

North Dakota State Building Code



Effective January 1, 2011

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ALTERNATIVE FORMATS FOR PERSONS WITH DISABILITIES ARE AVAILABLE UPON REQUEST

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ACKNOWLEDGMENTS

The updating of the North Dakota State Building Code would not have been possible without the assistance of the Building Code Advisory Committee and the cities, counties, and organizations that were deemed eligible under the Administrative Rule (Article 108-01) and N.D.C.C. 54-21.3-03 were available to vote during the updating process. Their interest and expertise have resulted in a state building code that not only consists of the most up-to-date codes (the 2009 International Codes), but also reflects the needs and concerns of the jurisdictions of the state in amendments to those codes. We would also like to thank the cities of Fargo, Devils Lake, Grand Forks and Minot and North Dakota Chapter of the American Institute of Architects the for proposing amendments to the 2009 International Codes for consideration in updating the State Building Code.

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INTRODUCTION

The purpose of this document is to identify the building and related codes and state amendments to those codes that together make up the North Dakota State Building Code. Also included in this document are a brief history of the state building code; information on how to obtain copies of the five_codes that make up the state building code; the state law (N.D.C.C. 54-21.3) that provides for the state building code; the American with Disabilities Act Accessibility Guidelines (ADAAG) Conformance Statement; and a sample ordinance for local adoption of the state building code.

HISTORY OF THE NORTH DAKOTA STATE BUILDING CODE

In 1979, the 46th North Dakota Legislative Assembly created the North Dakota State Building Code. At the same time, the Legislature amended N.D.C.C. Sections 11-33-01, 40-47-01, and 58-03-11 relating to the authority of cities, townships, and counties to zone to reflect compliance with the state building code. The Legislature directed that the state building code would consist of the Uniform Building Code published by the International Conference of Building Officials. In 1985, the 49th Legislative Assembly added the Uniform Mechanical Code, also published by the International Conference of Building Officials.

Until 1991, the Legislature maintained the authority to update the state building code, but this process did not permit the state to update the state building code in a timely manner as new editions of the Uniform Building Code and Uniform Mechanical Code were published. In 1991, the Legislature provided for the state building code to be updated as new editions of the codes are published. This procedure, however, was later declared unconstitutional. As a result, in 1993 the Legislative Assembly shifted the responsibility for updating the state building code to the Office of Management and Budget, which then designated the Office of Intergovernmental Assistance (now the Division of Community Services) to adopt rules to implement and periodically update and to amend the code. The Legislative Assembly also directed in 1993, that effective August 1, 1994, any city, township, or county that elects to administer and enforce a building code shall adopt and enforce the state building code. However, the Legislative Assembly also provided for the ability for a city, county, or township to amend the state building code to conform to local needs. The first Administrative Rule (Article 4-08-01) for updating the state building code became effective December 1, 1994.

In 2001, the 57th Legislative Assembly amended N.D.C.C. 54-21.3-03, deleting the reference to the Uniform Building Code and Uniform Mechanical Code because they were no longer being published. In their place, the Legislative Assembly designated the International Building Code, International Residential Code, International Mechanical Code, and International Fuel Gas Code as the codes that would make up the state building code. The first version of these codes to be adopted was the 2000 edition. The Legislative Assembly also created a Building Code Advisory Committee to help write administrative rules and to develop recommendations on proposed code amendments. A new Administrative Rule (Article 108, Chapter 108-01) to implement, amend, and periodically update the state building code became effective July 22, 2002.

In 2004 the Building Code Advisory Committee and the eligible local jurisdictions adopted the 2003 edition of the International Building Code, International Residential Code, International Mechanical Code, and International Fuel Gas Code with amendments.

In 2007 the Building Code Advisory Committee and the eligible local jurisdictions adopted the 2006 edition of the International Building Code, International Residential Code, International Mechanical Code, and International Fuel Gas Code with amendments.

In 2009 the Building Code Advisory Committee and the eligible local jurisdictions made additional amendments to the State Building Codes.

In 2010 the Advisory Committee and eligible jurisdictions adopted the 2009 versions of the IBC, IRC, IMC and IFGC with amendments. In addition, in accordance with the State Legislature, the energy conservation provisions of the IBC (Chapter 13) and IRC (Chapter 11) were retained with minor amendments.

CURRENT NORTH DAKOTA STATE BUILDING CODE

Effective January 1, 2011, the North Dakota State Building Code consists of the 2009 International Building Code (IBC), International Residential Code (IRC), International Mechanical Code (IMC), and International Fuel Gas Code (IFGC) published by the International Code Council (ICC). **NO APPENDICES ARE ADOPTED**.

Also note that the State Building Code does not include the International Property Maintenance Code, or the International Fire Code. These codes, to be in effect, must be adopted separately by each city, county, or township.

To obtain copies of these codes, contact:

International Code Council 4051 W Flossmoor Road; Country Club Hills, IL 60478-5771 [P] 1-888-ICC-SAFE (422-7233); [F] 1-800-214-7167

Additionally, the 2009International Residential Code (IRC) is available from the North Dakota State Library; it can be borrowed at no charge for up to four weeks.

North Dakota State Library 604 East Boulevard Avenue Bismarck, ND 58505 [P] 1-701-328-4622; [P] 1-800-472-2104

We encourage each city, township, and county that has elected or elects to enforce building codes to contact the International Code Council to become a member. This will entitle the jurisdiction to certain free publications, member rates for books and materials, and free technical assistance.

REQUIREMENT TO ADOPT THE NORTH DAKOTA STATE BUILDING CODE

Effective August 1, 1994, N.D.C.C. 54-21.3-03 cities, townships, and counties that elect to enforce a building code are responsible for adopting and enforcing the state building code, but may amend the code to conform to local needs.

State agencies are responsible for assuring that plans and specifications for alterations and new construction of their buildings comply with the state building code, and that all work is inspected for compliance with the state building code. Schools located in jurisdictions that have not elected to adopt and enforce the state building code are responsible for assuring that plans and specifications for alterations and new construction comply with the state building code.

Local governments that have not elected to adopt and enforce the state building code are responsible for assuring that plans and specifications for alterations and new construction of their buildings comply with the state building code.

NORTH DAKOTA CENTURY CODE CHAPTER 54-21.3 STATE BUILDING CODE

54-21.3-01. Purposes of Chapter. The purposes of this chapter are to:

- 1. Provide the citizens of this state with nationally recognized standards and requirements for construction and construction materials.
- 2. Eliminate restrictive, obsolete, conflicting, and unnecessary construction regulations that tend to increase construction costs unnecessarily or restrict the use of new materials, products, or methods of construction or provide preferential treatment to types or classes of materials or products or methods of construction.
- 3. Ensure adequate construction of buildings throughout the state and to adequately protect the health, safety, and welfare of the people of this state.

54-21.3-02. Definitions. As used in this chapter, unless the context requires otherwise:

- 1. "Agricultural purposes" includes purposes related to agriculture, farming, ranching, dairying, pasturage, horticulture, floriculture, viticulture, and animal and poultry husbandry.
- 2. "Building" means a combination of any materials fixed to form a structure and the related facilities for the use or occupancy by persons, or property. The word "building" shall be construed as though followed by the words "or part or parts thereof".
- 3. "City" means any city organized under the laws of this state.
- 4. "Construction" means the construction, erection, reconstruction, alteration, conversion, or repair of buildings.
- 5. "Jurisdictional area" means the area within which a city or township has zoning jurisdiction.
- 6. "State building code" means the state building code provided for in this chapter.
- 7. "Temporary work camp housing" includes a modular residential structure used to house workers on a temporary basis for a maximum period of five years.
- 8. "Code enforcement agency" means an agency of the state or local government with authority to inspect buildings and enforce the law, ordinances, and regulations which establish standards and requirements applicable to the construction, installation, alteration, repair, or relocation of buildings.

54-21.3-03. State building code.

- 1. The department of commerce, in cooperation with the state building code advisory committee, shall adopt rules to implement, amend, and periodically update the state building code, which must consist of the international building, residential, mechanical, and fuel gas codes.
- 2. The state building code advisory committee consists of:
 - a. Two representatives appointed by the North Dakota building officials association, one of whom must be from a jurisdiction of fewer than ten thousand people.
 - b. One representative appointed by the North Dakota chapter of the American institute of architects.
 - c. One representative appointed by the North Dakota society of professional engineers.
 - d. One representative appointed by the North Dakota association of builders.
 - e. One representative appointed by the North Dakota association of mechanical contractors.
 - f. One representative appointed by the associated general contractors.
 - g. A fire marshal appointed by the state fire marshal.
 - h. One individual appointed by the state electrical board.
- 3. The state building code advisory committee shall meet with the department of commerce or a designee of the commissioner of commerce at least once each calendar year to address proposed amendments to the state building code. The department of commerce may not adopt an amendment to the state building code unless the amendment is approved by a majority vote of:
 - a. One representative appointed by the North Dakota chapter of the American institute of architects;
 - b. One representative appointed by the North Dakota society of professional engineers;
 - c. One representative appointed by the North Dakota association of builders;
 - d. One representative appointed by the North Dakota association of mechanical contractors;
 - e. One representative appointed by the associated general contractors; and
 - f. Representatives of eligible jurisdictions as established by administrative rule.

4. The state building code or a building code adopted by a city, township, or county may not include a requirement that fire sprinklers be installed in a single family dwelling or a residential building that contains no more than two dwelling units.

The state building code, plumbing code, electrical code, or an equivalent code adopted by political subdivision must provide that a building designed for and used as a school portable classroom may be constructed and inspected as a temporary structure as defined by the state building code or may be permitted as a permanent school portable classroom. The foundation system of such a structure must comply with the recommendations of the manufacturer's engineering report for a pre-engineered unit or a structural engineer's report. Frost - free footings may not be required for a temporary structure that meets the requirements of the state building code unless required by an engineering report. Temporary electrical and plumbing installations may be allowed for any structure by the governmental entities governing those areas of construction or the applicable codes.

- 5. For the purposes of manufactured homes, the state building code consists of the manufactured homes construction and safety standards under 24 CFR 3280 adopted pursuant to the Manufactured Housing Construction and Safety Standards Act [42 U.S.C. 5401 et seq.].
- 6. The governing body of a city, township, or county that elects to administer and enforce a building code shall adopt and enforce the state building code. However, the state building code may be amended by cities, townships, and counties to conform to local needs.
- 7. A modular residential structure or a prebuilt home placed in the state must be constructed in compliance with the state building code. A modular residential structure or a prebuilt home placed in a jurisdiction that has amended the state building code must be constructed in compliance with the state building code and the amendments adopted by that jurisdiction.

54-21.3-04. Exemptions.

- 1. Except as specifically provided in this chapter, the following statewide codes are exempt from this chapter:
 - a. The Standards for Electrical Wiring and Equipment, as contained in North Dakota Administrative Code article 24-02.
 - b. The State Plumbing Code, as contained in North Dakota Administrative Code article 62-03.
 - c. The State Fire Code, as contained in the rules of the state fire marshal as provided in section 18-01-04.
- 2. The following buildings are exempt from this chapter:
 - a. Buildings which are neither heated nor cooled.

- b. Buildings used whose peak design rate of energy usage is less than one watt per square foot [929.0304 square centimeters] or three and four-tenths British thermal units an hour per square foot [929.0304 square centimeters] of floor area.
- c. Restored or reconstructed buildings deliberately preserved beyond their normal term of use because of historical associations, architectural interests, or public policy, or buildings otherwise qualified as a pioneer building, historical site, state monument, or other similar designation pursuant to state or local law.
- 3. Any building used for agricultural purposes, unless a place of human habitation or for use by the public, is exempt from this chapter.

54-21.3-04.1. Accessibility Standards.

Notwithstanding section 54-21.3-04, every building or facility subject to the federal Americans with Disabilities Act of 1990 [Pub. L. 101-336;104 Stat. 327] must conform to the accessibility standards of the Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities as contained in the appendix to title 28, Code of Federal Regulations, part 36 [28 CFR 36]. State and political subdivision entities may not claim the exceptions to the requirement that elevators be installed in certain buildings as those exceptions are stated in exception 1 to section 4.1.3(5) and in section 4.1.6(1)(k)(i) in the Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities found in the appendix to 28 CFR 36. A structural change to an existing state or political subdivision building or facility is not required if another method is effective in achieving compliance with regulations adopted under Public Law 101-336. For public accommodations, an alternative to a structural change in existing buildings or facilities is permitted only after it has been documented, in accordance with regulations adopted under Public Law 101-336, that a particular structural change is not readily achievable. A state agency or the governing body of a political subdivision shall require from any person preparing plans and specifications for a building or facility subject to the Americans with Disabilities Act of 1990 [Pub. L. 101-336; 104 Stat. 327], a statement that the plans and specifications are, in the professional judgment of that person, in conformance with the Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities found in the appendix to 28 CFR 36, subject to the exception stated in this section. A statement of conformance must be submitted to the department of commerce division of community services for recording.

54-21.3-04.2. Notice of Federal Accessibility Guidelines Required. A building permit issued under section 11-33-18, subsection 6 of section 40-05-02, or other similar grant of authority must contain the following statement:

Federal law may require this construction project to conform with the Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities.

54-21.3-05. Enforcement of Code by City, Township, or County - Relinquishment. A city or township may administer and enforce the state building code only within its jurisdictional area. A county may administer and enforce the state building code within those areas of the county in which the state building code is not administered by a city or township. Cities and townships may relinquish their authority to administer and enforce the state building code to the county in which they are located in the manner provided by section 11-33-20. The governing body of a

which they are located in the manner provided by section 11-33-20. The governing body of a city, township, or county electing to administer and enforce the state building code may designate an enforcement agency. Cities, townships, and counties may provide by agreement for joint administration and enforcement and may contract for private enforcement of the state building code.

54-21.3-06. Continuing education - Responsibility. Repealed by S.L. 1983, ch. 511, § 8.

54-21.3-07. Modular Residential and Commercial Structures - Third-party Inspections -Rules. The manufacturer of a modular residential or commercial structure that is built in a factory shall contract with a third party for the inspection of the structure for compliance with all applicable building, electrical, fire, and plumbing codes and standards during the manufacturing process in the factory. A third party that conducts inspections and certifies compliance with all applicable codes and standards must be approved as a certified third-party inspector by the division of community services. The department of commerce shall adopt rules for the certification of inspectors and for the procedures to be followed in conducting inspections of modular residential and commercial structures. When a manufacturer of modular residential or commercial structures contracts with a certified third-party inspector to monitor compliance with all applicable building, electrical, fire, and plumbing codes and standards for a modular residential or commercial structure, no further inspection by state or local building, electrical, fire, or plumbing inspectors may be required for that structure during the manufacturing process in the factory. This section does not apply to a factory manufacturing fewer than two residential or commercial structures per year.

54-21.3-08. Adoption of an Installation Program - Penalty. The Department of Commerce shall adopt rules establishing a manufactured home installation program for all manufactured homes built in accordance with the manufactured homes construction and safety standards under 24 CFR 3280 adopted pursuant to the Manufactured Housing Construction and Safety Standards Act [42 U.S.C. 5401 et seq.]. The rules must establish minimum installation standards. The rules may include standards, fees, and requirements for certification and training of installers, inspections of installations, dispute resolution, penalties for noncompliance, and costs of processing complaints. The standards do not apply to manufactured homes installed before the original effective date of the rules. Manufactured homes may be installed in accordance with either standards adopted in the rules or the manufacturer's instructions. The rules must include provisions for the enforcement of these standards. Any person who violates this section or any rule adopted under this section is guilty of a class A misdemeanor.

54-21.3-09 Used Temporary Work Camp Housing - Exemption.

State or local government code enforcement agencies may allow exemptions or accept alternate methods for construction and placement of temporary work camp housing that has been previously used as housing or temporary work camp housing in a different location, provided that the waiver does not substantially compromise the health or safety of workers. This authority is granted to code enforcement agencies enforcing the State Building Code, the State Electrical Code, and the State Plumbing Code when acting within their existing jurisdiction. This section does not apply to newly constructed temporary work camp housing.

1. State or local government code enforcement agencies, acting within their existing jurisdiction, may conduct a nondestructive walkthrough inspection of previously used temporary work camp housing to ensure compliance with applicable codes, including the State Building Code, State Electrical Code, and State Plumbing Code. If the housing is

found to be compliant with these codes, or to not substantially compromise the health or safety of workers pursuant to a waiver under this section, the code enforcement agency may issue a limited certificate of inspection, which is effective for a period of five years. Residents may not be permitted to move into or live in temporary work camp housing unless the housing has a current limited certificate of inspection or has been found to meet all applicable codes and requirements by any code enforcement agency having jurisdiction.

- 2. The applicable codes, including the State Building Code, the State Electrical Code, and the State Plumbing Code, are applicable as a standard for liability in legal actions against owners or operators of temporary work camp housing if exemptions are granted.
- 3. An owner of temporary work camp housing has the duty to remove that housing and all related above-grade and below-grade infrastructure within one hundred twenty days after the temporary work camp housing is vacated. Any city or county may abate any public nuisance caused by vacated temporary work camp housing within its jurisdiction. An owner of temporary work camp housing shall provide the city or county where the temporary work camp housing is installed with a surety bond, letter of credit, or other security instrument in the form and in an amount specified by the city or county. These funds must be used to cover actual expenses that may be incurred by the city or county in removal of the temporary work camp housing, including any above grade or below grade infrastructure. The owner is liable for any expenses that are reasonably incurred by the city or county which exceed the amount of the security.

SCOPE OF THE STATE BUILDING CODE

Administrative Rule Article 108, Chapter 108-01, provides for the following scope for the state building code:

- 1. It supplements all laws defined within the North Dakota Century Code relating to construction, alterations, improvements, and siting of buildings unless specifically exempted.
- 2. It applies to all cities, townships, and counties that elect to adopt and enforce building codes within their jurisdictional boundaries.
- 3. It applies to all state and local government buildings.
- 4. It applies to all public and private schools.

HOW TO USE THE NORTH DAKOTA STATE BUILDING CODE

FIRST: You must obtain the 2009 edition of the IBC, IRC, IMC, and IFGC. See page 4 for obtaining these codes.

SECOND: Wherever the International Plumbing Code and International Electrical Code are referenced, you must substitute the reference with the North Dakota State Plumbing Code and the Wiring Standards of North Dakota. Also note that the State Building Code does not include the International Property Maintenance Code or the International Fire Code. These codes, to be in effect, must be adopted separately by each city, county, or township.

THIRD: When using the IBC, IRC, IMC, and IFGC you should first identify if a particular section or chapter is amended by the state. State agencies, local governments, and schools must use the state building code and may only use less restrictive code provisions contained in the state amendments. Local jurisdictions may not impose more restrictive code provisions on state buildings unless they are included in the state amendments.

FOURTH: In chapter 11 of the IRC you have the choice of meeting the IRC requirements or meeting the International Energy Conservation Code (IECC) requirements.

N1101.2 Compliance. Compliance shall be demonstrated by either meeting the requirements of the *International Energy Conservation Code* or meeting the requirements of this chapter.

In chapter 13 of the IBC you must meet the IECC requirements.

1301.1.1 Criteria. Buildings shall be designed and constructed in accordance with the *International Energy Conservation Code*.

The IECC can be obtained from the International Code Council with the information on page 4.

CHAPTER 1 OF EACH INTERNATIONAL CODE AND FEE SCHEDULE

Chapter 1 of each of the four International Codes that make up the state building code is entitled Administration. The provisions in the Chapter provide for the administration and enforcement of each code by the enforcing jurisdiction.

It is up to each jurisdiction that elects to adopt the building code, to determine how it will administer and enforce the state building code.

One area no longer included in the International Codes is the suggested permit fee schedule. For your reference, included below is the suggested fee schedule from the 1997 Uniform Building Code:

Table 1-A Building Permit Fees					
Total Valuation	Fee				
\$1.00 to \$500	\$23.50				
\$501to \$2,000.00	\$23.50 for the first \$500.00 plus \$3.05 for each additional \$100.00, or fraction thereof, to and including \$2,000.00.				
\$2,001to \$25,000.00	\$69.25 for the first \$2,000.00 plus \$14.00 for each additional \$1,000.00, or fraction thereof, to and including \$25,000.00.				
\$25,001to \$50,000.00	\$391.25 for the first \$25,000.00 plus \$10.10 for each additional \$1,000.00, or fraction thereof, to and including \$50,000.00.				
\$50,001to \$100,000.00	\$643.75 for the first \$50,000.00 plus \$7.00 for each additional \$1,000.00, or fraction thereof, to and including \$100,000.00.				
\$100,001to \$500,000.00	\$993.75 for the first \$100,000.00 plus \$5.60 for each additional \$1,000.00, or fraction thereof, to and including \$500,000.00.				
\$500,001to \$1,000,000.00	\$3,233.75 for the first \$500,000.00 plus \$4.75 for each additional \$1,000.00, or fraction thereof, to and including \$1,000,000.00.				
\$1,000,001.00 and up	\$5,608.75 for the first \$,1,000,000.00 plus \$3.65 for each additional \$1,000.00, or fraction thereof.				
Other Inspections and Fees:					
 Inspections outside of normal business hours\$47.00 per hour¹ (minimum charge - two hours) 					
2. Re-inspection fees assessed under provisions of Section 305.8					
 Inspections for which no fee is specifically indicated					
4. Additional plan review required by changes, additions or revisions to plans\$Actual Costs ² (minimum charge - one-half hour)					
5. For use of outside consultar	nts for plan checking and inspections, or both\$47.00 per hour ¹				

¹Or the total hourly cost to the jurisdiction, whichever is the greatest. This cost shall include supervision, overhead, equipment, hourly wages and fringe benefits of the employees involved.

²Actual costs include administrative and overhead costs.

IDENTIFICATION OF AMENDMENTS

This section presents the adopted state amendments to the 2009 edition of the International Building Code, International Residential Code, International Mechanical Code, and International Fuel Gas Code. These amendments were approved through the voting procedures in Article 108-01 of the North Dakota Administrative Code on September 15th and 16th of 2010. The amendments to each code are presented separately, with each Chapter and section containing an amendment highlighted in bold letters and numbers. The type of amendment made to the section, table, or figure is indicated by the terms revise, add, or delete underneath the section, table, or figure number. Wherever a new section is added, the notice to add appears in bold letters above the new section designation. The following describes what each designation means:

- Revise indicates that a chapter, section, table, or figure has been changed due to a deletion or substitution. Substituted language or specifications are underlined, and new tables or figures are identified
- Add indicates new language or specifications have been added, without changing existing language or specifications. Additions are underlined.
- Delete indicates complete deletion of a chapter, section, table, or figure or reassignment as an Appendix.

AMENDMENTS FOR 2009 INTERNATIONAL RESIDENTIAL CODE

NOTE: Wherever the International Plumbing Code and International Electrical Code referenced, substitute the reference with the North Dakota State Plumbing Code and Wiring Standards of North Dakota.

CHAPTER 1 SCOPE AND ADMINISTRATION

Section R104.8

Revise as follows:

The *building official*, member of the board of appeals or employee charged with the enforcement of this code, while acting for the jurisdiction 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 liable personally and is hereby relieved from personal liability for any damage accruing to persons or property as a result of any act or by reason of an act or omission in the discharge of official duties. Any suit instituted against an officer or employee because of an act or omission performed by that officer or employee in the lawful discharge of duties and under the provisions of this code shall be afforded all the protection provided by the jurisdiction's insurance pool and immunities and defenses provided by other applicable state and federal laws and shall be defended by legal representative of the jurisdiction until the final termination of the proceedings. The *building official* or any subordinate shall not be liable for cost in any action, suit or proceeding that is instituted in pursuance of the provisions of this code.

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 the city be held as assuming any such liability by reason of the inspection authorized by this code or any permits or certificates issued under this code.

Section R104.10.1

Section R104.10.1 is hereby deleted in its entirety.

Section R105.2

Revise as follows:

Work exempt from permit.....

Building:

1. One-story detached accessory structures, provided the floor area does not exceed 120 square feet.

2. Fences not over 8.5 feet high.

* * *

- 7. Swimming pools.
- 8. Swings and other playground equipment.
- 9. Window awnings supported by an exterior wall which do not require additional support.
- 10. Deleted

Section R106.1.3

Section R106.1.3 is hereby deleted in its entirety.

Section R108.3

Revise as follows:

R108.3 Building permit valuations.

Building *permit* valuation shall include total value of the work for which a *permit* is being issued, such as electrical, gas, mechanical, plumbing equipment and other permanent systems, including materials and labor. If, in the opinion of the *building official*, the valuation is underestimated on the application, the *permit* shall be denied, unless the applicant can show detailed estimates to meet the approval of the *building official*. Final building *permit* valuation shall be set by the *building official*.

Section R112.2.1

Section R112.2.1 is hereby deleted in its entirety.

Section R112.2.2

Section R112.2.2 is hereby deleted in its entirety.

CHAPTER 2 DEFINITIONS

Section R201.3 Terms defined in other codes.

Revise as follows:

Where terms are not defined in this code, such terms shall have meanings ascribed to them as in other code publications of the International Code Council. Wherever the term 'International Plumbing Code' and/or 'International Private Sewage Disposal Code' is used in the International Residential Code, it shall mean the North Dakota State Plumbing Code. Wherever the term 'ICC Electrical Code' is used in the International Residential Code, it shall mean the North Dakota State Wiring Standards.

CHAPTER 3 BUILDING PLANNING

Section R301.2.4

Section R301.2.4 is hereby deleted in its entirety.

Section R301.6

Add as follows:

After the last sentence of Section R301.6 add, "Roof loads shall include dead loads for any roofmounted equipment such as solar panels or photovoltaic cells."

Table R302.1

Revise as follows:

Table R302.1 third and fourth columns are hereby amended as follows:

Reference to section R317.3 is changed to Section R302.4 and entries in column four are changed as follows:

<3 feet \geq 3 feet 2 feet 3 feet < 3 feet 3 feet 5 feet < 5 feet 5 feet

** Add foot note behind (walls 1) – A common 2-hour fire-resistance-rated wall is permitted for two or more family dwellings where the common wall is on a property line provided such walls do not contain plumbing or mechanical equipment, ducts or vents in the cavity of the common wall. Electrical installations shall be installed in accordance with chapters 33 through 42. Penetrations of electrical outlet boxes shall be in accordance with section 302.4

Section R302.2 Townhouses.

Revise as follows:

Each *townhouse* shall be considered a separate building and shall be separated by fire-resistancerated wall assemblies meeting the requirements of Section R302.1 for exterior walls. **Exception:** A common 2-hour fire-resistance-rated wall assembly tested in accordance with ASTM E 119 or UL 263 is permitted for townhouses if such walls do not contain plumbing or mechanical equipment, ducts or vents in the cavity of the common wall. The wall shall be rated for fire exposure from both sides and shall extend to and be tight against exterior walls and the underside of the roof sheathing. Electrical installations shall be installed in accordance with Chapters 34 through 43. Penetrations of electrical outlet boxes shall be in accordance with Section R302.4.

Table R302.6

Revise as follows:

Garages located less than 6 feet from the dwelling unit on the same lot.

Section R307.1 Space required.

Revise as follows:

Fixtures shall be spaced in accordance with the requirements of Section P2705.1, with the exception of the clearance in front of water closets and bidets which shall be at least 24 inches.

Section R309.3

Section R309.3 is hereby deleted in its entirety.

Section R310.1 Emergency escape and rescue required.

Revise as follows:

Basements and every sleeping room shall have at least one operable emergency and rescue opening. Such opening shall open directly into a public street, public alley, yard or court. Where basements contain one or more sleeping rooms, emergency egress and rescue openings shall be required in each sleeping room, but shall not be required in adjoining areas of the basement. Where emergency escape and rescue openings are provided they shall have a sill height of not more than 44 inches (1118 mm) above the floor. Where a door opening having a threshold below the adjacent ground elevation serves as an emergency escape and rescue opening and is provided with a bulkhead enclosure, the bulkhead enclosure shall comply with Section 310.3. The net clear opening dimensions required by this section shall be obtained by the normal operation of the emergency escape and rescue opening from the inside. Emergency escape and rescue opening secape and rescue opening from the inside. Emergency escape and rescue opening swith a finished sill height below the adjacent ground elevation shall be provided with a window well in accordance with Section R310.2.

Exceptions:

- 1. Basements used only to house mechanical equipment and not exceeding total floor area of 200 square feet (18.58 m^2)
- 2. Below grade emergency escape and rescue windows may have a maximum sill height of 48 inches.

Section R310.1.1

Delete the exception.

Section R310.2.1 Ladder and steps.

Revise as follows:

Window wells with a vertical depth greater than 44 inches (1118 mm) shall be equipped with a permanently affixed ladder or steps usable with the window in the fully open position or, install a minimum 30"x16" permanently attached platform in the window well, that will reduce the vertical depth of the window well to no more than 42" below the top of the window well and that will not impede the operation of the window. Ladders or steps required by this section shall not be required to comply with Sections R311.5 and R311.6. Ladders or rungs shall have an inside width of at least 12 inches (305 mm), shall project at least 3 inches (76 mm) from the wall and shall be spaced not more than 18 inches (457 mm) on center vertically for the full height of the window well.

Exception: Terraced window wells with a maximum of 24" per vertical rise and minimum of 12" horizontal projections on each level shall also be allowed in accordance with Figures 310.2.1(1) and 310.2.1(2).

Section R311.3.2 Floor elevations for other exterior doors.

Revise as follows:

Doors other than the required egress door shall be provided with landings or floors not more than 8 inches (203 mm) below the top of the threshold.

Exception: A landing is not required where a stairway with a total rise of less than 30 inches (762 mm) is located on the exterior side of the door, provided the door does not swing over the stairway.

Section R311.7.4.1 Riser height.

Revise as follows:

The maximum riser height shall be 8 inches. The riser shall be measured vertically between leading edges of the adjacent treads. The greatest riser height within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm).

Section R311.7.4.2 Tread depth.

Revise as follows:

The minimum tread depth shall be 9 inches. The tread depth shall be measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's leading edge. The greatest tread depth within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm). Consistently shaped winders at the walkline shall be allowed within the same flight of stairs as rectangular treads and do not have to be within 3/8 S(9.5 mm) of the rectangular tread depth.

Exception:

1. Where a landing is not provided or required by section 311.3.2, the top tread of a stair serving exterior doors other than the required exit door, and in-swinging doors opening into an attached garage, shall be permitted to exceed the smallest tread by more than 3/8 inch (9.5mm). Such a tread shall be at least 18 inches (457mm) measured in the direction of travel.

Winder treads shall have a minimum tread depth of 9 inches...

(Balance to remain unchanged)

Section R311.7.5

Revise as follows:

Exceptions:

- 1. A floor or landing is not required at the top of an interior flight of stairs, including stairs in an enclosed garage, provided a door does not swing over the stairs.
- 2. A landing is not required where a stairway with a total rise of less than 30 inches (762 mm) is located on the exterior side of the door, provided the door does not swing over the stairway.

A flight of stairs shall not have a vertical rise larger than 12 feet (3658 mm) between floor levels or landings. The width of each landing shall not be less than the width of the stairway served. Every landing shall have a minimum dimension of 36 inches (914 mm) measured in the direction of travel.

Section R312.1

Revise as follows:

Where Required: Guards shall be located along open-sided walking surfaces, stairs, ramps and landings that are located more than 30 inches (762 mm) measured vertically to the floor or grade below. Insect screening shall not be considered as a guard.

Section R312.2

Revise as follows:

Required guards at open-sided walking surfaces, including stairs, porches, balconies or landings, shall be not less than 36 inches high measured vertically above the adjacent walking surface, or the line connecting the leading edges of the treads.

Section R313

Section R313 is hereby deleted in its entirety.

Section R314.3 Location.

Revise as follows:

Smoke alarms shall be installed in the following locations:

* * *

3. On each additional story of the dwelling, including basements but not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level. In dwelling units where the ceiling height of a room open to the hallway serving the bedrooms exceeds that of the hallway by 24 inches (610 mm) or more, smoke detectors shall be installed in the hallway and in the adjacent room.

Section R322

Section R322 is hereby deleted in its entirety.

CHAPTER 4 FOUNDATIONS

R401.1 Application.

Revise as follows:

The provisions of this chapter shall control the design and construction of the foundation and foundation spaces for all buildings. In addition to the provisions of this chapter, the design and construction of foundations in areas prone to flooding shall meet the provisions of the jurisdiction's flood proofing code and any other applicable requirements of the jurisdiction. Wood foundations shall be designed and installed in accordance with AF&PA PWF.

R401.3 Drainage.

Revise as follows:

Surface drainage shall be diverted to a storm sewer conveyance or other approved point of collection. Lots shall be graded to drain surface water away from foundation walls.

Section R403.1.4.1

Revise as follows:

Exceptions:

- 1. Protection of freestanding accessory structures of light framed construction shall not be required.
- 2. Protection of freestanding accessory structures with an area of 400 square feet or less, of other than light-framed construction shall not be required.
- 3. Decks need not be provided with footings that extend below the frost line.

R404.1.2.2 Reinforcement for foundation walls.

Revise as follows:

Concrete foundation walls shall be laterally supported at the top and bottom. Horizontal reinforcement shall be provided in accordance with Table R404.1.2(1). Vertical reinforcement shall be provided in accordance with Table R404.1.2(2), R404.1.2(3), R404.1.2(4), R404.1.2(5), R404.1.2(6), R404.1.2(7), R404.1.2(8), R404.1.2(10) or R404.1.2(11). Vertical reinforcement for flat *basement* walls retaining 4 feet (1219 mm) or more of unbalanced backfill is permitted to be determined in accordance with Table R404.1.2(9) and Figures 404.1.2(1) and 404.1.2(2). For *basement* walls supporting above-grade concrete walls, vertical reinforcement shall be by Tables R404.1.2(2) through R404.1.2(8) or by Section R611.6 for the above-grade wall. In buildings assigned to Seismic Design Category D0, D1 or D2, concrete foundation walls shall also comply with Section R404.1.4.2.

Figure R404.1.2 (1)

Add as follows:

FIGURE R404.1.2 (1) referred to in Section 404.1.2

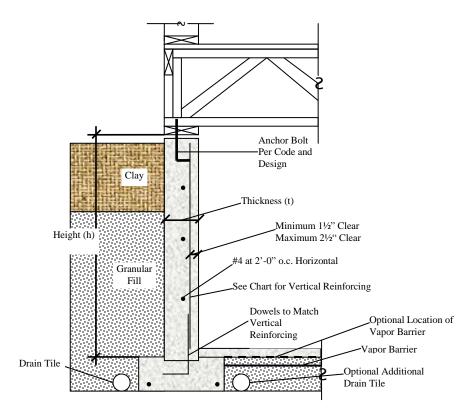


FIGURE R404.1.2(2), referred to in Section 404.1.2

Add as follows:

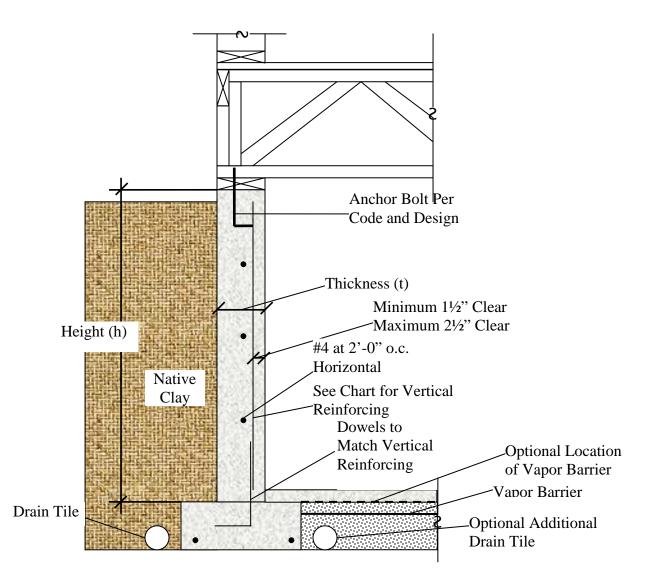


Table R404.1.2 (10)

Add as follows:

Table R404.1.2(10)Foundation Wall Reinforcing

Minimum Reinforcement for Concrete Foundation Walls					
Wall Height (h) feet	Wall Thickness (t) inches	Vertical Reinforcing			
8	8	#4 @ 24" o.c.			
		#5 @ 40" o.c.			
	10	#4 @ 30" o.c.			
		#5 @ 50" o.c.			
9	8	#4 @ 18" o.c.			
		#5 @ 28" o.c.			
	10	#4 @ 24" o.c.			
		#5 @ 36" o.c.			
10	10	#4 @ 16" o.c.			
		#5 @ 26" o.c.			

Active Pressure = 45pcf

Notes:

- 1. Chart is based on an active soil pressure of 45 pounds per cubic foot (pcf).
- 2. Reinforcing steel shall be ASTM A615 Fy 60,000 pounds per square inch (psi).
- 3. The vertical reinforcing bars are to be located on the inside face.
- 4. Minimum concrete strength $Fc^1 = 3,000$ pounds per square inch (psi).
- 5. Backfill shall not be placed until first floor framing and sheathing is installed and fastened or adequately braced and the concrete floor slab is in place or the wall is adequately braced.

Table R404.1.2(11)

Add as follows:

Table R404.1.2(11)Foundation Wall Reinforcing

Minimum Reinforcement for Concrete Foundation Walls					
Wall Height (h)	Wall Thickness (t)	Vertical			
Feet	inches	Reinforcing			
8	8	#4 @ 18" o.c.			
		#5 @ 26" o.c.			
		#6 @ 40" o.c.			
	10	#4 @ 24" o.c.			
		#5 @ 36" o.c.			
		#6 @ 52" o.c.			
9	8	#4 @ 12" o.c.			
		#5 @ 18" o.c.			
		#6 @ 26" o.c.			
	10	#4 @ 16" o.c.			
		#5 @ 24" o.c.			
		#6 @ 36" o.c.			
10	10	#4 @ 12" o.c.			
		#5 @ 18" o.c.			
		#6 @ 24" o.c.			

Active Pressure = 65 pcf

Notes:

- 1. Chart is based on an active soil pressure of 65 pounds per cubic foot (pcf).
- 2. Reinforcing steel shall be ASTM A615 Fy 60,000 pounds per square inch (psi).
- 3. The vertical reinforcing bars are to be located on the inside face.
- 4. Minimum concrete strength $Fc^1 = 3,000$ pounds per square inch (psi).
- 5. Backfill shall not be placed until first floor framing and sheathing is installed and fastened or adequately braced and the concrete floor slab is in place or the wall is adequately braced.

Section R405.2.3 Drainage System

Revise as follows:

In other than Group I soils, a sump shall be provided to drain the porous layer and footings. The sump shall be at least 18 inches in diameter or 16 inches square, shall extend at least 24 inches (610 mm) below the bottom of the basement floor and shall be capable of positive gravity or mechanical drainage to remove any accumulated water. The drainage system shall discharge into an approved sewer system or to daylight.

CHAPTER 5 FLOORS

Section R506.2.3

Section R506.2.3 is hereby amended to add an exception 5 to read as follows:

Exceptions:

5. for attached garages.

CHAPTER 6 WALL CONSTRUCTION

Section R602.10 Wall Bracing.

Revise as follows:

Buildings shall be braced in accordance with this section. Where a building, or portion thereof, does not comply with one or more of the bracing requirements in this section, those portions shall be designed and constructed in accordance with Section R301.1.

Exceptions:

- 1. Detached one- and two-family *dwellings* located in Seismic Design Category C are exempt from the seismic bracing requirements of this section. Wind speed provisions for bracing shall be applicable to detached one- and two-family *dwellings*.
- 2. The wall bracing requirements of section R602.10 of the 2006 International Residential Code may be used as an alternative to this section.

CHAPTER 7 WALL COVERING

Section R703.6.2 – Plaster

Revise as follows:

Plastering with portland cement plaster shall be not less than three coats when applied over metal lath or wire lath and shall be not less than two coats when applied over masonry, concrete, pressure-preservative treated wood or decay-resistant wood as specified in Section R319.1 or gypsum backing. If the plaster surface is completely covered by veneer or other facing material or is completely concealed, plaster application need be only two coats, provided the total thickness is as set forth in Table R702.1(1). Approved decorative coatings applied to a concrete or masonry surface shall be installed in accordance with the manufacturer's installation instructions.

CHAPTER 9 ROOF ASSEMBLIES

Section R903.5 and Figure R903.5 Hail Exposure.

Section R903.5 and Figure R903.5 are hereby deleted in its entirety.

Section R905.2.5 Fasteners.

Revise as follows:

Fasteners for asphalt shingles shall be galvanized steel, stainless steel, aluminum or copper roofing nails, minimum 12 gage [0.105 inch (2.67 mm)] shank with a minimum 3/8 inch (9.5 mm) diameter head, ASTM F 1667, of a length to penetrate through the roofing materials and a minimum of ³/₄ inch (19.1 mm) into the roof sheathing or other fasteners as approved by the building official and shingle manufacturer. Where the roof sheathing is less than ³/₄ inch (19.1 mm) thick, the fasteners shall penetrate through the sheathing. Fasteners shall comply with ASTM F 1667.

Section R907

Section R907 is hereby deleted in its entirety and relocated to the Appendices as Appendix R.

CHAPTER 11 ENERGY EFFICIENCY

Table R1102.1

Revise as follows:

For climate zones 6, 7, and 8, under "Wood Frame Wall R-Value" column, delete listed values and replace with R-19 in both cases.

Section N1103.1.1

Section N1103.1.1 is hereby deleted in its entirety.

Section N1103.2.2 Sealing.

Revise as follows:

Ducts, air handlers, filter boxes and building cavities used as ducts shall be sealed. Joints and seams shall comply with Section M1601.4.

Section N1104.1

Section N1104.1 is hereby deleted in its entirety.

CHAPTER 13 GENERAL MECHANICAL SYSTEM REQUIREMENTS

Section M1301.1.1

Section M1301.1.1 is hereby deleted in its entirety.

CHAPTER 14 HEATING AND COOLING EQUIPMENT

Section M1401.5

Section M1401.5 is hereby deleted in its entirety.

CHAPTER 15 EXHAUST SYSTEMS

Section M1502.4.4.1. Specified Length.

Revise as follows:

The maximum length of the exhaust duct shall be 35 (10668 mm) feet from the connection to the transition duct from the dryer to the outlet terminal. Where fittings are used, the maximum length of the exhaust duct shall be reduced in accordance with Table M1502.4.4.1.

CHAPTER 16 DUCT SYSTEMS

Table M1601.1.1(2)

Revise as follows:

Table M1601.1.1(2) is hereby amended as follows:

Under the column titled "Equivalent Galvanized Sheet No.", for Round ducts and enclosed rectangular ducts 14 inches or less, delete "28" and replace with "30".

Section M1601.4.9

Section M1601.4.9 is hereby deleted in its entirety.

M1603 General.

Add as follows:

The minimum unobstructed total area of supply and return air ducts from a warm-air furnace shall be in accordance with the manufacturer's installation instructions, but shall not be less than 2 square inches (1290 MM sq) for each 1,000 Btu/h (293W) output rating of the furnace. The minimum unobstructed total area of the supply and return air ducts from a central air-conditioning unit and/or heat pump shall be in accordance with the manufacturer's installation instructions, but shall be not less than 6 square inches (3870 mm sq) for each 1,000 Btu/h (293W) nominal cooling output rating. Dampers, grilles, or registers installed for the purpose of controlling the supply airflow shall not be considered as obstructions.

CHAPTER 17 COMBUSTION AIR

Section M1701.2.1

Add as follows:

Section M1701.2.1 Attic spaces shall not be used as a source of combustion air.

CHAPTER 18 CHIMNEYS AND VENTS

Section M1801.1 Venting required.

Revise the first sentence as follows: the balance of the section remains unchanged.

Fuel-burning appliances shall be vented to the outside in accordance with their listing and label and manufacturer's installation instruction.

CHAPTER 20 BOILERS AND WATER HEATERS

Section M2001.4

Section M2001.4 is hereby deleted in its entirety.

CHAPTER 21 HYDRONIC PIPING

Section M2101.3 Protection of potable water.

Revise as follows:

The potable water system shall be protected from backflow in accordance with the provisions listed in the North Dakota State Plumbing Code.

Section M2101.10 Tests.

Revise as follows:

New hydronic piping shall be isolated and tested hydrostatically at a pressure of not less than 100-pounds per square inch (psi) (689 kPa) for a duration of not less than 15 minutes.

CHAPTER 22 SPECIAL PIPING AND STORAGE SYSTEMS

Section M2201.6

Section M2206.1 is hereby deleted in its entirety.

CHAPTER 24 FUEL GAS

Section G2404.7

Section G2404.7 is hereby deleted in its entirety.

Section G2406.2

Delete exceptions 3 and 4.

Figures G2407.6.1 (1) and G2407.6.1 (2)

Figures G2407.6.1 (1) and G2407.6.1 (2) are hereby deleted in its entirety.

Figure G2407.6.2

Delete as follows:

Figure G2407.6.2 is hereby amended to delete the reference to an alternate opening location.

Section G2407.11

Delete as follows:

Delete item number 5 and renumber subsequent items.

Section G2411.1.1 (310.1.1) Corrugated stainless steel tubing CSST.

Revise as follows:

CSST gas piping systems shall be bonded to the electrical service grounding electrode system. The bonding jumper shall connect to a metallic pipe or fitting between the point of delivery and the first downstream CSST fitting. The bonding jumper shall not be smaller than 6AWG copper wire or equivalent. A CSST system certified by an approved listing agency and approved by the authority having jurisdiction as being equivalent to a direct bonded CSST system prescribed in this Section shall only be required to be bonded in accordance with Section G2411.1

Section G2413.5 (402.5) Allowable pressure drop.

Revise as follows:

The design pressure loss in any piping system under maximum probable flow conditions, from the point of delivery to the inlet connection of the appliance, shall be such that the supply pressure at the appliance is greater than or equal to the minimum pressure required by the appliance. For low pressure systems, such pressure loss shall not be greater than .5 inch water column.

Section G2417.4.1 (406.4.3) Test pressure.

Revise as follows:

The test pressure to be used shall not be less than one and one half times the proposed maximum working pressure, but not less than 25 psig, irrespective of design pressure. Where the test pressure exceeds 125 psig the test pressure shall not exceed a value that produces a hoop stress in the piping greater than 50 percent of the specified minimum yield strength of the pipe.

Section G2419.2 Drips.

Revise as follows:

Where wet gas exists, a drip shall be provided at any point in the line of pipe where condensate could collect.

Section G2425.8

Delete #7.

Section G2425.12 Residential and low-heat appliances flue lining systems.

Revise as follows:

Flue lining systems for use with residential-type and low-heat appliances shall be limited to the following:

- 1. Clay flue lining complying with the requirements of ASTM C 315 or equivalent when each appliance connected into the masonry chimney has a minimum input rating greater than 400,000 Btu/h. Clay flue lining shall be installed in accordance with Chapter 10.
- 2. Listed chimney liner systems complying with UL 1777.
- 3. Other approved materials that will resist, without cracking, softening, or corrosion, flue gases and condensate at temperatures up to 1800 F (982 C).
 - a. Aluminum (1100 or 3003 alloy or equivalent) not less than 0.032 inches thick up to 8 inches in diameter.
 - b. Stainless steel (304 or 430 alloy or equivalent) not less than 26 gauge (0.018 inches thick) to 8 inches in diameter or not less than 24 gauge (0.024 inches thick) 8 inches in diameter and larger.

When a metal liner is used other than a listed chimney liner a condensation drip tee shall be installed and supported in an approved manner.

Section G2427.5.2 (503.5.3) Masonry chimneys.

Revise as follows:

Masonry *chimneys* shall be built and installed in accordance with NFPA211 and shall be lined as per G2425.12.

Exception: Masonry *chimney* flues serving listed gas *appliances* with *draft hoods*, Category I *appliances* and other gas *appliances* listed for use with Type B vents shall be permitted to be lined with a *chimney* lining system specifically listed for use only with such *appliances*. The liner shall be installed in accordance with the liner manufacturer's installation instructions. A permanent identifying label shall be attached at the point where the connection is to be made to the liner. The label shall read: "This *chimney* liner is for *appliances* that burn gas only. Do not connect to solid or liquid fuel-burning appliances or incinerators."

Section G2442.6 (618.6) Screen.

Revise as follows:

Required outdoor air inlets shall be covered with a screen having $\frac{1}{4}$ inch (6.4 mm) openings. Required outdoor air inlets serving a nonresidential portion of a building shall be covered with screen having openings larger than $\frac{1}{4}$ inch (6.4 mm) and not larger than $\frac{1}{2}$ inch.

Section G2445

Section G2445 is hereby deleted in its entirety.

Chapters 25 through 43

Chapters 25 through 43 are hereby deleted in their entirety.

AMENDMENTS FOR 2009 INTERNATIONAL BUILDING CODE

CHAPTER 1 SCOPE AND ADMINISTRATION

Section 101.4.3 Plumbing.

Revise as follows:

The provisions of the North Dakota State Plumbing Code_shall apply to the installation, alteration, repair and replacement of plumbing systems, including equipment, appliances, fixtures, fittings and appurtenances, and where connected to a water or sewage system and all aspects of a medical gas system. The provisions of the North Dakota State Plumbing Code shall apply to private sewage disposal systems

Section 101.4.4

Delete Section 101.4.4 is hereby deleted in its entirety.

Section 101.4.5

Delete Section 101.4.5 is hereby deleted in its entirety.

Section 104.8 Liability.

Revise as follows:

The *building official*, member of the board of appeals or employee charged with the enforcement of this code, while acting for the jurisdiction 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 liable personally and is here by relieved from personal liability for any damage accruing to persons or property as a result of any act or by reason of an act or omission in the discharge of official duties. Any suit instituted against an officer or employee because of an act or omission performed by that officer or employee in the lawful discharge of duties and under the provisions of this code shall be afforded all the protection provided by the jurisdiction's insurance pool and immunities and defenses provided by other applicable state and federal laws and shall be defended by legal representative of the jurisdiction until the final termination of the proceedings. The *building official* or any subordinate shall not be liable for cost in any action, suit or proceeding that is instituted in pursuance of the provisions of this code.

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 the city be held as assuming any such liability by reason of the inspection authorized by this code or any permits or certificates issued under this code.

Section 105.2

Revise as follows:

Work exempt from permit.....

Building: ***

- 2. Fences not over 8.5 feet high.
- 6. Sidewalks and driveways.
- Swings and other playground equipment accessory to detached one- and two-family dwellings.

- 12. Window awnings.
- 14. Reroofing.

Section 107.2.5.1

Section 107.2.5.1 is hereby deleted in its entirety.

Section 107.3.1 Approval of construction documents.

Revise as follows:

When the building officialOne set of construction documents so reviewed shall be retained by the Building Official.

Section 109.2 Schedule of permit fees.

Revise as follows:

On buildings, structures, electrical, gas, mechanical, and plumbing systems or alterations requiring a permit, a fee for each permit and plan review shall be paid as required, in accordance with the schedule as established by the jurisdiction. The plan review fees specified in this subsection are separate from, and in addition to, permit fees. When submittal documents are incomplete or changed so as to require additional plan review or when the project involves deferred submittal items as defined in Section 106.3.4.2, an additional plan review fee shall be charged in an amount not to exceed 50% of the building permit fee established in Section 108.2.

Section 110.3.3

Section 110.3.3 is hereby deleted and subsequent sections renumbered accordingly.

CHAPTER 3 USE AND OCCUPANCY CLASSIFICATION

Section 305.2 Day care.

Revise as follows:

The use of a building or structure, or portion thereof, for educational, supervision or personal care services for more than twelve children older than $2\frac{1}{2}$ years of age, shall be classified as a Group E occupancy.

Section 308.3.1 Child care facilities.

Revise as follows:

Facilities that provide care on a 24-hour basis to more than twelve children 2 $\frac{1}{2}$ years of age or less.

Section 308.5

Revise as follows:

Section 308.5 Group I-4, day care facilities.

A facility such as the above with twelve or fewer persons shall be classified as a Group R-3 or shall comply

Section 308.5.2 Child care facility.

Revise as follows:

A facility that provides supervision and personal care on less than a 24-hour basis for more than twelve children 2 ¹/₂ years of age or less shall be classified as Group I-4.

Exception: A child day care facility that provides care for more than twelve but no more than 100 children 2½ years or less of age, where the rooms in which the children are cared for are located on a level of exit discharge serving such rooms and each of these child care rooms has an exit door directly to the exterior, shall be classified as Group E.

Section 310.1

Revise as follows:

Section 310.1 is hereby amended to read in part as follows:

R-3 Residential occupancies where the occupants are primarily permanent in nature and not classified as Group R-1, R-2, R-4 or I, including:

Buildings that do not contain more than two dwelling units.

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

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

Congregate living facilities with 16 or fewer persons.

Adult and child care facilities that are within a single-family home are permitted to comply with the *International Residential Code*.

CHAPTER 4 SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY

Section 406.1.4

Revise as follows:

Section 406.1.4 is hereby amended to read as follows:

1. The private garage shall be separated from the dwelling unit and its attic area by means of a minimum ¹/₂ inch Type X gypsum board applied to the garage side. Garages immediately adjacent to habitable rooms shall be separated from such habitable rooms by not less than 5/8 inch Type X gypsum board or equivalent. Where the separation is a floor-ceiling assembly, the structure supporting the assembly shall also be protected by not less than 5/8 inch Type X gypsum board or equivalent. Door openings between a private garage and the dwelling unit shall be equipped with either solid wood doors or solid or honeycomb core steel doors not less than 1-3/8 inches (34.9 mm) thick or doors in compliance with Section 715.4.3.

Section 406.1.4

Revise as follows:

Section 406.1.4 is hereby amended to read as follows:

1....Openings from a private garage directly into a room used for sleeping purposes shall not be permitted.

CHAPTER 7 FIRE AND SMOKE PROTECTION FEATURES

Section 706.6

Revise as follows:

Section 706.6 is hereby amended to add #6 to read:

6. Fire walls installed within detached structures of Group U occupancy may terminate at the underside of the roof sheathing provided such walls are not required to be fire-resistive construction due to proximity to property lines.

CHAPTER 8 INTERIOR FINISHES

Section 801.5 Applicability.

Revise as follows:

For buildings in flood hazard areas, interior finishes, trim and decorative materials below the design flood elevation shall be flood-damage-resistant materials in accordance with the requirements of the Local Flood Proofing Code.

CHAPTER 9 FIRE PROTECTION SYSTEMS

This chapter should also contain this law from the North Dakota Century Code (54-21.3-03):

4. The state building code or a building code adopted by a city, township, or county may not include a requirement that fire sprinklers be installed in a single family dwelling or a residential building that contains no more than two dwelling units.

Section 903.2.7

Section 903.2.7 #4 is hereby deleted in its entirety.

Section 903.3.1.1

Add as follows:

Section 903.3.1.1 is hereby amended by adding a second paragraph to read as follows:

Sprinkler heads in unoccupied mall tenant spaces may be installed at ceiling height if allowed by the code official. Permission will be granted on an individual basis. Combustible storage shall not be allowed in these unoccupied tenant spaces if sprinkler heads are installed at ceiling height. Signage shall be provided outlining the storage restrictions.

Section 907.2.11.1

Revise as follows:

Section 907.2.11.1 is hereby amended by adding item #4 to read as follows:

4. In dwelling units where the ceiling height of a room open to the hallway serving the sleeping rooms exceeds that of the hallway by 24 inches (610 mm) or more, smoke detectors shall be installed in the hallway and in the adjacent room.

Section 907.2.11.2

Revise as follows:

Section 907.2.11.2 is hereby amended by adding item #4 to read as follows:

4. In dwelling units where the ceiling height of a room open to the hallway serving the sleeping rooms exceeds that of the hallway by 24 inches (610 mm) or more, smoke detectors shall be installed in the hallway and in the adjacent room.

CHAPTER 10 MEANS OF EGRESS

Section 1009.1

Revise as follows:

Section 1009.1 is hereby amended to add exception 5 to read as follows:

5. Stairways used only to attend equipment or private stairways serving an occupant load of 10 or fewer persons.

Section 1009.4.2 Exceptions 5 and 8

Revise as follows:

Section 1009.4.2, Exceptions 5, is hereby amended to read as follows and Exception 8 is added:

5. In occupancies in Group R-3, as applicable in Section101.2, within dwelling units in occupancies in Group R-2, as applicable in Section 101.2, and in occupancies in Group U, which are accessory to an occupancy in Group R-3, as applicable in Section 101.2, the maximum riser height shall be 8 inches and the minimum tread depth shall 9 inches, the minimum winder tread depth at the walk line shall be 10 inches, and the minimum winder tread depth shall be 6 inches. A nosing not less than 0.75 inch but not more than 1.25 inches shall be provided on stairways with solid risers where the tread depth is less than 11 inches.

6. ...

- 7. ...
- 8. Stairways used to attend equipment or private stairways serving an occupant load of 10 or fewer persons are permitted to have a maximum 8 inch rise and a minimum 9 inch run.

Section 1009.12 Handrails.

Revise as follows:

Stairways shall have handrails on each side and shall comply with Section 1012. Where glass is used to provide the handrail, the handrail shall also comply with Section 2407.

Exceptions:

- 1. Handrails for aisle stairspermitted by Section 1028.13.
- 5. Changes in room elevations of three or fewer risers within dwelling units and sleeping units in Group R-2 and R-3 do not require handrails.
- 6. Vehicle service pit stairways are exempt from the rules for stairway railing and guards, if they would prevent a vehicle from moving into a position over the pit.
- 7. Stairways used only to attend equipment or private stairways serving an occupant load of 10 or fewer persons are permitted to have a handrail on one side only.

Section 1013.2

Revise as follows:

Delete the words "adjacent fixed seating".

Section 1029.2

Delete the exception.

CHAPTER 11 ACCESSIBILITY

Section 1104.4 Multilevel buildings and facilities.

Revise as follows:

Section 1104.4 exception 1 is hereby amended to read as follows:

At least one accessible route shall connect each accessible level, including mezzanines, in multilevel buildings and facilities.

Exceptions:

- 1. An accessible route is not required to stories, basements and mezzanines that have an area of not more than 3,000 square feet (278.7 m2), are located above or below accessible levels and are below the third story. This exception shall not apply to:
- 1.1. Multiple tenant facilities...

Balance unchanged

Section 1107.7.5

Section 1107.7.5 is hereby deleted in its entirety.

CHAPTER 12 INTERIOR ENVIRONMENT

Section 1203.3.2

Section 1203.3.2 #5 is hereby deleted in its entirety.

Section 1207

Section 1207 is hereby deleted in its entirety.

CHAPTER 14 EXTERIOR WALLS

Sections 1403.5 and 1403.6

Sections 1403.5 and 1403.6 are hereby deleted in its entirety.

Section 1406.3

Revise as follows:

Section 1406.3 is hereby amended to add a new exception 5 to read as follows:

5. Private balconies and similar appendages serving individual dwelling units on buildings of Type V construction.

CHAPTER 15 ROOF ASSEMBLIES AND ROOFTOP STRUCTURES

Section 1509.6

Add as follows:

Section 1509.6 is hereby added to read as follows:

Mechanical Equipment on Sloping Roofs: Where appliances, equipment, fans or other components that require service are installed on a roof having a slope of 3 units vertical in 12 units horizontal or greater, and having an edge more than 30 inches above grade at such edge, a platform shall be provided in accordance with IMC Section 306.5.1.

Section 1510

Section 1510 is hereby deleted and relocated as Appendix L

CHAPTER 16 STRUCTURAL DESIGN

Section 1601.1

Revise as follows:

Section 1601.1 is hereby amended to add the following as a new second paragraph.

It shall not be the responsibility of the building official to determine engineering requirements of this code. Exclusive of the conventional light-frame wood construction provisions referenced in Section 2308, the method to resist loads as referenced in this chapter is the responsibility of a structural engineer or other qualified design professional.

Section 1603.1

Section 1603.1 exception 5 is hereby deleted in its entirety.

Section 1603.1.7

Section 1603.1.7 is hereby deleted in its entirety.

Section 1610.1

Revise as follows:

Exception: Foundation walls extending not more than 9 feet below grade and laterally supported at the top by flexible diaphragms shall be permitted to be designed for active pressure.

Section 1612

Section 1612 is hereby deleted in its entirety.

CHAPTER 17 STRUCTURAL TESTS AND SPECIAL INSPECTIONS

Section 1704.1

Revise as follows:

Section 1704.1 is hereby amended to add an exception 4 to read as follows:

4. The frequency and amount of special inspections shall be as determined by the design professional of record. The continuous and periodic inspections referenced in Tables 1704.3, 1704.4, 1704.5.1, and 1704.5.3 shall be considered as guidelines for that determination.

CHAPTER 18 SOILS AND FOUNDATIONS

Section 1804.3 Surface drainage.

Section 1804.3 is hereby deleted and the following section enacted:

Surface drainage shall be diverted to a storm sewer conveyance or other approved point of collection. Lots shall be graded to drain surface water away from foundation walls.

The procedure used to establish the final ground level adjacent to the foundation shall account for additional settlement of the backfill.

Section 1804.4

Section 1804.4 is hereby deleted in its entirety.

Section 1805.1.2.1

Section 1805.1.2.1 is hereby deleted in its entirety.

Section 1809.5

Revise as follows:

Section 1809.5 is hereby amended to add a new exception 4 as follows:

4. Free-standing buildings used as Group U occupancies for the storage of private or pleasuretype motor vehicles constructed in accordance with Sections 406.1.1 and 406.1.2.

CHAPTER 29 PLUMBING SYSTEMS

Section 2901.1

Revise as follows:

Section 2901.1 is hereby amended to read follows:

The provisions of this chapter and the North Dakota State Plumbing Code shall govern the erection, installation, alteration, repairs, relocations, replacement, addition to, use or maintenance of plumbing equipment and systems. Plumbing systems and equipment shall be constructed, installed and maintained in accordance with the North Dakota State Plumbing Code. Private sewage disposal systems shall conform to the North Dakota State Plumbing Code.

Table 2902.1

Add as follows:

In the column titled "Drinking Fountains" add footnote g.

Add footnote g to read as follows: Where combination high/low drinking fountains are provided to comply with Section 1109.5, each such combination unit shall be considered as two drinking fountains.

CHAPTER 31 SPECIAL CONSTRUCTION

Section 3109

Section 3109 is hereby deleted and relocated as Appendix M

CHAPTER 34 EXISTING STRUCTURES

Section 3403.2

Section 3403.2 is hereby deleted in its entirety.

Section 3404.2

Section 3404.2 is hereby deleted in its entirety.

Section 3405.5

Section 3405.5 is hereby deleted in its entirety

Section 3409.2

Section 3409.2 is hereby deleted in its entirety.

Section 3412.2.4.1

Section 3412.2.4.1 is hereby deleted in its entirety.

AMENDMENTS FOR 2009 INTERNATIONAL MECHANICAL CODE

CHAPTER 1 SCOPE AND ADMINISTRATION

Section 103.4

Add as follows:

The code official, member of the board of appeals or employee charged with the enforcement of this code, while acting for the jurisdiction 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 liable personally, and is hereby relieved from personal liability for any damage accruing to persons or property as a result of an act or by reason of an act or omission in the discharge of official duties.

Any suit instituted against any officer or employee because of an act performed by that officer or employee in the lawful discharge of duties and under the provisions of this code shall be defended by the legal representative of the jurisdiction until the final termination of the proceedings. The code official or any subordinate shall not be liable for costs in an action, suit or proceeding that is instituted in pursuance of the provisions of this code.

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 the jurisdiction be held as assuming any such liability by reason of the inspection authorized by this code or any permits or certificates issued under this code.

Section 106.4.8

Section 106.4.8 is hereby deleted in its entirety.

Revision

Section 108.8 Equipment Submerged Under Water.

Add as follows:

Equipment submerged under water constitutes a fire and health hazard and is considered unsafe equipment. All residential and light commercial furnaces, boilers and water heaters shall be replaced when any of the following components are submerged under water: gas control valve, burner assembly, electrical control panel, heat exchanger. The following components may be replaced without replacing the furnace or water heater when they are the only items submerged: furnace blower motor or insulation.

CHAPTER 2 ADMINISTRATION AND ENFORCEMENT

Section 201.3

Revise as follows:

Where terms are not defined in this code and are defined in the *International Building Code*, *International Fire Code*, *International Fuel Gas Code*, National Electrical Code *and North Dakota State Wiring Standards* or the *North Dakota State Plumbing Code*, such terms shall have meanings ascribed to them as in those codes.

CHAPTER 3 GENERAL REGULATIONS

Section 305.4

Revise as follows:

Piping shall be supported at distances not exceeding the spacing specified in Table 305.4, or in accordance with MSS SP-69. In addition to the requirements of Table 305.4, piping and tubing shall be supported within 2 feet (610 mm) of every bend or angle.

Section 307.2.2

Revise as follows:

...Joints and connections shall be made in accordance with the applicable provisions of the *North Dakota State Plumbing Code* relative to the material type...

CHAPTER 4 VENTILATION

Section 403.1

Add as follows:

Exception: The 2007 version of ASHRAE 62.1 (Ventilation for acceptable Indoor Air Quality) shall be considered to be an acceptable alternative to this section.

CHAPTER 5 EXHAUST SYSTEMS

Section 505.1

Add as follows:

Add the following to the end of the last sentence: at the point of termination.

Section 508.2

Revise as follows:

Manufacturers of compensating hoods shall provide a label indicating minimum exhaust flow and/or maximum makeup airflow that provides capture and containment of the exhaust effluent. Short circuit compensating hoods are prohibited.

Section 508.2.1 Compensating Hood Make-up Air.

Add as follows:

Compensating hoods shall extract at least 40% of the required exhaust air flow from the kitchen area.

CHAPTER 6 DUCT SYSTEMS

Table 603.4

Delete and substitute as follows:

Under the column titled "Equivalent Galvanized Sheet No.", for Round ducts and enclosed rectangular ducts 14 inches or less, delete "28" and replace with "30".

CHAPTER 7 COMBUSTION AIR

Section 701.2 Attic space.

Add as follows:

Attic space shall not be used for combustion air.

CHAPTER 11 REFRIGERATION

Section 1104.2

Add as follows:

Section 1104.2 is hereby amended to add the following new third exception:

3. If an existing refrigerating system is replaced or if an existing refrigeration plant is increased by not more than 50% of its original capacity, but not more than 100 tons per system using a non-flammable class A1 or B1 refrigerant and the refrigeration machinery room was not provided in the original installation prior to 1994, a refrigeration machinery room shall not be required. If the existing refrigeration is not located in general machinery room separated from occupied spaces, a refrigeration machinery room shall be provided. The space containing the refrigerant decomposition, and Section 1105.3 requiring refrigerant detection. If the requirements of 1104.3.4 and 1105.3 cannot be met, a refrigeration machinery room shall be provided.

AMENDMENTS FOR 2009 INTERNATIONAL FUEL GAS CODE

CHAPTER 1 SCOPE AND ADMINISTRATION

Sections 103.2 and 103.3

Sections 103.2 and 103.3 are hereby deleted in their entirety.

Section 103.2 Liability.

The code official, member of the board of appeals or employee charged with the enforcement of this code, while acting for the jurisdiction 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 liable personally, and is hereby relieved from all personal liability for any damage accruing to persons or property as a result of an act or by reason of an act or omission in the discharge of official duties.

Any suit instituted against any officer or employee because of an act performed by that officer or employee in the lawful discharge of duties and under the provisions of this code shall be defended by the legal representative of the jurisdiction until the final termination of the proceedings. The code official or any subordinate shall not be liable for costs in an action, suit or proceeding that is instituted in pursuance of the provisions of this code.

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 the city be held as assuming any such liability by reason of the inspection authorized by this code or any permits or certificates issued under this code.

Section 106.5.8

Section 106.5.8 is hereby deleted in its entirety.

Section 108.8 Equipment Submerged Under Water

Add as follows:

Equipment submerged under water constitutes a fire and health hazard and is considered unsafe equipment. All residential and light commercial furnaces, boilers and water heaters shall be replaced when any of the following components are submerged under water: gas control valve, burner assembly, electrical control panel, heat exchanger. The following components may be replaced without replacing the furnace or water heater when they are the only items submerged: furnace blower motor or insulation.

CHAPTER 3 GENERAL REGULATIONS

Section 303.3

Delete Section 303.3 – Exceptions #3 & #4

Section 304.6.1

Revise as follows:

Two permanent openings, one commencing within 12 inches (305 mm) of the top and one commencing within 12 inches (305 mm) of the bottom of the enclosure, shall be provided. The openings shall communicate directly, or by ducts, with the outdoors or spaces that freely communicate with the outdoors.

Where directly communicating with the outdoors, or where communicating with the outdoors through vertical ducts, each opening shall have a minimum free area of 1square inch per 4,000 Btu/h (550 mm2/ kW) of total input rating of all appliances in the enclosure [see Figures 304.6.1(1) and 304.6.1(2)].

Where communicating with the outdoors through horizontal ducts, each opening shall have a minimum free area of not less than 1 square inch per 2,000 Btu/h (1,100 mm2/kW) of total input rating of all appliances in the enclosure [see Figure 304.6.1(3)].

Figures 304.6.1(1) and 304.6.1(2).

Figure 304.6.1 (1) is hereby deleted in its entirety.

Figure 304.6.1 (2) is hereby deleted in its entirety.

Section 304.6.2

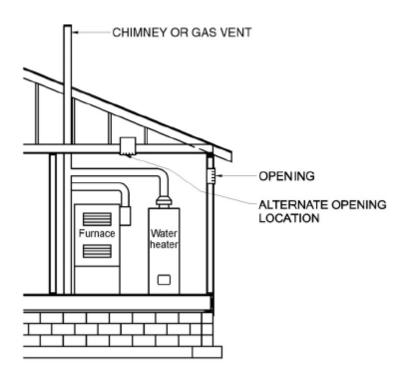
Revise as follows:

One permanent opening, commencing within 12 inches (305 mm) of the top of the enclosure, shall be provided. The *appliance* shall have clearances of at least 1 inch (25 mm) from the sides and back and 6 inches (152 mm) from the front of the *appliance*. The opening shall directly communicate with the outdoors or through a vertical or horizontal duct to the outdoors, or spaces that freely communicate with the outdoors (see Figure 304.6.2) and shall have a minimum free area of 1 square inch per 3,000 Btu/h (734mm2/kW) of the total input rating of all appliances located in the enclosure and not less than the sum of the areas of all vent connectors in the space.

Figure 304.6.2

Revise as follows:

Figure 304.6.2 is hereby amended as shown below:



Section 304.11(5)

Revise as follows:

5. Ducts shall not be screened where terminating terminate in an attic space.

Section 310.1.1

Revise as follows:

CSST Corrugated stainless steel tubing (CSST) gas piping systems shall be bonded to the electrical service grounding electrode system. The bonding jumper shall connect to a metallic pipe or fitting between the point of delivery and the first downstream CSST fitting. The bonding jumper shall not be smaller than 6AWG copper wire or equivalent. A CSST system certified by an approved listing agency and approved by the authority having jurisdiction as being equivalent to a direct bonded CSST system prescribed in this Section shall only be required to be bonded in accordance with Section 310.1

CHAPTER 4 GAS PIPING INSTALLATIONS

Section 402.5 Allowable pressure drop.

Revise as follows:

The design pressure loss in any piping system under maximum probable flow conditions, from the point of delivery to the inlet connection of the appliance, shall be such that the supply pressure at the appliance is greater than or equal to the minimum pressure required by the appliance. For low pressure systems the pressure loss shall not be greater than .5 inch water column.

Section 403.3

Revise as follows:

Material not covered by the standards specifications listed herein shall be investigated and tested to determine that it is safe and suitable for the proposed service, and, in addition, shall be recommended for that service by the manufacturer and shall be *approved* by the code official. Listed LPG hose may be used with natural gas when used for temporary heating at a maximum length of 50 feet.

Section 403.10.1.1

Add as follows:

Gas supply systems with pressures 5 psig or greater and gas pipe joints 2 ¹/₂ inches or larger, regardless of pressure, shall be welded.

Section 403.10.4

Revise as follows:

1. Threaded fittings in sizes 2 ¹/₂ inches or larger shall not be used except where *approved*.

Section 406.4

Revise as follows:

Test pressure shall be measured with a manometer or with a pressure-measuring device designed and calibrated to read, record, or indicate a pressure loss caused by leakage during the pressure test period. The source of pressure shall be isolated before the pressure tests are made. Dial gauges used to measure test pressures shall be performed with gauges of 2 psi increments or less and have a range not exceeding 100 psi unless otherwise approved.

Section 406.4.1

Revise as follows:

Change "3" to 25"

Section 408.2

Revise as follows:

Where wet gas exists, a drip shall be provided at any point in the line of pipe where condensate could collect.

Section 411.1.4

Add as follows:

Add after the last sentence: Where approved flexible connectors are used, restraining cables shall be installed.

Section 415.1 Interval of support.

Add as follows:

Piping shall be supported at intervals not exceeding the spacing specified in Table 415.1. Spacing of supports for CSST shall be in accordance with the CSST manufacturer's instructions. In addition to the requirements of Table 415.1, piping and tubing shall be supported within 2 feet of every bend or angle.

CHAPTER 5 CHIMNEYS AND VENTS

Section 501.8

Revise as follows:

8. Direct-fired makeup air heaters.

9. Other appliances *listed* for unvented use and not provided with flue collars.

10. Specialized appliances of limited input such as laboratory burners and gas lights.

Section 501.12

Revise as follows:

Flue lining systems for use with residential-type and low-heat appliances shall be limited to the following:

- 1. Clay flue lining complying with the requirements of ASTM C 315 or equivalent when each appliance connected into the masonry chimney has a minimum input rating greater than 400,000 Btu/h. Clay flue lining shall be installed in accordance with the *International Building Code*.
- 2. Listed chimney lining systems complying withUL1777.
- 3. Other *approved* materials that will resist, without cracking, softening or corrosion, flue gases and condensate at temperatures up to 1,800°F (982°C).
 - a. Aluminum (1100 or 3003 alloy or equivalent) not less than 0.032 inches thick to 8 inches diameter.
 - b. Stainless steel (304 or 430 alloy or equivalent) not less than 26 gauge (0.018 inches thick) to 8 inches diameter or not less than 24 gauge (0.024 inches thick) 8 inches diameter and larger. When a metal liner is used other than a listed chimney liner a condensation drip tee shall be installed and supported in an approved manner.

Section 503.5.3

Revise as follows:

Masonry chimneys shall be built and installed in accordance with NFPA 211 and shall be lined as per Section 501.12.

Section 503.5.6.1

Revise as follows:

Chimneys shall be lined in accordance with NFPA 211 and Section 501.12.

Exception: Where an existing chimney complies with Sections 503.5.6 through 503.5.6.3 and its sizing is in accordance with Section 503.5.5, its continued use shall be allowed when, in more than one appliance venting system the secondary appliance, such as a water heater, is replaced and the primary heating appliance remains.

Section 621

Section 621 is hereby deleted in its entirety.

AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG)

N.D.C.C 54-21.3-04.1 requires that every building or facility subject to the federal Americans with Disabilities Act must conform to the accessibility standards of the Americans with Disabilities Act Accessibility Guidelines ADAAG). The law also requires a state agency or the governing body of a political subdivision to obtain from any person preparing plans and specifications for a building or facility subject to the Americans with Disabilities Act, a statement that the plans and specifications are, in the professional judgment of that person, in conformance with the ADAAG. This form must then be submitted to the Division of Community Services. Page 58 of this document contains the ADAAG Conformance Statement that is required.

ADAAG CONFORMANCE STATEMENT NORTH DAKOTA DIVISION OF COMMUNITY SERVICES SFN 19701 (12/10)

(This form must be submitted for new construction, alternations and additions to buildings and facilities subject to the Americans with Disabilities Act)

AMERICAN WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES				
(ADAAG) CONFORMANCE STATEMENT				
Name & Building Address	Owner			
	City/County			
Date Construction to Start	Projected Completion Dat	e		
	Trojected Completion Dat	0		
Type of Construction				
New Building Addition	g □	-		
Addition	$\Box \qquad \qquad$			
Describe Alteration:	··· 1· ···	-		
Type of Occupancy/Use (Refer to Occupan	cies and Divisions defined in th	e International		
Building Code)				
I certify, to the best of my professional judg	gment, that the plans and specif	ications for the above		
referenced building or facility conforms with				
Guidelines for Buildings and Facilities as adopted in North Dakota Century Code Section 54-21.3-04.1.				
Name of Design Professional	Firm			
Signature	Phone Number	Date		
Send To: Division of Community Services				
1600 East Century Avenue, Suite 2				
PO Box 2057 Bismarck, ND 58502-2057				
Dismarcs, IVD 30302-2037				

SAMPLE MODEL ORDINANCE

The following is a Sample Model Ordinance for the adoption of the State Building Code for those cities, townships, and counties that elect to administer and enforce a building code.

Adoption of Code

The erection, construction, enlargement, alteration, repair, moving, removal, demolition, conversion, occupancy, equipment, uses, height, area and maintenance of buildings or structures in the City/Township/County of

shall meet with the provisions of the rules and regulations of the North Dakota State Building Code and any future updates and amendments to that code, _______ copies of which are on file with the City Auditor/Township Board/County Auditor and are hereby made a part of this chapter by reference with the exception of the sections hereinafter set forth affecting local conditions in the City/Township/County, which are amended, for use and application in the City/Township/County, and the City/Township/County hereby adopts said code as so modified.

Amendments

Sec. _____ Shall be revised to read as follows:

Sec. _____ Shall be added to read as follows:

Sec. ____ Shall be deleted

Fees

Fees under the Building Code shall be as follows:

NOTE: A suggested Building Permit Fees schedule can be found on page 11 of this document.

CODE ENFORCING JURISDICTION AS OF 2011		
COUNTIES	CONTACT PERSON	PHONE NUMBER
Adams	Patricia Carroll	567-2990
Burleigh	Ray Ziegler	355-1475
Dunn	Reinhard Hauck	573-4448
Grand Forks	Carole McMahon	780-8421
Morton	Gregg Greenquist	667-3346
Williams	Richard Ryan	557-4564
Ward	Mike Vendsel	857-6430
CITIES	CONTACT PERSON	PHONE NUMBER
Alexander	Anne Mrachek	828-3461
Amenia	Linda Sell	347-5554
Argusville	Carol Lovejoy	484-5254
Barney	Mark Wiepking	439-2507
Beach	Kimberly Nunberg	872-4103
Belfield	Mel Zent	264-7748
Beulah	John Phillips	873-2110
Bismarck	Ray Ziegler	355-1475
Brinsmade	Michele Ferrell	466-2069
Buchanan	Kim Lees	252-9584
Bucyrus	Dean Larson	853-2490
Burlington	Rod Schwandt	852-5233
Carrington	Doug Schroeder	652-2911
Carson	Sharon Ruscheinsky	622-3395
Casselton	Brandy Pyle	347-4861
Center	Janelle Peterson	794-3650
Christine	Cathy Affield	218-643-4497
Coleharbor	Jerome Eman	442-3454
DesLacs	Tony Tudahl	725-4998
Devils Lake	Paul Arends	662-7600
Dickinson	Mel Zent	260-3724
Drake	David Rosel	465-3794
Dunn Center	Linda Kittilson	548-8130
Elgin	QuentinPfutzenreuter	584-3001
Ellendale	James Eberle	349-3252
Enderlin	Cyndee Chesley	437-3476
Fargo	Ron Strand	241-1566
Fordville	Wendell Pfannsmith	229-3279
Forman	Jean Bopp	724-3673
Gackle/Logan	Linda Zenker	485-3331
Garrison	Diane Affeldt	463-2600
Gladstone	Gwendolyn Lantz	483-0285
Golden Valley	Cindy Helling	983-4488
Goodrich	Debbie Tessmann	884-2695
Grafton	Scott Boura	352-1561

CITIES	CONTACT PERSON	PHONE NUMBER
Grand Forks	Bev Collings	746-2631
Granville	Bob Bachmeier	728-6369
Gwinner	Dana Grosgehauer	678-2409
Halliday	Dawn Marquardt	938-4680
Hankinson	Glenn Bladow	242-7885
Hannaford	Edwin Everson	769-2176
Harwood	Sherry Morris	281-0314
Hatton	Lorraine Ness	543-3243
Hazelton	Phyllis Schatz	782-6878
Hazen	Steve Frovarp	748-2550
Hettinger	Patricia Carroll	567-2990
Horace	Dwight Carpenter	277-1498/237-5305
Hunter	Lonnie Nelson	371-2168
Jamestown	James Weight	352-5900
Kathryn	Shirley Sivertson	796-7331
Killdeer	Ron Fettig	290-4801
Kindred	Twila Morrison	428-3115
Kulm	Emery Lindgren	647-2451
Langdon	Tina Gustafson	256-2155
Larimore	John McDonald	343-2002
Leonard	George Wendling	645-2254
Lincoln	C.W. Veitz	258-7969/391-5804
Lisbon	Donna Gamache	683-4140
Mandan	Richard Barta	667-3230
Manvel	Joan Sherlock	696-2316
Mapleton	Mark Housh	281-0597
Mayville	Gary Winger	786-2166
McClusky	Hannelore Davis	363-2345
McVille	Renae Arneson	322-4343
Medina	Dave Eicholtz	486-3162
Medora	Mark Golberg	623-4828
Milnor	Kristin Lunneborg	427-5272
Minnewaukan	Karen Mitzel	473-5735
Minot	Darrell Zaback	857-4102
Mohall		
	Ken Shobe	<u>756-6464</u> 274-8838
Mooreton	Dennis Klosterman	
New Rockford	George Ritzke Jim Schultz	947-2461
New Salem		843-8204
New Town	Marcia Wilber	627-4812
North River	Paulette Osborne	232-1103
Northwood	Marcy Douglas	587-5370
Oakes	April Haring	742-2137
Page	Judy Johnson	668-2240
Pekin	Brenda Bjorlie	296-4404/296-4515
Portal	Carolyn Hill	926-3601

CITIES	CONTACT PERSON	PHONE NUMBER
Prairie Rose	Bob Staloch	235-9422
Ray	Dick Ross	568-2204
Reiles Acres	Perry Ronning	281-2639
Reynolds	Ken Ihry	847-2604
Richardton	Harold Frederick	974-3899
Rogers	Mary Engle	646-6292
Ross	Diane Seibel	755-3321
Sentinel Butte	James Muckle, Sr.	872-3205
Sherwood	Janet Krause	459-2261
Souris	Lana Lindstrom	243-6422
St Thomas	Richard Rygg	257-6640
Stanley	Allyn Sveen	628-2225
Stanton	Richard Honeyman	745-3202
Surrey	Karla Schwan	852-4154
Taylor	James Wolf	974-3663
Tioga	Donald Zacharias	664-2807
Tolley	Patty Stavem	386-2466
Underwood	Diane Schell	442-5481
Upham	Ray Badke	768-2849
Valley City	David Andersen	845-1700
Wahpeton	Todd Johnson	640-3724
Walhalla	Shirley Robillard	549-3176
Washburn	Milissa Price	842-2533
Watford City	Curt Moen	444-2533
West Fargo	Mark Housh	281-0597
Williston	Doug Lalim	577-8115
White Earth	Greg Gunderson	755-3498
Wilton	Norma Hochhalter	734-6707
Wyndmere	Rochelle Huseth	439-2412
Zap	Clarence Olszewski	948-2256

NOTE: Every effort has been made to ensure the accuracy of the above information. Please contact the Department of Commerce with updates as well as verifying a jurisdiction. Jurisdictions not on this list may have elected to adopt the State Building Code; therefore, we advise contacting the local governing body to confirm building code requirements.

Administrative Rule (Article 108, Chapter 108-01)

ARTICLE 108-01 NORTH DAKOTA STATE BUILDING CODE

Chapter

108-01-01 North Dakota State Building Code

CHAPTER 108-01-01 NORTH DAKOTA STATE BUILDING CODE

Section

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108-01-01-01. History. In 1979, the legislative assembly created the state building code. This code is codified in North Dakota Century Code chapter 54-21.3. At that time, the legislative assembly designated the 1976 uniform building code published by the international conference of building officials as the state building code. In 1983, the code was updated to the 1982 edition of the uniform building code, and expanded to include the recognition of the manufactured homes construction and safety standards under 24 CFR 3280 pursuant to the Manufactured Housing Construction and Safety Standards Act [42 U.S.C. 5401 et seq.] as the standard for the construction of manufactured housing. In addition, the responsibility for the state building code was transferred to the office of intergovernmental assistance.

In 1985, the legislative assembly added the 1982 uniform mechanical code published by the international conference of building officials. The state building code was updated in 1987 to the 1985 edition of the uniform building code and uniform mechanical code. In 1989, the legislative assembly added a state amendment to section 504(f) of the uniform mechanical code pertaining to liquefied petroleum gas appliances.

In 1991, the legislative assembly updated the state building code to the 1991 uniform building code and 1991 uniform mechanical code and amended North Dakota Century Code chapter 54-21.3 to permit cities, townships, and counties to amend the code to conform to local needs.

Then in 1993, the legislative assembly provided for the office of management and budget to adopt rules to implement and periodically update the code as well as to adopt rules to amend the code; designated effective August 1, 1994, the state building code as the code to be adopted by jurisdictions electing to adopt and enforce a building code; and added the Americans with Disabilities Act accessibility guidelines as the state's accessibility standards.

The 2001 legislative assembly changed the contents of the state building code to the international building code, international residential code, international mechanical code, and international fuel gas code published by the international code council. In addition, the legislative assembly created a state building advisory code committee to help develop the administrative rules and to solicit input on and develop recommendations for amending the state building code. The law also permits the five nongovernmental entities on the advisory committee to vote along with eligible jurisdictions on the recommendations made by the advisory committee.

The first rules developed to update, amend, and implement the state building code became effective in December 1994, as article 4-08, chapter 4-08-01. Those rules were developed by the office of intergovernmental assistance under the authority granted to the office of management and budget. In 1999, the office of intergovernmental assistance became the division of community services.

As a result of legislation in 2001, the division of community services was transferred from the office of management and budget to the department of commerce. This change meant the development of new rules for the state building code under the authority given to the department of commerce, and the deletion of the rules for the state building code that became effective in December 1994, article 4-08, chapter 4-08-01.

History: Effective September 1, 2002. General Authority: NDCC 54-21.3-03(1) Law Implemented: NDCC 18-12-06, 54-21.3-01, 54-21.3-02, 54-21.3-03, 54-21.3-04, 54-21.3-05

108-01-01-02. Definitions.

- 1. "DCS" means the division of community services.
- 2. "IBC" means the international building code.
- 3. "ICC" means the international code council.
- 4. "IFGC" means the international fuel gas code.
- 5. "IMC" means the international mechanical code.
- 6. "IRC" means the international residential code.

7. "Qualified appointed representative" means a code-knowledgeable individual designated by an eligible jurisdiction or organization to vote on the proposed published versions of the IBC, IRC, IMC, and IFGC and recommendations on proposed amendments from the building code advisory committee.

History: Effective September 1, 2002. **General Authority:** NDCC 54-21.3-03(1) **Law Implemented:** NDCC 18-12-06, 54-21.3-01, 54-21.3-02, 54-21.3-03, 54-21.3-04, 54-21.3-05

108-01-03. Intent. It is the intent of this chapter to prescribe the rules for implementing, updating, and amending the nationally recognized standards for construction, alteration, movement, demolition, repair, and use of buildings in the state of North Dakota.

History: Effective September 1, 2002. General Authority: NDCC 54-21.3-03(1) Law Implemented: NDCC 18-12-06, 54-21.3-01, 54-21.3-02, 54-21.3-03, 54-21.3-04, 54-21.3-05

108-01-01-04. Scope.

- 1. This chapter supplements all laws defined within the North Dakota Century Code relating to construction, alterations, improvements, and siting of buildings, unless specifically exempted.
- 2. This chapter applies to all cities, townships, and counties that elect to adopt and enforce building codes within their jurisdictional boundaries.
- 1. This chapter applies to all state and local government buildings.
- 2. This chapter applies to all public and private schools.

History: Effective September 1, 2002. General Authority: NDCC 54-21.3-03(1) Law Implemented: NDCC 18-12-06, 54-21.3-01, 54-21.3-02, 54-21.3-03, 54-21.3-04, 54-21.3-05

108-01-01-05. Implementation. The DCS is responsible for developing and implementing the administrative rules for implementing, updating, and amending the state building code. Cities, townships, and counties that elect to enforce a building code are responsible for adopting and enforcing the state building code, but may amend the code to conform to local needs. State agencies are responsible for assuring that plans and specifications for alterations and new construction of their building code. Schools located in jurisdictions that have not elected to adopt and enforce the state building code are responsible for assuring that plans and specifications that have not elected to adopt and enforce the state building code are responsible for assuring that plans and specifications for alterations and new construction comply with the state building code.

Local governments that have not elected to adopt and enforce the state building code are responsible for assuring that plans and specifications for alterations and new construction of their buildings comply with the state building code.

History: Effective September 1, 2002. **General Authority:** NDCC 54-21.3-03(1) **Law Implemented:** NDCC 18-12-06, 54-21.3-03(1)(3), 54-21.3-05

108-01-01-06. Effective date of adoption of the state building code. Effective August 1, 1994, any city, township, or county that has previously elected to adopt and enforce a building code, or any jurisdiction that elects to adopt and enforce a building code, must adopt and enforce the state building code. A city, township, or county may, however, amend the state building code to conform to local needs.

History: Effective September 1, 2002. General Authority: NDCC 54-21.3-03(1) Law Implemented: NDCC 18-12-06, 54-21.3-01, 54-21.3-02, 54-21.3-03, 54-21.3-04, 54-21.3-05

108-01-07. Inquiries. Inquiries regarding the state building code may be addressed to:

ADA/Building Code Manager Division of Community Services

History: Effective September 1, 2002. General Authority: NDCC 54-21.3-03(1) Law Implemented: NDCC 54-21.3-03(1)

108-01-01-08. Building code advisory committee. The building code advisory committee, by law, consists of nine representatives from the following agencies and organizations:

- 1. Two members from the North Dakota building officials association. One member must be from a jurisdiction of less than ten thousand people. The size of a county will be determined by the population of nonincorporated areas, and jurisdictions that have relinquished their authority to administer and enforce the codes to the county;
- 2. One member from the North Dakota chapter of the American institute of architects;
- 3. One member from the North Dakota society of professional engineers.
- 4. One member from the North Dakota association of builders;
- 5. One member from the North Dakota association of mechanical contractors;
- 6. One fire marshal nominated by the North Dakota state fire marshal;
- 7. One member nominated from the North Dakota electrical board; and
- 8. One member from the associated general contractors.

The building code advisory committee may meet and vote on recommendations with less than nine members. In the event of a tie vote on a proposed code change, the code change will be presented to the voting jurisdictions as a tie vote.

History: Effective September 1, 2002. **General Authority:** NDCC 54-21.3-03(1) **Law Implemented:** NDCC 18-12-06, 54-21.3-01, 54-21.3-02, 54-21.3-03, 54-21.3-04, 54-21.3-05

108-01-01-09. Updating and amending the state building code. The legislative assembly has mandated that the state building code consist of the IBC, IRC, IMC, and IFGC. These are nationally recognized codes published by the ICC and updated nationally every three years, with annual supplements published consisting of approved code changes. The first published version of these codes that will be adopted is the 2000 publication.

Each year, the DCS will meet with the building code advisory committee to either consider amendments to the newly published updated versions of the codes, or to consider amending the state building code with the nationally published interim supplements. To accomplish this, the following procedures will be used:

1. **Review of the newly published updates.** When the codes are updated nationally every three years, the DCS will schedule a meeting with the building code advisory committee to establish a code updating and amendment cycle to begin no earlier than six months from the receipt of the newly published updates. Once the DCS publishes the updating and amendment cycle schedule, any interested party may submit proposals for amendments. The DCS will provide a form for submitting proposals.

All proposed amendments will first be reviewed by the building code advisory committee, and the committee, at that time, may develop amendments. Once all amendments have been reviewed, they will be sent to all voting jurisdictions identified by the DCS; to the organizations represented on the building code advisory committee; and to certain state agencies. They will be made available upon request to any other interested person or entity.

At least one public hearing will be scheduled for the building code advisory committee to receive public comments on the proposed amendments. After each proposed amendment is discussed, the committee will develop a recommendation to adopt the amendment, to adopt with modification, or to reject the amendment.

After the hearing, the DCS will publish and distribute to eligible voting organizations and jurisdictions the proposed amendments and the recommendations, including voting results of the committee on each proposed amendment.

2. **Review of the annual published supplement.** The DCS will meet with the building code advisory committee to discuss the approved changes published in the annual supplement. If the committee determines that these changes are not significant to warrant a code change cycle, no further consideration will be given. If, however, the committee determines that these changes should be considered, a code updating and amendment cycle will be established and the procedures identified in subsection 1 will be followed.

History: Effective September 1, 2002. General Authority: NDCC 54-21.3-03(1) Law Implemented: NDCC 54-21.3-03(1)

108-01-01-10. Voting. Voting on the recommendations for amendments to the codes will be limited to the following:

- 1. A qualified appointed representative from each city and county identified by the DCS as having adopted the state building code or, in the case of home rule cities, those that have adopted the same published codes used in the state building code. The DCS will be responsible for certifying up to one week prior to the voting meeting those jurisdictions that will be eligible to vote.
- 2. The qualified appointed representative of each of the following organizations on the building code advisory committee:
 - a. North Dakota association of builders;
 - b. North Dakota association of mechanical contractors;
 - c. Associated general contractors;
 - d. North Dakota chapter of the American institute of architects; and
 - e. North Dakota society of professional engineers.

History: Effective September 1, 2002. **General Authority:** NDCC 54-21.3-03(1) **Law Implemented:** NDCC 54-21.3-03(1)

108-01-01-11. Voting procedures. Each jurisdiction and organization eligible and present to vote will be allowed one vote. In the event of a tie or when there is less than a two-thirds majority on a recommendation, cities and counties will receive votes as follows to determine the outcome:

Number of Residents	Number of Votes
1 - 999	1
1,000 - 4,999	2
5,000 - 9,999	3
10,000 - 29,999	4
30,000 - 49,999	5
50,000 +	6

The population for a county will be determined by subtracting the population of eligible cities. The most recent population figures published by the census bureau will be used.

As each recommendation for each proposed amendment is presented, time will be provided for anyone present to indicate support or opposition to each proposed amendment or to propose amending the recommendation. A proposed amendment to a recommendation must be approved by a two-thirds majority of the voting qualified appointed representatives to be considered.

After all proposed amendments have been acted on, a final vote will be taken for the purpose of recognizing the specific publication year of the IBC, IRC, IMC, and IFGC adopted and all of the amendments approved.

History: Effective September 1, 2002. General Authority: NDCC 54-21.3-03(1) Law Implemented: NDCC 54-21.3-03(2)

108-01-01-12. Publication of amendments. The DCS will publish, distribute, and make available a state building code book that identifies the published versions of the IBC, IRC, IMC, and IFGC and amendments adopted that are the current state building code.

History: Effective September 1, 2002. **General Authority:** NDCC 54-21.3-03(1) **Law Implemented:** NDCC 54-21.3-03(1)

108-01-01-13. Limitations. Subsection 2 of North Dakota Century Code section 54-21.3-03, pertaining to the construction of manufactured homes, may not be amended. These are federal minimum standards for construction that are the responsibility of the federal department of housing and urban development. Each manufactured home carries a label of inspection indicating compliance with the manufactured home construction and safety standards. North Dakota Century Code section 54-21.3-04.1 may not be amended because the accessibility standards contained in the Americans with Disabilities Act of 1990 are federal law.

History: Effective September 1, 2002. General Authority: NDCC 54-21.3-03(1) Law Implemented: NDCC 54-21.3-03(2)

108-01-01-14. Appendix chapters. The appendix chapters of the IBC, IRC, IMC, and IFGC are not part of the state building code unless specifically adopted.

History: Effective September 1, 2002. General Authority: NDCC 54-21.3-03(1) Law Implemented: NDCC 54-21.3-03(1)

OTHER CODE ENFORCING PROGRAMS OF NORTH DAKOTA

North Dakota State Electrical Board

1929 N Washington St., Suite A-1 P.O. Box 7335 Bismarck, ND 58507-7335 (Phone) 701.328.9522 (FAX) 701.328.9524 <u>electric@nd.gov</u> www.ndseb.com

North Dakota State Board of Plumbing

1110 College Drive, Suite 210 Bismarck, ND 58501 [P] 701-328-9977 [F] 701-328-9979

The Boiler Inspection Program

1701 South 12th Street Bismarck, ND 58504 701.328.9609 - phone 701.328.9610 - fax 800.247.0560 - toll free 800.366.6888 - TTY line

The State Fire Marshall

P.O. Box 1054 Bismarck, ND 58502 [P] 701-328-5555 http://www.ag.nd.gov/FM/FM.htm

ND Department of Health

Division of Food and Lodging 600 East Boulevard, Dept. 301 Bismarck, ND 58505 Phone: 701-328-1291 FAX: 701-328-1890 http://www.ndhealth.gov/FoodLodging/

ND Department of Health

Division of Life Safety & Construction 600 East Boulevard Ave., Dept. 301 Bismarck, ND 58505-0200 Monte Engel, Director - <u>mengel@nd.gov</u> Fax 701.328.1890 Office 701.328.2352

NORTH DAKOTA STATE ELECTRICAL BOARD

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CHAPTER 43-09

ELECTRICIANS

43-09-01. Definitions. In this chapter, unless the context or subject matter otherwise requires:

- 1. "Apprentice electrician" means a person learning the trade under the personal supervision of a state-licensed electrician.
- 2. "Board" means the state electrical board.
- 3. "Class B electrician" means a person having the necessary qualifications, training, and technical knowledge to wire, install, and repair electrical apparatus and equipment in accordance with the standard rules and regulations governing such work, and shall have eighteen months' experience in farmstead or residential wiring, and shall have passed an examination before the state electrical board based upon the national electrical code as it applies to farmstead or residential wiring.
- 4. "Journeyman electrician" means a person having the necessary qualifications, training, and technical knowledge to wire, install, and repair electrical apparatus and equipment in accordance with the standard rules and regulations governing such work.
- 5. "Master electrician" means a person having the necessary qualifications, training, experience, and technical knowledge to plan, lay out, and supervise the installation and repair of electrical wiring apparatus, and equipment for electric light, heat, and power in accordance with the standard rules and regulations governing such work.

43-09-02. State electrical board - Members - Terms of office - Vacancies. The state electrical board must consist of five members appointed by the governor for a term of five years with their terms of office so arranged that one term and only one term expires on June thirtieth of each year. One member of the board shall represent the public and may not be directly associated with the electrical industry. The board must include a master electrician who is a contractor, a journeyman electrician, a consumer member of a rural electric cooperative, and a person associated with an investor-owned utility. A member of the board shall qualify by taking the oath of office required of civil officers and shall hold his office until his

successor is appointed and qualified. The governor shall fill any vacancy by appointment for the unexpired term of office.

43-09-03. Qualifications of members of board. Repealed by S.L. 1949, ch. 287, \S 11.

43-09-04. Officers of board - Compensation of members. The members of the board shall select from their members a president, a treasurer, and a secretary. Each appointive member of the board shall receive such amount as may be set by the board but not more than fifty dollars per day for the actual services rendered, and in addition thereto, each member shall receive the necessary and actual expenses incurred by him in the discharge of his duties. The mileage and travel expense allowed may not exceed the amount provided for in section 54-06-09.

43-09-05. Powers and duties of state electrical board - Biennial **report.** The board shall adopt a seal and may adopt reasonable rules to carry out this chapter. The board may submit a biennial report to the governor and the secretary of state in accordance with section 54-06-04. The board shall appoint qualified inspectors. The inspectors shall inspect within fifteen days after notice of completion of any electrical wiring installation involving a value of three hundred dollars or more in municipalities having ordinances requiring such inspector shall make a report of the inspection on forms prescribed by the board.

43-09-06. Meetings of board. The board shall hold a meeting in the month of January of each year in the city of Bismarck, and may hold such other meetings as are necessary to conduct examinations and perform the other duties coming before it. Special meetings must be held at the time and place determined by the president, and upon ten days written notice given by him to each member of the board.

43-09-07. Expenses of board - How paid. All reasonable and necessary expenses incurred in conducting the business of the board must be allowed and paid by the board.

43-09-08. Treasurer to hold moneys of board - Use - Disbursement. Repealed by S.L. 1971, ch. 510, § 15.

43-09-09. License required - Examination - Board to issue license. Every person, partnership, company, corporation, limited liability company, or association that undertakes or offers to undertake with another to plan,

lay out, supervise, install, make additions, make alterations, or make repairs, in the installation of wiring, apparatus, or equipment for electric light, heat, or power, shall apply to the board for a license. The board shall examine the applicant and if, upon a technical and practical examination, he is found to possess the required knowledge and skill and to be versed in the laws of electricity, he shall be issued a license in the class for which he was examined. The license shall be signed by the president and the secretary of the board and attested by the seal of the board. Each license or permit holder shall report his licensing or renewals to the electrical inspector, if there is one, in the municipality in which he operates.

43-09-09.1. Conviction not bar to licensure - Exceptions. Conviction of an offense does not disqualify a person from licensure under this chapter unless the board determines that the offense has a direct bearing upon a person's ability to serve the public as an electrician or that, following conviction of any offense, the person is not sufficiently rehabilitated under section 12.1-33-02. 1.

43-09-09.2. Advertising prohibited - Exceptions - Penalty.

- Except as provided in this section, where an electrical license is required under section 43-09-09 or by local ordinance, no person may advertise to contract for electrical services without being licensed as or being associated with a class B or master electrician unless that person intends to contract the electrical services with a licensed electrical contractor.
- a. A person violating this section is guilty of a class B misdemeanor for a first conviction, but no fine in excess of one hundred dollars and no term of imprisonment may be imposed.
 - b. A person violating this section is guilty of a class A misdemeanor for a second or subsequent conviction, but the penalties are as follows:

(1) For a second conviction, no fine in excess of one thousand dollars and no term of imprisonment may be imposed.

(2) For a third or subsequent conviction, a fine not to exceed one thousand dollars, or imprisonment not to exceed thirty days, or both, may be imposed.

43-09-10. Types of licenses. The classes of electricians who may be licensed under section 43-09-09 are:

- 1. Master electrician.
- 2. Journeyman electrician.
- 3. Class B electrician.

43-09-11. Qualifications. An applicant for an electrician's license must have the following experience and training:

- For licensure as a master electrician, an applicant must have completed one year's experience as a licensed journeyman electrician.
- 2. For licensure as a journeyman electrician, an applicant must have:

a. Completed eight thousand hours experience in installing and repairing electrical wiring, apparatus, and equipment, which experience may not be obtained in less than three years.

b. Effective for an applicant who registered with the board as an apprentice after January 31, 2008, completed at least one of the following:

(1) Successfully completed apprenticeship training approved by the federal bureau of apprenticeship and training and completed eight thousand hours' experience in installing and repairing electrical wiring, apparatus, and equipment.

(2) Successfully completed an appropriate course of study, which may not be less than two years or the equivalent of two years, at a board-approved institution of higher education and completed eight thousand hours' experience in installing and repairing electrical wiring, apparatus, and equipment. The board may determine equivalent hours of education that may be applied as a credit against the eight thousand hours' experience requirement under this paragraph.

 For licensure as a class B electrician, eighteen months' experience in farmstead or residential wiring.

43-09-12. Examination - Requirements. Each applicant for an electrician's license shall pay the examination fee and shall take an oath and submit written evidence that he has had the required experience. If a partnership, corporation, or limited liability company applies for a license, an officer or manager thereof shall make the application and take the oath and submit evidence as to experience.

43-09-13. License fees. Examination and annual license fees required to be paid for an electrician's license must be set by the board.

43-09-13.1. Apprentice electrician registration. An apprentice electrician shall register with the state electrical board within the first six months of employment and shall pay an annual registration fee in an amount set by the board. An apprentice electrician may work on installations only under the personal supervision of a licensed electrician as provided in section 43-09-18.

43-09-13.2. Electrical inspectors - License required - Exception. A person employed by the state electrical board or a political subdivision to inspect electrical installations must be licensed as a journeyman or master electrician. This section does not apply to an inspector employed by the electrical board or a political subdivision as of July 2, 1989.

43-09-14. Master electrician and class B electrician - Undertaking - Fund. Before entering into a contract agreement or undertaking with another for the installation of electrical wiring or installation of electrical parts of other apparatus, a master electrician or a class B electrician shall execute and deposit with the board an undertaking in the sum of five thousand dollars for a master electrician or four thousand dollars for a class B electrician conditioned on the faithful performance of all electrical work undertaken by the electrician, on strict compliance with the provisions of this chapter, and on the requirements of the board. In addition, a deposit must be made with the board in the amount of fifty dollars by a master electrician and in the amount of forty dollars by a class B electrician, in lieu of a surety bond. The deposit so made must be accumulated by the board in a special fund to be used for the completion of installations abandoned by electricians referred to in this section, not to exceed the amount of five thousand dollars for a master electrician and four thousand dollars for a class B electrician. The board shall waive the deposit for a renewal of license by electricians

who have made an initial deposit under this section if at the beginning of the renewal year the fund exceeds fifty thousand dollars. Funds in excess of fifty thousand dollars at the end of each year may be committed and used at the direction of the board to inform and educate electricians concerning the requirements of the electrical code. The board may prescribe forms for the undertaking and make rules it deems necessary to carry out the intent of this section.

43-09-15. Renewal of license - Denial, suspension, or revocation of licenses. An electrician's license may be issued for a term of only one year, but may be renewed without examination upon the payment of the proper fee. If the licensee fails to renew the license for a period of three consecutive years or more, the licensee is required to appear for reexamination. The state electrical board may deny, suspend, revoke, or refuse to renew any license issued or applied for under the provisions of this chapter for any of the following reasons:

- 1. Failure or refusal to maintain or adhere to the minimum standards set forth in the electrical code referred to in section 43-09-21.
- 2. Any cause for which the issuance of the license could have been refused had it then existed and been known to the board.
- 3. Commitment of any act of gross negligence, incompetency, or misconduct in the practice of a master or journeyman electrician or the business of an electrical contractor.
- 4. Material misstatement, misrepresentation, or fraud in obtaining the license.
- 5. After due notice, failed or refused to correct, within the specified time, any electrical installation not in compliance with the provisions of this chapter.
- 6. Failure or refusal to make deposit or acquire public liability insurance as required by sections 43-09-14 and 43-09-20.
- Failure to repay or enter into a written contract for repayment, under a payment schedule acceptable to the board, of money disbursed from the fund as provided under section 43-09-14, or failure to make timely payments under a payment contract

entered into under the board's policy for administering the undertaking fund.

8. Failure to furnish certification of completion of continuing education as required under section 43-09-15.1.

Any person whose license is denied or whose license is suspended or revoked by the board, or who is refused a license by the board, may appeal to the appropriate court.

43-09-15.1. Continuing education. After March 31, 1990, each applicant for renewal of an electrician's license pursuant to section 43-09-15 must have successfully completed prior thereto at least four hours, and thereafter eight hours each biennium, of continuing education relating to the standards set forth in section 43-09-21 or as otherwise prescribed by the board. The board may not require more than sixteen hours of continuing education in each biennium. The board shall conduct education sessions for licensees each year at not less than six locations throughout the state. Attendance at such sessions, or attendance at other education sessions certified by the board may charge a fee to licensees for attendance at the education sessions at an amount to be determined by the board, but not to exceed ten dollars per person for each session.

43-09-16. When license not required. The following persons may not be required to hold an electrician's license:

- Employees of public utilities engaged in the manufacture and distribution of electrical energy when engaged in work directly pertaining to the manufacture and distribution of electrical energy. This exemption terminates at the first point of service attachment, except for the installing or testing of electric meters and measuring devices and the maintenance of their service.
- Employees of a company that operates or installs telephone and radio communication systems when engaged in work pertaining directly to the installation of telephone and radio communication conductors on premises where the installations are made for use exclusively for the transmission of telephone and radio signals.
- Employees of dealers in household appliances, such as room air conditioners, clothes dryers, dishwashers, freezers, garbage disposals, refrigerators, stoves, washing machines, water heaters,

and similar appliances when such employees are installing and connecting such appliances to an existing electrical receptacle.

4. A representative of a manufacturing firm that is installing or modifying controls of wiring solely on industrial machinery that is for use by the firm itself, and performed by or under the direction of a registered professional engineer who issues a state-accepted evaluation which is to be maintained with the equipment.

43-09-17. Journeyman electrician's permit. The board, upon the recommendation of one master electrician and two journeyman electrician may issue a permit for a journeyman electrician to engage in his trade until the next meeting of the board for the examination of applicants. Such permit shall not be renewable.

43-09-18. Apprentice to master electrician. Any person may serve as an apprentice under a licensed master electrician but a master electrician may not allow an apprentice to work on any installation without personal supervision of a licensed electrician.

43-09-19. Report of work done by licensee. Every person licensed under the provisions of this chapter and doing electrical work shall report the same to the secretary of the board upon blanks furnished by the board for that purpose.

43-09-20. Contract for installation of electrical wiring and installation of electrical equipment made with master electrician -Requirement for liability insurance. No contract, agreement, or undertaking with another for the installation of electrical wiring or the installation of electrical parts of other apparatus may be entered into by anyone not a master electrician. A class B electrician, as herein defined, is authorized to enter into a contract, undertaking, or agreement for the installation of farmstead electrical wiring or residential electrical wiring in one or two family dwellings located in municipalities of two thousand five hundred or less population, and his authority under the contract, undertaking, or agreement is limited to the actual installation by him of farmstead electrical wiring or residential electrical wiring in one or two family dwellings located in municipalities of two thousand five hundred or less population, and the installation of electrical equipment, appliances, and apparatus used on farmsteads and such residences. Before an electrician referred to in this section enters into a contract for installation of electrical wiring, he shall deposit with the board evidence of the existence of public liability insurance with a licensed insurance carrier, with policy limits of at

least one hundred thousand dollars for a master electrician, and fifty thousand dollars for a class B electrician.

43-09-21. Standards for electrical wiring and equipment. All electrical wiring, apparatus, or equipment must comply with the rules of the board made under authority of the laws of this state and in conformity with the approved methods of construction for safety to life and property. The regulations in the national electrical code and the national electrical safety code as approved by the American national standards institute are prima facie evidence of these approved methods. Any municipality may make more stringent requirements. An electrical installation may not be connected for use until proof has been furnished to the person, firm, corporation, or limited liability company supplying electrical energy that there is compliance with the applicable regulations. The manufacturer of a new manufactured building or modular unit shall make any changes required for the proof within fourteen days from the notice that the building or unit does not comply with the applicable regulations. This section does not apply to the movement of a new manufactured building or modular unit into or within this state before the process of being connected for use.

43-09-22. Inspection of installation - Condemnation. The board has jurisdiction over and shall provide inspection for all electrical installations. Inspectors authorized by the board may condemn installations hazardous to life and property or may order specific corrections to be made. Inspectors may order service thereto discontinued after notice to the owner of the property. The order is subject to the owner's right of appeal to the board. No condemned installation may be reconnected for service until proof has been furnished that the installation has been brought up to the required standards. The board may charge the master electrician responsible for the installation of all electrical work done within their corporate limits. City inspectors shall register their names with the board within ten days after their appointment.

43-09-23. Criminal penalty - Civil proceedings. Any person who violates any of the provisions of this chapter is guilty of a class B misdemeanor. In addition to criminal proceedings, the board may commence administrative or civil court proceedings as follows:

 The board may issue a cease and desist order against a person allegedly making or offering to make electrical installations in violation of section 43-09-09 or 43-09-09.2 based upon information provided to the board by its electrical inspectors or

other persons, by investigation reports, affidavits, complaints of witnesses, or oral testimony given to the board at a regular or special board meeting. Violation of the cease and desist order may be considered by the court in issuing a temporary or permanent restraining order and in ordering the payment of costs and attorney's fees in proceedings authorized under this section.

- 2. The board may apply to the district court in the county in which the violations have occurred for a temporary or permanent injunction under chapter 32-06, enjoining persons from performing, advertising, or contracting for making electrical installations without a valid license issued by the board in violation of section 43-09-09 or 43-09-09.2. The court may not require a written undertaking, security, or bond as a basis for issuing any temporary or permanent restraining order under this section unless the court specifically orders and states the basis for requiring the security. Upon a determination that a violation of section 43-09-09 or 43-09-09.2 has occurred, the court may assess against the defendants the actual costs incurred and reasonable attorneys' fees necessary for the investigation and court proceedings against the unlicensed person.
- 3. After an administrative hearing has been conducted by the board under chapter 28-32, an appeal from an order of the board or from the assessment of costs and attorneys' fees may be taken to the district court under chapter 28-32.

43-09-24. Special emergency. Repealed by omission from this code.

43-09-25. License to nonresidents - Reciprocity. To the extent that other states which provide for the licensing of electricians provide for similar action, the state electrical board may grant licenses of the same grade or class to electricians licensed by other states, upon payment by the applicant of the required fee, after being furnished with proof that the qualifications of the applicant are equal to the qualifications of holders of similar licenses in North Dakota.

43-09-26. Exemption for coal mines. The jurisdiction of the board and other requirements of this chapter do not apply to installations, wiring, apparatus, or equipment that are part of a coal mine permitted by the public service commission and are subject to the jurisdiction of the federal mine safety and health administration.

ARTICLE 24-01

GENERAL ADMINISTRATION

Chapter 24-01-01

Organization of Board.

CHAPTER 24-01-01

ORGANIZATION OF BOARD

Section 24-01-01-01

Organization of Electrical Board.

- History and functions. In 1917 legislation was approved which created a state board of electricians. In 1949 the name of the board was changed to the state electrical board. The board is charged with the responsibility to examine applicants and issue licenses to those having the necessary qualifications and knowledge in the laws of electricity and electrical codes. The board has jurisdiction over all electrical installations. Electrical inspectors authorized by the board may condemn installations hazardous to life and property and order electric service to be discontinued.
- 2. **Board membership.** The board consists of five members appointed by the governor for terms of five years. Terms are arranged so that one term expires each year. To provide equal representation on the board, one member is selected from the master electricians, one from the journeymen electricians, another from the investor-owned utilities, the fourth shall be a consumer member of a rural electric cooperative, and the fifth member represents the public and cannot be directly associated with the electrical industry.
- 3. **Executive director.** The executive director has full responsibility for directing and supervising the operation of the department under the direction of the board.
- 4. Director of inspections. The director of inspections supervises electrical inspectors to carry out an effective inspection program. The director is responsible for reviewing plans and specifications that are submitted on various projects.
- 5. **Inspection districts.** The state is divided into eight districts. Each electrical inspector is assigned to a district. A map showing the eight

districts is attached as an appendix to this chapter and by this reference is herein incorporated.

6. **Inquiries.** All inquiries and communication relating to licensing, electrical wiring, and inspections shall be directed to:

North Dakota State Electrical Board P O Box 7335 Bismarck, ND 58507-7335 Phone (701)328-9522 Fax (701)328-9524 E-mail: <u>electric@nd.gov</u>

Inquiries or proposals for amendments to the rules and wiring standards shall be directed to the executive director.

History: Amended effective November 1, 1981; January 1, 1984; October 1, 1987; January 1, 1992; January 1, 1999; April 1, 2002; April 1, 2005; April 1, 2008.

General Authority: NDCC 28-32-02.1 Law Implemented: NDCC 28-32-02.1

SEB Inspection Districts

The state is divided into eight districts. Each electrical inspector is assigned to a district.



EXECUTIVE DIRECTOR – DONALD OFFERDAHL BRAD STEIER – DIRECTOR OF INSPECTIONS

District Inspectors

District 1 Josh Wilson

Josh Wilson P.O. Box 575 West Fargo, ND 58078 (701) 239-7388 ndseb1@nd.gov

District 5 Greg Schmidt P.O. Box 5102 Grand Forks, ND 58206 (701) 795-3880 ndseb5@nd.gov

Fargo

Bismarck

Minot Grand Forks Jamestown District 2 Vernon Hertz P.O. Box 7335 Bismarck, ND 58507 (701)328-9520 ndseb2@nd.gov

District 6 Jon Perkins P.O. Box 1346 Jamestown, ND 58402 (701) 253-3908 ndseb6@nd.gov

> Thomas Dwyer Richard Wohl

Ross Rubbelke

Robert Kvitne Robert Lulay **District 7** Richard Krause P.O. Box 6603 Fargo, ND 58109 (701) 239-7388 <u>ndseb7@nd.gov</u>

ndseb3@nd.gov

District 3 Mitch Feininger

P.O. Box 335 Dickinson, ND 58602 (701) 227-7405 District 4 F. Al Schrader P.O. Box 1746 Minot, ND 58702 (701) 857-7713 ndseb4@nd.gov

District 8 Rich Wolfe P.O. Box 7335 Bismarck, ND 58507 (701) 328-9520 ndseb8@nd.gov

(701) 241-1561 (701) 476-6626 (701) 258-2070 (701) 258-2070 (701) 857.4102 (701) 746-2637 (701) 252-5900

<u>City Inspectors</u> Dan Offerdahl – Commercial Gary Larson – Residential

ARTICLE 24-02 ELECTRICAL WIRING STANDARDS

Chapter 24-02-01 General Conditions and Electrical Wiring Standards

CHAPTER 24-02-01 GENERAL CONDITIONS AND ELECTRICAL WIRING STANDARDS Section

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24-02-01-01. Definitions. The terms used throughout this chapter have the same meaning as in the National Electrical Code except:

- "Correction order" means a notice, written by an electrical inspector to the person responsible for the electrical installation, slating violations and noncompliance of rules and regulations as listed, shall be corrected within a designated time.
- 2. "E-cert" is an electronic version of a wiring certificate.
- 3. "Kitchen" means an area where food is prepared that includes a sink and one or more permanent cooking appliances.
- 4. "Qualified person' means a person licensed by the North Dakota state electrical board.
- 5. "Recreational vehicle site" means any plot of ground intended for the connection of recreational vehicles.
- "Service" means the conductors and equipment for delivering electric energy from the serving utility to the wiring system of the premises served.
- 7. "Service point" means the point of demarcation between the serving utility and the premises wiring. The service point is the point on the wiring system where the serving utility ends and the premises wiring begins. The serving utility generally specifies the location of the service point.
- 8. "Wiring certificate" means a document consisting of one or more copies that certifies electrical wiring and equipment was installed on premises and was done in strict compliance with all the provisions of North Dakota Century Code chapter 43-09 and all the requirements of the state electrical board.

History: Amended effective January 1, 1999; April 1, 2002; April 1, 2005; April 1, 2008. General Authority: NDCC 43-09-05 Law Implemented: NDCC 43-09-21, 43-09-22

24-02-01-02. General statement of policy and interpretative rules. There are three categories of licensed electricians recognized by the electrical board.

- 1. Licensed electricians and the qualifications required for each to apply for examination:
 - A master electrician shall have at least one year's experience working as a licensed journeyman electrician under the supervision of a contracting master electrician or master of record.

There are three categories of master electricians, which are as follows:

(1) A contracting master is a person responsible to adhere to all rules and laws of the North Dakota wiring standards and has shown proof of liability insurance and contributed to the undertaking fund.

(2) A master of record is a person responsible to adhere to all rules and laws of the North Dakota wiring standards for the partnership, company, corporation, limited liability company, or association and has shown proof of liability insurance that the master of record is covered by the organization and has contributed to the undertaking fund. The master of record is not allowed to work on other property other than property owned or leased by the organization.

(3) A noncontracting master is a person responsible to adhere to all rules and laws of the North Dakota wiring standards and has the same responsibility as a journeyman electrician. Electrical work shall be done under the supervision of a contracting master or master of record.

b. A journeyman electrician shall have completed eight thousand hours experience, which experience may not be obtained in less than three years, registered as an apprentice electrician (of which



up to three thousand hours may apply under the qualifications of a class B electrician) under the supervision of a contracting master or master of record licensed electrician in an area where electrical construction work is done in the jurisdiction regulating similar rules of the state of North Dakota, and successfully completed apprentice electrician training as described in subdivision a or b of subsection 2. Two thousand hours credit may be granted for a graduate of a two-year or more electrical school accepted by the state electrical board. Practical experience shall consist of a minimum of four thousand hours and a maximum of eight thousand hours credit may be granted for wiring for and installing electrical wiring, apparatus, and equipment.

Credit allowed in other areas may include any combination of the following:

(1) A maximum of two thousand hours credit for maintaining and repairing electrical wiring, apparatus, and equipment;

(2) A maximum of one thousand hours for wiring and maintaining light, heat and power, and fire alarm technology circuits or systems;

(3) A maximum of two thousand hours for wiring and maintaining process control circuits or systems; and

(4) A maximum of two thousand hours of electrical construction experience gained in the armed forces of the United States which the board has determined is equivalent to work performed under the supervision of a North Dakota licensed electrical contractor.

The person shall have the necessary qualifications, training, and technical knowledge to wire, install, and repair electrical apparatus and equipment in accordance with the standard rules and regulations of the National Electrical Code.

c. A class B electrician shall have completed three thousand hours experience in farmstead or residential wiring, in one-family or two-family dwellings, under the supervision of a master or class B electrician.

Commercial wiring experience will not be credited for experience toward a class B license. One thousand hours credit will be granted for a graduate of a two-year electrical school approved by the state electrical board.

- d. Upon receiving an application for an electrician's license from an applicant, the state electrical board shall forward an employment verification record to the appropriate parties listed in the application. Upon receiving verification of electrical construction experience as outlined under this section and upon final approval of the application by the state electrical board, the applicant shall be sent an invitation to take the examination. The invitation shall outline the available testing dates for the year. Upon receiving the invitation, the applicant shall contact the state electrical board and inform the board as to the date chosen to take the examination.
- e. The state electrical board issues an identification card to currently licensed and registered electricians. This identification card shall be in the possession of the electrician when doing electrical work. If the identification card is misplaced or destroyed, a replacement charge to cover board costs shall be imposed.
- 2. Apprentice electricians. There are two categories of apprentice electrician training.
 - a. Apprentice electricians who have successfully completed the United States department of labor training program recognized by the office of apprenticeship.
 - b. Apprentice electricians who have successfully completed at least two years of electrical school approved by the state electrical board or five hundred seventy six hours of training classes recognized by the United States department of labor office of apprenticeship. An unlicensed electrician who has prior experience outside of the state of North Dakota may take a placement examination equal to the verification of practical experience obtained in order to apply credit toward the verification of hours. If the electrician fails the placement examination, the electrician is ineligible to retake the examination. An appeal would need to be submitted in writing to the state electrical board.

c. An apprentice electrician who has not successfully completed training as stated in subdivision a or b is required to be registered with the state electrical board, but is not eligible to take the journeyman or class B license examination. If the person receives a license from another state based on the verification that the majority of practical experience was obtained in the state of North Dakota the person will not be eligible for examination for licensure or a reciprocal license.

A licensed electrician shall supervise not more than three apprentices. Any person over sixteen years of age may work as an apprentice under a licensed master or class B electrician, but the master or class B electrician shall not allow an apprentice to work on any installation without direct constant supervision by a North Dakota licensed electrician working with the apprentice at the worksite.

Electrical contractors shall maintain records of all employees who are or will be performing electrical work for that electrical contractor and shall permit the electrical board to examine and copy all such records as required by this section.

When an apprentice electrician is found to be doing electrical work not under the direct supervision of a licensed electrician, an investigative fee may be charged to cover the costs incurred by the board. Costs are to be calculated at a rate of fifty dollars per hour and mileage rates currently allowed by North Dakota Century Code section 54-06-09 per mile of travel.

Any master or class B electrician who fails or refuses to comply with this section or who fails or refuses to comply or demonstrate compliance with this section at the request of the board or its representative shall subject that person's license to non-renewal, suspension, or revocation by the board.

3. Master and class B electricians. A master or class B electrician may exercise that person's privileges as a licensed master or class B electrician for no more than one shop or business, and shall comply with provisions as required for contracting with the secretary of state's office as stated in North Dakota Century Code chapter 43-07. A master or class B electrician shall notify the state electrical board office immediately upon changing from contracting status to non-contracting status for the shop or business they represent.

- 4. Maintenance personnel regularly employed by the owner may maintain or make minor repairs to existing electrical wiring devices and appliances, but are precluded from extending or changing the characteristics of existing circuits, feeders, or other electrical apparatus.
- 5. Purpose and scope. The purpose of these standards is the practical safeguarding of persons and of buildings and building contents from electrical hazards arising from the use or control of electricity for light, heat, power, and control thereof and of the fire detection system. It covers the electrical conductors and equipment installed within or on public and private buildings and other premises, including yards, carnival and parking lots, railroad right of way and, also the conductors that supply street lighting, with the associated equipment necessary to its safe operation.

These standards, based on the National Electrical Code, are the result of years of experience and research to meet the demand for uniform standards to govern electrical wiring in North Dakota, and provide basic rules for intelligent and uniform installation and inspection.

All requirements contained herein shall be given careful consideration to ensure greatest permanence, convenience, and safety. These standards do not constitute a design specification for any particular installation, nor an instruction manual for untrained persons. Skill and experience are necessary factors for a safe and adequate wiring installation. In cases where these requirements differ or are in conflict with the requirements of the NFPA 70 2008 edition National Electrical Code and NFPA 101 2006 edition Life Safety Code, and applicable articles in currently adopted state building code pertaining to fire detection, fire alarms, fire communications, and smoke detectors, the more restrictive requirements shall be the minimum.

6. Administrative powers and duties. The executive director of the state electrical board, under the direction of the board, shall administer laws, rules, and wiring standards of this state, the electrical requirements of the NFPA 70 2008 edition National Electrical Code and NFPA 101 2006 edition Life Safety Code, and applicable articles in currently adopted state building code pertaining to fire detection, fire alarms, fire communications, and smoke detectors. In all cases when any action is taken by the executive director to enforce the provisions of any sections contained in these electrical regulations, the NFPA 70 2008 edition National Electrical code and NFPA 101

Code, such acts shall be done in the name of and on behalf of the state.

The electrical regulations of these standards, the NFPA 70 2008 edition National Electrical Code and NFPA 101 2006 edition Life Safety Code, may be modified or waived by special permission in particular cases when such modification or waiver is specifically permitted or in particular cases when an advancement in the technology of electricity makes such modification or waiver advisable in the best interest of the people of North Dakota. Such "special permission" shall, in all cases, be obtained from the executive director in writing prior to the commencement of the work.

Whenever the board is authorized or mandated by law to inspect an electrical installation, the inspector has authority to enter upon land for the purpose of conducting the inspection. Except in emergency circumstances, the inspector shall request permission from the property owner or agent prior to entering a dwelling, other building, or other place so enclosed as manifestly to exclude intruders. If the landowner refuses to give permission, the board may request the district court of the district containing the property for an order authorizing the inspector to enter the property to conduct the inspection. Emergency circumstances include situations presenting imminent danger to health, safety, or property.

History: Amended effective January 1, 1981; January 1, 1984; October 1, 1987; January 1, 1990; January 1, 1993; February 1, 1996; January 1, 1999; April 1, 2002; April 1, 2005; April 1, 2008. General Authority: NDCC 43-09-05 Law Implemented: NDCC 43-09-21, 43-09-22

24-02-01-03. General requirements. Electrical installations shall be planned to provide adequate capacity for the load.

- Wiring systems shall have conductors of sufficient capacity to furnish each outlet without excessive line loss or voltage drop. The voltage drop shall not exceed five percent at the farthest outlet of power, heating and lighting loads, or combinations of such loads. (See appendix for example.)
- All wiring materials and equipment shall be listed by nationally recognized testing laboratories to safeguard life and property. It is the duty of the electrical installer to secure permission from the executive



director to use materials, devices, and methods of installation not specifically covered by these standards. Equipment not approved under a testing laboratory category shall be evaluated by a registered professional engineer on state accepted evaluation forms.

Exception: Manufacturing firms that install industrial machinery for use by the firm itself and employ professional engineers may evaluate the industrial machinery according to NFPA 79 or UL 508 Standards. This evaluation shall be maintained with the equipment at all times.

- 3. All installations shall be made in a workmanlike manner with special attention paid to the mechanical execution of work. All conductors shall be rigidly supported and all fittings securely fastened.
- 4. When wiring public school buildings, approval shall be received from the department of public instruction and the state electrical board.
- Overhead conductors shall not cross over water wells or known sites where water wells may be drilled. A minimum distance of twenty feet [6.10 meters] in all directions shall be maintained for overhead conductors.
- 6. All hospitals, nursing homes, and related patient care areas along with dormitories designed to house more than sixteen people shall be wired in metal raceway. Portable cleaning equipment receptacle outlets shall be installed in corridors and located so that no point in the corridor along the floor line, measured horizontally, is more than twenty-five feet [7.62 meters] from an outlet. Spacing of receptacle outlets for dormitories and assisted living shall be in conformity with section 210.60, 2008 edition, National Electrical Code.
- 7. In the wiring of nursing homes and hospitals, reference shall be made to the state department of health for special requirements pertaining to operating rooms, delivery rooms, and emergency lighting.
- 8. Aluminum conductors in sizes smaller than no. 6 shall not be used. Aluminum conductors installed and all corresponding materials shall be approved by testing laboratories.

History: Amended effective January 1, 1981; January 1, 1984; October 1, 1987; January 1, 1990; January 1, 1993; February 1, 1996; January 1, 1999; April 1, 2002; April 1, 2005; April 1, 2008. General Authority: NDCC 43-09-05 Law Implemented: NDCC 43-09-21, 43-09-22

24-02-01-04 Places of assembly. This section covers all buildings, structures, or portions of buildings designed or intended for the assembly of one hundred or more persons.

Places of assembly include: assembly halls, auditoriums, including auditoriums in schools; mercantile, business, and other occupancies; exhibition halls; armories; dining facilities, including restaurants; church chapels; dancehalls; mortuary chapels; museums; skating rinks; gymnasiums and multipurpose rooms; bowling lanes; poolrooms; clubrooms; places of awaiting transportation; courtrooms; drinking establishments; and conference rooms.

Occupancy of any room or space for assembly purposes by less than one hundred persons in a building of other occupancy, and incidental to such other occupancy, shall be classed as part of the other occupancy and subject to the applicable provisions.

When such building structures or portions thereof contain a projection booth or stage platform or area for the presentation of theatrical or musical production, either fixed or portable, the wiring for that area shall comply with all applicable provisions of article 520, 2008 edition, National Electrical Code.

(For methods of determining population capacity, see occupant load value table, section 24-02-01-16.)

Wiring methods. The fixed wiring method including fire alarms shall be metal raceway (and metal boxes) or nonmetallic raceway encased in not less than two inches [5.08 centimeters] of concrete.

Exception 1: As provided in article 640, 2008 edition, National Electrical Code, sound reproduction and similar equipment; in article 800, 2008 edition, National Electrical Code, communication circuits; and in article 725, 2008 edition, National Electrical Code, for class 2 and class 3 remote control and signaling circuits.

Exception 2: Listed two-hour fire-rated cables as permitted in article 695.6, article 700.9D and article 760, 2008 edition, National Electrical Code.

Adjacent areas separated by a fire barrier shall be considered a separate building and may be wired in any approved wiring method in chapter 3 of the 2008 edition, National Electrical Code. For the purpose of this section, a fire barrier is defined as a continuous assembly, vertical or horizontal, in accordance with currently adopted state building code. In no case shall it be less than two-hour fire-rated.

History: Amended effective January 1, 1981; January 1, 1984; October 1, 1987; January 1, 1990; January 1, 1993; February 1, 1996; January 1, 1999; April 1, 2002; April 1, 2005; April 1, 2008. General Authority: NDCC 43-09-05 Law Implemented: NDCC 43-09-21, 43-09-22

24-02-01-05. Hazardous locations.

- Hazardous locations shall be wired in accordance with articles 500-516. For classifications of oilfield installations refer to RP 500, Classification of Locations for Electrical Installations at Petroleum Facilities, second edition, November 1997.
- Electrical wiring in grain elevators shall conform with code requirements, class II, division 1, under article 500, 2008 edition, National Electrical Code.
 - a. Surge arrestors shall be provided for all services in grain elevators.
 - Hot bearing or other similar detection systems shall be installed in accordance with articles 500-516, 2008 edition, National Electrical Code.

History: Amended effective January 1, 1981; January 1, 1984; October 1, 1987; January 1, 1990; January 1, 1993; February 1, 1996; January 1, 1999; April 1, 2002; April 1, 2005; April 1, 2008. General Authority: NDCC 43-09-05 Law Implemented: NDCC 43-09-21, 43-09-22

24-02-01-06. Grounding and bonding. Grounding and bonding shall conform to article 250, 2008 edition, National Electrical Code.

- At motor connections, a bonding jumper sized in accordance with table 250.122, 2008 edition, National Electrical Code, shall be provided around all flexible conduit in sizes one-half inch [12.70 millimeters] and larger. The bonding jumper is not required where a separate grounding conductor is included.
- 2. Grounding of metal outdoor lighting standards. Definition of lighting standard is a pole exceeding twelve feet [3.66 meters] in height measured from the bottom of the base or from the intended grade level of poles.
 - a. Circuits run in nonmetallic conduit or buried directly in the ground: the metal lighting standard shall be grounded by use of an equipment grounding conductor, not the neutral conductor. This equipment grounding conductor shall be run continuously throughout the system and properly bonded to each standard by use of lugs.
 - b. The metal lighting standard shall be connected to a one-half inch [12.70 millimeters] by ten-foot [3.05 meter] copperweld ground rod, or twenty feet of one or more bare or zinc galvanized or other electrically conductive coated steel reinforcing bars or rods (rebar) of not less than one-half inch in diameter, by the means of a bonding jumper. The ten-foot [3.05-meter] ground rod shall be driven in the center of the metal standard base and project slightly above the base. Both ground rod and equipment grounding conductor shall be connected to the metal standards. The bonding jumper shall be in accordance with 2008 edition, National Electrical Code, and in no case smaller than no. 8 copper or no. 6 aluminum.
- 3. The grounding electrode conductor shall be connected to the grounded service conductor in the enclosure for the service disconnect.

History: Amended effective January 1, 1981; January 1, 1984; October 1, 1987; January 1, 1990; January 1, 1993; February 1, 1996; January 1, 1999; April 1, 2002; April 1, 2005; April 1, 2008. General Authority: NDCC 43-09-05 Law Implemented: NDCC 43-09-21, 43-09-22

24-02-01-07. Branch circuits and feeders. Branch circuits and feeders shall comply with articles 210 and 215, 2008 edition, National Electrical Code.

- 1. The total connected load shall be divided as evenly as practicable, between the two ungrounded conductors of a three-wire system and three conductors of a four-wire wye system.
- A separate circuit with disconnect shall be provided for the purpose of operating or controlling electrical equipment on heating units. Wiring requirements for fixed electrical space heating equipment is provided under article 424, 2008 edition, National Electrical Code.
- Dwelling occupancies having built-in baking or cooking units installed separately shall have an individual disconnect and overcurrent protective device. Conductors supplying these units shall have a carrying capacity according to nameplate rating.
- 4. A minimum of six 20-amp small appliance branch circuits shall be installed for counter receptacles in kitchens that may be used to serve public gatherings at schools, churches, lodges, and similar buildings. Any island counter in public gatherings shall have at least one receptacle.
- 5. One-family and two-family dwelling occupancies. A minimum of three 20-amp small appliance branch circuits shall be installed to supply receptacle outlets in kitchen, pantry, dining room, and breakfast room. These circuits shall not supply other outlets and shall have conductors not smaller than no. 12. Two of these circuits shall supply receptacle outlets on or near work counter area and so arranged that adjacent receptacles are not on the same circuit. One 20-amp branch circuit shall be provided for no more than two bathrooms.
- Fifteen and twenty ampere 125-volt receptacles located outdoors or in unfinished basements supplying sewer pumps and sump pumps shall be ground-fault protected or a single receptacle shall be installed in an enclosure that is lockable.

History: Amended effective January 1, 1981; January 1, 1984; October 1, 1987; January 1, 1990; January 1, 1993; February 1. 1996; January 1, 1999; April 1, 2002; April 1, 2005; April 1, 2008. General Authority: NDCC 43-09-05 Law Implemented: NDCC 43-09-21, 43-09-22

24-02-01-08. Services. Electrical services shall comply with article 230, 2008 edition, National Electrical Code.

- 1. Perpendicular mast used for support of a service shall not be less than two-inch [5.08-centimeter] galvanized rigid steel conduit or intermediate metal conduit, fitted with storm collar flashing.
- 2. To eliminate moisture condensation, a suitable compound shall be installed to prevent circulation of air from a warmer to a colder section of the raceway (see section 300.7, 2008 edition, National Electrical Code).
- 3. Outside switch location. In no case shall the equipment be mounted lower than two feet [.6096 meter] above grade level unless listed for such purpose.
- 4. All services in one-family dwellings shall be located in a single accessible location.

Exception: Special permission may be granted by the electrical inspector for a second service location to be added where there is no available space for the service equipment. The second service location shall be installed in accordance with article 230.2, 2008 edition, National Electrical Code.

- 5. Rating of service switch. Any new or old single-family dwelling where the main house panel or service is altered or repaired, the dwelling is moved, or where the dwelling is rewired, a minimum one hundred ampere service-rated panel shall be installed. Replacement of service mast or meter enclosure is an alteration of the service.
 - a. A one hundred ampere main house panel shall be installed using ungrounded conductors rated at one hundred amperes. The panel shall contain provisions for a minimum of twenty full-sized branch circuit spaces.
 - b. A two hundred ampere or larger main house panel shall be installed using ungrounded conductors sized for the proper ampacity. The panel or panels shall contain provisions for a minimum of forty full-sized branch circuit spaces.

- c. Service and feeder calculation for electric heating loads shall be sized to one hundred twenty-five percent of the full load rating.
- 6. Underground services. Underground service shall comply with article 230, part III, 2008 edition, National Electrical Code. Cables or individual conductors on outside of buildings or poles shall be protected where subject to mechanical damage. Where rigid metal conduit is used, a bushing shall be used on both ends. Sufficient slack conductor shall be left to allow for ground settling next to foundations. Past experience indicates that the ground next to a foundation has settled as much as three feet [.914 meter].

History: Amended effective January 1, 1981; January 1, 1984; October 1, 1987; January 1, 1990; January 1, 1993; February 1, 1996; January 1, 1999; April 1, 2002; April 1, 2005; April 1, 2008. General Authority: NDCC 43-09-05 Law Implemented: NDCC 43-09-21, 43-09-22

24-02-01-09. Overcurrent protection. Overcurrent protection shall comply with article 240, 2008 edition, National Electrical Code.

1. Exterior overcurrent devices shall be located at a height of no less than two feet [.6096 meter] above grade level to the bottom of the enclosure.

2. Switchboards and panel boards shall not be located in bathrooms, clothes closets, stairways, or crawl space.

History: Amended effective January 1, 1981; January 1, 1984; October 1, 1987; January 1, 1990; January 1, 1993; February 1, 1996; January 1, 1999; April 1, 2002; April 1, 2005; April 1, 2008. General Authority: NOCC 43-09-05 Law Implemented: NDCC 43-09-21, 43-09-22

24-02-01-10. Wiring methods.

1. Agricultural buildings. This section covers all buildings housing livestock, poultry, and other areas of similar or like nature. All electrical panel boards, wiring devices, and equipment shall be installed in accordance with the provisions of article 547, 2008 edition, National Electrical Code.

A site-isolating device shall be permitted to be installed at the distribution point where two or more agricultural building structures are supplied from the distribution point.

- Electric metallic tubing shall not be used in concrete below grade, in concrete slab or masonry in direct contact with earth. A vapor barrier, if used, will have no effect on the requirements of the section. Electric metallic tubing shall not be embedded in earth or fill.
- 3. Aluminum conduit shall not be installed in contact with earth or embedded in concrete.
- 4. The installation of rigid nonmetallic conduit shall comply with the provision of article 352, 2008 edition, National Electrical Code. Expansion fittings for rigid nonmetallic conduit shall be provided to compensate for thermal expansion and contraction in accordance with section 352.44, 2008 edition, National Electrical Code. When installed outdoors and above grade, one hundred forty degrees Fahrenheit [60 degrees Celsius] shall be considered the minimum change in degrees.
- 5. Fertilizer rooms, meatpacking plants, salt processing plants, and similar locations are judged to be occupancies where severe corrosive conditions are likely to be present. It is recommended that nonmetallic conduit with nonmetallic boxes and fittings be used as the wiring method for such occupancies. Ferrous and nonferrous metal raceways shall be used providing the raceway, boxes, and fittings are properly protected against corrosion.

History: Amended effective January 1, 1981; January 1, 1984; October 1, 1987; January 1, 1990; January 1, 1993; February 1, 1996; January 1, 1999; April 1, 2002: April 1, 2005; April 1, 2008. General Authority: NDCC 43-09-05 Law Implemented: NDCC 43-09-21, 43-09-22

24-02-01-10.1. Water-damaged electrical equipment. Electrical wiring and equipment exposed to water damage shall comply with the following:

 All breaker panel boards, breakers, fuses, disconnect switches, controllers, receptacles, switches, light fixtures, and electric heaters that have been submerged or exposed to water damage shall be replaced or all electrical equipment, switchgear, motor control centers, boilers and boiler controls, electric motors, transformers, and other

similar equipment such as appliances, water heaters, dishwashers, ovens, and ranges that have been submerged shall be reconditioned by the original manufacturer or by its approved representative or replaced.

- 2. Electrical wiring may require replacement depending on the type of wire or cable and what application it was listed for.
- 3. Splices and terminations shall be checked to make sure they comply with article 110.14, 2008 edition, National Electrical Code.

Other recommendations can be found in "Guidelines for Handling Water Damaged Electrical Equipment" published by the national electrical manufacturers association (NEMA).

History: Effective January 1, 1999; amended effective April 1, 2002; April 1, 2005; April 1, 2008. General Authority: NDCC 43-09-05 Law Implemented: NDCC 43-09-21, 43-09-22

24-02-01-11. Motors, motor circuits, and controllers. Repealed effective January 1, 1999.

24-02-01-12. Boxes and fittings. Not more than one extension ring may be used on outlet boxes unless special permission has been obtained from the electrical inspector having jurisdiction. Boxes or conduit bodies shall be installed at each opening, splice, or connection, except as provided in article 604, 2008 edition, National Electrical Code.

History: Amended effective January 1, 1981; January 1, 1984; October 1, 1987; January 1, 1990; January 1, 1993; February 1, 1996; January 1, 1999; April 1, 2005; April 1, 2008. General Authority: NDCC 43-09-05 Law Implemented: NDCC 43-09-21, 43-09-22

24-02-01-13. Seasonal dwellings. Repealed effective January 1, 1999.

24-02-01-14. Mobile home parks and recreational vehicle parks. Repealed effective January 1, 1999.

24-02-01-14.1. Mobile home parks and recreational vehicle parks. Mobile homes, manufactured homes, and mobile home parks shall comply with articles 550 and 551; 2008 edition, of the National Electrical Code.

Service equipment may be installed on manufactured homes as required in 550.32(b) if the following requirements are met:

- 1. The mobile home is located on property owned by homeowner and not in mobile home park.
- 2. The mobile home is secured to a permanent foundation that complies with currently adopted state building code.

History: Effective April 1, 2002; April 1, 2005; April 1, 2008. General Authority: NDCC 43-09-05 Law Implemented: NDCC 43-09-21, 43-09-22

24-02-01-15. Athletic field lighting. Repealed effective January 1, 1999.

24-02-01-16. Marking of means of egress, illumination of means of egress, and emergency lighting. The purpose of this section is to provide exit and emergency lighting requirements in accordance with Life Safety Code, NFPA 101, 2006 edition, in simple and condensed form. For occupancies or items not covered in this condensed version, refer to NFPA 101, 2006 edition, for complete details. In the wiring of institutional occupancies, governmental agencies may use other codes, which may be more stringent, especially when federal funds are involved.

- Marking of means of egress. All required exits and access to exits shall be marked by readily visible signs. For externally illuminated signs, letters shall be not less than six inches [150 millimeter] high. Internally illuminated signs shall be listed per UL 924 which assures proper letter size. Chevron-shaped arrows are required to indicate direction to exits. Every sign shall be suitably illuminated. For externally illuminated signs see section 7.10.6, Life Safety Code, NFPA 101, 2006 edition and for internally illuminated signs see Section 7.10.7.
- Illumination of means of egress. Illumination of means of egress shall provide continuous, dependable, illumination of not less than one footcandle at floor level for all areas such as corridors, stairways, and exit doorway, providing a lighted path of travel to the outside of the building



and public way during all times that the means of egress is available for use. For new stairs, the required minimum illumination level is ten foot-candle during conditions of stair use. Illumination shall be from a source of reasonable assured reliability and may be supplied from normal lighting circuits or special circuits with switching controlled by authorized personnel. Illumination required for exit marking shall also serve for illumination of means of egress and shall be so arranged that failure of a single unit such as burning out of a single bulb will not leave any area in darkness.

- 3. Emergency lighting. Emergency lighting systems shall be so arranged to provide the required illumination automatically in event of any interruption or failure of the normal power supply. An acceptable alternate source of power may be an electric generator or approved battery. In occupancies where emergency lighting is required, the circuits supplying exit marking and illumination of means of egress shall be supplied by the emergency system. Other areas of the facilities only requiring exit marking and illumination of means of egress may be supplied by the normal source.
- 4. Classification of occupancy based on chapter 6, Life Safety Code, NFPA 101, 2006 edition.

Note: Check with local building official to determine occupancy and occupant load.

Assembly. Assembly occupancies include all buildings or portions of buildings used for gathering together fifty or more persons for such purposes as deliberation, worship, entertainment, eating, drinking, amusement, or awaiting transportation. Assembly occupancies also include special amusement buildings regardless of occupant load.

Assembly occupancies include the following:

Armories Assembly halls Auditoriums Bowling lanes Clubrooms Libraries Mortuary chapels Motion picture theaters Museums Passenger stations and terminals of air, surface, underground, and marine public transportation facilities

Colleges and university Classrooms, fifty persons and over Conference rooms Courtrooms Dancehalls Drinking establishments Exhibition halls Gymnasiums Places of religious worship

Poolrooms Recreation piers Restaurants Skating rinks Theaters

Occupancy of any room or space for assembly purposes by fewer than fifty persons in a building or other occupancy and incidental to such other occupancy shall be classified as part of the other occupancy and shall be subject to the provisions applicable thereto.

Educational. Educational occupancies include all buildings or portions of buildings used for educational purposes through the twelfth grade by six or more persons for four or more hours per day or more than twelve hours per week.

Educational occupancies include the following:

Academies	Nursery schools
Kindergartens	Schools

Other occupancies associated with educational institutions shall be in accordance with the appropriate part of Life Safety Code, NFPA 101, 2006 edition.

In cases when instruction is incidental to some other occupancy, the section of Life Safety Code, NFPA 101, 2006 edition, governing such other occupancy applies. For example:

Classrooms under fifty persons - business occupancy Classrooms fifty persons and over – assembly Instructional building - business occupancy Laboratories, instructional - business occupancy Laboratories, non-instructional - industrial

Day care. Day care occupancies include all buildings or portions of buildings in which four or more clients receive care, maintenance, and supervision, by other than their relatives or legal guardians, for less than twenty-four hours per day.

Day care occupancies include the following:

Child day care occupancies Adult day care occupancies, except where part of a health care occupancy Nursery schools Day care homes Kindergarten classes that are incidental to a child day care occupancy

In cases when public schools offer only half-day kindergarten programs, many child day care occupancies offer state-approved kindergarten classes for children who require full day care. As these classes are normally incidental to the day care occupancy, the requirements of the day care occupancy should be followed.

Health care. Health care occupancies are those used for purposes such as medical or other treatment or care of persons suffering from physical or mental illness, disease, or infirmity and for the care of infants, convalescents, or infirm aged persons. Health care occupancies provide sleeping facilities for four or more occupants and are occupied by persons who are mostly incapable of self-preservation because of age, physical or mental disability, or because of security measures not under the occupants' control.

Health care occupancies include the following:

Hospitals Nursing homes Limited care facilities

Ambulatory health care. Ambulatory health care occupancies are those used to provide services or treatment simultaneously to four or more patients on an outpatient basis. The patients are considered incapable of self-preservation due to the treatment rendered, the use of anesthesia, or the injury for which they are receiving emergency or urgent care.

Detention and correctional. Detention and correctional occupancies are used to house individuals under varied degrees of restraint or security and are occupied by persons who are mostly incapable of self-preservation because of security measures not under the occupants' control.

Detention and correctional occupancies include the following: Adult and juvenile substance abuse centers Adult and juvenile work camps Adult community residential centers Adult correctional institutions Adult local detention facilities Juvenile community residential centers Juvenile detention facilities Juvenile training schools

Residential. Residential occupancies are those occupancies in which sleeping accommodations are provided for normal residential purposes and include all buildings designed to provide sleeping accommodations.

Exception. Those classified under health care or detention and correctional occupancies.

Residential occupancies are treated separately in Life Safety Code, NFPA 101, 2006 edition, in the following groups:

One-family and two-family dwellings Lodging or rooming houses Hotels, motels, and dormitories Apartment buildings Residential board and care facilities

Mercantile. Mercantile occupancies include stores, markets, and other rooms, buildings, or structures for the display and sale of merchandise.

Mercantile occupancies include the following:

Auction rooms	Shopping centers
Department stores	Supermarkets
Drugstores	

Office, storage, and service facilities incidental to the sale of merchandise and located in the same building are included with mercantile occupancy.

Business. Business occupancies are those used for the transaction of business other than those covered under mercantile, for the keeping of accounts and records, and for similar purposes.

Business occupancies include the following:

Air traffic control towers (ATCTS)	Doctors' offices
City halls	General offices
College and university	Outpatient clinics, ambulatory
instructional buildings,	
classrooms under fifty perso	ons,
and instructional laboratorie	S
Courthouses	Townhalls
Dentists' offices	

Doctors' and dentists' offices are included unless of such character as to be classified as ambulatory health care occupancies.

Industrial. Industrial occupancies include factories making products of all kinds and properties devoted to operations such as processing, assembling, mixing, packaging, finishing or decorating, and repairing.

Industrial occupancies include the following:

Drycleaning plants
Factories of all kinds
Food processing plants
Gas plants
Hangars (for servicing or
maintenance)
Laundries

Power plants Pumping stations Refineries Sawmills Telephone exchanges

In evaluating the appropriate classification of laboratories, the authority having jurisdiction should determine each case individually based on the extent and nature of the associated hazards. Some laboratories may be classified as occupancies other than industrial, for example, a physical therapy laboratory or a computer laboratory.

Storage. Storage occupancies include all buildings or structures utilized primarily for the storage or sheltering of goods, merchandise, products, vehicles, or animals.

Storage occupancies include the following:

Barns Bulk oil storage Hangars (for storage only) Parking structures Cold storage Freight terminals Grain elevators Stables Truck and marine terminals Warehouses

Storage occupancies are characterized by the presence of relatively small numbers of persons in proportion to the area. Any new use that increases the number of occupants to a figure comparable with other classes of occupancy changes the classification of the building to that of the new use.

Mixed occupancies. Where two or more classes of occupancy occur in the same building or structure and are intermingled so that separate safeguards are impracticable, means of egress facilities, construction, protection, and other safeguards shall comply with the most restrictive life safety requirements of the occupancies involved.

5. Occupant load factor table.

Use	Square Feet Per Person
Assembly use	15 net*
Areas of concentrated use without fixed seating	7 net
Waiting space	3 net
Bleachers, pews, and similar bench-type seating	Note 1
Fixed seating	Note 2
Kitchens	100 gross**
Libraries	
In stack areas	100 gross
In reading rooms	50 net
Swimming pools	
Water surface	50 gross
Pool decks	30 gross
Stages	15 net
Educational use	
Classroom area	20 net
Shops, laboratories, and similar vocationa areas	al 50 net
Day care use	
Maximum number of persons intended to Occupy that floor, but not less than	35 net

Health care use	
Sleeping departments	120 gross
Inpatient departments	240 gross
Ambulatory health care	100 gross
Detention and correctional use	0
Maximum number of persons intended to	120 gross
Occupy that floor, but not less than	0
Residential use	
Hotels, motels, dormitories, apartment	
buildings:	
Maximum probable population, but not	200 gross
less than	0
Lodging or roominghouses:	
Sleeping accommodations for a	
total of sixteen or fewer persons on	
either a transient or permanent basis,	
with or without meals, but without	
separate cooking facilities or individual	
occupants	No requirements
One-family and two-family dwellings	No requirements
Residential board and care use	Note 3
Mercantile use (including malls)	
Street level and below (sales)	30 gross
Upper floor (sales)	60 gross
Office areas	100 gross
Storage, receiving, or shipping (not open	300 gross
to the general public)	
Assembly areas	See "Assembly"
Business use	
Business purposes	100 gross
Other purposes	Note 4
Industrial use	
Maximum number of persons intended to	100 gross
occupy that floor but not less than	
Storage use	N1/A
In storage occupancies	N/A
In mercantile occupancies	300 gross
In other than storage and mercantile	500 gross
occupancies	

* Net floor area is the actual occupied area, not including accessory unoccupied areas or thickness of walls.

** Gross floor area is the floor area within the inside perimeter of the outside walls of the building under consideration with no deduction for hallways, stairs, closets, thickness of interior walls, columns, or other features.

Notes to occupant load table.

Note 1. Bleachers, pews, and similar bench-type seating: one person per eighteen linear inches.

Note 2. Fixed seating. The occupant load of an area having fixed seats shall be determined by the number of fixed seats installed. Required aisle space serving the fixed seats shall not be used to increase the occupant load.

Note 3. Refer to chapters 32 and 33 of Life Safety Code, NFPA 101, 2006 edition.

Note 4. Occupant load factors associated with the use.

- 6. Building classification table.
 - x indicates required
 - o indicates not required

o - indicates not required			
	Marking of Means	Illuminatio of Means	n Emergency
Occupancy	Egress	Egress	Lighting
Assembly	х	х	х
Educational	х	х	х
Interior stairs and corridors	х	х	х
Normally occupied spaces	х	х	х
Flexible and open plan buildings	х	х	х
Interior or windowless portions of			
buildings	х	х	х
Shops and laboratories	х	х	х
Day care	х	х	х
Interior stairs and corridors	х	х	х
Normally occupied spaces	х	х	x Note 6
Flexible and open plan buildings	х	х	х
Interior or windowless portions of			
buildings	х	х	х
Shops and laboratories	х	Х	х

Family day care homes (more than			
Three but fewer than seven persons) Group day care homes (seven to	0	х	0
twelve persons)	0	х	0
Health care occupancies (Note 1)			
(for complete details see Article 517			
of NEC and NFPA Standard 99)	х	х	х
Detention and correctional	х	х	х
Residential			
Hotels and dormitories	х	х	x Note 2
Apartment buildings			
Twelve or less apartments	х	х	o Note 3
More than twelve apartments			
or greater than three floors	х	х	x Note 3
Residential board and care			
More than sixteen	х	х	х
Mercantile			
Class A – over thirty thousand squa	re		
feet [2787.09 square meters]	х	х	х
Class B – three thousand to thirty			
thousand square feet [278.71			
square meters to 2787.09			
square meters]	х	х	х
Class C – under three thousand squ			
feet [278.71 square meters]	x Note 7	х	0
Malls	х	х	х
Business	х	х	0
Two or more stories above exit			
discharge	х	х	х
Fifty or more persons above or			
below level of exit discharge	х	х	х
Three hundred or more persons	х	х	х
All windowless and underground	х	х	х
Industrial	x	x Note 8	x Notes 8 & 9
Storage	х	x Note 10	x Notes 10 & 11

х

Special structures (refer to chapter 11, Life Safety Code, NFPA 101, 2006 edition).

Mixed occupancies (Note 5).

NOTES:

Note 1. Exception: Power supply for exit and emergency lighting shall conform to NFPA 110.

Note 2. Exception: Where each guest room or guest suite has an exit direct to the outside of the building at street or ground level emergency lighting is not required.

Note 3. Exception: Buildings with only one exit need not be provided with exit signs.

Note 5. Exception: Where the same means of egress serve multipleuse or combined occupancies, exit lighting, exit signs, and emergency lighting shall be provided for the occupancy with the most stringent lighting requirements. The occupant load of each type of occupancy shall be added to arrive at the total occupant load.

Note 6. Exception: Rooms with windows to outside (other than assembly use spaces) exempted from emergency lighting requirement.

Note 7. Exception: Where an exit is immediately apparent from all portions of the sales area, the exit marking is not required.

Note 8. Exception: Special purpose industrial occupancies without routine human habitation.

Note 9. Exception: Structures occupied only during daylight hours, with skylights or windows arranged to provide the required level of illumination on all portions of the means of egress during these hours.

Note 10. Exception: Storage occupancies do not require emergency lighting when not normally occupied.

Note 11. Exception: In structures occupied only during daylight hours, with skylights or windows arranged to provide the required level of illumination of all portions of the means of egress during these hours, emergency lighting is not required.

History: Amended effective January 1, 1981; January 1, 1984; October 1. 1987; January 1, 1990; February 1, 1996; January 1, 1999; April 1, 2002; April 1, 2005; April 1, 2008. General Authority: NDCC 43-09-05 Law Implemented: NDCC 43-09-21, 43-09-22

24-02-01-16.1. Smoke detectors and fire alarm systems requirements for evacuation and life safety. Fire alarms shall be installed in accordance with the currently adopted state building code and state fire code.

- Smoke detectors. Dwelling units, congregate residences, and hotel or lodging house guest rooms that are used for sleeping purposes shall be provided with smoke detectors. Detectors shall be installed in accordance with the approved manufacturer's instructions.
 - a. In new construction, required smoke detectors shall receive their primary power from the building wiring when such wiring is served from a commercial source and shall be equipped with a battery backup. The detector shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than those required for overcurrent protection. A detector shall be interconnected so all alarms sound when one is activated. If an existing dwelling unit has an interconnected smoke detector system, the rest of the dwelling unit shall be interconnected with the existing smoke detector system.
 - b. In dwelling units, a detector shall be installed in each sleeping room and at a point centrally located in the corridor or area giving access to each separate sleeping area. When the dwelling unit has more than one story and in dwellings with basements, a detector shall be installed on each story and in the basement. In dwelling units where a story or basement is split into two or more levels, the smoke detectors shall be installed on the upper level, except that when the lower level contains a sleeping area, a detector shall be installed on each level. When sleeping rooms are on an upper level, the detector shall be placed at the ceiling of the upper level in close proximity to the stairway. In dwelling units where the ceiling height of a room open to the hallway serving the bedrooms exceeds that of the hallway by twenty-four inches [60.96 centimeters] or more, smoke detectors shall be installed in the hallway and in the adjacent room. In vaulted ceilings, location of the smoke detector shall follow manufacturer's instructions.

2. Fire alarm systems. Apartment houses and hotels shall be provided with a manual and automatic fire alarm system in apartment houses three or more stories in height or containing sixteen or more dwelling units, in hotels three or more stories in height or containing twenty or more guest rooms, and in congregate residences three or more stories in height or having an occupant load of twenty or more.

A table in the appendix is offered as a condensed guide for convenience. For further information consult the currently adopted state building code and fire code.

History: Effective February 1, 1996; amended effective January 1, 1999; April 1, 2002; April 1, 2005; April 1, 2008. General Authority: NDCC 43-09-05 Law Implemented: NDCC 43-09-21, 43-09-22

24-02-01-17. Carnivals. This section provides standards for temporary outdoor installations of portable electrical wiring and equipment for carnivals and celebrations consisting of overhead and underground installations for lighting and power to tents, stands, concessions, and amusement rides and shall comply with article 525, 2008 edition, National Electrical Code.

- 1. All temporary outdoor installations shall be approved by the electrical inspector before usage.
- 2. Inspection and fees for outdoor carnivals and concessions. Each outdoor amusement enterprise or carnival operating or intending to operate in North Dakota shall notify the North Dakota State Electrical Board, Box 7335, Bismarck, North Dakota 58507-7335, each year of its itinerary and make application for the initial inspection thirty days before the first engagement in the state. Failure to notify the state electrical board may result in the outdoor amusement enterprise or carnival being responsible for expenses incurred for excess time and travel to inspect these installations.
 - a. Fees \$15.00 each ride or concession \$15.00 reinspection fee on each unit, if required \$50.00 each transformer or generator truck
 - b. The fee shall be paid to the inspector at the first engagement or inspection. Each ride or concession will be issued a certification

of inspection so that "en route" inspection may be recorded by each inspector.

- c. Each ride or concession wired properly will be issued a certification of compliance, serving for an entire carnival season, subject to subsequent inspections.
- d. Each ride or concession having minor code violations will be issued a correction order with instructions to correct the same, before a following engagement, which will require a reinspection with a fifteen dollar reinspection fee.
- e. The electrical inspector is empowered to write a correction order for immediate compliance should the inspector find a condition dangerous to life and property.

History: Amended effective October 1, 1987; January 1, 1999; April 1, 2002; April 1, 2005; April 1, 2008. General Authority: NDCC 43-09-05 Law Implemented: NDCC 43-09-21, 43-09-22

24-02-01-18. National electrical manufacturers association enclosures. This section provides national electrical manufacturers association standards which apply generally to industrial controls and systems.

In nonhazardous locations, the specific enclosure types, their applications, and the environmental conditions they are designed to protect against, when completely and properly installed, are as follows:

Type 1 - Enclosures constructed for indoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment and to provide a degree of protection against falling dirt.

Type 2 - Enclosures constructed for indoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment, to provide a degree of protection against falling dirt, and to provide a degree of protection against dripping and light splashing of liquids.

Type 3 - Enclosures constructed for either indoor or outdoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment; to provide a degree of protection against falling dirt,

rain, sleet, snow, and windblown dust; and that will be undamaged by the external formation of ice on the enclosure.

Type 3R - Enclosures constructed for either indoor or outdoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment; to provide a degree of protection against falling dirt, rain, sleet, and snow; and that will be undamaged by the external formation of ice on the enclosure.

Type 3S - Enclosures constructed for either indoor or outdoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment; to provide a degree of protection against falling dirt, rain, sleet, snow, and windblown dust; and in which the external mechanisms remain operable when ice-laden.

Type 4 - Enclosures constructed for either indoor or outdoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment; to provide a degree of protection against falling dirt, rain, sleet, snow, windblown dust, splashing water, and hose-directed water; and that will be undamaged by the external formation of ice on the enclosure.

Type 4X - Enclosures constructed for either indoor or outdoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment; to provide a degree of protection against falling dirt, rain, sleet, snow, windblown dust, splashing water, hose-directed water, and corrosion; and that will be undamaged by the external formation of ice on the enclosure.

Type 5 - Enclosures constructed for indoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment; to provide a degree of protection against falling dirt; against settling airborne dust, lint, fibers, and flyings; and to provide a degree of protection against dripping and light splashing of liquids.

Type 6 - Enclosures constructed for either indoor or outdoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment; to provide a degree of protection against falling dirt; against hose-directed water and the entry of water during occasional temporary submersion at a limited depth; and that will be undamaged by the external formation of ice on the enclosure.

Type 6P - Enclosures constructed for either indoor or outdoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment; to provide a degree of protection against falling dirt; against hose-directed water and the entry of water during prolonged submersion at a limited depth; and that will be undamaged by the external formation of ice on the enclosure.

Type 12 - Enclosures constructed (without knockouts) for indoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment; to provide a degree of protection against falling dirt; against circulating dust, lint, fibers, and flyings; and against dripping and light splashing of liquids.

Type 12K - Enclosures constructed (with knockouts) for indoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment; to provide a degree of protection against falling dirt; against circulating dust, lint, fibers, and flyings; and against dripping and light splashing of liquids.

Type 13 - Enclosures constructed for indoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment; to provide a degree of protection against falling dirt; against circulating dust, lint, fibers, and flyings; and against the spraying, splashing, and seepage of water, oil, and noncorrosive coolants.

History: Amended effective January 1, 1981; April 1, 2002; April 1, 2005; April 1, 2008. General Authority: NDCC 43-09-05

Law Implemented: NDCC 43-09-21, 43-09-22

24-02-01-19. Inspection fees.

 All electrical installations, including new jobs and additional work on old installations, made in this state, shall have an electrical wiring certificate or e-cert properly executed by the master or class B electrician supervising the installation of electrical wiring. The state electrical board shall prescribe such form and shall have on hand a supply of such certificates for distribution to master and class B electricians. Such certificate shall consist of the original and five copies.

- 2. Before work commences on any electrical installation where a new entrance is installed, an existing entrance is altered or repaired, a building is moved, where a mobile home feeder is installed, or where the cost of the repair work or additional installation exceeds three hundred dollars, the master or class B electrician supervising such installation shall execute an electrical wiring certificate and distribute the various copies as follows:
 - a. The goldenrod copy of the certificate shall be forwarded to the state electrical board and the canary copy to the power company before work is commenced.
 - b. Within fifteen days of completion, use, or occupancy, whichever is foremost, the white and green copies shall be forwarded to the office of the state electrical board, along with the proper fee. The wiring certificate shall be completed with the location and a proper description of work completed.
 - c. The pink copy shall be retained by the master or class B electrician.
 - d. The manila copy shall be left in or on the panel or given to the owner.

Certificates with job cost of ten thousand dollars or less are valid twelve months from the original filing date. A new wiring certificate shall be filed on all unfinished work.

- 3. The electric wiring certificates are available from the state electrical board at Bismarck, North Dakota, upon request of any master or class B electrician holding a proper current license from the electrical board. The master or class B electrician shall be held responsible for all certificates issued to that person. A charge of twenty-five dollars to cover board costs shall be imposed on each lost wiring certificate.
- 4. A copy of an electrical wiring certificate shall be filed with the power supplier before an electrical installation may be energized.

5. Inspection fees shall be as follows:

Job Cost	Inspection Fee
Up to \$300.00	\$25.00 (minimum fee)
\$300.00 to \$3,000.00	\$25.00 for the first \$300.00 plus 2% on balance up to \$3,000.00
\$3,000.00 to \$10,000.00	\$79.00 for the first \$3,000.00 plus 1.5% on balance up to \$10,000.00
\$10,000.00 to \$15,000.00	\$184.00 for the first \$10,000.00 plus 1% on balance up to \$15.000.00
\$15,000.00 to \$100,000.00	\$234.00 for the first \$15,000.00 plus 1/2 of 1% on balance up to \$100.000.00
Over \$100,000.00	\$659.00 for the first \$100,000.00 plus 1/4 of 1% on balance

Inspection fees shall accompany the copies of wiring certificates which shall be forwarded to the State Electrical Board, Box 7335, Bismarck, North Dakota 58507-7335.

- 6. Whenever an electrical installation made by or under the supervision of a master or class B electrician is commenced or in use without submitting an electrical wiring certificate, as directed in subsection 2, the certificate may be considered late and the normal inspection fee, as required under this section, is increased in the amount of fifty dollars. In addition, when time and travel are expended by employees of the board to obtain a late certificate, an investigative fee may be charged to cover the costs incurred. Costs are to be calculated at a rate of fifty dollars per hour and mileage rates currently allowed by North Dakota Century Code section 54-06-09 per mile of travel.
- 7. Corrections. Whenever a correction order is written and corrections are not completed within the allotted time, there shall be an administration charge of fifty dollars, which shall be paid to the board by the master or class B electrician.
- 8. All reinspections shall be paid for by the electrical contractors at a cost of fifty dollars per hour with a minimum charge of one hundred dollars.

- 9. The electrical inspection fee shall be based on the total amount of the electrical contract or total cost to the owner including extras.
- 10. The following items need not be included in the cost:
 - a. Appliances, including dishwashers, heat pumps, air-conditioners, disposals, and similar equipment.
 - b. Heating, ventilating, and air-conditioning (HVAC) units.
 - c. Electric motors, PLC, generators; and
 - d. Industrial machines.
- 11. The electrical contractor is responsible to collect the proper inspection fee on each installation. When the owner furnishes the material and the electrical contractor furnishes the labor, the owner shall provide the electrical contractor with the total amount expended for electrical materials used in connection with the installation, and the electrical contractor shall then calculate and collect the necessary inspection fee from the owner. Whenever electrical materials are donated or removed from an existing installation and placed at another location or labor is donated to an installation, the electrical contractor shall estimate the cost of these materials and labor and include the amount in the job cost for the purpose of calculating the proper inspection fee.
- 12. The inspection fee for all electrically driven irrigation machines and motor-driven passenger or freight elevators and dumbwaiters installed in North Dakota shall be as follows:

Elevators and dumbwaiters having horsepower rating up to 5 horsepower - \$20.00

Elevators and dumbwaiters having horsepower rating 5 horsepower through 15 horsepower - \$40.00

Elevators and dumbwaiters having horsepower rating over 15 horsepower - \$60.00

Electrically driven irrigation machines - \$50.00

The companies having supervision of elevators, dumbwaiters, or electrically driven irrigation machine installations shall submit reports to

the state electrical board. The report shall be completed, signed by owner or manager, and forwarded to the state electrical board, Bismarck, North Dakota, with the inspection fee within fifteen days of completion or use, whichever is first.

- 13. Requested inspections. For inspections not covered in this section or special services, the fee shall be fifty dollars per hour, including travel time, plus mileage rates currently allowed by North Dakota Century Code section 54-06-09 per mile traveled.
- 14. For self-wire inspections on wiring done by the owner, the inspection fee shall be as stated in this section, except the minimum shall be fifty dollars. Owner wiring shall be done on residential and farmstead property occupied by the owner. Certification and inspection are required as stated in subsection 1. The owner is required to notify the state electrical board or authority having jurisdiction before work commences. Requests for inspection of owner-wired installations shall be in writing and shall be accompanied by a print or drawing depicting the wiring to be done.

History: Amended effective January 1, 1981; January 1, 1984; October 1, 1987; January 1, 1990; March 1, 1990; January 1, 1993; February 1, 1996; January 1, 1999; April 1, 2002; April 1, 2005; April 1, 2008. General Authority: NDCC 43-09-05 Law Implemented: NDCC 43-09-21, 43-09-22

24-02-01-20. Severability. If any section, sentence or clause, or provision of this chapter or the applicability thereof to any person circumstances is held invalid, the remainder of this chapter and the application of such provision to other persons or circumstances shall not be affected thereby.

History: Amended effective January 1, 1999. General Authority: NDCC 43-09-05 Law Implemented: NDCC 43-09-05

24-02-01-21. Application, examination, and annual license fees.

Examination fees shall be paid separately to the examination testing center provider, if required.

1. The application fees are as follows:

a.	Master	\$50.00
b.	Journeyman	\$25.00

- c. Class B \$40.00
- 2. The annual license fees are as follows:

a.	Master license	\$50.00

- b. Journeyman license \$25.00
- c. Class B license \$40.00
- d. Apprentice registration \$10.00
- 3. Licenses renewed after the expiration date require a reinstatement fee as follows:

a.	Master license	\$50.00
b.	Journeymen license	\$25.00
c.	Class B license	\$40.00
d.	Apprentice registration	\$10.00

History: Effective August 1, 1988; amended effective January 1, 1990; April 1, 2008. General Authority: NDCC 43-09-05

Law Implemented: NDCC 43-09-13

24-02-01-22. Continuing education requirements.

 Each master, journeyman, and class B electrician license shall not be renewed unless proof of eight continuing education hours have been submitted of which a minimum of fifty percent of the hours shall be based on the 2008 edition, National Electrical Code. The remaining credits shall be subjects related to the electrical industry. Approval of the course curriculum is at the discretion of the North Dakota state electrical board.

- a. Electrical continuing education programs will be accepted from technical or trade schools or colleges, electrical trade associations, or individual commercial providers.
- b. Courses, seminars, and instructors shall have prior approval by the North Dakota state electrical board to receive credit. Request for approval of courses, seminars, and instructors shall be made no later than ten days prior to the board meeting. Board approval of courses, seminars, and instructors accepted expires when the state electrical board adopts an updated edition of the National Electrical Code.
- c. Application for approval of courses and instructors shall be on a form provided by the North Dakota state electrical board. A complete description (detailed curriculum outlining the subject matter along with the time and sequence of each item) or copies of all materials provided to the attendants shall be submitted.
- d. Continuing education programs held in other states and not granted prior approval according to this section may be considered for credit if the board is provided with evidence that the educational programs meet the requirements of the state electrical board and are approved for required continuing education credits by the public authority for licensing electricians in that state.
- e. The board shall be notified in writing no later than fifteen days prior to the date, time, and location of the presentation. A representative of the North Dakota state electrical board shall be able to attend without charge and have the authority to audit or review continuing education presentations.
- f. The board shall withdraw approval of any educational program not in compliance with this section.
- g. The provider of the presentation shall forward an attendance list to the board on a form supplied by the board within fifteen days following the presentation but no later than March thirty-first of that year. A certificate of completion shall also be provided to each licensee in attendance. Each certificate of completion and attendance list shall include the name of the provider, the name of the instructor, the course identification number, the date and

location of presentation, the number of code and non-code hours of instruction for continuing education units, the electrician's name, and the electrician's license number or social security number. It is the responsibility of the licensee to have a copy of this certificate of completion. The certificates shall be sent to the board only if requested to do so by the board.

- h. Continuing education credits are valid for a period up to two license renewal periods.
- Instructors shall submit their qualifications to the state electrical board prior to the presentation of the course or seminar. Courses will not be approved unless the instructor has one or more of the following qualifications:
 - a. A master electrician with at least one year's experience in electrical inspection.
 - b. A journeyman or master electrician who is certified as an instructor through a vocational education department.
 - c. A person with a valid teaching accreditation from a trade or technical school, college, or university teaching an electrical curriculum.
 - d. A registered or licensed electrical engineer with at least four years' experience in design of premise electrical wiring systems.
 - e. A representative from the national fire prevention association, testing laboratories, international association of electrical inspectors, and other product manufacturer representatives with five years' practical experience in the subject taught.
 - f. Instructor of an apprenticeship training program.

History: Effective January 1, 1999; amended effective April 1, 2005; April 1, 2008. General Authority: NDCC 43-09-05 Law Implemented: NDCC 43-09-21, 43-09-22

APPENDIX

Short Cut At 75° C Voltage Drop Formulas 167° F

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Voltage drop = \frac{K \times L \text{ ft. x I}}{C.M.A.}
or
C.M.A. = \frac{K \times L \text{ ft. x I}}{\% \text{ drop x voltage}}
L = length in feet, one way
I = load in amps
E = Volts
C.M.A. = circular-mil area
K-factor = 25.8 multiplying factor for
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K-factor = 25.8 multiplying factor for copper, 42.4 multiplying factor for aluminum at 75° C.

Percent drop permissible voltage drop times voltage of circuit as follows:

3%	of 208	208 x .03 = 6.24 volts
3%	of 120	120 x .03 = 3.6 volts
3%	of 240	240 x .03 = 7.2 volts
5%	of 240	240 x .05 = 12.0 volts

Example:

240 volts, 1,000 ft. distance, 10 ampere load, 5% drop 25.8 x 1,000 = 25,800 x 10 = 258,000 258,000 divided by 26,250 (C.M.A. of No. 6) = 9.8 volts (less than 5%) 258,000 divided by 16,510 (C.M.A. of No. 8) = 15.6 volts (more than 5%) 120 volts, 8 ampere load, 100 ft. distance, 3% drop 25.8 x 100 = 2,580 x 8 = 20,640 20,640 divided by 6,530 (C.M.A. of No. 12) = 3.16 volts (less than 3%) 20,640 divided by 4,107 (C.M.A. of No. 14) = 5.0 volts (more than 3%) or 25.8 x 8 amps x 100 ft. = 20,640 20,640 divided by 3.6 (volts representing 3%) = 5,733 C.M.A. (No. 12)

For 3-phase circuits, use formula, then multiply the results by .86.

Fire Alarm System Condensed Guide

	O – NOT required		x - required			
Occupancy	Manual Stations	Smoke Detector	Heat Detector	Flow Switch	Fire Station Alarm	
Assembly under three hundred	0	0	0	0	0	
Assembly over three hundred	x Note 1	0	0	0	0	
Amusement buildings	x	x	0	x	х	
Hotel-motel						
Nineteen rooms or less	0	x Note 2	0	0	0	
Three or more story *	х	x	0	0	0	
Hotel-motel						
Twenty rooms or more * and congregate residences	x	x Note 2	x	x	ο	
Commons area						
Hotels-motels- apartment ho		x	x Note	3 Note 5		
Educational North Dakota Century Code Section 18-12	Э					
Institutional *	x	х	х	х	х	
Office – High rise	x x	x	x	x		
Apartments (see #2 above)	0	x	0	0	0	

#2 above) Industrial – Check with the local fire authority or the state fire marshal Office building – Check with local jurisdiction

* State Department of Health rules.

- Note 1. Placement of devices shall be at exit on each level.
- Note 2. Detectors required in each sleeping room and one detector for each seventy-five feet [22.86 meters] of hallway.
- Note 3. When automatic sprinklers and flow detectors are installed, they shall be connected to the alarm system. Heat detectors are required in mechanical rooms, laundry rooms, and storerooms.
- Note 4. Institutional includes hospitals, nursing homes, jails, and similar facilities, including any occupancy where movement is restricted.
- Note 5. If equipped with sprinkler.
- Note 6. Emergency voice alarm and signal.
- Note 7. One hundred or more sprinkler heads.

All signaling devices for all occupancies shall meet Americans with Disabilities Act (ADA) requirements (check ADA requirements).

Smoke detectors in hotels, motels, and apartments are not to be tied to the central alarm system (alarm in room or apartment only).

Central alarm trouble indicator shall be located where it will be heard.

Systems with two or more zones shall have an annunciator panel located at an entrance approved by the local fire department.

Cities shall have additional or more stringent requirements.

Be aware the table is the minimum and the owner or designer shall ask for more.