number) in all four hazard category classifications designated in Tables 5A through 5D, provided it complies with this chapter.

501.6 Change of Use to an Equal or Lower Hazard. A change of use to a Use Group within the same hazard classification category or to a Use Group in a lower hazard classification category (higher number) in the three hazard category classifications addressed by Tables 5A, 5B, and 5C shall be permitted in an existing building or portion thereof, provided the provisions of this section are met.

501.6.1 Regardless of the Use Group, the following requirements shall be met:

1. The capacity of the means of egress shall comply with the requirements of Section 403.10.
2. The interior finish of w alls and ceilings shall comply with the requirements of Section 404.
3. The high rise building requirements of Section 409 shall apply.
4. The boiler/furn ace room requirements of Section 410 shall apply.

501.6.2 When the new u se is classified as Use Group I–1, R–1 or R–2, the following requirements shall be met:

1. Corridor doors and tr ansoms shall comply with the requirements of Sections 403.14.1.2 and 403.14.1.3.
2. Fire suppression systems shall comply with the requirements of Section 407.
3. Fire alarm systems shall comply with the requirements of Section 408.

501.6.3 When the new u se is classified as Use Group I–2, the following requirements shall be met:

1. Egress doorways from patient sleeping rooms and suites of rooms shall comply with the requirements of Section 403.2.1.

2. Floor openin gs and shaft enclosures shall comply with the requirements of Section 405.
3. Smoke barriers sh all comply with the requirements of Section 406.1.
4. Fire suppr ession systems shall comply with the requirements of Section 407.
5. Fire al arm requirements of Section 408.

501.6.4 When the new use is classified as Use Group 1–3, the following requirements shall be met:

1. Locking of egress doors shall comply with the requirements of Section 403.13.
2. Shaft enclosures shall comply with the requirements of Section 405.
3. Fire–suppression systems shall comply with the requirements of Section 407.
4. Fire al arm systems shall comply with the requirements of Section 408.

501.6.5 When the new u se is classified as Use Group R–3, the following requirements shall be met:

1. Dwelling unit separations shall comply with the requirements of Section 406.1.2 Item 1.
2. The smoke detector requirements of Section 408.1 shall be met.

SECTION 502
FIRE AND LIFE SAFETY

502.1 Heights and areas.

502.1.1 Where a change of use is made to a higher hazard category as shown in Table A, heights and areas of buildings and structures shall meet the limitations of Chapter 5 of the code for the new Use Group.

Exception: A one–story building changed into Use Group E shall not be required to meet the area limitations of the codes.

502.1.2 When a change of use is made to an equal or lesser hazard category as shown in Table 5-A, the height and area of the existing building shall be deemed to be acceptable.

502.2 Means of Egress

502.2.1 When a change of use is made to a higher hazard category (lower number) as shown in Table 5-B, all elements of the means of egress, including but not limited to the exit access, exit discharge, occupant load, corridors, doors, enclosures, stairs and ramps, guards and handrails, means of egress doorways, fire escapes and exit lighting and signs, shall comply with the requirements of Chapter 10 of the IBC.

Exceptions:

1. Stairways shall be enclosed in compliance with applicable portions of Section 503.2.
2. Existing stairways including handrails and guards complying with the requirements of Chapter 4 shall be permitted for continued use subject to approval of the code official.

3. Any stairway replacing an existing stairway within a space where, because of existing construction, the pitch or slope cannot be reduced, shall not be required to comply with the maximum riser height and minimum tread depth requirements.
4. Existing corridor walls constructed of wood lath and plaster in good condition or $^1/_2$–inch–thick (12.7 mm) gypsum wallboard shall be permitted.
5. Existing corridor doorways, transoms and other corridor openings shall comply with the requirements in Sections 403.14.1.2, 403.14.1.3 and 403.14.1.4.
6. Existing dead end corridors shall comply with the requirements in Section 403.18.
7. An existing operable window with clear opening area no less than 4 square feet, and with minimum opening height and width of 22 inches and 20 inches respectively shall be accepted as an egress window.

502.2.2 When a change of use is made to an equal or lesser hazard category as shown in Table 5-B, existing elements of the means of egress shall comply with the requirements of Section 403 for the new Use Group. Newly constructed or configured means of egress shall comply with the requirements of Chapter 10 of the IBC.

Exceptions:

1. Any stairway replacing an existing stairway within a space where, because of existing construction, the pitch or slope cannot be reduced, shall not be required to comply with the maximum riser height and minimum tread depth requirements.
2. Compliance with Section 403 is not required where the change of use complies with the requirements of Section 501.6.

502.2.3 Egress capacity shall meet or exceed the occupant load as specified in Section 403 if the change of use is to an equal or lesser hazard category when evaluated in accordance with Table 5-B.

SECTION 503
ENCLOSURE OF VERTICAL SHAFTS

503.1 General. Vertical shafts are permitted to be designed to meet the requirements of atria as required by the building code or the requirements of this section.

503.2 Stairways. Interior stairways shall be enclosed as required by the code when a change of occupancy is made.

Exceptions:

1. In other than Group I Occupancies, an enclosure will not be required for openings serving only one adjacent floor and not connected with corridors or stairways serving other floors.
2. Unenclosed existing stairways that are not enclosed, need not be enclosed in a continuous vertical shaft if each story is separated from other stories by one–hour fire–resistive construction or approved wired glass set in steel frames and all exit corridors are sprinklered. The openings between the corridor and occupant space shall have at least one sprinkler head above the openings on the tenant side. The sprinkler system shall be permitted to be supplied from the domestic water–supply system,

provided the system is of adequate pressure, capacity and sizing for the combined domestic and sprinkler requirements.

3. Existing penetrations of stairway enclosures are permitted if they are properly protected in accordance with the code.
4. If building has an approved, fully automatic sprinkler system and occupancy is not more hazardous.

503.3 Other vertical shafts. Interior vertical shafts other than stairways, including but not limited to elevator hoistways and service and utility shafts, shall be enclosed as required by the code when there is a change of use to a higher hazard category in Table 5–B.

Exceptions:

1. Existing one–hour interior shaft enclosures shall be accepted where a higher rating is required.
2. Vertical openings, other than stairways, need not be enclosed if the entire building is provided with an approved automatic sprinkler system.
3. Where one–hour fire–resistive floor construction is required, vertical shafts need not be enclosed where floor penetrations are fire stopped at every floor level.

503.3.1 Openings. All openings into existing vertical shaft enclosures shall be protected by fire assemblies having a fire–protection rating of not less than one hour and shall be maintained self–closing or shall be automatic–closing by actuation of a smoke detector. All other openings shall be fire protected in an approved manner. Existing fusible link–type automatic door–closing devices shall be permitted in all shafts except stairways if the fusible link rating does not exceed 135^0F (75C).

503.4 Separation of occupancies. When a change of occupancy is made to a higher hazard group, as shown in Table 5–C, occupancy separations shall be provided as specified in the code. When approved by the code official, existing wood lath and plaster in good condition or $^1/_2$–inch–thick (12.7 mm) gypsum wallboard may be accepted where a one–hour occupancy separation is required.

503.4.1 Fire separation assemblies. When a change of use is made to a higher hazard category, as shown in Table 5–C, fire separation assemblies in mixed–use buildings shall comply with the requirements for Mixed Use Groups in the code.

Exception: Where the fire–separation assemblies are required to have a one–hour fire resistance rating, existing wood lath and plaster in good condition or existing $^1/_2$–inch–thick (12.7 mm) gypsum wallboard shall be permitted.

SECTION 504
EXTERIOR WALL FIRE–RESISTANCE RATINGS

504.1 When a change of use is made to a higher hazard category as shown in Table 5–D, exterior walls shall have fire resistance and exterior opening protection as required in Chapter 7 of the code. This provision shall not apply to walls at right angles to the property line.

Exception: Where a fire–resistance rating greater than two hours is required for a building of any type of construction, existing noncombustible exterior walls having a fire–resistance rating equivalent to two hours shall be accepted, provided the building does not exceed three stories in height and is classified as one of the following Use Groups: A–3 with an occupant load of less than 300, B, F, M or S.

504.2 When a change of use is made to an equal or lesser hazard category, as shown in Table 5–D, existing exterior walls, including openings, shall be accepted.

504.3 Opening protection. Openings in exterior walls shall be protected as required by the code. When openings in exterior walls are required to be protected due to distance from the property line, the sum of the area of such openings shall not exceed 50 percent of the total area of the wall in each story.

Exceptions:

1. Where the code permits openings in excess of 50 percent.
2. Protected openings shall not be required in buildings in Use Group R that do not exceed three stories in height and which are located not less than 3 feet (914 mm) from the property line.
3. Where exterior opening protection is required, an automatic sprinkler system throughout may be substituted for opening protection.
4. Exterior opening protection is not required when the change of occupancy is to an equal or lower hazard classification in accordance with Table 5–D.

SECTION 505
STRUCTURAL SAFETY

505.1 Live loads. Any existing structure in which the proposed new occupancy requires floor live loads equal to or less than required for the existing occupancy is permitted to be continued in use for the originally approved live loads, provided that the structure is not dangerous and is adequate for the proposed occupancy. If the approved live load is less than required by Chapter 16 of the IBC, the areas designed for the reduced live load shall be posted with the approved load or shall be structurally strengthened to support the new load. Placards shall be of an approved design.

Exception: Analysis and test methods for evaluation of existing materials may use the methods specified in the code under which the building was constructed, or other standards as approved by the code official.

505.2 Vertical loads on roofs. Buildings and structures shall comply with the roof load requirements of Chapter 16 of the IBC for roof live load.

Exception: Existing roofs shall be permitted to be retained provided any dangerous or overloaded conditions are corrected and the roof dead load is not increased by use, reroofing or added equipment.

505.3 Earthquake loads. When a change of occupancy results in an existing building being reclassified to a higher hazard category, as shown in Table 5–E, the building shall be strengthened to meet the code seismic requirements for new buildings.

505.4 Wind and snow loads. When a change of occupancy results in an existing building being assigned a higher wind load or snow load importance factor, in accordance with Chapter 16 of the IBC, the building shall be strengthened to meet the code wind load or snow load requirements, respectively, for new buildings.

SECTION 506
HANDRAILS AND GUARDS

506.1 Handrails. Existing stairways shall comply with the handrail requirements in Section 403.4.

506.2 Guardrails. Existing guardrails shall comply with the guardrail requirements in Section 403.5.

SECTION 507
HEALTH AND HYGIENE

507.1 Light and ventilation. Light and ventilation shall comply with the requirements of the code.

SECTION 508
ENERGY CONSERVATION

508.1 A change of use that would require an increase in space conditioning energy use in an existing building or structure that was constructed under an Energy Code shall not be permitted unless such building or structure is made to comply with the thermal envelope requirements of the current Energy Code or the Energy Code under which it was constructed for the new Use Group. Special conditions may be considered by the code official.

SECTION 509
PLUMBING REQUIREMENTS

509.1 When the occupancy of an existing building or part of an existing building is changed such that the new occupancy is subject to increased or different plumbing fixture requirements or to increased water supply requirements in accordance with the Plumbing Code, the intent of the respective Plumbing Code provisions shall be complied with.

509.2 If the new occupancy is a food handling establishment, all existing sanitary waste lines above the food or drink preparation or storage areas shall be panned or otherwise protected to prevent leaking pipes or condensation on pipes from contaminating food or drink. New drainage lines shall not be installed above such areas, and shall be protected in accordance with the Plumbing Code.

509.3 If the new occupancy will produce grease or oil laden wastes, it shall be provided with interceptors as required in the Plumbing Code.

509.4 If the new occupancy will produce chemical wastes, the following shall apply:

1. If the existing piping is not compatible with the chemical waste, the waste shall be neutralized prior to entering the drainage system or the piping shall be changed to a compatible material.

2. No chemical w aste shall discharge to a public sewer system without the approval of the sewage authority.

509.5 If the Use Group is changed to Use Group I–2, the plumbing system shall comply with the applicable requirements of the Plumbing Code.

SECTION 510
MECHANICAL REQUIREMENTS

510.1 Where the occupancy of an existing building or part of an existing building is changed such that the new occupancy is subject to different kitchen exhaust requirements or to increased mechanical ventilation requirements in accordance with the Mechanical Code, the intent of the respective Mechanical Code provisions shall be complied with.

SECTION 511
ELECTRICAL REQUIREMENTS

511.1 Where the occupancy of an existing building or part of an existing building is changed to one of the following special occupancies, as described in Chapter 5 of the Electrical Code, the electrical wiring and equipment of the building or portion thereof that contains the proposed occupancy shall comply with the applicable requirements of the Electrical Code, regardless of whether a change of Use Group or occupancy is involved:

1. Hazardous (classified) locations
2. Commercial garages, repair and storage
3. Aircraft hangars
4. Gasoline dispensing and service stations
5. Bulk storage plants
6. Spray application, dipping and coating processes
7. Health care facilities
8. Places of assembly
9. Theaters, audience areas of motion picture and television studios, and similar locations
10. Motion picture and television studios, and similar locations
11. Motion picture proje ction booths

511.2 When the occupancy of an existing building or part of an existing building is changed, all dangerous conditions shall be corrected, without requiring that all parts of the electrical system comply with the current edition of the Electrical Code.

511.3 When the occupancy of an existing building or part of an existing building is changed, electrical service shall be upgraded, if required, to meet the requirements of the Electrical Code for the new occupancy

511.4 When the occupancy of an existing building or part of an existing building is changed, the number of electrical outlets shall comply with the Electrical Code for the new occupancy.

TABLE 5–A—HAZARD CATEGORIES AND CLASSIFICATIONS: HEIGHTS AND AREAS

RELATIVE HAZARD	USE CLASSIFICATION
1 (Highest Hazard)	A-1, A-2, A-3, A-4, H-1, H-2, I-3
2	A-5, H-3, H-4, H-5, I-1, I-2
3	B, E, F-1, M, R-3, R-4, S-1
4 (Lowest Hazard)	F-2, S-2, U

TABLE 5–B—HAZARD CATEGORIES AND CLASSIFICATIONS: LIFE SAFETY AND EXITS

RELATIVE HAZARD	USE CLASSIFICATION
1	H
2	E
3	A, I, M, R-1, R-2
4	B, F-1, R-3, R-4, S-1
5	F-2, S-2, U

TABLE 5–C—HAZARD CATEGORIES AND CLASSIFICATIONS: OCCUPANCY SEPARATIONS

RELATIVE HAZARD	USE CLASSIFICATION
1	H, I
2	A, B, F, M, S
3	E
4	R–1, R-2,U
5	R–3, R-4

TABLE 5–D—HAZARD CATEGORIES AND CLASSIFICATIONS: EXPOSURE OF EXTERIOR WALLS

RELATIVE HAZARD	USE CLASSIFICATION
1	H
2	A, B, E, F–1, I, M, R, S–1
3	F–2, S–2, U

TABLE 5–E—HAZARD CATEGORIES AND CLASSIFICATIONS: EARTHQUAKE SAFETY

RELATIVE HAZARD	USE CLASSIFICATION
1	B (fire, rescue and police stations) B (emergency preparedness centers) B (primary communication facilities) F (power–generating stations and other utility facilities required for emergency backup) H–1, H–4 I–2 (hospitals) S (post–earthquake recovery vehicle garages)
2	A, E, H–2, H–3, I (all others), B (used for adult education with an occupant load > 500) Any building with an occupant load > 5000 F (power–generating stations and other public utilities not listed in Relative Hazard 1)
3	R–1, R–2
4	F–1, H-5, S–1
5	B (all others), F–2, M, S–2
6	R–3, R-4, U

Chapter 6
HISTORIC STRUCTURES

SECTION 601
PURPOSE

It is the intent of this chapter to provide means for the preservation of historic buildings. A historic building must be qualified or registered by authority having jurisdiction.

601.1 General. Historic buildings shall comply with the provisions of this chapter, or with the provisions of Chapters 4 and 5, relating to their repair, renovation, alteration, reconstruction, movement and change of occupancy.

601.2 Alternatives. A historic building undergoing repair, alteration or change of occupancy shall be investigated and evaluated. If it is intended that the building meet the requirements of this chapter, a written report shall be prepared and filed with the code official by a registered design professional when in the opinion of the official, such a report is necessary. Such report shall be in accordance with Chapter 1 of these provisions and shall identify each required safety feature in compliance with this chapter and where compliance with other chapters of these provisions would be damaging to the contributing historic features. In high seismic zones, a structural evaluation describing, as a minimum, a complete load path and other earthquake–resistant features shall be prepared. In addition, the report shall describe each feature not in compliance with these provisions and demonstrate how the intent of these provisions is complied with in providing an equivalent level of safety.

Exception:

1. Compliance alternatives approved by the code official are allowed when the following criteria are met:
    - 1.1 Conformance with the general intent of this code.
    - 1.2 Compliance with the minimum standards required by Chapter 4 and the specific occupancy requirements of this code.
    - 1.3 Conformance with the requirements of Chapter 5 when a change of occupancy occurs, except as modified in this chapter.
    - 1.4 All unsafe and substandard conditions described in this code are corrected.
    - 1.5 The restored building or structure shall be no more hazardous, based on life–safety, fire–safety and sanitation, than the building was before renovation.

601.3 Special occupancy exceptions—house museums. When a building that is in Use Group R–3 is also used for A, B or M purposes such as museum tours, exhibits and other public assembly activities, the code official may make a determination that the Use Group is B when life–safety conditions can be demonstrated in accordance with Section 601.2. Adequate means of egress in such buildings, which may include a means of maintaining doors in an open position to permit egress, a limit on building occupancy to an occupant load permitted by the means of egress capacity, a limit on occupancy of certain areas or floors, and/or supervision by a person knowledgeable in the emergency exiting procedures, shall be provided.

SECTION 602
REPAIRS

Repairs to any portion of a historic building or structure are permitted to be made with original materials and original methods of construction, subject to the provisions of this chapter.

602.1 Dangerous buildings. When a historic building is determined to be dangerous, as defined in the codes, no work shall be required except as necessary to correct identified unsafe conditions.

602.2 Relocated buildings. Foundations of relocated historic buildings and structures shall comply with the code. Relocated historic buildings shall otherwise be considered a historic building for the purposes of this code. Relocated historic buildings and structures shall be so sited that exterior wall and opening requirements comply with the code or the compliance alternatives of this code.

602.3 Repairs and alteration—general. Historic buildings undergoing repairs or alterations shall comply with all of the applicable requirements of Chapter 4 of these provisions except as specifically permitted in this chapter.

602.4 Replacement. Replacement of existing or missing features using original materials shall be permitted. Partial replacement for repairs that match the original in configuration, height and size shall be permitted. Such replacements shall not be required to meet the materials and methods requirements in Section 401.2 of these provisions.

> **Exception:** Replacement glazing in hazardous locations shall comply with the safety glazing requirements of Chapter 24 of the building code.

602.5 Roof covering. The existing type of roof covering shall be permitted to be continued and replaced with the same materials if the historic materials are documented to the satisfaction of the code official.

SECTION 603
FIRESAFETY

603.1 General. Every historic building that does not conform to the construction requirements specified in this code for the occupancy or use and that constitutes a distinct fire hazard as defined herein shall be provided with an approved automatic fire–extinguishing system as determined appropriate by the code official. However, an automatic fire–extinguishing system shall not be used to substitute for, or act as an alternate to, the required number of exits from any facility.

603.2 Means of egress. Existing door openings and corridor and stairway widths of less than that specified elsewhere in this code may be approved, provided that in the opinion of the code official there is sufficient width and height for a person to pass through the opening or traverse the means of egress.

When approved by the code official, the front or main exit doors need not swing in the direction of the path of exit travel, provided other approved means of egress having sufficient capacity to serve the total occupant load are provided.

603.3 Transoms. In fully sprinklered buildings of Use Groups I–1, R–1 and R–2 existing transoms in corridors and other fire–rated walls may be maintained if fixed in the closed position. A sprinkler shall be installed on each side of the transom.

603.4 Interior finishes. The existing finishes of walls and ceilings shall be accepted when it is demonstrated that they are the historic finishes.

603.5 Stairway enclosure. In buildings of three stories or less, exit enclosure construction shall limit the spread of smoke by the use of tight–fitting doors and solid elements. Such elements are not required to have a fire rating.

603.6 One–hour fire–resistive assemblies. Where one–hour fire–resistive construction is required by these provisions, it need not be provided regardless of construction or occupancy when the existing wall and ceiling finish is wood lath and plaster.

603.7 Glazing in fire–rated systems. Historic glazing materials in interior walls required to have one–hour fire rating may be permitted when provided with approved smoke seals and when the area affected is provided with an automatic sprinkler system.

603.8 Stairway railings. Grand stairways shall be accepted without complying with the handrail and guardrail requirements. Existing handrails and guards shall be permitted to remain, provided they are not structurally dangerous.

603.9 Guardrails.

603.9.1 Height. Existing guardrails shall comply with the requirements of Section 403.5.

603.9.2 Guardrail openings. The spacing between existing intermediate railings or openings in existing ornamental patterns shall be accepted. Missing elements or members of a guardrail may be replaced in a manner that will preserve the historic appearance of the building or structure.

603.10 Exit signs. Where exit signs or egress path marking locations would damage the historic character of the building, alternate exit signs are permitted with approval of the code official. Alternative signs shall identify the exits and egress path.

603.11 Automatic fire–extinguishing systems.

603.11.1 Every historical building which cannot be made to conform to the construction requirements specified in the code for the occupancy or use, and which constitutes a distinct fire hazard, shall be acceptable if provided with an approved automatic fire extinguishing system.

Exception: When an alternative life–safety system is approved by the enforcing agency.

603.11.2 An automatic fire extinguishing system shall not be used to substitute for or act as an alternative to the required number of exits from any facility.

SECTION 604
CHANGE OF OCCUPANCY

604.1 General. Historic buildings undergoing a change of occupancy shall comply with the applicable provisions of Chapter 5, except as specifically permitted in this chapter. When Chapter 5 requires compliance with specific requirements of Chapter 4, and when those

requirements are subject to the exceptions in Section 601.2, the same exceptions shall apply in this section.

604.2 Building area. The allowable floor area for historic buildings undergoing a change of occupancy shall be permitted to exceed the allowable areas specified in Chapter 5 by 20 percent.

604.3 Location on property. Historic structures undergoing a change of use to a higher hazard category, in accordance with Section 501.5 of these provisions, may use alternative methods to comply with the fire–resistance and exterior opening protective requirements. Such alternatives shall comply with Section 601.2.

604.4 Required occupancy separations of one–hour may be omitted when the building is provided with an approved automatic sprinkler system throughout.

604.5 Roof covering. Regardless of occupancy or Use Group, roof–covering materials not less than Class C shall be permitted where a fire–retardant roof covering is required.

604.6 Means of egress. Existing door openings and corridor and stairway widths less than those that would be acceptable for non-historic buildings under these provisions shall be approved, provided that in the opinion of the code official, there is sufficient width and height for a person to pass through the opening or traverse the exit and that the capacity of the exit system is adequate for the occupant load, or where other operational controls to limit occupancy are approved by the code official.

604.7 Door swing. When approved by the code official, existing front doors need not swing in the direction of exit travel, provided other approved exits having sufficient capacity to serve the total occupant load are provided.

604.8 Transoms. In corridor walls required to be fire rated by these provisions, existing transoms may be maintained if fixed in the closed position and fixed, wired glass set in a steel frame or other approved glazing shall be installed on one side of the transom.

Exception: Transoms conforming to Section 603 of these provisions shall be accepted.

604.9 Finishes. Where finish materials are required to have a flame–spread classification of Class III or better, existing nonconforming materials shall be surfaced with an approved fire–retardant paint or finish.

Exception: Existing nonconforming materials need not be surfaced with an approved fire–retardant paint or finish when the building is equipped throughout with an automatic fire–suppression system installed in accordance with the code and the nonconforming materials can be substantiated as being historic in character.

604.10 One–hour fire–resistive assemblies. Where one–hour fire–resistive construction is required by these provisions, it need not be provided regardless of construction or occupancy where the existing wall and ceiling finish is wood lath and plaster.

604.11 Stairs and railing. Existing stairways shall comply with the requirements of these provisions. The code official shall grant alternatives for grand stairways and railings if alternative stairways are found to be acceptable or if judged as meeting the intent of these provisions. Existing stairways shall comply with Section 603.

604.12 Exit signs. The code official may accept alternate exit sign locations where such signs would damage the historic character of the building or structure. Such signs shall identify the exits and exit path.

604.13 Exit stair live load. Existing historic stairways in buildings changed to Use Groups R–1 and R–2 shall be accepted where it can be shown that the stairway can support a 75 pound per square foot (366 kg/m^2) live load.

604.14 Natural light. When it is determined by the code official that compliance with the natural light requirements of Section 507 will lead to loss of historic character and/or historic materials in the building, the existing level of natural lighting shall be considered acceptable.

604.15 Energy conservation. Historic buildings are exempt from the requirements of Section 508.

604.16 Accessibility requirements. The accessibility requirements contained in these provisions shall apply to historic buildings undergoing alterations, renovations, reconstruction or a change of occupancy. If the historic character of the building is adversely affected, then alternative provisions for accessibility shall be permitted.

SECTION 605
STRUCTURAL SAFETY

605.1 Vertical and seismic loads. Historic buildings shall comply with the requirements of Chapters 4 and 5 for floor live loads.

Exception: The code official may accept existing floors and approve operational controls that limit the live load on any floor.

Chapter 7
ABATEMENT OF DANGEROUS BUILDINGS

SECTION 701
PURPOSE AND SCOPE

701.1 Purpose and scope

701.1.1 Purpose. 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 may be required to be repaired, vacated or demolished.

The purpose of this chapter is not to create or otherwise establish or designate any particular class or group of persons who will or should be especially protected or benefited by the terms of this chapter.

701.1.2 Scope. The provisions of this chapter shall apply to all dangerous buildings, as herein defined, which are now in existence or which may hereafter become dangerous in this jurisdiction.

701.2 Alterations, additions, and repairs. All buildings or structures which are required to be repaired under the provisions of this chapter shall be subject to the provisions of Chapters 1 through 6 of this code.

SECTION 702
ENFORCEMENT

702.1 General

702.1.1 Administration. The code official is hereby authorized to enforce the provisions of this chapter.

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.

702.1.2 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.

702.1.3 Right of Entry. When it is necessary to make an inspection to enforce the provisions of this chapter, or when the code official or the code official's authorized representative has reasonable cause to believe that there exists in a building or upon a premises a condition which is contrary to or in violation of this chapter which makes the building or premises unsafe, dangerous or hazardous, the code official may enter the building or premises at reasonable times to inspect or to perform the duties imposed by this chapter, provided that if such building or premises be occupied that credentials be presented to the occupant and entry requested. If such building or premises be 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 premises and request entry. If entry is refused, the code official shall have recourse to the remedies provided by law to secure entry.

"Authorized representative" shall include the officers named in Section 201 and their authorized inspection personnel.

702.2 Abatement of dangerous buildings. All buildings or portions thereof which are determined after inspection by the code official to be dangerous as defined in this chapter are hereby declared to be public nuisances and shall be abated by repair, rehabilitation, demolition or removal in accordance with the procedure specified in Section 401 of this chapter.

702.3 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.

702.4 Inspection of work. All buildings or structures within the scope of this chapter and all construction or work for which a permit is required shall be subject to inspection by the code official.

702.5 Board of appeals

702.5.1 General. 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 code, there shall be and is hereby created a board of appeals consisting of members who are qualified by experience and training to pass upon matters pertaining to building construction and who are not employees of the jurisdiction. The code official shall be an ex officio member and shall act as secretary to said board but shall have no 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 procedure for conduction of business and shall render all decisions and findings in writing to the appellant, with a duplicate copy to the code official. Appeals to the board shall be processed in accordance with the provisions contained in Section 705 of this code. Copies of all rules or regulations adopted by the board shall be delivered to the code official, who shall make them freely accessible to the public.

702.5.2 Limitations of Authority. The board of appeals shall have no authority relative to interpretation of the administrative provisions of this code nor shall the board be empowered to waive requirements of this code.

SECTION 703
DEFINITIONS

703.1 General. For the purpose of this code, 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 their 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.

Code or Codes are the International Building Code, as adopted by this jurisdiction.

Dangerous Building is any building or structure deemed to be dangerous under the provisions of Section 703.2 of this code.

703.2 Dangerous building. For the purpose of this chapter, any building or structure which has any or all of the conditions or defects hereinafter described shall be deemed to be a dangerous building, provided that such conditions or defects exist to the extent that the life, health, property or safety of the public or its occupants are endangered.

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 new 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 that the structural strength or stability thereof is materially less than it was before such catastrophe and is less than the minimum requirements of the code for new 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 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.
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 new construction.
8. Whenever the building or structure, or any portion thereof, because of (i) dilapidation, deterioration or decay; (ii) faulty construction; (iii) the removal, movement or instability of any portion of the ground necessary for the purpose of supporting such building; (iv) the deterioration, decay or inadequacy of its foundation; or (v) any other cause, is likely to partially or completely collapse.
9. Whenever, for any reason, the building or structure, or any portion thereof, is manifestly 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 that 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 33 percent or more damage or deterioration of its supporting member or members, or 50 percent damage or deterioration of its nonsupporting 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 (i) an attractive nuisance to children; (ii) a harbor for vagrants, criminals or immoral persons; or as to (iii) enable 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 jurisdiction, as specified in the code

or Housing Code, or of any law or ordinance of this state or jurisdiction 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 nonsupporting part, member or portion less than 50 percent, or in any supporting part, member or portion, less than 66 percent of the (i) strength, (ii) fire-resisting qualities or characteristics, or (iii) weather-resisting qualities or characteristics required by law in the case of a newly constructed building of like area, height and occupancy in the same location.

    This sub section 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 health officer to be unsanitary, unfit for human habitation or in such a condition that 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 fire marshal 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 portion thereof an attractive nuisance or hazard to the public.

SECTION 704
NOTICES AND ORDERS OF CODE OFFICIAL

704.1 General

704.1.1 Commencement of proceedings. When the code official has inspected or caused to be inspected any building and has found and determined that such building is a dangerous building, the code official shall commence proceedings to cause the repair, vacation or demolition of the building.

704.1.2 Notice and order. The code official shall issue a notice and order directed to the record owner of the building. The notice and order shall contain:

1. The street address and a legal description sufficient for identification of the premises upon which the building is located.
2. A statement that the code official has found the building to be dangerous with a brief and concise description of the conditions found to render the building dangerous under the provisions of Section 703.2 of this code.
3. A statement of the action required to be taken as determined

3.1 If the code official has determined that the building or structure must be repaired, the order shall require that all required permits be secured therefore and the work physically commenced within such time (not to exceed 60 days from the date of the order) and completed within such time as the code official shall determine is reasonable under all the circumstances.

3.2 If the code official has determined that the building or structure must be vacated, the order shall require that 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.

3.3 If the code official has determined that the building or structure must be demolished, the order shall require that the building be vacated within such time as the code official shall determine is reasonable (not to exceed 60 days from the date of the order); that all required permits be secured therefore within 60 days from the date of the order; and that the demolition be completed within such time as the code official shall determine is reasonable.

3.4 At the time of abatement by demolition from appropriate authoritative action, any property, personal or real, found upon the noticed premises shall become the property of the demolition contractor.

4. Statements advising that if any required repair or demolition work (without vacation also being required) is not commenced within the time specified, the code official (i) will order the building vacated and posted to prevent further occupancy until the work is completed, and (ii) may proceed to cause the work to be done and charge the costs thereof against the property or its owner.

5. Statements advising (i) that any person having any record title or legal interest in the building may appeal from the notice and order or any action of the code official to the board of appeals, provided the appeal is made in writing as provided in this code and filed with the code official within 30 days from the date of service of such notice and order; and (ii) that failure to appeal will constitute a waiver of all right to an administrative hearing and determination of the matter.

6. If the building official has determined that the building or structure must be repaired or demolished, the notice to the owner shall indicate that all required permits must be secured.

7. The building official may enter into an agreement or contract, as defined in Section 301, with the owner or his appointed agent for repair by the owner or his agent and to set priority of items to be repaired. Any such agreement shall include commencement and completion dates for such repair. Agreements or contracts to repair shall be in writing and may be enforced pursuant to this Chapter. Such agreements may be used as evidence of the owner's obligation to repair the property. (AO 83-065, AO 86-75(S-1), AO 93-147)

704.1.3 Service and 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; and one copy thereof shall be served on each of the following if known to the code

official or disclosed from official public records: the holder of any mortgage or deed of trust or other lien or encumbrance of record; the owner or holder of any lease of record; and the holder of any other estate or legal interest of record in or to the building or land on which it is located. 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.

704.1.4 Method of Service. Service of the notice and order shall be made upon all persons entitled thereto either personally or by mailing a copy of such notice and order by certified mail, postage prepaid, return receipt requested, to each such person at their address as it appears on the last equalized assessment roll of the county or as known to the code official. If no address of any such person so appears or is known to the code official, then a copy of the notice and order shall be so mailed, addressed to such person, at the address of the building involved in the proceedings. The failure of any such person to receive such notice shall not affect the validity of any proceedings taken under this section. Service by certified mail in the manner herein provided shall be effective on the date of the mailing.

704.1.5 Proof of Service. Proof of service of the notice and order shall be certified to at the time of service by a written declaration under penalty of perjury executed by the persons effecting service, declaring the time, date and manner in which service was made. The declaration, together with any receipt card returned in acknowledgement of receipt by certified mail shall be affixed to the copy of the notice and order retained by the code official.

704.2 Recordation of notice and order. If the order has not been complied with in the time specified therein , and no appeal has been properly and timely filed, the Building Official shall file in the Anchorage District Recorder's Office a certificate describing the property and certifying (i) that the building is a dangerous, abandoned or derelict building and (ii) that the owner has been so notified. When the corrections ordered have been completed or the building demolished so that it no longer exists as a dangerous, abandoned or derelict building on the property described in the certificate, the Building Official shall file a new certificate with the Anchorage District Recorder certifying that the building has been demolished or all required corrections have been made so that the building is no longer dangerous, abandoned or derelict whichever is appropriate. (AO 83-65, AO 86-57(S-1) AO 93-147)

704.3 Repair, vacation and demolition. The following standards shall be followed by the Building Official (and the Board of Appeals if an appeal is taken) in ordering the repair, vacation or demolition of any dangerous, abandoned or derelict building or structure:

1. Any building declared a dangerous, abandoned or derelict building under this code shall be made to comply by the owner with one of the following:

1.1. The building shall be repaired in accordance with the current building code or other codes applicable to the type of substandard conditions requiring repair; or

1.2. The building shall be demolished at the option of the owner

2. If the building or structure is in such condition as to make it immediately dangerous to life, limb, property or safety of the public or its occupants, it shall be ordered to be vacated and demolished if repairs are not begun within 60 days.

3. If one or more of the following conditions exists the building or structure may be ordered to be demolished:

3.1 The building is in imminent danger of collapse due to structural failure; or

3.2 The building has not been properly secured or maintained so that it is habitually used as a harbor for vagrants, or is an attractive nuisance to children; or

3.3 The building is beyond economic feasibility to repair; or

3.4. The building remains abandoned or derelict 180 days after notice under Section 301.

4. For the purposes of this section, the following definitions shall apply:

4.1. Beyond Economic Feasibility to Repair - When the estimated cost of repair exceeds the replacement cost of the entire structure.

4.2. Habitual - Customarily, or by frequent practice or use. It does not mean entirely or exclusively.

4.3. 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 that a reasonable person may believe that it poses a serious threat to life and safety. (AO 93-147)

704.4 Notice to vacate.

704.4.1 Posting. Every notice to vacate shall, in addition to being served as provided in Section 704.1, be posted at or upon each exit of the building and shall be in substantially the following form:

DO NOT ENTER

UNSAFE TO OCCUPY

It is a misdemeanor to occupy this building, or to remove or deface this notice.

CODE OFFICIAL

704.4.2 Compliance. Whenever such notice is posted, the code official shall include a notification thereof in the notice and order issued under Section 704.1, reciting the emergency and specifying the conditions which necessitate the posting. No person shall remain in or enter any building which has been so posted, except that entry may be made to repair, demolish or remove such building under permit. No person shall remove or deface any such notice after it is posted until the required repairs, demolition or removal have been completed and a certificate of occupancy issued pursuant to the provisions of the code.

704.4.3 Summary Abatement. The Building Official may abate any public nuisance without notice in an emergency where the lieu 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. (AO 86-57(S-1).)

SECTION 705
APPEAL

705.1 General

705.1.1 Form of Appeal. Any person entitled to service under Section 704.1 may appeal from any notice and order or any action of the code official under this code by filing at the office of the code official a written appeal containing:

1. A heading in the words: "Before the "Board of Building Regulation Examiners and Appeals"
2. A caption reading: "Appeal of ....." giving the names of all appellants participating in the appeal.
3. A brief statement setting forth the legal interest of each of the appellants in the building or the land involved in the notice and order.
4. A brief statement in ordinary and concise language of the specific order or action protested, together with any material facts claimed to support the contentions of the appellant.
5. A brief statement in ordinary and concise language of the relief sought and the reasons why it is claimed the protested order or action should be reversed, modified or otherwise set aside.
6. The signatures of all parties named as appellants and their official mailing addresses.
7. The verification (by declaration under penalty of perjury) of at least one appellant as to the truth of the matters stated in the appeal.

The appeal shall be filed within 30 days from the date of the service of such order or action of the code official; provided, however, that if the building or structure is in such condition as to make it immediately dangerous to the life, limb, property or safety of the public or adjacent property and is ordered vacated and is posted in accordance with Section 404, such appeal shall be filed within 10 days from the date of the service of the notice and order of the code official.

705.1.2 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.

705.1.3 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 10 days nor more than 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 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.

705.2 Effect of failure to appeal. Failure of any person to file an appeal in accordance with the provisions of Section 705 shall constitute a waiver of the right to an administrative hearing and adjudication of the notice and order or any portion thereof.

705.3 Scope of hearing of appeal. Only those matters or issues specifically raised by the appellant shall be considered in the hearing of the appeal.

705.4 Staying of order under appeal. Except for vacation orders made pursuant to Section 704.4, enforcement of any notice and order of the code official issued under this code shall be stayed during the pendency of an appeal there from which is properly and timely filed.

SECTION 706
ENFORCEMENT OF THE ORDER OF THE CODE OFFICIAL OR THE BOARD OF APPEALS

706.1 Compliance

706.1.1 General. After any order of the code official or the board of appeals made pursuant to this code shall have become final, no person to whom any such order is directed shall fail, neglect or refuse to obey any such order. Any such person who fails to comply with any such order is guilty of a misdemeanor.

706.1.2 Failure to obey order. If, after any order of the code official or board of appeals made pursuant to this code has become final, the person to whom such order is directed shall fail, neglect or refuse to obey such order, the code official may (i) cause such person to be prosecuted under this code or (ii) institute any appropriate action to abate such building as a public nuisance.

706.1.3 Failure to commence work. Whenever the required repair or demolition is not commenced within 30 days after any final notice and order issued under this code becomes effective:

1. The code official shall cause the building described in such notice and order to be vacated by posting at each entrance thereto a notice reading:

   DANGEROUS BUILDING

   DO NOT OCCUPY

   It is a misdemeanor to occupy this building, or to remove or deface this notice.

   Code Official

2. No person shall occupy any building which has been posted as specified in this section. No person shall remove or deface any such notice so posted until the repairs, demolition or removal ordered by the code official have been completed and a certificate of occupancy issued pursuant to the provisions of the code.
3. The Building Official may, in addition to any other remedy provided herein, cause the building to be repaired to the extent necessary to correct the conditions which render the building dangerous, abandoned or derelict as set forth in the notice and order; or, if the notice and order require demolition, to cause the building or abandoned personal property to be sold and there from removed and the lot cleaned. Any such repair or demolition work shall be accomplished and the cost thereof paid and recovered in the manner hereinafter provided in this code. (AO 83-65, AO 86-57(S-1) AO 93-147)

706.1.4 Failure to commence work. Prior to the time of demolition, the Building Official has the authority to enter the dangerous, abandoned or derelict building to make an inspection for any personal property of value that may be abandoned on the premises. If such property is

discovered, an inventory shall be taken and the final notice of demolition to the record owner of the dangerous, abandoned or derelict building shall include the inventory and a request that the owner remove such property before demolition. This notice shall also state that 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 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 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 the Municipality for any storage charges. (AO 83-65, AO 86-57(S-1) AO 93-147)

706.2 Extension of time to perform work. Upon receipt of an application from the person required to conform to the order and by agreement of such person to comply with the order if allowed additional time, the code official may grant an extension of time, not to exceed an additional 120 days, within which to complete said repair, rehabilitation or demolition, if the code official determines that such an extension of time will 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, rehabilitation or demolition of the premises and will not in any way affect the time to appeal the notice and order.

706.3 Interference with repair of demolition work prohibited. No person shall obstruct, impede or interfere with any officer, employee, contractor or authorized representative of this jurisdiction or with any person who owns or holds any estate or interest in any building which has been ordered repaired, vacated or demolished under the provisions of this code; or with any person to whom such building has been lawfully sold pursuant to the provisions of this code, whenever such officer, employee, contractor or authorized representative of this jurisdiction, person having an interest or estate in such building or structure, or purchaser is engaged in the work of repairing, vacating and repairing, or demolishing any such building, pursuant to the provisions of this code, or in performing any necessary act preliminary to or incidental to such work or authorized or directed pursuant to this code.

SECTION 707
PERFORMANCE OF WORK OR REPAIR OR DEMOLITION

707.1 General. When any work, repair or demolition is to be done pursuant to Section 704.3 of this code, the Building Official shall issue his order, and the work shall be accomplished by personnel of this jurisdiction or by private contract. Plans and specifications therefore may be prepared by the Building Official, or he may employ such architectural and engineering assistance on a contract basis as he may deem reasonably necessary. If any part of the work is to be accomplished by private contract, standard Public Works contractual procedures shall be followed. (CAC 14.60.210-801(b), AO 78-105, AO 80-1, AO 83-65, AO 86-57(S-1).)

707.2 Responsibility for Payment. The responsibility for payment of the charges for abatement 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 an

order or notice under Section 704.1.2 jointly and severally with any subsequent owner until all costs assessed under this chapter are paid in full. (AO 80-1, AO 83-65, AO 86-57(S-1) AO 93-147)

707.3 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. (new, am AO 78-105, AO 80-1, AO 83-65, AO 86-57(S-1).)

SECTION 708
RECOVERY OF COST OF REPAIR OR DEMOLITION

708.1 Account of Expense.

1. The Building Official shall cause to be kept an account of the cost, including incidental expenses, incurred by the Municipality in the repair or demolition of any building done pursuant to the provisions of Section 702 of this code. Upon the completion of the work or repair or demolition, the Building Official shall forward a bill for collection to the record owner, as that term is used Section 707.2, 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 section or through any other legal means. (CAC 14-60.203.901, AO 78-105, AO 80-1, AO 83-65, AO 86-57(8-10), AO 93-147)
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. (CAC 14-60.203-901, am AO 78-105, AO 80-1, AO 83-65, AO 86-57(S-1) AO 93-147)

   If the bill for collection remains unpaid 30 days after mailing of notice to the record owner(s), the Municipality shall be entitled to interest 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 interest. (AO 93-147)

708.2 Lien Procedure. Charges of the repair or demolition of any building done pursuant to the provisions of Section 701.3.3 of this code become a lien upon the real property upon which the building or structure is or was located. When charges for the repair or demolition of any building remain unpaid after 30 days from the date the Building Official forwards a bill for collection to the record owner, as identified in Section 707.2, the Building Official shall record a claim of lien at the Anchorage District Recorder's Office. The lien shall be subordinate to all existing special assessment liens previously imposed upon the same property and shall be paramount to all other liens except for state or municipal property taxes with which it shall be upon a parity. The lien shall continue until the charges and all interest due and payable thereon are paid. The amount liened shall continue to accrue interest as set forth in AMC 23.65.901(c) until all such interest and charges due and payable thereon are paid. (AO 80-73, am AO 83-65, AO 86-57(S-1) AO 83-147)

708.3 Collection of Abatement Charges. The lien created herein may be enforced as provided in AS 34.35.005-34.35.045. The enforcement of the lien is a cumulative remedy and does not bar the collection of the charges for abatement as provided in Section 707.3 of this code. (AO 80-73, AO 83-65, AO 86-57(S-1) AO 93-147).

CHAPTER 23.75
LOCAL AMENDMENTS TO THE AMERICAN NATIONAL STANDARDS INSTITUTE/AMERICAN SOCIETY OF MECHANICAL ENGINEERS ANSI/ASME A17.1 – SAFETY CODE FOR ELEVATORS AND ESCALATORS, 1996 Edition

SECTIONS

1996 Safety Code for Elevators and Escalators Local Amendments

23.75.1000 Local Amendments

The amendments to the provisions of ANSI/ASME A17.1-1996 Edition are listed hereinafter by section. The last digits of the section number (after the title and chapter numbers) are the paragraph number in ANSI/ASME A17.1-1996 to which the amendment refers, i.e., 23.75.1001.1 refers to paragraph 1001.1 of ANSI/ANSME A17.1.

Amend ANSI/ASME A 17.1-1996 Safety Code for Elevators and Escalators by adding the following Local Amendments:

23.75.1000.1 Reporting Injuries Involving Elevators and Escalators

Add a new section to read:

> An owner or operator must report, in detail and within 48 hours, any accident involving an elevator or escalator, which results in injury to a person. If the deadline for the report falls on a weekend or holiday, the report must be made at the beginning of the next Municipal working day. The report must be in the form of a written narrative to the Municipality of Anchorage Building Official, Department of Development Services, Division of Building Safety.

23.75.1000.2 Top-of-Car Inspection of Existing Elevators

All existing elevators shall have top-of-car operating devices as specified below:

1. Elevators with automatic or continuous-pressure operation shall have a continuous-pressure button operating switch mounted on 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).

2. 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 crosshead and the side of the car nearest the hoistway entrance normally used for access to the car top.

23.75.1000.3 Access to Hoistway on Existing Elevators

All existing elevators must have mechanical (lunar key) means to access hoistway at top and bottom landing.

Hoistway door unlocking devices shall conform to the following:

The device shall unlock and permit the opening of the hoistway door from the access landing irrespective of the position of the car.

CHAPTER 23.85

Local Amendments to the International Residential Code, 2000 Edition

SECTIONS:

23.85.R403	Footings
Figure 23.85.403-16	Reinforced Concrete
Figure 23.85.403-25	Typical Foundation And Footing Details
Figure 23.85.403-29	Typical Step Footing
Figure 23.85.403-31	Typical Pony Wall for Split Level
Figure 23.85.403-34	All Weather Wood Foundation
Figure 23.85.403-37	Typical Basement Foundation Wall
TABLE 23.85.R403	
23.85.R403.2	Footings For Wood Foundations
23.85.R403.3	Frost Protected Shallow Foundations
23.85.R404.1.1	Masonry Foundation Walls
23.85.R404.3	Wood Sill Plates
23.85.R406.1	Concrete and Masonry Foundation Dampproofing
23.85.R406.2	Concrete Masonry Foundation Waterproofing
23.85. R406.3.2	Below Grade Moisture Barrier
23.85.R407.2	Steel Column Protection
23.85.R408.5	Finished Grade
23.85.R602.3.2	Top Plate
23.85.R602.6	Drilling And Notching – Studs
23.85.602.11.1	Wall Anchorage
23.85.R702.3.1	Materials
23.85.R702.3.6	Fastening
23.85.R702.4.2	Gypsum Backer
23.85.R703.3	Wood, Plywood And Wood Structural Panel Siding
23.85.R703.8	Flashing
23.85.R802.3	Framing Details
23.85.R802.10	Wood Trusses
23.85.R802.10.1	Truss Design Drawings
23.85.R803.1	Lumber Sheathing
23.85.R806.1	Ventilation Required
23.85.R806.2	Minimum Area
23.85.R807.1	Attic Access
23.85R905.2.2	Slope
23.85.R905.2.4	Asphalt Shingles

23.85.R905.2.7	Underlayment Application
23.85.R905.2.7.1	Ice Protection
23.85.R905.2.8	Flashing
23.85.R905.3.3	Underlayment
23.85.R905.3.3.1	Low Slope Roofs
23.85.R905.3.3.2	High Sloped Roofs
23.85R905.4	Metal Roof Shingles
23.85.R905.4.3	Deck Slope
23.85.R905.4.3	Underlayment (METAL)
23.85.R905.5	Mineral-Surfaced Roll Roofing
23.85.R905.6	Slate and Slate-Type Shingles
23.85.R905.6.3	Underlayment (SLATE)
23.85R905.7	Wood Shingles
23.85R905.8	Wood Shakes
23.85.R905.8.6	Application (wood shakes)
23.85.R905.9.1	Slope
23.85.R905.10.2	Slope
23.85 Chapter 11	Energy Efficiency
23.85 Chapters 12-38	
23.85 Chapters 39-46	
23.85.AE100	Mobile and Manufactured Homes
23.85.AE101	Scope
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 Appendix	

23.85.R100 Local Amendments To The 2000 International Residential Code

The amendments to the 2000 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 2000 International Residential Code to which the amendments refers, i.e., 23.85.210 refers to amendments to Section 210 of the 2000 International Residential Code.

23.85.R100.1 Administrative

Delete Sections 104 through 113 and 116 through 118. See Anchorage Administrative Code Chapter 23.10 for Administrative Provisions and Fees. Section 306, Special Inspections, and 307, Structural Observation, do not apply to one and two family structures unless specifically required by the Engineer of Record.

23.85.R202 Definitions

Delete the definition of "Grade (adjacent ground elevation)" and substitute the following:

> Grade. (adjacent ground elevation) is the lowest point of the finished ground elevation at a distance of five (5) feet from the exterior wall of a building. In case walls are parallel to and within five (5) feet of a public sidewalk, alley or other public way, the finished ground elevation at any point shall be considered to be the elevation of the sidewalk, alley, or public way.

23.85.R301.2(1) Climatic and Geographic Design Criteria

TABLE NO. R301.2(1)

CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA

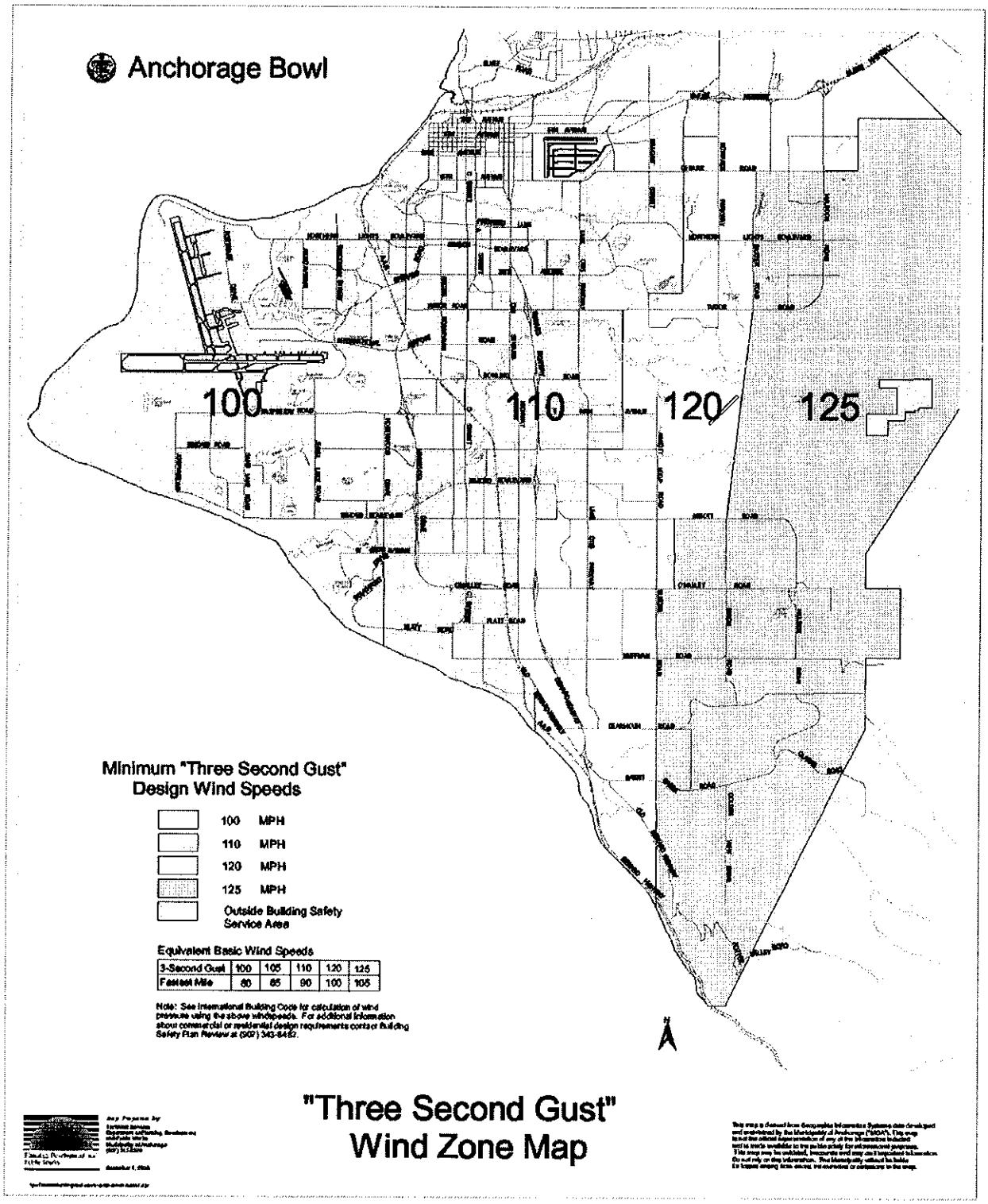
Add the following information in the table:

Roof snow load	40 PSF
Wind Speed	Figure 23.85.R301.2(4)
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
Decay	Yes
Winter Design Temperature	-25 deg F
Flood Hazards	Yes, see flood hazard maps

23.85.R301.2(4) Basic Wind Speeds For 50-Year Mean Recurrence Interval

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

> Replace Figure R301.2(4) with attached Anchorage Bowl three second gust Wind Zone map:


Anchorage Bowl
100
110
120
125
Minimum "Three Second Gust"
Design Wind Speeds
100 MPH
110 MPH
120 MPH
125 MPH
Outside Building Safety
Service Area
Equivalent Basic Wind Speeds
3-Second Gust 100 105 110 120 125
Fastest Mile 80 85 90 100 105
Note: See International Building Code for calculation of wind pressure using the above windspeeds. For additional information about commercial or residential design requirements contact Building Safety Plan Review at (907) 343-8482.
"Three Second Gust"
Wind Zone Map

1
2
3

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, R301.2.2.2, and table 301.2.2.1.1 and replace with the following:

The seismic design category for Anchorage shall be D_2.

23.85.R309.1 Opening Protection For Fire Ratings For Attached Garages

Amend by adding a third sentence to read as follows:

Doors shall be self-closing and have smoke gaskets at top and sides of doors and adjustable threshold or sweep.

23.85.R309.2 Separation Required

Amend by deleting paragraph in its entirety and replacing with the following:

A garage shall be separated from the residence and its attic area with a one-hour occupancy separation. The occupancy separation may be limited to the installation of approved materials approved for one-hour fire resistance construction on the garage side only. 5/8 Type X gypsum wall board will be considered adequate protection for one-hour construction on the garage side at rated walls and ceilings. All plastic pipe such as condensate lines, vacuum lines, drain lines, waste lines, and vent lines require an approved tested fire collar or equivalent at rated wall and ceiling penetrations on garage side only. All ferrous metal pipe penetrations are required to be filled with gypsum wall board compound or other approved materials. Fire dampers need not be installed in air ducts passing through the wall, floor, or ceiling separating garage from the dwelling, provided such ducts within the garage are constructed of steel having thickness not less than 0.019 inch [0.48 mm] [No. 26 galvanized sheet gage] and have no opening into the garage.

Access to a crawlspace from a garage shall meet minimum requirements of self-closing, tight fitting, solid wood door measuring 1-3/8 inches or greater in thickness, or equivalent laminated plywood or combination plywood and properly secured 5/8 inch Type X gypsum wallboard or 20 minute approved door assembly.

23.85.R310.1 Exits And Emergency Escapes

Add the following to Section 310.2 Emergency Egress Openings to read as follows:

Exception:: 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 48 inches above the finished floor.

23.85.R314.2 Treads And Risers

Amend in two places:

Amend first sentence by changing "maximum riser height" from 7 ¾ inches to 8 inches.

Amend first sentence by changing "minimum tread depth" from 10 inches to 9 inches.

23.85.R314.8 Under Stair Protection

Add the following:

Half inch gypsum board shall be fire rated.

23.85.R315.1 Handrails

Amend second sentence by changing the words "two or more risers" to "four or more risers."

23.85.R316.2 Guard Opening Limitations

Amend in two places:

Delete the "stairways," from the first sentence.

Add the following as the second sentence of the paragraph:

> Required guards on open sides of stairways shall have intermediate rails or ornamental closures where the horizontal spacing between vertical members in required guards shall be a maximum of 4 inches at the nearest point between members but cannot allow the passage of a sphere greater than 4.75 inches in diameter at any point between members.

23.85.R318.1.2 Thermal Barrier

EXCEPTION: Foam plastics used in crawl space rim joist do not require thermal barrier.

23.85.R321.1 Two Family Dwellings

Add the following exception to read as follows:

> 2. Wall assembly in crawl spaces of two family dwellings or occupancies for unit separation shall be of 1-hour construction from footing or foundation to underside of floor above in accordance with ASTME 119.

23.85.R322 Moisture Vapor Retarders

Delete paragraph and exceptions and add the following:

> Vapor retarders. All exterior wall, ceiling, roof and floor assemblies which enclose heated spaces and which are exposed to outdoor ambient temperatures shall be protected against water vapor transmission. Assemblies not otherwise of impermeable construction shall have installed, on the heated side of the insulation or air spaces, vapor retarders having a perm rating of 0.06 minimum (equivalent to 6 mils polyethylene sheeting) or other material approved by the Building Official.

23.85.R323.1 Location Required

Amend first sentence by deleting the words "or decay-resistant heartwood of redwood, black locust, or cedars."

23.85.R323.3 Fasteners

Delete exceptions.

23.85.R401.1 Application

Add the following exception:

> 3. Wood foundations shall have a 16-inch x 10-inch reinforced concrete footing minimum.

23.85.R401.4 Site And Soil Investigations

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 Table 23.85.01.4.

   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 and structural analysis, both prepared by a professional engineer registered in the State of Alaska, to determine structural suitability to the site in terms of proposed occupancy and use. It may be necessary to extend the investigation beyond the immediate site boundaries in order to evaluate applicable hazards.

   C. For site investigation requirement "C", provide all information required above; plus submit geotechnical data sufficient to evaluate seismically induced ground failure including liquefaction potential. Slope stability evaluations shall be performed in accordance with Section 401.4.2.

2. Slope stability evaluations shall be performed by a geotechnical engineer for sites where a "moderate to high" mass wasting potential is delineated in the Geotechnical Hazard Assessment Study, or otherwise known, or where required by Table 401.4.1. Stability evaluations shall show through investigation, subsurface exploration, analysis, and geotechnical report that the building site and permanent cut, fill, or stabilized slopes have a minimum factor of safety of 1.5 of under statically applied load conditions, and a minimum factor of safety of 1.1 for seismic load conditions. For purposes of this section pseudostatic analyses may be used. A minimum pseudostatic horizontal inertial force equal to 20 percent of the total weight of the potential sliding mass shall then be used. The analysis shall consider the potential loss of soil strength due to liquefaction or remolding of highly sensitive soils.

3. Where Section 23.10.302.6 of the amendments to the Anchorage Administrative Code requires a geotechnical investigation to be performed, the potential for isolated permafrost shall be addressed in the geotechnical report.

TABLE 401.4

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.R402.1.3 Restraint for Wood Foundations

Add a new subsection, R402.1.3, Restraint for Wood Foundations, to read as follows:

1. Basement

   A 4 inch thick concrete slab poured against the studs. If a wooden screed is used it shall be Douglas fir or hem fir pressure treated in accordance with AWPA C22 with a .6 retention.

2. Crawlspace

   A minimum 5 inch wide by 4 inch deep concrete curb poured against the inside face of the studs. The kicker shall be reinforced with a continuous horizontal #3 reinforcing bar. If the kicker is not poured with the continuous concrete footing, it may be poured later provided vertical #3 reinforcing bars .x10 inches long shall be cast into the footing at 2 feet on center. They shall extend 2 inches above the top of the footing. The continuous #3 bar shall be secured to the vertical #3 bars.

Exceptions: The above need not apply if a suitable alternate design is prepared by an engineer registered in the State of Alaska and is approved by the Building Official.

23.85.R402.1.4 Dampproofing for Wood Foundation Walls

Add a new subsection, 402.1.4, Dampproofing for Wood Foundation Walls, to read as follows:

Approved dampproofing 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 dampproofing. The wood strip shall extend at least two (2) inches above and five (5) inches below finish grade level to protect the approved dampproofing 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 dampproofing shall extend down to the bottom of the concrete footing.

23.85.R403 Footings

Delete the last sentence of subsection 403.1 and add the following:

1. Definitions

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

Cold foundation: Any foundation where temperatures of the bearing soils are normally subject to freezing.

2. Delete Figures R403.1(1), R403.1(2), R403.1(3), and Tables R403.1 and replace with the following:

Foundations shall be constructed as shown in figures 23.85.403 -16, -25, -29, -31, -34, and -37, on foundations. 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:

Minimum footing depths shall be as indicated in Table 23.85.403. Footings shall bear on undisturbed natural inorganic soil, or suitably compacted fill. A foundation investigation, which includes surface and subsurface drainage recommendations, prepared by a civil engineer licensed in the State of Alaska shall be required when ground water is known or suspected to exist within six (6) feet of final grade.

Cast-in-place concrete piers shall be founded at a depth suitable for structural support or as indicated in Table 23.85.403 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.

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Figure 23.85.403-16 Reinforced Concrete

1. The minimum reinforcement for reinforced concrete shall be as follows:

12" Walls	10" Walls
#4 @ 12" o.c. each face horizontal	#4 @ 8" o.c. horizontal
#4 @ 18" o.c. each face vertical	#4 @ 12" o.c. vertical
8" Walls	**6" Walls**
#4 @ 10" o.c. horizontal	#4 @ 12" o.c. horizontal
#4 @ 16" o.c. vertical	#4 @ 18" o.c. vertical

2. Reinforced concrete walls shall be anchored to all floors and roofs in accordance with Chapter 16 and 19 of the International Building Code.
3. All intersecting reinforced concrete walls shall be tied together.
4. All interior and exterior concrete walls shall be reinforced.
5. All structural members framing into or supported on concrete walls or columns shall be anchored.

ALTERNATE REINFORCEMENT FOR CONCRETE WALLS

6" Walls	) #4 @ 12" hor.	#3 @ 8" hor.	#5 @ 13" hor.
	) #4 @ 18" vert.	#3 @ 12" vert.	#5 @ 18" vert
8" Walls	) #4 @ 10" hor.	#3 @ 5 1/2" hor	#5 @ 15" hor.
	) #4 @ 16" vert.	#3 @ 9" vert.	#5 @ 18" vert.
10" Walls	) #4 @ 8" hor.	#3 @ 9" E.F. hor.	#5 @ 12" hor.
	) #4 @ 12" vert	#3 @ 15" E.F. vert.	#5 @ 18" vert.
12" Walls	) #4 @ 12" E.F. hor.	#3 @ 7 1/2" E.F. hor.	#5 @ 18" E.F. hor.
	) #4 @ 18" E.F. vert.	#3 @ 12" E.F. vert.	#5 @ 18" E.F. vert.

(E.F. -- Each Face)

Figure 23.85.403-25 Typical Foundation And Footing Details

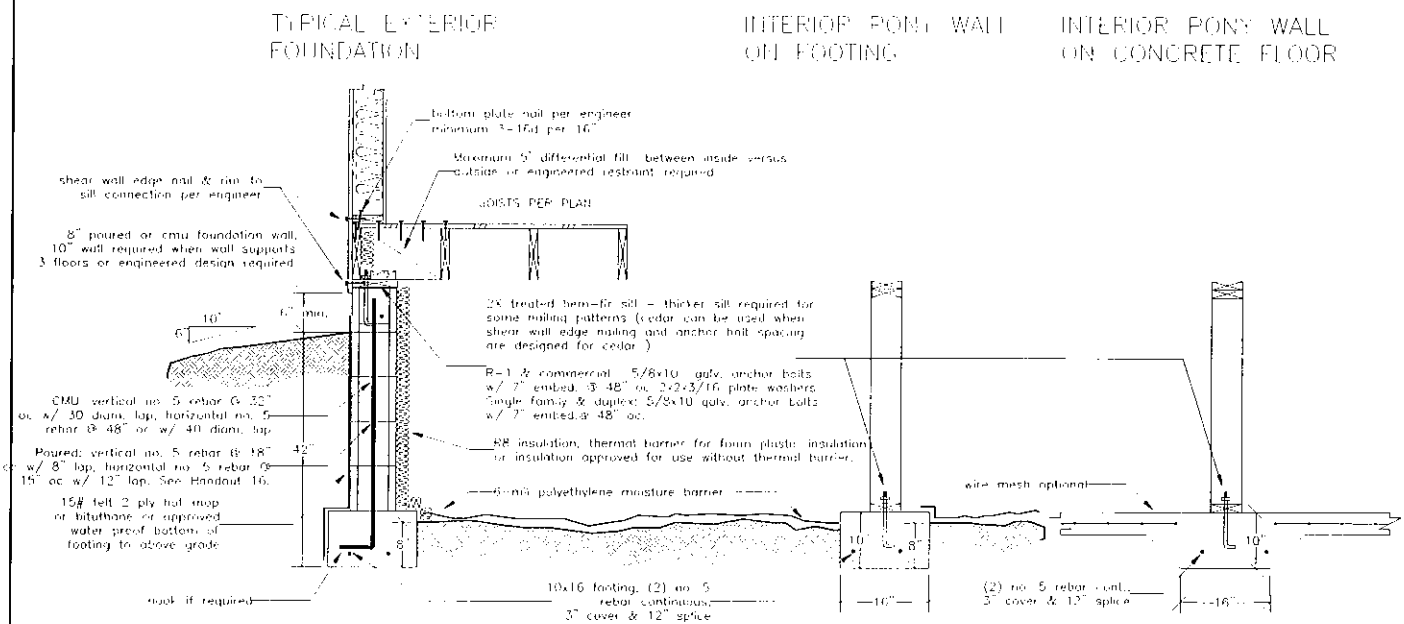

Figure 23.85.403-29 Typical Step Footing

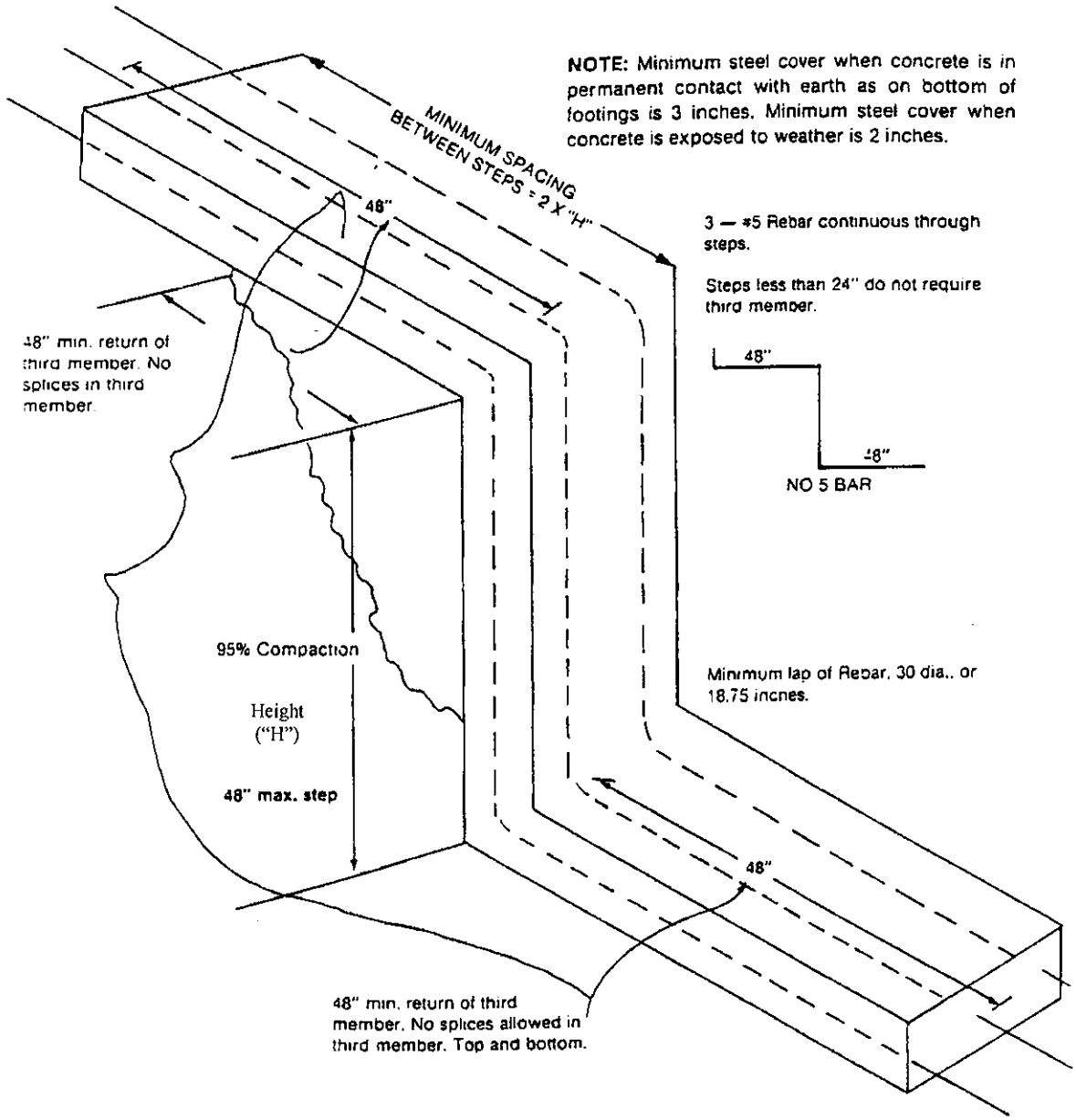

Figure 23.85.403-31 Typical Pony Wall for Split Level

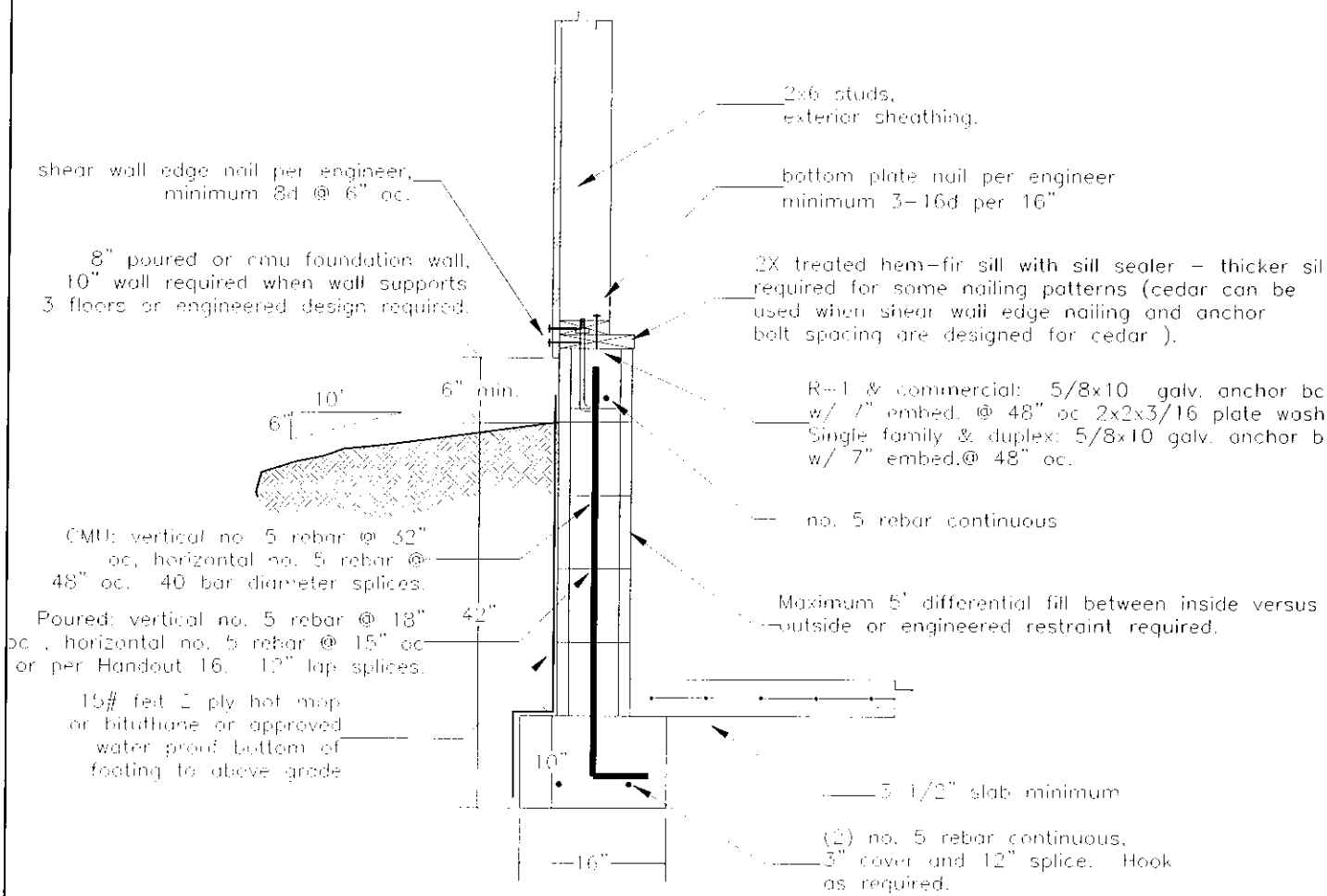

Figure 23.85.403-34 All Weather Wood Foundation

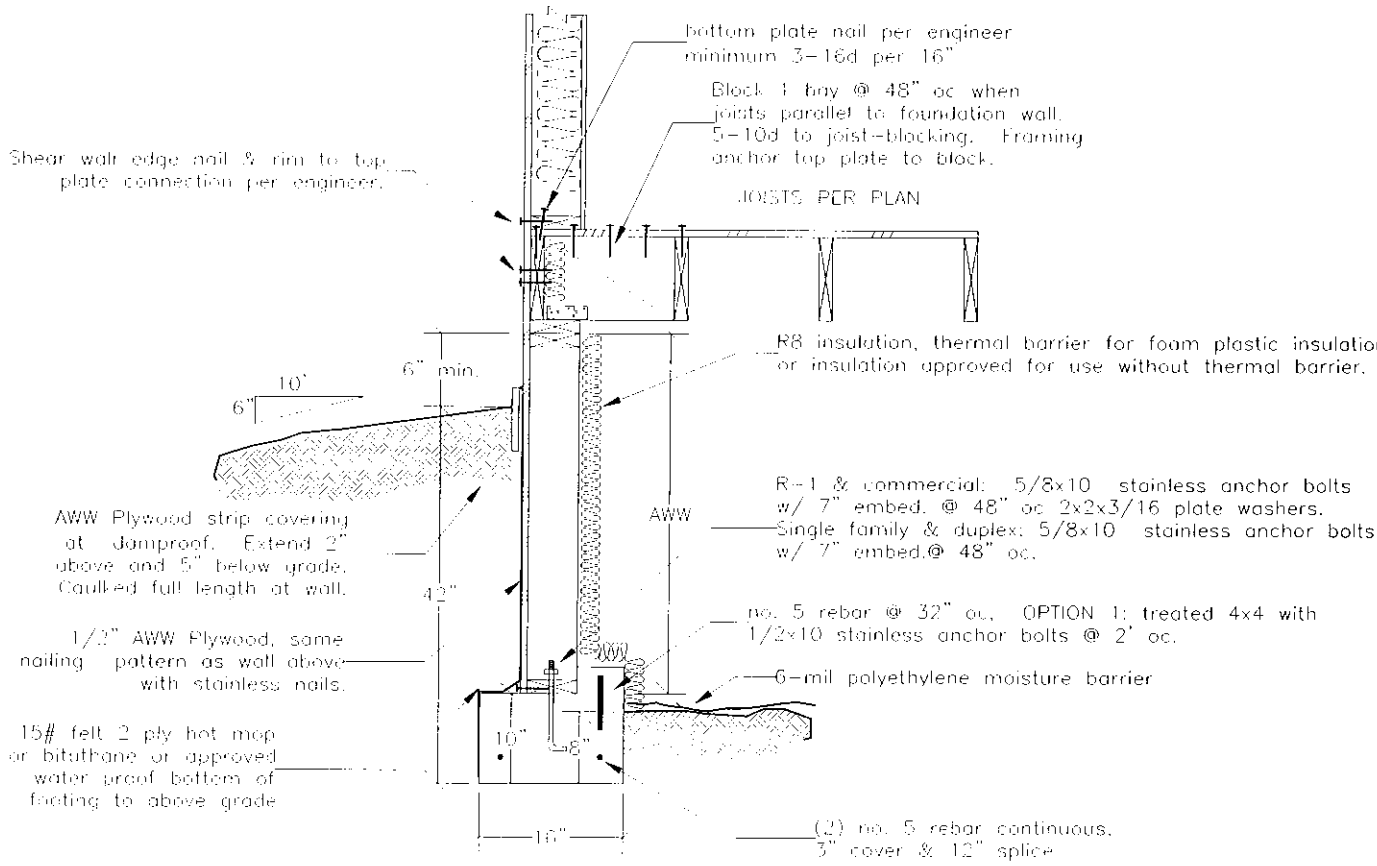

Figure 23.85.403-37 Typical Basement Foundation Wall

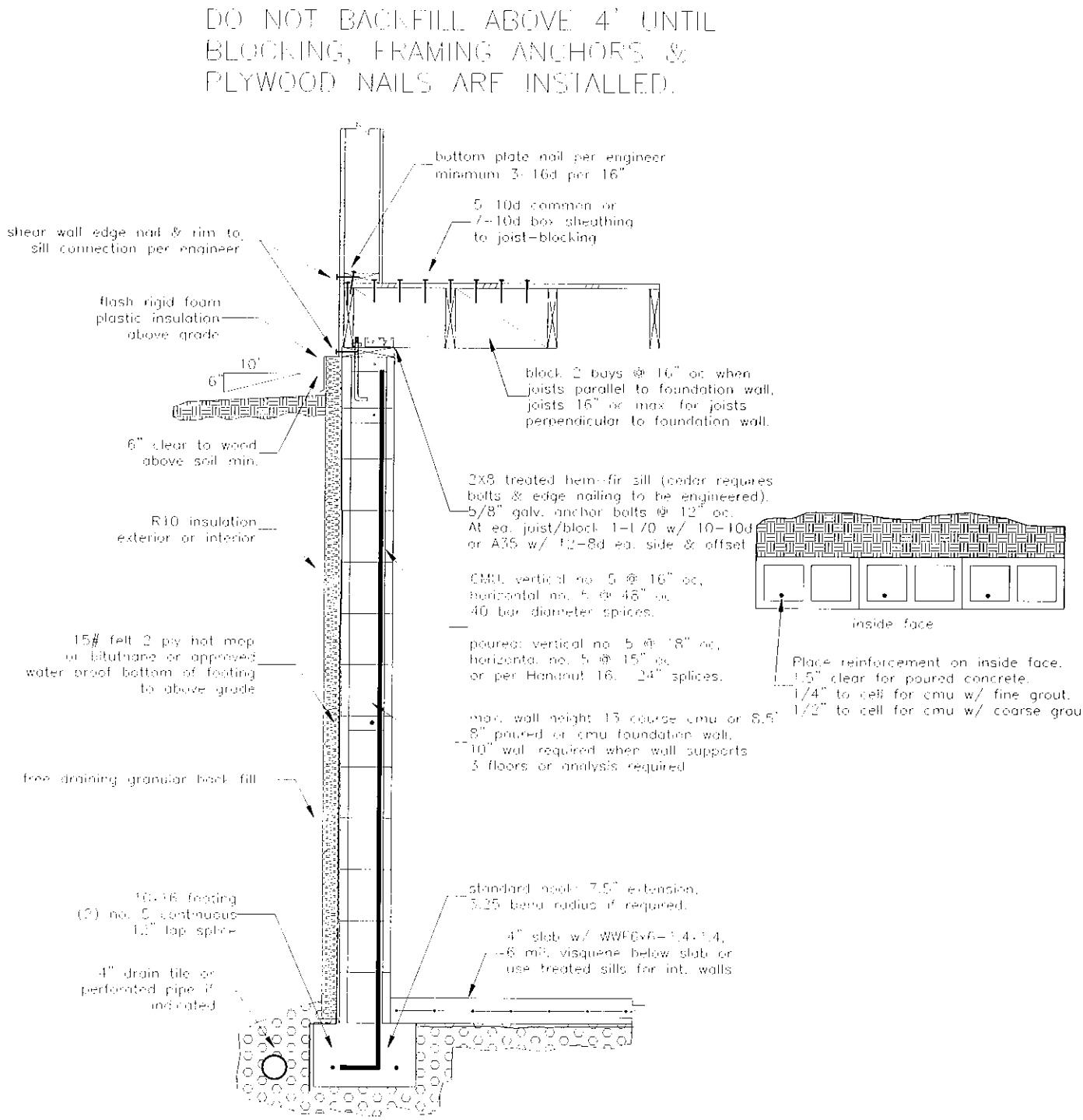

TABLE 23.85.R403

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)	8	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. Required depth to bottom of footing within a crawl space shall not be less than eight inches. 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.R403.2 Footings For Wood Foundations

Delete entire paragraph and replace with the following:

Wood foundations shall have a 16-inch x 10-inch concrete footing minimum.

23.85.R403.3 Frost Protected Shallow Foundations

Delete reference to Table R403.3

23.85.R404.1.1 Masonry Foundation Walls

Delete Sections R404.1.1 through R404.1.8.

Delete Tables R404.1.1(1), R404.1.1(2), R404.1.1(3), R404.1.1(4), and R404.1.5(1)

23.85.R404.2 Wood Foundation Walls

Delete subsection in its entirety; reference Figure 23.85.403-34 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 five-eights (5/8) 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 four (4) 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 R323.1.

23.85.R406.1 Concrete and Masonry Foundation Dampproofing

Delete section and substitute with the following:

> Except where required to be waterproofed by Section R406.2, foundation walls that retain earth shall be dampproofed from the top of the footing to the finished grade, and damp proofing shall cover the top of the footing, and lap over the outer edge a minimum of 1 inch. Masonry walls shall have not less than 3/8 inch (9.5 mm) portland cement parging applied to the exterior of the wall. The parging shall be dampproofed with a bituminous coating, 3 pounds per square yard (1.63 kg/m^2) of acrylic modified cement, 1/8-inch (3.2 mm) coat of surface-bonding mortar complying with ASTM C 887 or any material permitted for waterproofing in Section R406.2. Concrete walls shall be dampproofed by applying any one of the above listed dampproofing materials or any one of the waterproofing materials listed in Section R406.2 to the exterior of the wall. Foundation walls that are backfilled on both sides, such as those used in conjunction with a "slab on grade" do not require dampproofing or waterproofing.

23.85.R406.2 Concrete Masonry Foundation Waterproofing

Delete section and substitute with the following:

> Exterior foundation walls that retain earth and enclose habitable or usable spaces located below grade shall be waterproofed with a membrane extending from the top of the footing to the finished grade, and waterproofing shall cover the top of the footing, and lap over the outer edge a minimum of 1 inch. The membrane shall consist of 2-ply hot-mopped felts, 55 pound (25 kg) roll roofing, or 40-mil (1 mm) polymer-modified asphalt. The joints in the membrane shall be lapped and sealed with an adhesive compatible with the waterproofing membrane. Foundation walls that are backfilled on both sides, such as

those used in conjunction with a "slab on grade" do not require dampproofing or waterproofing.

Exception: Organic solvent based products such as hydrocarbons, chlorinated hydrocarbons, ketons and esters shall not be used for ICF walls with expanded polystyrene form material. Plastic roofing cements, acrylic coatings, latex coatings, mortars and pargings are permitted to be used to seal ICF walls. Cold setting asphalt or hot asphalt shall conform to type C of ASTM D 449. Hot asphalt shall be applied at a temperature of less than 200 degrees

23.85. R406.3.2 Below Grade Moisture Barrier

Delete and substitute the following:

Foundation walls located below grade shall be dampproofed with either 2 ply of 15 lb. hot-mopped felt or 1 ply of 30 lb. hot-mopped felt or other approved materials.

23.85.R407.2 Steel Column Protection

Delete this section in its entirety.

23.85.R408.5 Finished Grade

Delete this section in its entirety.

23.85.R602.3.2 Top Plate

Delete exception.

23.85.R602.6 Drilling And Notching – Studs

Amend subsection 602.5 by adding a paragraph as follows:

All studs in shear walls, bearing walls or exterior walls containing plumbing drains and vents shall be a minimum of 6" nominal width unless otherwise approved.

602.6, 602.6.1, 602.6.2 and referenced tables shall be deleted in their entirety.

23.85.602.11.1 Wall Anchorage

In second sentence delete reference to 1/4" and replace with 3/16".

23.85.R702.3.1 Materials

Add a sentence to last paragraph as follows:

Water resistant gypsum board shall not be used on exterior walls.

23.85.R702.3.6 Fastening

Add the following sentence at the end of the paragraph:

Gypsum board applied in ceilings shall be attached with screws. Nails are not allowed.

23.85.R702.4.2 Gypsum Backer

Add the following sentence at the end of the paragraph:

Gypsum board of any type shall not be used on exterior walls in shower and bath comportments under ceramic tile except for materials specifically designed for that purpose.

23.85.R703.3 Wood, Plywood And Wood Structural Panel Siding

Add the following:

Exterior type plywood siding with a grooved pattern shall not be installed horizontally and used as the weather resistant siding.

23.85.R703.8 Flashing

Amend section by deleting Exception 4

23.85.R802.3 Framing Details

Amend subsection 802.3 by adding a paragraph as follows:

Minimum depth from roof sheathing to wall plate at exterior walls to be 9 inches.

23.85.R802.10 Wood Trusses

Amend subsection 802.10.2 Design by adding a paragraph as follows:

Minimum depth of truss at exterior wall plate to be 9 inches.

23.85.R802.10.1 Truss Design Drawings

Amend first sentence by deleting the words: "and approved prior to installation."

23.85.R803.1 Lumber Sheathing

Delete this entire section.

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 its design is approved by the Building Official.

23.85.R806.2 Minimum Area

Revise the first sentence of Section 23.85.806.2 by deleting the phrase, "except that total area is permitted to be reduced to 1 to 300, provided" and adding the word "and" in its place.

23.85.R807.1 Attic Access

Add the following to Section 807.1:

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.

23.85R905.2.2 Slope

Delete Section R905.2.2 and replace with the following:

Asphalt shingles shall only be used on roof slopes of three units vertical in 12 units horizontal or greater. Underlayment shall be in accordance with Section 23.85R905.2.7 and ice protection shall be in accordance with 23.85R905.2.7.1

23.85.R905.2.4 Asphalt Shingles

Add the following to the end of the paragraph:

Asphalt shingles shall have a minimum weight of 235 lbs per square.

23.85.R905.2.7 Underlayment Application

Delete paragraph and replace with the following:

For roof slopes from 3 vertical units in 12 horizontal units (3:12) up to and including 4 vertical units in 12 horizontal units (4:12) underlayment shall be two layers of non-perforated Type 15 felt applied shingle fashion, underlayment shall be installed starting with a 19 inch lap over ice protection. Each subsequent sheet shall be lapped 19 inches horizontally, continuing to the ridge, fastened sufficiently to hold in place.

For slopes greater than 4 units vertical in 12 units horizontal (4:12) underlayment shall be one layer of Type 15 felt. Underlayment shall be installed starting with 4 inch lap over ice protection. Each subsequent layer shall be lapped 2 inches horizontally, and 4 inches vertically to shed water continuing to the ridge, fastened sufficiently to hold in place. Ice protection shall be in accordance with 23.85.R905.2.7.1.

23.85.R905.2.7.1 Ice Protection

Amend section by deleting from the paragraph the words "...of at least two layers of underlayment cemented together or..."

Amend by adding to the end of the paragraph the words "...for slopes greater than 4 in 12 and 36 inches for slopes from 3 in 12 up to and including 4 in 12."

23.85.R905.2.8 Flashing

Add the following at the end of the paragraph:

Flashing shall be no less than 4 inches by 4 inches in width.

23.85.R905.3.3.1 Low Slope Roofs

Delete the words ..."underlayment shall be a minimum of two layers underlayment applies as follow:" and replace with "underlayment shall be ice and water shield covering the entire roof."

Delete Items 1 and 2.

23.85.R905.3.3.2 High Sloped Roofs

Amend section by deleting the words "...parallel to and starting from the eaves and lapped 2 inches (51 mm), fastened sufficiently in place" and replacing with "...lapped 4 inches over ice protection. Lap subsequent layers 2 inches horizontally and 4 inches vertically to shed water continuing to the ridge, fastened sufficiently in place. Ice protection shall be in accordance with 23.85R905.2.7.1."

23.85R905.4 Metal Roof Shingles

Delete paragraph and replace with the following:

Installation of metal roof shingles shall be in accordance with R905.2 and all subsections and local amendments.

Delete subsections R905.4.1 through 905.4.3

23.85.R905.5 Mineral-Surfaced Roll Roofing

Delete paragraph and replace with the following:

Installation of mineral-surfaced roll roofing shall be in accordance with R905.2 and all subsections and local amendments.

Delete subsections R905.5.1 through 905.5.4.

23.85.R905.6 Slate and Slate-Type Shingles

Delete paragraph and replace with the following:

Installation of slate and slate-type shingles shall be in accordance with R905.2 and all subsections and local amendments.

Delete subsections R905.6.2 and R905.6.3.

23.85.R905.6.3 Underlayment (SLATE)

Add the following to Section **R905.6.3**:

One layer of self-adhering modified bitumen shall be applied from the eaves to a line 36 inches inside the exterior wall.

23.85R905.7 Wood Shingles

Delete paragraph and replace with the following:

Installation of wood shingles shall be in accordance with R905.2 and all subsections and local amendments.

Delete subsections R905.7.1 through 905.7.3

23.85R905.8 Wood Shakes

Delete paragraph and replace with the following:

Installation of wood shakes shall be in accordance with R905.2 and all subsections and local amendments.

Delete subsections R905.8.1 through 905.8.3

23.85.R905.8.6 Application (wood shakes)

Wood shakes shall be installed per 23.85.Table 908.3 Revised.

23.85.R905.9.1 Slope

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

23.85.R905.10.2 Slope

Add the following to the end of the paragraph:

"Install underlayment under all metal roof panels. Underlayment shall be one layer of Type 15 felt. Underlayment shall be installed, starting with 4 inch lap over ice protection. Each subsequent layer shall be lapped 2 inches horizontally, and 4 inch vertically to shed water continuing to the ridge. Fasten sufficiently to hold in place. Ice protection shall be in accordance with 23.85.R905.2.7.1."

23.85 Chapter 11 Energy Efficiency

Delete Chapter 11 in its entirety and replace with the following:

Chapter 11 Energy Efficiency. All one- and -two family dwellings and townhouses shall comply with the following insulation standards or show compliance with the 2000 International Energy Conservation Code.

Minimum Insulation R-Value [$(hrft^2degF)/Btu$]

	Maximum Glazing U-Factor	Ceilings	Walls	Basement Walls	Crawlspace Walls	Exposed Floors Above Grade (Cantilevered Floors)
Minimum R-Value	0.35	R-38	R-19	R-19	R-19	R-30

23.85 Chapters 12-38

Amend by deleting in its entirety (Mechanical and Plumbing).

23.85 Chapters 39-46

Amend by deleting in its entirety (Electrical).

23.85.AE100 Mobile and Manufactured Homes

This section replaces AMC 23.35 Mobile Homes Construction Standards.

23.85.AE101 Scope

Amend the first sentence to read:

> These provisions shall apply to manufactured homes, mobile homes, campers, and travel trailers serving as single dwelling units placed either on private (nonrental) lots or within mobile home parks licensed by the Municipality of Anchorage, 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. 04 - Mobile Home 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 Uniform Plumbing 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 l, 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 of Anchorage 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 23.85.A102.7.

Add the following to the definition of Manufactured Home Standards:

Every manufactured home installed in the Municipality of Anchorage 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,...

Add a new section:

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.

23.85 Appendix

Amend by deleting Appendices A-D, F-J.

1996 Safety Code for Elevators and Escalators Local Amendments

CHAPTER 23.90
BUILDING CONSTRUCTION CONTRACTOR

23.90.100

A. No person may engage in business as a building contractor without first obtaining a building construction contractor's license from the Building Official.

B. In this section, "building construction contractor" means 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 International Building Code as adopted and amended by this code. "Building construction contractor" includes those contractors generally classed as mechanical, general, or electrical contractors. "Building construction contractor" 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 his own use and benefit that would otherwise subject him to the licensing requirement of this section.

C. An application for a building construction contractor's license shall contain a certification by the applicant that he has in his possession a current copy of the applicable code pertaining to the work to be performed by the applicant.

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

E. Mechanical contractors shall employ at least one person certified or licensed as a plumber under applicable state and municipal codes. If a licensed mechanical contractor works with fuel tanks, that contractor must receive appropriate certification from the Building Department as a qualified gas fitter.

F. Prior to obtaining the license required by this section, electrical contractors must obtain all required state licenses or certifications for that activity.

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

H. The fee for a contractor's license is $200.00 for two years. (CAC 6.36.010, See AMC 10.15.010, AO 93-7).

CHAPTER 23.95
RELOCATABLE ANCILLARY BUILDINGS

SECTIONS

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 which relate to fire, building and life safety concerns and are current as of the date of the building plan review, except that the relocatable ancillary building is not required to have:

1. Plumbing facilities
2. Water service
3. Permanent foundation
4. Active fire alarm system, provided that 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
6. Accessibility for the disabled, provided a similar education program is offered in the permanent building which is 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 must 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* means 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

SECTIONS:

A. *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.

B. *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 whereby 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 must also comply with the requirements of Title 21 of this code.

C. *Occupancy.* Mobile Aircraft Shelters shall be used only for the following authorized purposes:

1. storage of personal or business use aircraft and related spare parts;

2. storage or use of tools subject to the limitations contained in subsection D. of this section; and

3. minor maintenance or repair of aircraft by their owners or contract/licensed mechanics.

D. *Authorized Activities.* Authorized activities shall include storage or maintenance of the following:

1. storage of an aircraft for personal or business use, or in the case of smaller aircraft, more than one aircraft;

2. hand tools and small power tools required to support authorized activities;

3. spare parts such as:

   a. tires and wheels
   b. propellers

c. seats
d. avionics
e. hardware
f. wire and wiring supplies
g. lamps
h. small structural sections
i. personal and cargo parachutes, including packing and repairs to parachutes.

4. work benches and shelves;

5. storage cabinets;

6. aircraft ingress winches and required electrical and communications utilities to support the same;

7. routine cleaning of aircraft parts or the shelter;

8. minor aircraft repairs, adjustments, and configurations;

9. inspections, including annual inspections;

10. installation or changing, or changing calibration of avionics;

11. 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;

12. open houses and posting signs for the purpose of showing or selling or subleasing a mobile aircraft shelter;

13. storage of snowblowers or snow removal equipment;

14. storage of compressors and related tools;

15. unused oil not to exceed two (2) cases or ten (10) gallons;

16. aircraft fuel in the aircraft tanks;

17. lubricants in factory containers;

18. emergency electrical generators;

19. seasonal equipment such as ice augers, survival equipment and non-commercial fishing equipment; and

20. personal vehicles in place of the aircraft when the aircraft is flying.

E. *Unauthorized Activities.* Mobile aircraft shelters shall not be used for any of the following:

1. Commercial activities including but not limited to:

a. performing for hire annual inspections for other aircraft owners;

b. 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

c. commercial basing of aircraft for instructional purposes when the mobile aircraft shelter is used for purposes other then only storage of the aircraft.

2. Major repairs, including engine tear downs;

3. Welding of any kind;

4. Painting except for minor touch up painting utilizing small, hand-held spray cans;

5. Storage of non-aviation related products including but not limited to:

a. furniture not related to authorized shelter uses;

b. unrelated business records or files;

c. equipment, tools, or other items of household or business use;

d. vehicles not otherwise allowed, including snowmachines, motorcycles, all-terrain vehicles, automobiles, trucks;

e. boats, except for rubber rafts and their motors;

f. campers and camper shells;

g. mobile homes;

h. trailers;

i. commercial generators and welders;

j. used oil;

k. fuel in drums or portable containers in excess of a total of five (5) gallons;

l. hydraulic oil in excess of a total of one (1) gallon.

F. *Heating Methods.* Heating mobile aircraft shelters may be provided as follows:

1. The following may be used as methods of heating authorized aircraft, vehicle, equipment or shelters:

a. electric block-type with UL approval for such purposes;

b. pan adhesion with UL approval for such purposes;

c. individual catalytic heaters with UL approval for such purposes; and

d. 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.

2. The following shall not be used as methods of heating aircraft, vehicles, equipment or shelters:

a. open flame heaters of any kind;

b. propane heaters;

c. diesel fired heaters; and

d. "salamander" or kerosene catalytic heaters.

G. *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.

1. 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.

2. 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.

H. *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.

I. *Utilities.* Shelters may be connected to electrical, communications and natural gas utilities provided that 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 will provide guidance and where deemed appropriate and in the public interest, issue appropriate permits.

J. *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.

K. *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.

L. *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.

M. *Exits.* Exit requirements for portable aircraft shelters shall be as required in the building code.

N. *Protective Finish.* Shelters shall have protective finishes required by building code on exposed surfaces.

Chapter 23.105

Grading, Excavation and Fill

SECTION 101
PURPOSE

The purpose of this section is to safeguard life, limb, property and the public welfare by regulating grading on private property.

SECTION 102
SCOPE

This section sets forth rules and regulations to control excavation, grading 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

SECTION 103
PERMITS REQUIRED

103.1 Permits required. Except as specified in Section 103.2 of this code, no person shall do any grading without first having obtained a grading permit from the code official.

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. This shall not exempt any fill made with the material from such excavation or exempt any excavation having an unsupported height greater than 5 feet (1524 mm) after the completion of such structure.
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 that (1) is less than 2 feet (610 mm) in depth or (2) does not create a cut slope greater than 5 feet (1524 mm) in height and steeper than 1 unit vertical in 1½ units horizontal (66.7% slope).
9. A fill less than 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 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.
10. 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 jurisdiction.

SECTION 104
HAZARDS

Whenever the code official determines that 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.

SECTION 105
DEFINIITIONS

For the purposes of this appendix, the definitions listed hereunder shall be construed as specified in this section.

APPROVAL shall mean that the proposed work or completed work conforms to this chapter in the opinion of the code official.

AS-GRADED is the extent of surface conditions on completion of grading.

BEDROCK is in-place solid rock.

BENCH is a relatively level step excavated into earth material on which fill is to be placed.

BORROW is earth material acquired from an off-site location for use in grading on a site.

CIVIL ENGINEER is a professional engineer registered in the state to practice in the field of civil works.

CIVIL ENGINEERING is 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 is the densification of a fill by mechanical means.

EARTH MATERIAL is any rock, natural soil or fill or any combination thereof.

ENGINEERING GEOLOGIST is a geologist experienced and knowledgeable in engineering geology.

ENGINEERING GEOLOGY is the application of geologic knowledge and principles in the investigation and evaluation of naturally occurring rock and soil for use in the design of civil works.

EROSION is the wearing away of the ground surface as a result of the movement of wind, water or ice.

EXCAVATION is the mechanical removal of earth material.

FILL is a deposit of earth material placed by artificial means.

GEOTECHNICAL ENGINEER. See "soils engineer."

GRADE is the vertical location of the ground surface.

EXISTING GRADE is the grade prior to grading.

FINISH GRADE is the final grade of the site that conforms to the approved plan.

ROUGH GRADE is the stage at which the grade approximately conforms to the approved plan.

GRADING is any excavating or filling or combination thereof.

KEY is a designed, compacted fill placed in a trench excavated in earth material beneath the toe of a proposed fill slope.

PROFESSIONAL INSPECTION is the inspection required by this code to be performed by the civil engineer, soils engineer or engineering geologist. Such inspections include that performed by persons supervised by such engineers or geologists and shall be sufficient to form an opinion relating to the conduct of the work.

SITE is any lot or parcel of land or contiguous combination thereof, under the same ownership, where grading is performed or permitted.

SLOPE is an inclined ground surface the inclination of which is expressed as a ratio of horizontal distance to vertical distance.

SOIL is naturally occurring superficial deposits overlying bedrock.

SOILS ENGINEER (GEOTECHNICAL ENGINEER) is an engineer experienced and knowledgeable in the practice of soils engineering (geotechnical) engineering.

SOILS ENGINEERING (GEOTECHNICAL ENGINEERING) is 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 is a relatively level step constructed in the face of a graded slope surface for drainage and maintenance purposes.

SECTION 106
GRADING PERMIT REQUIREMENTS

106.1 Permits required. Except as exempted in Section 103.2 of this code, 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.

106.2 Application. The provisions of the Anchorage Administrative Code Section 301 are applicable to grading. Additionally, the application shall state the estimated quantities of work involved.

106.3 Grading designation. Grading in excess of 5,000 cubic yards (3825 m^3) shall be performed in accordance with the approved grading plan prepared by a civil engineer, and shall be designated as "engineered grading." Grading involving less than 5,000 cubic yards (3825 m^3) shall be designated "regular grading" unless the permittee chooses to have the grading performed as engineered grading, or the code official determines that special conditions or unusual hazards exist, in which case grading shall conform to the requirements for engineered grading.

106.3.1 Engineered grading requirements. Application for a grading permit shall be accompanied by two sets of plans and specifications, and supporting data consisting of a soils engineering report and engineering geology report. The plans and specifications shall be prepared and signed by an individual licensed by the state to prepare such plans or specifications when required by the code official.

Specifications shall contain information covering construction and material requirements.

Plans shall be drawn to scale upon substantial paper or cloth and shall be of sufficient clarity to indicate the nature and extent of the work proposed and show in detail that they will conform to the provisions of this code and all relevant laws, ordinances, rules and regulations. The first sheet of each set of plans shall give location of the work, the name and address of the owner, and the person by whom they were prepared.

The plans shall include the following information:

1. General vicinity of the proposed site.
2. Property limits and accurate contours of existing ground and details of terrain and area drainage.
3. Limiting dimensions, elevations or finish contours to be achieved by the grading, and proposed drainage channels and related construction.
4. Detailed plans of all surface and subsurface drainage devices, walls, cribbing, dams and other protective devices to be constructed with, or as a part of, the proposed work, together with a map showing the drainage area and the estimated runoff of the area served by any drains.
5. Location of any buildings or structures on the property where the work is to be performed and the location of any buildings or structures on land of adjacent owners that are within 15 feet (4572 mm) of the property or that may be affected by the proposed grading operations.
6. Recommendations included in the soils engineering report and the engineering geology report shall be incorporated in the grading plans or specifications. When approved by the code official, specific recommendations contained in the soils engineering report and the engineering geology report, which are applicable to grading, may be included by reference.

7. The dates of the soils engineering and engineering geology reports together with the names, addresses and phone numbers of the firms or individuals who prepared the reports.

106.4 Soils Engineering report. The soils engineering report required by Section 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.

106.5 Engineering geology report. The engineering geology report required by Section 106.3.1 shall include an adequate description of the geology of the site, conclusions and recommendations regarding the effect of geologic conditions on the proposed development, and opinion on the adequacy for the intended use of sites to be developed by the proposed grading, as affected by geologic factors.

106.6 Liquefaction study. The code official may require a geotechnical investigation in accordance with an approved geologic engineer when, during the course of an investigation, all of the following conditions are discovered. The report shall address the potential for liquefaction:

1. Shallow ground water, 50 feet (15240 mm) or less.
2 Unconsolidated sandy alluvium.
3. Seismic Zones D, E, and F.

106.7 Regular grading requirements. Each application for a grading permit shall be accompanied by a plan in sufficient clarity to indicate the nature and extent of the work. 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:

1. General vicinity of the proposed site.
2. Limiting dimensions and depth of cut and fill.
3. Location of any buildings or structures where work is to be performed, and the location of any buildings or structures within 15 feet (4572 mm) of the proposed grading.

106.8 Issuance. The provisions of the Anchorage Administrative Code Section 303 are applicable to grading permits. The code official may require that grading operations and project designs be modified if delays occur which incur weather-generated problems not considered at the time the permit was issued.

The code official may require professional inspection and testing by the soils engineer. When the code official has cause to believe that geologic factors may be involved, the grading will be required to conform to engineered grading.

SECTION 107
GRADING FEES

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 jurisdiction.

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. Said plan review fee shall be as set forth in the Anchorage Administrative Code 23.10, Table 3B. Separate plan review fees shall apply to retaining walls or major drainage structures as required elsewhere in this code. For excavation and fill on the same site, the fee shall be based on the volume of excavation or fill, whichever is greater.

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 23.10, Table 3H. Separate permits and fees shall apply to retaining walls or major drainage structures as required elsewhere in this code. There shall be no separate charge for standard terrace drains and similar facilities.

SECTION 108
BONDS

The code official may require bonds in such form and amounts as may be deemed necessary to ensure that the work, if not completed in accordance with the approved plans and specifications, will be corrected to eliminate hazardous conditions.

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 which would be required in the surety bond.

SECTION 109
CUTS

109.1 General. Unless otherwise recommended in the approved soils engineering or engineering geology report, cuts shall conform to the provisions of this section.

In the absence of an approved soils engineering report, these provisions may be waived for minor cuts not intended to support structures.

109.2 Slope. The slope of cut surfaces shall be no steeper than is safe for the intended use and shall be no steeper than 1 unit vertical in 2 units horizontal (50% slope) unless the permittee furnishes a soils engineering or an engineering geology report, or both, stating that the site has been investigated and giving an opinion that a cut at a steeper slope will be stable and not create a hazard to public or private property.

SECTION 110
FILLS

110.1 General. Unless otherwise recommended in the approved soils engineering report, fills shall conform to the provisions of this section.

In the absence of an approved soils engineering report, these provisions may be waived for minor fills not intended to support structures.

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 scarifying to provide a bond with the new fill and, where slopes are steeper than 1 unit vertical in 5 units horizontal (20% slope) and the height is greater than 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 1 unit vertical in 5 units horizontal (20% slope) shall be at

least 10 feet (3048 mm) wide. The area beyond the toe of fill shall be sloped for sheet overflow or a paved drain shall be provided. When fill is to be placed over a cut, the bench under the toe of fill shall be at least 10 feet (3048 mm) wide but the cut shall be made before placing the fill and acceptance by the soils engineer or engineering geologist or both as a suitable foundation for fill.

110.3 Fill Material. Detrimental amounts of organic material shall not be permitted in fills. Except as permitted by the code official, no rock or similar irreducible material with a maximum dimension greater than 12 inches (305 mm) shall be buried or placed in fills.

Exception: The code official may permit placement of larger rock when the soils engineer properly devises a method of placement, and continuously inspects its placement and approves the fill stability. The following conditions shall also apply:

1. Prior to issuance of the grading permit, potential rock disposal areas shall be delineated on the grading plan.
2. Rock sizes greater than 12 inches (305 mm) in maximum dimension shall be 10 feet (3048 mm) or more below grade, measured vertically.
3. Rocks shall be placed so as to assure filling of all voids with well-graded soil.

110.4 Compaction. All fills shall be compacted to a minimum of 90 percent of maximum density.

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 1 unit vertical in 2 units horizontal (50% slope).

SECTION 111
SETBACKS

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. Setback dimensions shall be as shown in Figure A-1.

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 2 feet (610 mm) and a maximum of 10 feet (3048 mm). The setback may need to be increased for any required interceptor drains.

111.3 Toe of fill slope. The toe of fill slope shall be made not nearer to the site boundary line than one half the height of the slope with a minimum of 2 feet (610 mm) and a maximum of 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:

1. Additional setbacks.
2. Provision for retaining or slough walls.
3. Mechanical or chemical treatment of the fill slope surface to minimize erosion.
4. Provisions for the control of surface waters.

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 or

engineering geologist to demonstrate that the intent of this section has been satisfied.

SECTION 112
DRAINAGE AND TERRACING

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 1 unit vertical in 3 units horizontal (33.3% slope).

112.2 Terrace. Terraces at least 6 feet (1829 mm) in width shall be established at not more than 30-foot (9144 mm) vertical intervals on all cut or fill slopes to control surface drainage and debris except that where only one terrace is required, it shall be at midheight. For cut or fill slopes greater than 60 feet (18 288 mm) and up to 120 feet (36 576 mm) in vertical height, one terrace at approximately midheight shall be 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.

Swales or ditches on terraces shall have a minimum gradient of 5 percent and must be paved with reinforced concrete not less than 3 inches (76 mm) in thickness or an approved equal paving. They shall have a minimum depth at the deepest point of 1 foot (305 mm) and a minimum paved width of 5 feet (1524 mm).

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.

112.3 Subsurface drainage. Cut and fill slopes shall be provided with subsurface drainage as necessary for stability.

112.4 Disposal. 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.

Building pads shall have a drainage gradient of 2 percent toward approved drainage facilities, unless waived by the code official.

Exception: The gradient from the building pad may be 1 percent if all of the following conditions exist throughout the permit area:

1. No proposed fills are greater than 10 feet (3048 mm) in maximum depth.
2. No proposed finish cut or fill slope faces have a vertical height in excess of 10 feet (3048 mm).
3. No existing slope faces steeper than 1 unit vertical in 10 units horizontal (10% slope) have a vertical height in excess of 10 feet (3048 mm).

112.5 Interceptor Drains. Paved interceptor drains shall be installed along the top of all cut slopes where the tributary drainage area above slopes toward the cut and has a drainage path greater than 40 feet (12 192 mm) measured horizontally. Interceptor drains shall be paved with a minimum of 3 inches (76 mm) of concrete or gunite and reinforced. They shall have a minimum depth of 12 inches (305 mm) and a minimum paved width of 30 inches (762 mm) measured horizontally across the drain. The slope of drain shall be approved by the code official.

SECTION 113
EROSION CONTROL

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.

113.2 Other Devices. Where necessary, check dams, cribbing, riprap or other devices or methods shall be employed to control erosion and provide safety.

SECTION 114
GRADING INSPECTION

114.1 General. Grading operations for which a permit is required shall be subject to inspection by the code official. Professional inspection of grading operations shall be provided by the civil engineer, soils engineer and the engineering geologist retained to provide such services in accordance with Section 114.5 for engineered grading and as required by the code official for regular grading.

114.2 Civil engineer. The civil engineer shall provide professional inspection within such engineer's area of technical specialty, which shall consist of observation and review as to the establishment of line, grade and surface drainage of the development area. If revised plans are required during the course of the work they shall be prepared by the civil engineer.

114.3 Soils engineer. The soils engineer shall provide professional inspection within such engineer's area of technical specialty, which shall include observation during grading and testing for required compaction. The soils engineer shall provide sufficient observation during the preparation of the natural ground and placement and compaction of the fill to verify that such work is being performed in accordance with the conditions of the approved plan and the appropriate requirements of this chapter. Revised recommendations relating to conditions differing from the approved soils engineering and engineering geology reports shall be submitted to the permittee, the code official and the civil engineer.

114.4 Engineering geologist. The engineering geologist shall provide professional inspection within such engineer's area of technical specialty, which shall include professional inspection of the bedrock excavation to determine if conditions encountered are in conformance with the approved report. Revised recommendations relating to conditions differing from the approved engineering geology report shall be submitted to the soils engineer.

114.5 Permittee. 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, and the permittee shall engage consultants, if required, to provide professional inspections on a timely basis. The permittee shall act as a coordinator between the consultants, the contractor and the code official. 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.

114.6 Code official. The code official shall inspect the project at the various stages of work requiring approval to determine that adequate control is being exercised by the professional consultants.

114.7 Notification of noncompliance. If, in the course of fulfilling their respective duties under this chapter, the civil engineer, the soils engineer or the engineering geologist 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 code official.

114.8 Transfer of responsibility. If the civil engineer, the soils engineer, or the engineering geologist of record is changed during grading, the work shall be stopped until the replacement has agreed in writing to accept their responsibility within the area of technical competence for approval upon completion of the work. It shall be the duty of the permittee to notify the code official in writing of such change prior to the recommencement of such grading.

SECTION 115
COMPLETION OF WORK

115.1 Final reports. Upon completion of the rough grading work and at the final completion of the work, the following reports and drawings and supplements thereto are required for engineered grading or when professional inspection is performed for regular grading, as applicable.

1 An as-built grading plan prepared by the civil engineer retained to provide such services in accordance with Section 114.5 showing original ground surface elevations, as-graded ground surface elevations, lot drainage patterns, and the locations and elevations of surface drainage facilities and of the outlets of subsurface drains. As-constructed locations, elevations and details of subsurface drains shall be shown as reported by the soils engineer.

Civil engineers shall state that to the best of their knowledge the work within their area of responsibility was done in accordance with the final approved grading plan.

2. A report prepared by the soils engineer retained to provide such services in accordance with Section 114.5, including locations and elevations of field density tests, summaries of field and laboratory tests, other substantiating data, and comments on any changes made during grading and their effect on the recommendations made in the approved soils engineering investigation report. Soils engineers shall submit a statement that, to the best of their knowledge, the work within their area of responsibilities is in accordance with the approved soils engineering report and applicable provisions of this chapter.

3. A report prepared by the engineering geologist retained to provide such services in accordance with Section 114.5, including a final description of the geology of the site and any new information disclosed during the grading and the effect of same on recommendations incorporated in the approved grading plan. Engineering geologists shall submit a statement that, to the best of their knowledge, the work within their area of responsibility is in accordance with the approved engineering geologist report and applicable provisions of this chapter.

4. The grading contractor shall submit in a form prescribed by the code official a statement of conformance to said as-built plan and the specifications.

115.2 Notification of completion. The permittee shall notify the code official when the grading operation is ready for final inspection. Final approval shall not be given until all work, including installation of all drainage facilities and their protective devices, and all erosion-control measures

have been 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, 2000 EDITION

SECTIONS

23.110.622	Cooking Appliances
23.110.628.2	Small Ceramic Kilns--Ventilation
23.110.632	Chimney Damper Opening Area
23.110.633	Other Appliances
23.110.Appendix A	Sizing and Capacities of Gas Piping

23.110.100 Local Amendments To The 2000 International Fuel Gas Code

The amendments to the 2000 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 2000 International Fuel Gas Code to which the amendments refers, i.e., 23.110.210 refers to amendments to Section 210 of the 2000 International Fuel Gas Code.

23.110.101.3 – 23.110.109.7

Delete Sections 101.3 through 109.7

Add new section 108 as follows:

23.110.108 Authority to Render Gas Service

108.1 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.

108.2 Authority to disconnect. The administrative authority or the serving gas supplier is hereby authorized to disconnect any gas piping or appliance, or both, which shall be found not to conform to the requirements of this code or which may be found defective and in such condition as to endanger life or property. Where such disconnection has been made, a notice shall be attached to such gas piping, appliance, or both which shall state the same has been disconnected, together with the reasons therefore.

23.110.303 Appliance Location

Amend by adding a new section 303.8 titled Liquefied Petroleum Gas Facilities, to read 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.

Amend by adding a new section 303.9 titled Liquefied Petroleum Gas Piping, to read as follows:

303.9 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.

23.110.303.3 Prohibited Locations

Amend section by deleting Exceptions 2, 3, and 4

23.110.304 Combustion, Ventilation, and Dilution Air

Amend by adding a new section 304.16 titled LPG Systems, to read as follows:

304.16 LPG Systems. Appliances using LPG shall have two 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.

Amend by adding a new section 304.17, to read as follows:

304.17. Use of underfloor areas for supply of combustion air to LPG burning appliances is prohibited.

23.110.304.3 Outdoor Air Required

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

Combustion air shall not be obtained from the attic, unless prior written approval is obtained from the administrative authority.

23.110.304.13 Specially Engineered Installations

Add new subsection:

Section 304.13.1 Cold Climate Alternate Requirements For Combustion and Ventilation Air

304.13.1.1 Purpose

304.13.1.1 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.

304.13.1.2 Scope

304.13.1.2.1 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.

304.13.1.3 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.

COMBUSTION AIR is that air required for stoichiometric combustion, plus excess air, plus flue dilution air.

VENTILATION AIR is that air required for cooling of the appliance enclosure to maintain temperatures required for proper equipment operation.

FREE AREA is the net actual open area of a louver, screen, duct, or intake grille.

304.13.1.4 General

304.13.1.4.1 Air Supply. Fuel-burning equipment shall be provided with a sufficient supply of combustion and ventilation air.

304.13.1.4.1.1 Enclosures Containing Fuel Burning Appliances. Enclosures shall be provided with minimum unobstructed combustion air openings as specified in Section 304.13.1.9 and arranged as specified in Sections 304.13.1.5 and 304.13.1.6 of this code and ventilation air systems shall be as specified in Section 304.13.1.10.

304.13.1.4.1.2 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 304.13.1.9 and 304.13.1.10.

304.13.1.5 Combustion Air Openings

304.13.1.5.1 Location. The combustion air opening(s) may be located anywhere in the enclosure provided that there is an unobstructed area extended to the fire box that does not increase the total combustion air system static pressure requirements.

304.13.1.5.2 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.

304.13.1.5.3 Screening. Combustion air openings shall be covered with corrosion-resistant screen of 1/2 inch (12.8 mm) mesh, except as provided in Section 304.13.1.7.3.

Exception: Combustion air openings serving a nonresidential portion of a building may be covered with a screen having openings larger than 1/2 inch (12.8mm) but in no case larger than 1 inch (25.4 mm).

304.13.1.6 Sources Of Combustion And Ventilation Air

304.13.1.6.1 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.

304.13.1.6.2 Under-Floor Supply. Combustion and ventilation air openings may connect with under-floor areas conforming to the following requirements:

1. Under-floor spaces having unobstructed openings to the exterior which are sized to not exceed the maximum system static pressure requirements specified in Sections 304.13.1.9 and 304.13.1.10.
2. The height of the under-floor space shall comply with the requirements of the Building Code and be without obstruction to the free flow of air.

304.13.1.6.3 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.

304.13.1.6.4 Prohibited Sources. Openings and ducts shall not connect appliance enclosures with space in which 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.

304.13.1.7 Combustion And Ventilation Air Ducts

304.13.1.7.1 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 3 inches.
3. Serve a single appliance enclosure.

304.13.1.7.2 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.

304.13.1.7.3 Screen. Neither end of the ducts which terminate in an attic shall be screened.

304.13.1.8 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.

304.13.1.9 Area Of Combustion Air Openings

304.13.1.9.1 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) that freely communicate with outdoors and shall be sized in accordance with Table No. 304.13.1.1.

304.13.1.10 Ventilation Air

304.13.1.10.1 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, mechanical make-up air fan must be installed to make-up exhausted air. Natural or gravity make-up air is not allowed.

TABLE NO. 304.13.1.1 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.

Note 2: 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: 9.6 cu. ft. air / 1 cu. ft. gas = 9.6 cu. ft. air/1000 Btu

1 cu. ft. gas 1000 Btu (14.4 @ 50% excess)

*Air at 2000 feet above sea level. Installations above this must 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

23.110.304.15 Combustion Air Ducts

Delete the exception to Item 1 in its entirety.

23.110.305 Installation

Amend by adding a new section 305.5 titled Aircraft Servicing and Storage Areas, to read as follows:

305.5 Aircraft Servicing and Storage Areas. Overhead heaters installed in aircraft storage or servicing areas shall be at least 10 feet (3048 mm) above or away from the upper surface of wings or engine enclosures of the tallest aircraft which may be housed in the hangar.

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.

23.110.402.3 Sizing

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

Sections 1217 and 1218 in the 2000 Uniform Plumbing Code shall be considered an acceptable method of sizing gas piping.

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 inch or larger.
2. The pipe is installed under a driveway.
3. Medium pressure systems.

23.110.403.10.2 Tubing Joints

Amend by adding the following sentence 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 60 feet (18.3 m). 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.

23.110.404 Piping System Installation

Add new paragraphs as follows:

404.17 At all points where fuel gas piping enters or leaves the ground there shall be installed, above ground, a connection capable of absorbing relative motion due to frost heave action. Such connectors shall be of a type approved by the building official and installed in such a manner to absorb a 6 inch (152 mm) displacement in any direction. A wire braided kink-proof flexible connection with woven jacket and oil proof synthetic tube and cover and neoprene liner may be used. Supporting wire shall run the full length of hose. Hose-to-pipe connectors shall be of the removable metal compression type. Working temperature range of the connector shall be -40 degrees F (-40c) to +250 degrees F (121c). (Aeroquip #1503 medium-pressure

single-wire braid hose equipped with non-swivel male pipe fittings is an example of a suitable connector.)

404.18 Flex connectors listed for outdoor use may be used between 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.

404.19 At points where copper tubing type systems enter or leave the ground, they shall be protected from frost heave action by the incorporation of suitable above ground 6-inch (152 mm) radius bends or approved flex connection of equal size.

404.20 Pounds to inches water column regulators serving mobile homes and connected to copper tubing shall be attached directly to the inlet connection on the exterior of the mobile home, and shall not be located under the mobile home. An approved gas valve shall be installed immediately preceding the regulator.

23.110.404.4 Piping Through Foundation Wall

Delete paragraph in its entirety and replace with the following:

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

23.110.404.9 Minimum Burial Depth

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

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

23.110.406.4.1 Test Pressure

Replace the minimum test pressure of 3 psig with 10 psig and add the following sentence at the end of the paragraph:

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

23.110.409.5 Equipment Shutoff Valve

Amend section by deleting exception.

23.110.501.7 Connection to Fireplace

Delete wording of 501.7 and replace with the following:

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 Vents

Amend by adding a new section 502.7, to read as follows:

502.7 Venting systems installed exterior to the building outside the thermal envelope shall be listed for exterior use in cold climates, or shall be enclosed in an insulated (R-19 minimum) shaft. The portion of the vent system that is 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.

Amend by adding a new section 502.8, to read as follows:

502.8 Vent terminations that penetrate a metal roof with a pitch shall be protected by an ice dam or deflector of an approved type acceptable to the Administrative Authority.

23.110.503.8 Venting System Termination Location

Amend by adding new Item 5 to read as follows:

5. An anticipated snow depth of 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.

23.110.503.10.2.1 General

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

Single wall material of noncombustible corrosion-resistant material capable of withstanding the flue gas temperatures produced by the appliance, such as in Tables 503.10.2.4 and 506.10.2.5 may be used to vent the following:

A. Vent connector serving a single gas appliance connected to an individual vent system.

B. Vent connector system serving two gas appliances connected to a common vent.

C. Three or more gas appliances connected to a common vent system may have single wall vent connectors to the point of connection to the common vent connector.

D. An engineered system acceptable to the Administrative Authority.

23.110.602.1 General

Amend second sentence by deleting the words "be tested in accordance with an approved method" and replacing with "not be allowed."

23.110.602.2 Flame Safeguard Device

Amend first sentence by deleting the words "with the exception of those tested in accordance with an approved method."

23.110.612.2

Add new subsection 612.2 to read as follows:

612.2. Domestic gas fired clothes dryers may be installed in bathrooms if provided with makeup air openings (in the bathroom enclosure) with a net free area not less than one square inch per 1000 BTU input.

23.110.620 Unvented Room Heaters

Delete section 620 in its entirety.

23.110.622 Cooking Appliances

Add new subsections 622.6 and 622.7 to read as follows:

622.6 Ventilating Hoods. V entilating 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.

622.7 Vertical Clea rance above Cooking Top. Domestic freestanding or built-in ranges shall have a vertical clearance above the cooking top of not less than 30 inches (762 mm) to unprotected combustible material. When the underside of such combustible material is protected with insulating millboard at least ¼ inch (6 mm) thick covered with 0.021-inch-thick (0.41 mm) (No. 28 U.S. gage) or a metal ventilating hood, the distance shall not be less than 24 inches (610 mm).

23.110.628.2 Small Ceramic Kilns--Ventilation

Add a new subsection 628.2 to read as follows:

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 (0.61mm) (No. 24 U.S. gage) galvanized steel or equivalent and be supported at a height of between 12 inches (305 mm) and 30 inches (750 mm) 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 12 inches (305 mm) above any portion of a building within 4 feet (1.22 m) and terminate no less than 4 feet (1.22 m) 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.

23.110.632 Chimney Damper Opening Area

Delete section 632 and Table 632.1 in their entirety.

23.110.633 Other Appliances

Add a new section 633 to read as follows:

Other Appliances. For installation requirements of specific appliances not covered in this code, refer to the latest edition of ANSI Z 21.30, or N.F.P.A. #54, or manufacturer's installation instructions. (CAC 14.56.160-1905(a) and (b) and GAAB 22.15.010-1905(a) and (b).

23.110.Appendix A Sizing and Capacities of Gas Piping

Adopt Appendix A in its entirety.

That this ordinance shall become effective immediately upon its passage and approval by the Assembly.

PASSED AND APPROVED by the Anchorage Assembly this_____day of _____, 2002.

_____
Chair of the Assembly

ATTEST:

_____
Municipal Clerk

MUNICIPALITY OF ANCHORAGE
Summary of Economic Effects- General Government

AO Number 2002-31 Title: A.M.C. Title 23 New Building Codes 2000 Edition

Sponsor:

Preparing Agency: Department of Development Services Others Affected: Same

CHANGES IN EXPENDITURES AND REVENUES (Thousands of Dollars)

Operating Expenditures	FY95	FY96	FY97	FY98	FY99
1000 Personal Services					
2000 Supplies					
3000 Other Supplies					
4000 Debt Service					
5000 Capital Outlay					
TOTAL DIRECT COSTS:	0	0	0	0	0
ADD: 6000 Charge from Others					
LESS: 7000 Charge to Others					
FUNCTION COST:	0	0	0	0	0
REVENUES:	0	0	0	0	0
CAPITAL:	0	0	0	0	0
POSITIONS: FT/PT and Temp.	0	0	0	0	0

Public Sector Economic Effects:

The adoption of the 2000 editions of the new codes may have a positive economic savings in total building cost to the public sector for any building built with tax dollars. There have been significant reductions in overall requirements for sprinklered buildings.

If further explanation is necessary, a separate page may be attached.

Private Sector Economic Effects:

The adoption of the 2000 editions of the new codes may have an overall savings in total building cost to the private sector. There have been significant reductions in overall requirements for sprinklered buildings.

If further explanation is necessary, a separate page may be attached.

Prepared by: Ron Watts, Chief Building Official
(Name, Title)

Validated by OMB: Cheryl Fraser Date 31 Jan 02

Approved by: Joseph W Murphy Date: 01-30-02
Director, Department of Development Services

Approved by: J E Caldwell Date: 01-30-02
Executive Director, Office of Planning, Development and Public Works

Approved by: _____ Date: _____

Municipality of Anchorage
ASSEMBLY MEMORANDUM

No. AM –124-2002

Meeting Date: FEBRUARY 12, 2002

FROM: Mayor George Wuerch

SUBJECT: AO 2002-31 Repeal and Reenactment of AMC Title 23 to Adopt the 2000 Versions of the Building Codes

The attached ordinance repeals existing editions of the various building codes and their local amendments and adopts new codes and revised local amendments. The new codes and proposed amendments have been reviewed and recommended by the Anchorage Building Board after 11 subcommittees comprised of over 200 private sector and MOA professionals reviewed the national codes and made recommendations to the Building Board. This process took approximately one and a half years to complete. All meetings were open to the public and posted on the web. The Building Board held several public hearings on the new codes and proposed local amendments. These hearings produced input from the public and resulted in some further changes and updates, which have been incorporated into this package. This package has been finalized and recommended by the Anchorage Building Board. The administration is forwarding the enclosed document for Assembly approval.

These proposed changes repeal the existing uniform codes and amendments, and adopt the new codes, with local amendments. National codes are changed on a three-year cycle. We are proposing to repeal the 1997 editions of the uniform codes and adopt the 2000 editions of the respective codes, except the National Electrical Code and Elevator Code, which are 1999 and 1996 editions. The 2000 Uniform Plumbing Code is being proposed to be adopted rather than the 2000 International Plumbing Code. Staff worked in conjunction with the Anchorage Building Board and the Legal Department to insure the easiest and most understandable way to present the new codes and amendments. It was determined that bracketing material to be deleted and underlining changes and new material would be too confusing, as the 2000 codes are entirely new codes, with the noted exceptions. Due to length and complexity of building codes, this ordinance is structured in a complete repeal and re-adoption format. Experience has proven this is the least confusing way to adopt the technical building codes.

The technical provision found throughout the codes and local amendments should not be controversial because every reasonable attempt has been made to resolve technical issues during committee meetings and public hearings.

The administration recommends these documents be approved by the Assembly. All issues contained in the technical building codes portion of this document have been addressed in detail by committees established by the Building Board, through advertised and posted public hearings before the separate committees, and by the Building Board as a whole.

Concurrence:

Harry Kieling
Municipal Manager

Recommended by:

Craig Campbell, Director
Office of Planning, Development and PW

Everett Mabry, Director
Department of Development Services

Respectfully submitted,

George Wuerch
Mayor

Municipality of Anchorage
MUNICIPAL CLERK'S OFFICE

Agenda Document Control Sheet

AO 2002-31

(SEE REVERSE SIDE FOR FURTHER INFORMATION)

1	SUBJECT OF AGENDA DOCUMENT AMC Title 23 New Building Codes, 2000 Edition	DATE PREPARED 16-Nov-01
		Indicate Documents Attached ☒ AO ☐ AR ☒ AM ☐ AIM
2	DEPARTMENT NAME Department of Development Services/Building Safety Division	DIRECTOR'S NAME Everett Mabry
3	THE PERSON THE DOCUMENT WAS ACTUALLY PREPARED BY Ron Watts, Chief Building Official X-8301	HIS/HER PHONE NUMBER 343-8301

4	COORDINATED WITH AND REVIEWED BY	INITIALS	DATE
G	**Mayor**		
	Heritage Land Bank		
	Merrill Field Airport		
	Municipal Light & Power		
	Port of Anchorage		
	Solid Waste Services		
	Water & Wastewater Utility		
F	**Municipal Manager**	M	2/4
	Cultural & Recreational Services		
	Employee Relations		
	Finance, Chief Fiscal Officer		
C	Fire	BB	11-20-01
	Health & Human Services		
E	Office of Management and Budget	CF	1/30/02
	Management Information Services		
	Police		
A	Planning, Development & Public Works		11/19/01
B	Development Services		11-19-01
	Facility Management		
	Planning		
	Project Management & Engineering		
	Street Maintenance		
	Traffic		
	Public Transportation Department		
	Purchasing		
D	**Municipal Attorney** 1038		1-24-02
H	**Municipal Clerk**		
	Other		

5 **Special Instructions/Comments**

9F Introduction
4/9/02 rescheduled hearing to 5/7/02
Continued hearing to 9/10/02

2002 FEB -4 AM 9:58

6	ASSEMBLY HEARING DATE REQUESTED FEB 12 2002	7	PUBLIC HEARING DATE REQUESTED 3/19/02 4/16/02 5/14/02