

RESOLUTION

RE: APPROVE CONSENT TO THE ENFORCEMENT OF THE 2018 INTERNATIONAL FIRE CODE, WITH AMENDMENTS, WITHIN CERTAIN AREAS OF UNINCORPORATED WELD COUNTY LYING WITHIN THE BERTHOUD FIRE PROTECTION DISTRICT

WHEREAS, the Board of County Commissioners of Weld County, Colorado, pursuant to Colorado statute and the Weld County Home Rule Charter, is vested with the authority of administering the affairs of Weld County, Colorado, and

WHEREAS, C.R.S. §32-1-1002 (1)(d), provides that a fire code promulgated by a fire district may not be enforced in unincorporated portions of Weld County without the consent of the Weld County Board of Commissioners, and

WHEREAS, the Berthoud Fire Protection District Board of Directors has presented a resolution adopting the 2018 International Fire Code, with certain amendments, and

WHEREAS, after review, the Board deems it advisable to consent to the enforcement of the 2018 International Fire Code, with certain amendments detailed in the attached, within the unincorporated areas of Weld County that are also within the geographic boundaries of the Berthoud Fire Protection District.

NOW, THEREFORE, BE IT RESOLVED by the Board of County Commissioners of Weld County, Colorado, that the Board hereby consents to enforcement of the 2018 International Fire Code, with certain amendments detailed in the attached, within the unincorporated areas of Weld County that are also within the geographic boundaries of the Berthoud Fire Protection District.

BE IT FURTHER RESOLVED that any further amendments to the 2018 International Fire Code by the Berthoud Fire Protection District shall not be effective within unincorporated Weld County without the presentation to, and consent of, the Weld County Board of County Commissioners.

cc: CAC(FH), BI(JG).
BFPO
10-15-18

2018-2758
SD0002

RE: CONSENT TO THE ENFORCEMENT OF THE 2018 INTERNATIONAL FIRE CODE, WITH AMENDMENTS, WITHIN CERTAIN AREAS OF UNINCORPORATED WELD COUNTY LYING WITHIN BERTHOUD FIRE PROTECTION DISTRICT
PAGE 2

The above and foregoing Resolution was, on motion duly made and seconded, adopted by the following vote on the 29th day of August, A.D., 2018.

BOARD OF COUNTY COMMISSIONERS
WELD COUNTY, COLORADO

ATTEST: *Cather G. Meick*
Weld County Clerk to the Board

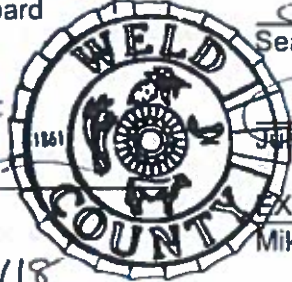
EXCUSED
Steve Moreno, Chair

BY: *Chloe A. Rempel*
Deputy Clerk to the Board

Barbara Kirkmeyer
Barbara Kirkmeyer, Pro-Tem

S.P.C.
Sean P. Conway

APPROVED AS TO FORM:
[Signature]
County Attorney



Julie A. Cozad
Julie A. Cozad

EXCUSED
Mike Freeman

Date of signature: 9/27/18

WELD COUNTY RESOLUTION 2018 -04-24C

2018 Fire Code Adoption

BERTHOUD FIRE PROTECTION DISTRICT

A RESOLUTION ADOPTING THE 2018 INTERNATIONAL FIRE CODE, CERTAIN FIRE CODE STANDARDS, APPENDICES AND CERTAIN MODIFICATIONS THERETO, PRESCRIBING REGULATIONS GOVERNING CONDITIONS HAZARDOUS TO LIFE AND PROPERTY FROM FIRE OR EXPLOSION, AND PROVIDING FOR THE ISSUANCE OF PERMITS FOR HAZARDOUS USES OR OPERATION.

WHEREAS, the Board of Directors of the Berthoud Fire Protection District (the "District") deems it necessary to adopt the following code for the purpose of establishing rules of conduct and standards for the protection of life, health, property, security and welfare of the inhabitants of the District; and

WHEREAS, the Board of Directors has considered the effect of fire code enforcement within the boundaries of the District and has determined that enforcement of the proposed codes would not cause undue hardships or suppression of economic growth within the District; and

WHEREAS, the Board of Directors has studied the necessity of realistic and reasonable levels of fire protection to be provided by a rural fire protection district which also includes area of high density municipal development, including industrial and commercial.

NOW, THEREFORE, BE IT RESOLVED THAT:

Adoption of the 2018 International Fire Code and Fire Service Standards

There is hereby adopted by the District for the purpose of prescribing regulations governing conditions hazardous to life and property from fire, hazardous materials, or explosion, that certain Codes and Standards known as the International Fire Code and Referenced Standards Chapter 80, including the following appendices: B, C, D, F, G, H, I, K & N (but specifically excluding Appendix A, J, L & M, and further including the National Fire Protection Association Standards listed in Chapter 80, Referenced Standards, published by the International Fire Code Council, being particularly the 2018 Editions thereof and the whole thereof, save and except such portions as are hereinafter deleted, modified, or amended by the Resolution of which said Codes and Standards are now filed in the offices of the District, and the same are hereby adopted and incorporated as fully as set out at length herein.

The date on which this Resolution shall take effect within the unincorporated counties within the District shall be the approval by the governing board of said counties and the date on which take effect within the unincorporated of Larimer, and Weld Counties shall be the date of approval of the County Commissioners in and for the counties of Larimer and Weld, State of Colorado.

ESTABLISHMENT AND DUTIES OF FIRE PREVENTION INSPECTORS

Organizational structure and duties of the Fire Prevention Bureau or Department, if any shall be organized by the District's bylaws.

DEFINITIONS

Wherever the word "District" is used, it shall mean the Berthoud Fire Protection District.

Wherever the word "Jurisdiction" is used in the adopted Code and Standards, it is meant to be inclusive of the boundaries of the District as they now or may hereafter exist.

Where the term "Chief" or "Chief of the Bureau of Fire Prevention" is used it shall mean the Chief of the District or the District Fire Marshal or designated member of the District.

Where the term "Bureau of Fire Prevention" is used, it shall be held to mean either the entire Department or those employees (paid or volunteers) designated by the Chief or Fire Marshal to carry out enforcement duties relating to the prevention of fires and the suppression of arson.

Where the term "Board" is used, it shall mean the Board of Directors of the District.

Where the term "Code" is used, it shall mean the International Fire Code as adopted.

Wherever the term "International Building Code" is used, it shall be held to mean the International Building Code as adopted, amended and incorporated into the Larimer and Weld County Building Codes for unincorporated portions of such counties or the International Building Code as adopted, amended and incorporated into the applicable municipality's Building Code within a municipality's territorial limit.

ESTABLISHED LIMITS IN WHICH STORAGE OF LIQUIFIED PETROLEUM GAS IS TO BE RESTRICTED

**The limits referred to in Section 6101 of the 2018 International Fire Code, in which the storage of liquified petroleum gas is restricted, are hereby established as follows;
As addressed by any ordinance or zoning regulation adopted by Larimer and Weld Counties or municipalities, which are more restrictive than Section 6101. This section shall not be interpreted so as to conflict with provisions of § 34-64-101 et seq. and §34-64-101 et seq., CRS.**

AMENDMENTS MADE IN AND TO THE 2018 INTERNATIONAL FIRE CODE

CHAPTER 1

SCOPE AND ADMINISTRATION

SECTION 103

DEPARTMENT OF FIRE PREVENTION

Section 103.4 Liability shall be amended by the addition of the following sentence;
"Nothing herein shall be construed as a waiver of any immunity provided by § 24-10-101, et seq., CRS or any other statutes, or by the common law.

Section 104 GENERAL AUTHORITY AND RESPONSIBILITY shall be amended with the insertion of the following;

Section 104.1.1 Inspection Fees and Charges

(a) Pursuant to §32-1-1002(1)(e)(II) CRS., the Board may fix from time to time and may increase and decrease fees and charges at its discretion, for inspections and review of plans and specifications which are:

(1) Requested or mandated for existing structures, buildings, and improvements;
and

(2) Necessitated in conjunction with county regulation, resolution or condition of Development; or

(3) Performed in conjunction with construction of new structures, buildings, and improvements.

(b) Said fees and changes may, at the discretion of the Board, include a charge for reimbursement to the District for any consultation fees, expenses or costs incurred by the District in the performance of the inspections or review of plans and specifications.

Section 104.9 Alternative materials, design, and methods of construction and equipment shall be amended with the insertion of the following;

(a) The Chief or his designee may determine the suitability of alternative materials, Design, and method of construction and equipment to facilitate the review process. In the event of disagreement, the District's Board shall determine the suitability of alternative materials, methods of construction and equipment and provide reasonable interpretations of the provisions of this Code upon request of any interested party, including the Chief.

(b) The Board, upon recommendation of the Chief or upon its own motion, may enter into written agreements for enforcement or compliance with the owner lessee, occupant or authorized agent thereof, of any property, building or structure, or any interested person directly affected by the application of this code. Said agreements may extend the time for compliance with this code, and may contain such terms and conditions that the Board deems appropriate to adequately protect life, health, property, security and welfare of the public.

Section 105.6 is repealed and reenacted to read:

105.6 Required Operational Permits.

The fire code official *may* require and issue an operational permit(s) for the operations set forth in Sections 105.6.1 through 105.6.50

Section 105.6.32 shall be amended with the insertion of the following:

Open Burning. Permits are required for all open burning and other fire management practices from the respective counties of Boulder, Larimer, and Weld. The counties' Health Departments review all permit applications and either approve or deny them. Permits are forwarded to the Fire Chief or his designee for inspection of the site and final approval.

Exception: *Agricultural Burning*

105.6.47 Temporary Membrane Structures and Tents. This section shall be amended in the first paragraph with the insertion of the following:

An operational permit and construction permit may be required and issued by the building or fire official to operate an air supported temporary membrane structure, a temporary special event structure or a tent having an area in excess of 400 square feet. In exception 2.1 and 2.2, 700 square feet is replaced with 1000 square feet.

105.7 Required Construction Permits shall be amended to read:

All construction permits will be issued by the building official. The District's Fire Prevention Bureau will be the approving authority for the following:

- a. 105.7.1 Automatic fire-extinguishing systems
- b. 105.7.7 Fire alarm and detection systems and related equipment
- c. 105.7.8 Fire Pumps and related equipment
- d. 105.7.21 Solar Photovoltaic Power Systems
Solar Photovoltaic Power Systems require review from the Fire District to insure compliance with IFC Section 1204 for firefighter access pathways and setbacks to the ridge of roofs.
- e. 105.7.24 Standpipe systems

**SECTION 109
BOARD OF APPEALS**

Section 109.1, 109.2 and 109.3 are repealed and reenacted to read:

- a. The District Board shall serve as its own Board of Appeals. The Board may form a subcommittee consisting of three members of the Board to hear appeals brought before it of any and all orders issued by the Chief or his designee. The Board, or such subcommittee acting on behalf of the Board, shall determine the suitability of any suggested alternate materials and methods and type of construction and provide reasonable interpretations of the provisions of this Code upon request of any interested party, including the Chief.
- b. The Board upon recommendation of the Chief or upon motion, may enter into written agreements for enforcement or compliance with the owner, lessee, occupant or agent thereof, of any property, building or structure, or any interested person directly affected by the application of this Code. Said agreements may extend the time for compliance with this Code, and may contain such terms and conditions that the Board deems appropriate to adequately protect the life, health, property, security, and welfare of the public.

**SECTION 110
VIOLATIONS**

Section 110 is repealed and reenacted to read:

1. The Chief or his designee shall enforce this code and shall inspect or cause to be inspected all buildings, structures, property, premises, and public places, except the interior of any private dwelling, in accordance with the procedures set forth in §32-1-1002(3), C.R.S. All inspections shall be recorded.
2. A "Notice" of Violation Hazard" may be issued by the Chief or his designee concerning violations of hazards which are not corrected on-site during an inspection. Said notice shall be signed by the inspector and contain, as a minimum, the following information:
 1. Date of Inspection;
 2. Name/Address of premise inspected;
 3. Nature of violation or hazard;
 4. Time limit for correction;
 5. Right to appeal, if any to the Board;
 6. Right to appeal to the District Court and time limit;
 7. Penalties for violation or order;
 8. Signature of the Chief or his designee;
 9. Acknowledgement of receipt signed by owner, lessee, agent, or other responsible person.

- 3. An "Order for Immediate Correction of Hazard" may be issued by the Chief:**
- a. For Failure to correct a violation hazard within the time specified in previously issued Notice of Violation Hazard; or**
 - b. For violating the code or state statute and said violation renders the building, structure or premises especially liable to fire or is hazardous to the safety of the occupants thereof, or which is so situated as to endanger other property as set forth in §32-1-1002(3)(c), C.R.S., whether or not a Notice has been previously issued.**
 - c. An order signed by the Chief or his/her designee shall contain, as a minimum the following information;**
 - 1. Date of Issuance;**
 - 2. Name/Address of premises inspected;**
 - 3. Nature of violation or hazard;**
 - 4. Time limit for correction;**
 - 5. Right to Appeal, if any to the Board;**
 - 6. Right to appeal to the District Court and time limit;**
 - 7. Penalties for violation or order;**
 - 8. Signature of the Chief or his designee;**
 - 9. Acknowledgement of receipt signed by owner, lessee, agent, or other responsible person.**

An appeal of Notice of Violation of Hazard may be made to the Board by delivery to the Chief in writing, a notice of appeal within five days of the issuance for the Notice of Violation Hazard. The appeal shall be heard at the next regular meeting or special meeting called for that purpose. The Board may affirm, rescind, or modify the Notice and may enter into such enforcement agreements as it deems proper.

- 4. An appeal of an Order of Immediate Correction of a Hazard may be made of a previously issued Notice of Violation or Hazard concerning the same violation or hazard. An appeal of an order must be in writing and filed with the Board within three days of issuance of the order.**
- 5. The Board shall hear all such appeals and application for relief and render its decision thereon in accordance with its bylaws, rules and regulations.**
- 6. In the event no appeal is made to the Board pursuant to this code and resolution or to the court pursuant to §32-1-1002(3), C.R.S., and compliance with the Order and/or correction of the hazard has not occurred, the Board may, upon recommendation by the Chief or upon its own motion, refer the matter to the District attorney of the county in which the violation occurs.**
- 7. An appeal shall suspend the time limits for compliance or correction of a hazard or hazards, until the appeal is resolved for appeals of a Notice of Hazard which is issued pursuant to Section VIII, paragraph 3(a)(ii) herein. An appeal shall not suspend the time limit for compliance or correction of life safety deficiencies or violations. An appeal of an Order issued pursuant to Section VIII, paragraph 3(a)(ii) herein shall not suspend the time limits for compliance or correction, shall be made or rendered forthwith, unless the Order is suspended by the Board.**

PENALTIES

Any owner, lessee, agent or occupant of any building or premises maintaining any condition likely to cause fire or to constitute an additional fire hazard or any condition which impedes or prevents the egress of persons from such buildings or premises in violation of provisions of §32-1-1002(3), C.R.S., shall be deemed to be maintaining a fire hazard. Any person who violates any provision of said subsection 3 is guilty of a misdemeanor and, upon conviction thereof, shall be punished by fine of not less than \$50.00 or no more than \$250.00. Each day in which such violation occurs shall constitute a separate violation of §32-1-1002(3), C.R.S.

1. The application of the above penalty shall not be construed to prevent the enforced removal or correction of prohibited conditions or other injunctive relief.

CHAPTER 3 GENERAL REQUIREMENTS

SECTION 301.2 PERMITS is repealed and reenacted to read:

301.2 Permits. Permits may be required as set forth in Section 105.6 for the activities or uses regulated by section 306, 307, 308, and 315.

SECTION 308 OPEN FLAMES, shall be amended with the insertion of:

308.1.1.1 Sky-Lanterns. A "Sky Lantern", also known as Kongming Lantern or Chinese Lantern, is a small hot air balloon made of paper, with an opening at the bottom where a small fire is suspended. The lighting of, and release of, Sky-Lanterns shall be prohibited.

CHAPTER 5 FIRE SERVICE FEATURES

503.1.2 Additional access. Additional access permit(s) for fire safety may be requested from Weld County through the access permit process set forth in Weld County Code, in the unincorporated portions of the Fire District.

Single and double family residences will not require unduly burdensome road construction or driveway maintenance.

503.2.3 Surface. Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be surfaced so as to provide all-weather driving capabilities.

507 FIRE PROTECTION WATER SUPPLIES

Berthoud Fire Protection District has the unique ability to deploy a long hose lay consisting of 5" large diameter hose (LDH) for a distance up to 5000'. The District can supply required fire-flow to buildings in all areas of Weld County Rural with our enhanced fire hydrant installation and LDH lays.

CHAPTER 9 FIRE PROTECTION SYSTEMS

Section 901.1 is repealed and reenacted to read:

901.1 Scope. The provisions of this chapter shall specify where fire protection and life safety systems are required and shall apply to the design, installation, inspection, operation, testing and maintenance of all fire protection systems. When the requirements of this code and the adopted building code are in conflict, the more restrictive apply.

Section 903 AUTOMATIC SPRINKLER SYSTEMS

Automatic sprinkler systems shall not be required in one and two-family dwellings that are less than 3600 square feet above grade.

CHAPTER 56 EXPLOSIVES AND FIREWORKS

Chapter 56, as it relates to Fireworks and Pyrotechnics Special Effects Materials, is deleted in its entirety and the applicable provisions of the Colorado State Statutes and Regulations, §12-28-101 shall govern all fireworks sales, storage and use.

Appendix C (Fire Hydrant Locations and Distribution) is adopted solely as a reference guide and shall not be utilized to preclude development in the unincorporated areas of the District which often lack sufficient water supplies and pressure to meet stated fire flow and hydrant spacing requirements.

VALIDITY AND CONFLICT

The District Board of Directors hereby declares that should any section, paragraph, sentence or word of the of this resolution of the code or standards hereby adopted be declared for any reason to be invalid, it is the intent of the Board of Directors that it would have passed all other portions of this resolution independent of elimination here from of any such portion as may be declared invalid. It is further declared by the Board of Directors that no provision of this resolution or the code or standards adopted herein be interpreted in conflict with existing State Law. In the event of a conflict between State Law and this code, State Law shall take precedent.

ADDITIONAL CODE PROVISIONS

BBQ AND CHARCOAL GRILL CODE

Chapter 3, Section 308.1.4 of the International Fire Code, entitled Open-Flame Cooking Devices, shall govern the use of BBQ and Charcoal grills within the District's boundaries. Pertinent provisions of the International Fire Code are summarized below and have been incorporated into this Resolution.

BBQ Grills

The use of propane, charcoal type grills, and other open flame cooking devices on combustible balconies and within 10 feet combustible construction shall be prohibited.

Propane grills are regulated in the size of propane tank that is allowed. Only the small 2.5- lb. propane bottle sizes are allowed. Traditional BBQ grill propane tanks are a 20-lb. bottle, which in most cases is not allowed in multi-family dwellings.

These restrictions apply unless:

1. Your balcony/patio is made of concrete, steel or other non-combustible material

AND

2. The propane grill can be placed more than 10 feet away from combustible siding, decking, or other parts of the structure.

OR

3. The balcony/patio is protected by an automatic fire sprinkler system.

Charcoal Grills

Charcoal grills, Hibachis, and other open flame cooking appliances are not allowed.

These restrictions apply unless:

1. Your balcony/patio is made of concrete, steel or other non-combustible material

AND

2. The propane grill can be placed more than 10 feet away from combustible siding, decking, or other parts of the structure.

OR

3. The balcony/patio is protected by an automatic fire sprinkler system.

Exemption

It should be noted that one and two-family dwellings are exempt from these requirements.
IFC Section 308.1.4

FIRE LANE CODE

Chapter 5, Section 503 of the International Fire Code, entitled Fire Apparatus Access Roads, shall govern the use of fire lanes within the District's boundaries. Pertinent provisions of the International Fire Code are summarized below and have been incorporated into this Resolution.

The following shall apply within the District and shall define designated locations of signage, and marking of, and enforcement of, fire lanes within the authority and jurisdiction of the District in accordance with the International Fire Code and as approved by the Fire Code Official and / or local town ordinances where applicable.

Fire Lanes installed shall conform to the requirements of the International Fire Code, local town ordinances and shall be approved by the Fire Code Official and/or the Town of Berthoud prior to installation.

Fire Lanes shall be installed in accordance with the attached specifications.

Roadways, driveways and access ways shall not be marked as fire lanes without first obtaining approval from the District and/or the Town of Berthoud.

Signs and Markings

- a. All fire lanes and access roads must be marked with signs indicting "No Parking Fire Lane" as described in these specifications.**
- b. Signs shall measure 12 X 18 inches and have red letters on white reflective background.**
- c. Signs must be metal construction only. Plastic or wood signs are not acceptable.**
- d. Signs shall be mounted at a minimum height of four feet to the maximum of seven feet.**
- e. Signs shall be placed on both sides of the lane when striping is required on sides of the lane by the International Fire Code.**
- f. Signs shall be placed along the fire lane at intervals not to exceed 50 feet and as designated by the fire code official.**
- g. Outlining or painting the fire lane on the roadway surfaces shall be done in yellow, red, or white with contrasting letters that read "FIRE LANE" at 50' intervals and/or as specified in this document or otherwise directed by the Fire Code Official and Town of Berthoud.**
- h. Existing fire lanes shall continue in effect as installed until such times as they are in need of re-striping due to wear or re-paving.**

FIREWORKS CODE

Chapter 56, Section 5601.1.3 of the International Fire Code, entitled Fireworks, shall not govern the possession, manufacture, storage, sale, handling or use of fireworks within the District's boundaries. Instead, regulation of fireworks shall occur in accordance with the applicable provisions of Colorado state statutes and regulations, i.e., §12-28-101, et sec., CRS and any applicable municipal ordinance or county resolution/ordinance, shall govern all fireworks, their sale, storage, and use.

HAZARDOUS MATERIALS CODE

CHAPTER 50, Section 5001 of the International Fire Code, entitled Hazardous Materials, shall not govern the prevention, control and mitigation of dangerous conditions related to storage, dispensing, use and handling of hazardous materials within the District's boundaries. Instead, regulation of hazardous materials shall occur in accordance with the following provisions.

Definitions

- a. **Hazardous Materials:** means those materials listed in Tables 1 and 2 of Title 49, Code of Federal Regulations, 172.04 (49 CFR 172.504), excluding highway route controlled quantities of radioactive materials as defined in 49 CFR 173.403 (1), excluding ores, and the wastes and tailing therefrom, and excluding special fireworks when the aggregate amount of flash powder does not exceed fifty pounds.

Intent

Federal Rules for protection of public health, safety, and welfare arising from the transport of hazardous materials are capable of posing an unreasonable risk of health, safety, or property require compliance with Title 49 Code of Federal Regulations parts 101-173, 177 and 178; and Colorado Revised Statutes Title 42, Article 20 known as the Hazardous Materials Transportation Act of 1987 designate the Colorado State Patrol as the Authority Having Jurisdiction (AHJ) over hazardous materials on public roadways; and

Colorado Revised Statutes Title 42, Article 20, Section 103 defines a petitioning process for local government to create a new hazardous materials route or amend an existing route designation.

For purposes of protecting public health, the District hereby adopts the aforementioned Federal and State regulations as the standard by which commercial and private drivers will be measured for compliance with the transportation of hazardous materials within boundaries of the District.

Transport Routes

Motor vehicles carrying hazardous materials must be operated over the safest and most direct route to and from the organization and/or destination point. Such routes shall not pass through residential areas unless there is no practicable alternative. All vehicles shall comply with local truck routing and weight limitations and restrictions.

Exemption

This code shall not apply to farm machinery which is exempted from Colorado Revised Statute 42-3-102 or agricultural distribution equipment attached to or conveyed by farm machinery.

Reporting Incidents

Incidents involving hazardous materials are to be reported to the district by the transporter by telephone using 911 or any other effective means.

Transporters

Transporters of hazardous materials shall not permit or cause to be permitted the discharge of such materials into or upon any street, highway, sanitary sewer, drainage canal, ditch, storm drain, or ground, including private property except when such discharge is expressly permitted by the property owner and is otherwise legal.

Routes

The District hereby adopts the routes as established by the Colorado State Patrol, Hazardous Materials section as the recommended permissible means of transport for hazardous materials.

OPEN FLAME /OPEN BURNING CODE

Chapter 3, Section 307 of the International Fire Code, entitled Open Burning, Recreational Fires and Portable Outdoor Fire Places, the District shall govern open flames within the District's boundaries in accordance with the 2018 International Fire Code conditions set forth by the Department of Environmental Health and based on the authority of the Colorado Air Quality Act, 1979.

Definitions

1. Open Fires shall mean: any open burning, including camp and cooking fires; or welding, or operating an acetylene torch or other torch with open flame. Open Fires shall not include:
 - a. Fire in camp stoves or grills fueled by bottled gas or pressurized liquid as specifically designed for cooking or heating purposes.
 - b. Fires in permanently constructed stationary masonry or metal fireplaces specifically designed for the purpose of combustion.
 - c. Fires in commercially operated wood and/or charcoal fired grills designed for cooking.

When smoking within an enclosed vehicle or building, butts and stubs must be disposed of within an approved trash receptacle or within the vehicle.

WEEDS, TALL GRASS, TRASH & GARBAGE CODE

Chapter 3, Sections 304.1.1 and 304.1.2 of the International Fire Code, entitled Waste Material and Vegetation, shall govern the regulation of combustible material within the District. Permanent provisions of the International Fire Code are summarized below and have been incorporated into this Resolution.

Weeds, tall grass, vegetation, vines and vegetation growth that is capable of being ignited and endangering property are prohibited. This is based on the adoption of the International Fire Code and the conditions below.

Definitions

a. Weeds: "weeds" shall include any non-grass type vegetation of which is in the opinion of the District over eight inches tall in height, other than that part of a vegetable, crop, flower garden, or landscaping that is regarded as a nuisance or potential light flashy fuel fire hazard. The International Wildland Urban Interface Code, 2018 Edition, Appendices A, B & D shall be used as a reference.

b. Grass: "grass" shall include any type of grass or weed, but not including crops grown as a source of income, including but not limited to corn, oats, and barley.

Date of Effect

This resolution shall take effect and be enforced within the incorporated municipalities and unincorporated portions of Larimer and Weld County from and after its approval as set forth in § 32-1-1002(1)(d), C.R.S.

[2018 International Fire Code Resolution Signature Page]

Adopted this 21st day of August, 2018

BERTHOUD FIRE PROTECTION DISTRICT

By Dan Hershman

Dan Hershman, President

ATTEST

By Gary Maggi

Gary Maggi, Secretary

NOTICE OF PUBLIC MEETING REGARDING ADOPTION OF FIRE CODE

Public notice is hereby given that on August 21, 2018 at 6:00 PM, at the Berthoud Fire Protection District Fire Station and administrative offices, 275 Mountain Avenue, Berthoud, CO, the Board of Directors of the Berthoud Fire Protection District will conduct a public hearing for the purposes of receiving input on the adoption and the enforcement by the District of the 2018 edition of the International Fire Code that includes Weld County which regulates various activities and materials regarding fire prevention and life safety.

All interested persons who believe that they may be affected by the adoption and enforcement of the proposed Fire Code are invited to attend the meeting to express either their support or opposition to the adoption and enforcement of the Fire Code.

Any person unable to attend the meeting may address their comments or concerns in writing addressed to: Berthoud Fire Protection District, PO Box 570, Berthoud, CO 80513. Copies of the proposed Fire Code are on file and open for inspection at the District's administrative offices located at the District's administrative office, 275 Mountain Ave, Berthoud, during business hours.

BERTHOUD FIRE PROTECTION DISTRICT
BY: /s/ Gary Maggi, Secretary to the Board

Publish Aug. 16, 2018
Berthoud Weekly Surveyor

**Berthoud Fire Protection District
Regular Board Meeting Minutes**

Meeting Subject:
Board of Directors

Location:
District Office
275 Mountain Ave., Berthoud

Meeting Organizer / Contact:
Debra Graves (970) 532 – 2264

Date: 04/24/2018 **Time:** 6:16 PM

Agenda Items

Call to Order / Roll Call Board President, Dan Hershman, called the meeting to order at 6:16 p.m. Roll call was completed, and all Directors were present.

Pledge of Allegiance: Done

Review of the Agenda

The agenda was reviewed and approved with the addition of an update on the proposed Station #3 by Operations chief Rob Stumpf. Director Dave Shipley made the motion to approve, Vice President Michael Cook seconded the motion. The motion carried.

Public Comment
None

Consent Calendar

Approval of the March 2018 meeting minutes.
March Financials

The consent calendar was approved by a motion from Director Dave Shipley and seconded by Vice President Michael Cook. Motion carried.

Personnel

None

Board of Director Action

Hearing for Intergovernmental Exclusion Agreement with Mountain View Fire Protection District: Resolution # 2018-04-24 was discussed at the March meeting, however to provide the proper posting and publication of a Public Hearing the approval was delayed until April. Director Dave Shipley made the motion to approve the resolution and exclusion agreement with Mountain View Fire Protection District. Vice President Michael Cook seconded the motion. The motion carried and was approved.

Adopt by Resolution 2018 International Fire Code: Following the required posting and publication of a Public Hearing, Resolutions, 2018-04-24A-D regarding the 2018 International Fire Code were approved and carried by motion from the Board of Directors.

Communications from Staff

Debra Graves, Finance Director

The Board of Directors were updated regarding the 2017 Audit by RubinBrown. They were informed they should receive copies of the Audit by May's Board meeting and could approve at that time.

The RubinBrown team will attend June's Board meeting to discuss and answer any questions.

May Soricelli, Public Information Officer/Project Manager

Activity Update: PIO/Project Manager May Soricelli

- **Website Status.:** PIO/ Project Manager May Soricelli did a live presentation of the District's new Website. She was able to show and explain the ease of use and the value of being able to reach out to the community in real time when emergencies occur. She has linked Facebook and Twitter as useful resources.
- **Gallagher Amendment impact letter to Larimer, Weld & Boulder County Commissioners.** Informed the Board a letter had been sent to the County Commissioners of our District informing them of the impact the Gallagher amendment is having on District.
- **Fall 2018 "Citizens Academy."** Reviewed Plans for a Citizens Academy to be held September 5th through October 20th. Plans to provide classroom as well as hands on training for eighteen citizens of the District, will provide an opportunity to gain an understanding and become more informed of the services provided to them.
- **"Day of Kindness"** Held March 31st, was attended by over 1650 people. The District raffled off two scooters and maintained a presence throughout the day.
- **"Firefighter for a Day"** -Announced plans to hold two Firefighter for a Day Camps in August. More details will be announced later.

Mike Bruner, Fire Bureau Chief

Activity Update:

- **Fire hydrant flow test.** Chief Bruner, informed the Board he was in the process of receiving bids to hire out the hydrant test. The bids were coming in considerably higher than expected. i.e. one such bid was \$33,000.00. Previously, 2014 the cost to the District was \$14,000.00 the testing should be completed before fall of this year. Vice President Michael Cook, also Little Thompson Water District Manager, suggested Chief Bruner contact him for a list of hydrants the Water District has tested to save on the cost.
- **2018 IFC adoption process in Larimer, Weld & Boulder Counties.** The Board passed the resolutions earlier in the meeting, Chief Bruner informed them he was to meet with Boulder County in a week and half and to attend a hearing with local fire departments and districts of the county as part of the process for the county before it is approved. He is also working close with Larimer and Weld for their approval.
- **Shift Pre-Fire Plans / Inspections to begin April 1st.** Each Shift has been assigned one hundred preplans each.
- **Development Projects –Rose Farm** is the newest development to begin breaking grounds, with plans for multifamily units. The Golf Course continues to make additions to the number of stations it will have to their plans. Hammond and Heron have added filings and plans, number 4 and 5. Vantage is being developed on County Road 17. O'Reilly's will be going in the 1000 block of Mountain Ave.

Rob Stumpf, Operations Chief

- **Bids on Station 3:** Operations Chief Stumpf informed the Board he had obtained pricing from two Companies dealing in steel structures, Premo and Steel Structures America, Inc. The pricing is almost identical at \$32,000.00, for the building, \$5,000.00 to \$7,000.00 to run electricity, \$5,000.00 to \$7,000.00 to heat the building and an additional \$10,000.00 for the concrete pad. A total of approximately \$56,000.00, plus the cost of the land. The only difference in the two buildings is the gage of steel used. Chief Charles added he met with Town of Berthoud, Town Manager Chris Kirk and discussed a possibility of a building on the same site as their waste water treatment plant, for a cost. Once a more permanent Stations was built the Steel building could become an asset to the Town of Berthoud. Board Secretary Gary Maggi is doing research and looking for land. In talking further with Chris kirk, another possibility would be once Wilson Ranch starts to develop requiring them to provide land and building for the fire district. Location is good for ISO rating. Vice President Michael Cook inquired about a machine shed located in the general area and if it could be a possibility to convert and use. Secretary Maggi was also asked to research the property as a possibility. The final location would need to be within seven miles of Station 1.

- **Cell Phone Tower:** Chief Stumpf informed the Board he had been approached by Verizon about placing a cell phone tower at Station 2's location. Annual lease would yield \$18,000.00. The tower would be disguised as a large flag pole.

Stephen Charles, Fire Chief

Impact Fees: A presentation to the Town of Berthoud Board of Trustees, regarding the District's "Impact Fees," will be facilitated by Chief Charles on May 8th at 6:30 p.m.

2018 International Fire Code: The District, Fire Marshall Mike Bruner, will request that the Town of Berthoud Board of Trustees to adopt the 2018 IFC by ordinance at their regularly scheduled meeting on May 8th at 6:30 p.m. The District is currently in the process of adopting the 2018 IFC through Larimer, Weld and Boulder Counties.

Auxiliary: Berthoud Fire Protection District; "Care Takers of Tradition" DBA: Berthoud Hose Company # 1. District will assist with 501c3 fees at a cost of \$845.00 and insurance. Volunteers are forming a 501c3 to restore the antique engine and hose cart. Plans would also include providing a display area possibly in the community center end of Station #1. The District liability insurance would cover the retirees at no cost. Paul Rimsky, President of the Pension Board had requested access to the Berthoud Athletic Club through the Districts membership. Carolyn Creager was not willing to add them to the District membership. She did agree to a charge of \$25.00 per person/\$50.00 per couple. Mr. Rimsky was informed it was cost prohibitive to the District.

Communication from Board of Directors / Open Discussion

Vice President Michael Cook shared a meeting he had with a representative of the Little Thompson River Conservancy District for the restoration of the river. The Conservancy District is seeking financial aid and assistance in wildland fire mitigation of the drainage areas that drain into the river.

Adjournment

Board President, Dan Hershman called for a motion to adjourn the meeting at 7:26 p.m. Vice President Michael Cook made the motion to adjourn. Secretary Gary Maggi seconded the motion. The motion carried.

**PUBLIC NOTICE OF CHANGE OF REGULAR MEETING DATE OF THE
BOARD OF DIRECTORS OF THE
BERTHOUD FIRE PROTECTION DISTRICT**

PUBLIC NOTICE is hereby given that the date of the Regular Meeting of the Board of Directors of the BERTHOUD FIRE PROTECTION DISTRICT originally scheduled for April 17, 2018 has been changed and will be held at 6 00 p m on April 24, 2018 at Berthoud Fire Protection District, Station 1, 275 Mountain Ave, Berthoud, Colorado

DATED March 26, 2018

BERTHOUD FIRE PROTECTION DISTRICT

By Gary Maggi, Secretary

AFFIDAVIT OF PUBLICATION

BERTHOUD WEEKLY SURVEYOR

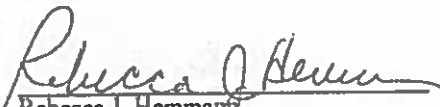
"Covering all the angles in the Garden Spot"

State of Colorado
County of Larimer

I, the undersigned agent, do solemnly swear that the BERTHOUD WEEKLY SURVEYOR is a weekly newspaper printed, in whole or in part, and published in the Town of Berthoud, County of Larimer, State of Colorado, and which has general circulation therein and in parts of Larimer and Weld Counties; that said newspaper has been continuously and uninterruptedly published for a period of more than twelve months prior to the first publication of the annexed legal notice of advertisement, that said newspaper has been admitted to the United States mails as second-class matter under the provision of the Act of March 3, 1879, or any amendments thereof, and that said newspaper is a weekly newspaper duly qualified for publishing legal notices and advertisements within the meaning of the laws of the State of Colorado; that a copy of each number of said newspaper, in which said notice of advertisement was published, and was transmitted by mail or carrier to each of the subscribers of said newspaper, according to the accustomed mode of business in this office.

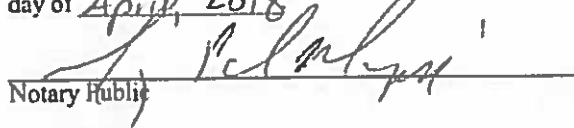
That the annexed legal notice or advertisement was published in the regular and entire edition of said weekly newspaper once each week on the same day of each week for the period of 1 consecutive insertion; and that the first publication of said notice was in the issue of said newspaper dated April 19, 2018, and that the last publication of said notice was in the issue of said newspaper dated April 19, 2018.

Legal notice - Notice of Public Meeting - Adoption of Fire Code - BFPD


Rebecca J. Hemman
Agent/Publisher

State of Colorado, County of Larimer

Subscriber and sworn to before me this
day of April, 2018


Notary Public

GARY PAUL MAGGI
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 18984000879
MY COMMISSION EXPIRES MARCH 9, 2022

NOTICE OF PUBLIC MEETING REGARDING ADOPTION OF FIRE CODE

Public notice is hereby given that on April 24, 2018 at 6:00 PM, at the Berthoud Fire Protection District Fire Station, and administrative offices, 275 Mountain Avenue, Berthoud, CO, the Board of Directors of the Berthoud Fire Protection Fire Protection District will conduct a public hearing for the purposes of receiving input on the adoption and the enforcement by the District of the 2018 edition of the International Fire Code which regulates various activities and materials regarding fire prevention and life safety.

All interested persons who believe that they may be affected by the adoption and enforcement of the proposed Fire Code are invited to attend

the meeting to express either their support or opposition to the adoption and enforcement of the Fire Code.

Any person unable to attend the meeting may address their comments or concerns in writing addressed to: Berthoud Fire Protection District, PO Box 570, Berthoud, CO 80513. Copies of the proposed Fire Code are on file and open for inspection at the District's administrative offices located at the District's administrative office, 275 Mountain Ave, Berthoud, during business hours.

BERTHOUD FIRE PROTECTION DISTRICT
BY: /s/ Gary Maggi, Secretary to the Board

Publish: April 19, 2018
Berthoud Weekly Surveyor



Berthoud Fire Protection District

RECEIVED

MAY 03 2018

**WELD COUNTY
COMMISSIONERS**

Weld County Board of Commissioners
1150 O Street
Greeley, CO 80631

April 25, 2017

Board of Commissioners

RE: Adoption of 2018 International Fire Code

The Board of Directors of Berthoud Fire Protection District, are requesting your approval of the adoption of the 2018 International Fire Code. Public hearing was held on April 24, 2018. Enclosed are copies of the public notice and signed resolution.

Thank you.

Dan Hershman,
Board President
Berthoud Fire Protection District

	2018 INTERNATIONAL FIRE CODE	Including the following appendices: B, C, D, E, F, H, I, K & N Excluding Appendix, A, J, L & M New Appendices: K, L, M, N
Code provision	Requirement	Issue
105.6.32	Open burning permit per county, exception ag burning	No concerns
105.7 Required Const Permits	The Districts Fire Prevention Bureau will be the approving authority for the following: d) 105.7.21 Solar Photovoltaic power system	Concern for building department; Need clarification on authority requested
105.6.47 Temporary Membrane Structures and Tents	Operational permit required	No concerns
Sec 109 Board of Appeals Sec 110 Violations & Penalties	District own board of appeals District process	No concerns
Sec 308 Open Flames	Sky Lanterns prohibited	No concerns
Sec 503 Fire Apparatus Access Roads Sec 503.1.1 Buildings and facilities (Not addressed on proposed adoption)	Approved fire apparatus access roads shall be provided for every facility, building or portion of a building hereafter constructed or moved into or within the jurisdiction	Access road required to be rated for heavy equipment
503.1.2 Additional Access (Not addressed on proposed adoption)	Fire Official authorized to require more than one access....	This has been a concern for commissioners
Sec 507 Fire Prot. Water Supply Sec 507.1 Required water supply (Not addressed on proposed adoption)	An approved water supply capable of supplying the required fire flow for fire protection shall be provided to premises...	This has been a concern for commissioners
Sec 903 Automatic Sprinkler Systems (No change)	Automatic sprinkler systems shall not be required in one and two-family dwellings including townhouses that meet the requirements of APPENDIX B,	This is a concern Per work session held with Commissioners on 03/08/17, direction provided was that

	FIRE-FLOW REQUIREMENTS FOR BUILDINGS, and APPENDIX D FIRE APPARTUS ACCESS ROADS. All other one-and two-family dwellings shall have automatic sprinkler systems installed in accordance with NFPA 13D.	"sprinklers could be required on homes that exceeded 3600sqft above grade" ...
Appendix "C"	(Fire Hydrant Locations and Distribution) is adopted solely as a reference guide and shall not be utilized to preclude development in the unincorporated areas of the District which often lack sufficient water supplies and pressure to meet stated fire flow and hydrant spacing requirements	No concerns (no change from last adoption)
	ADDITIONAL CODE PROVISIONS	
BBQ AND CHARCOAL GRILL CODE BBQ Grills Charcoal Grills	Chapter 3, Section 308.1.4 of the International Fire Code, entitled Open-Flame Cooking Devices, shall govern the use of BBQ and Charcoal grills within the District's boundaries	No concerns (no change from last adoption) Exemption It should be noted that one and two-family dwellings are exempt from these requirements.
FIRE LANE CODE	Chapter 5, Section 503 of the International Fire Code, entitled Fire Apparatus Access Roads, shall govern the use of fire lanes within the District's boundaries	No concerns (no change from last adoption)
Signs and Markings FIREWORKS CODE HAZARDOUS MATERIALS CODE Transport Routes		No concerns (no change from last adoption)

OPEN FLAME /OPEN BURNING CODE	Chapter 3, Section 307 of the International Fire Code, entitled Open Burning, Recreational Fires and Portable Outdoor Fire Places, the District shall govern open	No concerns (no change from last adoption)
WEEDS, TALL GRASS, TRASH & GARBAGE CODE	Chapter 3, Sections 304 1 1 and 304 1 2 of the IFC shall govern	No concerns (no change from last adoption)

APPENDIX B

FIRE-FLOW REQUIREMENTS FOR BUILDINGS

The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance or legislation of the jurisdiction

User note

About this appendix Appendix B provides a tool for the use of jurisdictions in establishing a policy for determining fire-flow requirements in accordance with Section 507.3. The determination of required fire flow is not an exact science, but having some level of information provides a consistent way of choosing the appropriate fire flow for buildings throughout a jurisdiction. The primary tool used in this appendix is a table that presents fire flow based on construction type and building area based on the correlation of the Insurance Services Office (ISO) method and the construction types used in the International Building Code®.

SECTION B101 GENERAL

B101.1 Scope The procedure for determining fire-flow requirements for buildings or portions of buildings hereafter constructed shall be in accordance with this appendix. This appendix does not apply to structures other than buildings.

SECTION B102 DEFINITIONS

B102.1 Definitions For the purpose of this appendix, certain terms are defined as follows:

FIRE FLOW The flow rate of a water supply, measured at 20 pounds per square inch (psi) (138 kPa) residual pressure, that is available for fire fighting.

FIRE-FLOW CALCULATION AREA The floor area, in square feet (m²), used to determine the required fire flow.

SECTION B103 MODIFICATIONS

B103.1 Decreases The fire code official is authorized to reduce the fire-flow requirements for isolated buildings or a group of buildings in rural areas or small communities where the development of full fire-flow requirements is impractical.

B103.2 Increases The fire code official is authorized to increase the fire-flow requirements where conditions indicate an unusual susceptibility to group fires or conflagrations. An increase shall be not more than twice that required for the building under consideration.

B103.3 Areas without water supply systems For information regarding water supplies for fire-fighting purposes in rural and suburban areas in which adequate and reliable water supply systems do not exist, the fire code official is authorized to utilize NFPA 1142 or the *International Wildland-Urban Interface Code*.

SECTION B104 FIRE-FLOW CALCULATION AREA

B104.1 General The fire-flow calculation area shall be the total floor area of all floor levels within the exterior walls, and under the horizontal projections of the roof of a building, except as modified in Section B104.3.

B104.2 Area separation Portions of buildings that are separated by fire walls without openings, constructed in accordance with the *International Building Code*, are allowed to be considered as separate fire-flow calculation areas.

B104.3 Type IA and Type IB construction The fire-flow calculation area of buildings constructed of Type IA and Type IB construction shall be the area of the three largest successive floors.

Exception Fire-flow calculation area for open parking garages shall be determined by the area of the largest floor.

SECTION B105 FIRE-FLOW REQUIREMENTS FOR BUILDINGS

B105.1 One- and two-family dwellings, Group R-3 and R-4 buildings and townhouses The minimum fire-flow and flow duration requirements for one- and two-family dwellings, Group R-3 and R-4 buildings and townhouses shall be as specified in Tables B105.1(1) and B105.1(2).

B105.2 Buildings other than one- and two-family dwellings, Group R-3 and R-4 buildings and townhouses The minimum fire-flow and flow duration for buildings other than one- and two-family dwellings, Group R-3 and R-4 buildings and townhouses shall be as specified in Tables B105.2 and B105.1(2).

B105.3 Water supply for buildings equipped with an automatic sprinkler system For buildings equipped with an approved automatic sprinkler system, the water supply shall be capable of providing the greater of:

1. The automatic sprinkler system demand, including hose stream allowance.
2. The required fire flow.

APPENDIX B

TABLE B105 1(1)
REQUIRED FIRE FLOW FOR ONE- AND TWO-FAMILY DWELLINGS, GROUP R-3 AND R-4 BUILDINGS AND TOWNHOUSES

FIRE-FLOW CALCULATION AREA (square feet)	AUTOMATIC SPRINKLER SYSTEM (Design Standard)	MINIMUM FIRE FLOW (gallons per minute)	FLOW DURATION (hours)
0-3,600	No automatic sprinkler system	1,000	1
3,601 and greater	No automatic sprinkler system	Value in Table B105 1(2)	Duration in Table B105 1(2) at the required fire-flow rate
0-3,600	Section 903 3 1 3 of the <i>International Fire Code</i> or Section P2904 of the <i>International Residential Code</i>	500	1/2
3,601 and greater	Section 903 3 1 3 of the <i>International Fire Code</i> or Section P2904 of the <i>International Residential Code</i>	1/2 value in Table B105 1(2)	1

For SI 1 square foot = 0.0929 m², 1 gallon per minute = 3.785 L/m

TABLE B105 1(2)
REFERENCE TABLE FOR TABLES B105 1(1) AND B105 2

FIRE-FLOW CALCULATION AREA (square feet)					FIRE FLOW (gallons per minute) ^b	FLOW DURATION (hours)
Type IA and IB ^a	Type IIA and IIIA ^a	Type IV and V-A ^a	Type IIB and IIIB ^a	Type V-B ^a		
0-22,700	0-12,700	0-8,200	0-5,900	0-3,600	1,500	2
22,701-30,200	12,701-17,000	8,201-10,900	5,901-7,900	3,601-4,800	1,750	
30,201-38,700	17,001-21,800	10,901-12,900	7,901-9,800	4,801-6,200	2,000	
38,701-48,300	21,801-24,200	12,901-17,400	9,801-12,600	6,201-7,700	2,250	
48,301-59,000	24,201-33,200	17,401-21,300	12,601-15,400	7,701-9,400	2,500	
59,001-70,900	33,201-39,700	21,301-25,500	15,401-18,400	9,401-11,300	2,750	3
70,901-83,700	39,701-47,100	25,501-30,100	18,401-21,800	11,301-13,400	3,000	
83,701-97,700	47,101-54,900	30,101-35,200	21,801-25,900	13,401-15,600	3,250	
97,701-112,700	54,901-63,400	35,201-40,600	25,901-29,300	15,601-18,000	3,500	
112,701-128,700	63,401-72,400	40,601-46,400	29,301-33,500	18,001-20,600	3,750	
128,701-145,900	72,401-82,100	46,401-52,500	33,501-37,900	20,601-23,300	4,000	4
145,901-164,200	82,101-92,400	52,501-59,100	37,901-42,700	23,301-26,300	4,250	
164,201-183,400	92,401-103,100	59,101-66,000	42,701-47,700	26,301-29,300	4,500	
183,401-203,700	103,101-114,600	66,001-73,300	47,701-53,000	29,301-32,600	4,750	
203,701-225,200	114,601-126,700	73,301-81,100	53,001-58,600	32,601-36,000	5,000	
225,201-247,700	126,701-139,400	81,101-89,200	58,601-65,400	36,001-39,600	5,250	
247,701-271,200	139,401-152,600	89,201-97,700	65,401-70,600	39,601-43,400	5,500	
271,201-295,900	152,601-166,500	97,701-106,500	70,601-77,000	43,401-47,400	5,750	
295,901-Greater	166,501-Greater	106,501-115,800	77,001-83,700	47,401-51,500	6,000	
—	—	115,801-125,500	83,701-90,600	51,501-55,700	6,250	
—	—	125,501-135,500	90,601-97,900	55,701-60,200	6,500	
—	—	135,501-145,800	97,901-106,800	60,201-64,800	6,750	
—	—	145,801-156,700	106,801-113,200	64,801-69,600	7,000	
—	—	156,701-167,900	113,201-121,300	69,601-74,600	7,250	
—	—	167,901-179,400	121,301-129,600	74,601-79,800	7,500	
—	—	179,401-191,400	129,601-138,300	79,801-85,100	7,750	
—	—	191,401-Greater	138,301-Greater	85,101-Greater	8,000	

For SI 1 square foot = 0.0929 m², 1 gallon per minute = 3.785 L/m, 1 pound per square inch = 6.895 kPa

a Types of construction are based on the *International Building Code*

b Measured at 20 psi residual pressure

**TABLE B105 2
REQUIRED FIRE FLOW FOR BUILDINGS OTHER THAN ONE- AND
TWO-FAMILY DWELLINGS, GROUP R-3 AND R-4 BUILDINGS AND TOWNHOUSES**

AUTOMATIC SPRINKLER SYSTEM (Design Standard)	MINIMUM FIRE FLOW (gallons per minute)	FLOW DURATION (hours)
No automatic sprinkler system	Value in Table B105 1(2)	Duration in Table B105 1(2)
Section 903 3 1 1 of the <i>International Fire Code</i>	25% of the value in Table B105 1(2) ^a	Duration in Table B105 1(2) at the reduced flow rate
Section 903 3 1 2 of the <i>International Fire Code</i>	25% of the value in Table B105 1(2) ^b	Duration in Table B105 1(2) at the reduced flow rate

For SI 1 gallon per minute = 3.785 L/m

- ^a The reduced fire flow shall be not less than 1,000 gallons per minute
- ^b The reduced fire flow shall be not less than 1,500 gallons per minute

**SECTION B106
REFERENCED STANDARDS**

ICC	IBC—18	International Building Code	B104 2
ICC	IWUIC—18	International Wildland- Urban Interface Code	B103 3
ICC	IRC—18	International Residential Code	Table B105 1(1)
NFPA	1142—17	Standard on Water Supplies for Suburban and Rural Fire Fighting	B103 3

APPENDIX D

FIRE APPARATUS ACCESS ROADS

The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance or legislation of the jurisdiction.

User note:

About this appendix: Appendix D contains more detailed elements for use with the basic access requirements found in Section 503, which gives some minimum criteria, such as a maximum length of 150 feet and a minimum width of 20 feet, but in many cases does not state specific criteria. This appendix, like Appendices B and C, is a tool for jurisdictions looking for guidance in establishing access requirements and includes criteria for multiple-family residential developments, large one- and two-family subdivisions, specific examples for various types of turnarounds for fire department apparatus and parking regulatory signage.

SECTION D101 GENERAL

D101.1 Scope. Fire apparatus access roads shall be in accordance with this appendix and all other applicable requirements of the *International Fire Code*.

SECTION D102 REQUIRED ACCESS

D102.1 Access and loading. Facilities, buildings or portions of buildings hereafter constructed shall be accessible to fire department apparatus by way of an *approved* fire apparatus access road with an asphalt, concrete or other *approved* driv-

ing surface capable of supporting the imposed load of fire apparatus weighing up to 75,000 pounds (34 050 kg).

SECTION D103 MINIMUM SPECIFICATIONS

D103.1 Access road width with a hydrant. Where a fire hydrant is located on a fire apparatus access road, the minimum road width shall be 26 feet (7925 mm), exclusive of shoulders (see Figure D103.1).

D103.2 Grade. Fire apparatus access roads shall not exceed 10 percent in grade.

Exception: Grades steeper than 10 percent as *approved* by the *fire code official*.

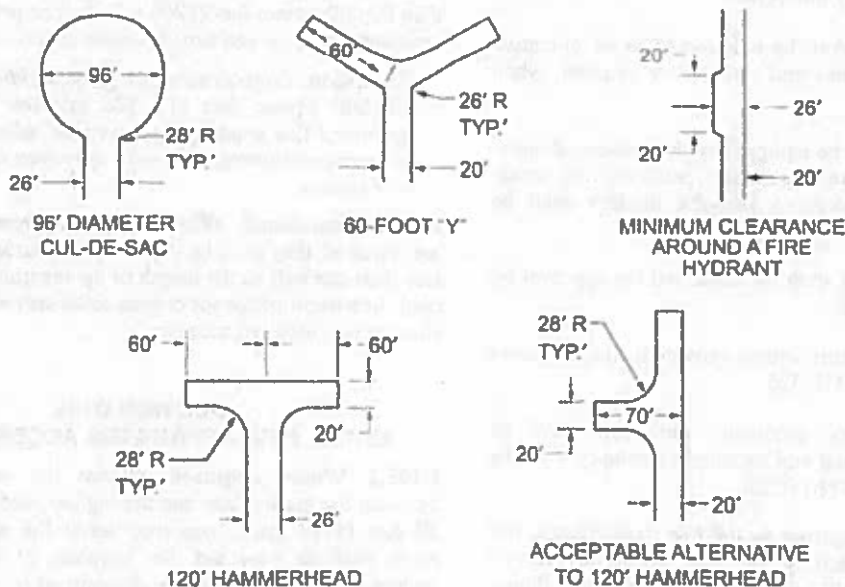


FIG. S1. 1 foot = 304.8 mm

FIGURE D103.1
DEAD-END FIRE APPARATUS ACCESS ROAD TURNAROUND

APPENDIX D

D103.3 Turning radius. The minimum turning radius shall be determined by the *fire code official*

D103.4 Dead ends Dead-end fire apparatus access roads in excess of 150 feet (45 720 mm) shall be provided with width and turnaround provisions in accordance with Table D103.4

**TABLE D103.4
REQUIREMENTS FOR DEAD-END
FIRE APPARATUS ACCESS ROADS**

LENGTH (feet)	WIDTH (feet)	TURNAROUNDS REQUIRED
0-150	20	None required
151-500	20	120-foot Hammerhead, 60-foot "Y" or 96-foot diameter cul-de-sac in accordance with Figure D103.1
501-750	26	120-foot Hammerhead, 60-foot "Y" or 96-foot diameter cul-de-sac in accordance with Figure D103.1
Over 750		Special approval required

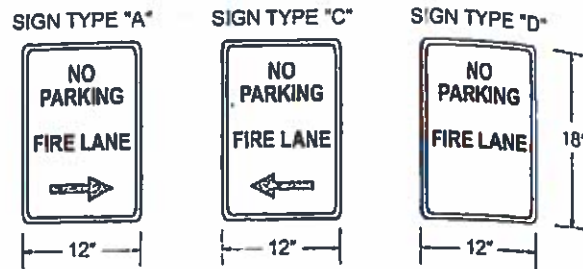
For SI 1 foot = 304.8 mm

D103.5 Fire apparatus access road gates Gates securing the fire apparatus access roads shall comply with all of the following criteria

- 1 Where a single gate is provided, the gate width shall be not less than 20 feet (6096 mm). Where a fire apparatus road consists of a divided roadway, the gate width shall be not less than 12 feet (3658 mm)
- 2 Gates shall be of the swinging or sliding type
- 3 Construction of gates shall be of materials that allow manual operation by one person
- 4 Gate components shall be maintained in an operative condition at all times and replaced or repaired when defective
- 5 Electric gates shall be equipped with a means of opening the gate by fire department personnel for emergency access. Emergency opening devices shall be *approved by the fire code official*
- 6 Methods of locking shall be submitted for approval by the *fire code official*
- 7 Electric gate operators, where provided, shall be *listed* in accordance with UL 325
- 8 Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F2200

D103.6 Signs. Where required by the *fire code official*, fire apparatus access roads shall be marked with permanent NO PARKING—FIRE LANE signs complying with Figure D103.6. Signs shall have a minimum dimension of 12 inches (305 mm) wide by 18 inches (457 mm) high and have red letters on a white reflective background. Signs shall be posted

on one or both sides of the fire apparatus road as required by Section D103.6.1 or D103.6.2



**FIGURE D103.6
FIRE LANE SIGNS**

D103.6.1 Roads 20 to 26 feet in width. Fire lane signs as specified in Section D103.6 shall be posted on both sides of fire apparatus access roads that are 20 to 26 feet wide (6096 to 7925 mm)

D103.6.2 Roads more than 26 feet in width Fire lane signs as specified in Section D103.6 shall be posted on one side of fire apparatus access roads more than 26 feet wide (7925 mm) and less than 32 feet wide (9754 mm)

**SECTION D104
COMMERCIAL AND INDUSTRIAL DEVELOPMENTS**

D104.1 Buildings exceeding three stories or 30 feet in height Buildings or facilities exceeding 30 feet (9144 mm) or three stories in height shall have not fewer than two means of fire apparatus access for each structure

D104.2 Buildings exceeding 62,000 square feet in area Buildings or facilities having a gross building area of more than 62,000 square feet (5760 m²) shall be provided with two separate and *approved* fire apparatus access roads

Exception. Projects having a gross building area of up to 124,000 square feet (11 520 m²) that have a single *approved* fire apparatus access road where all buildings are equipped throughout with *approved automatic sprinkler systems*

D104.3 Remoteness. Where two fire apparatus access roads are required, they shall be placed a distance apart equal to not less than one half of the length of the maximum overall diagonal dimension of the lot or area to be served, measured in a straight line between accesses

**SECTION D105
AERIAL FIRE APPARATUS ACCESS ROADS**

D105.1 Where required. Where the vertical distance between the grade plane and the highest roof surface exceeds 30 feet (9144 mm), *approved* aerial fire apparatus access roads shall be provided. For purposes of this section, the highest roof surface shall be determined by measurement to the eave of a pitched roof, the intersection of the roof to the exterior wall, or the top of parapet walls, whichever is greater

D105.2 Width Aerial fire apparatus access roads shall have a minimum unobstructed width of 26 feet (7925 mm), exclusive of shoulders, in the immediate vicinity of the building or portion thereof

D105.3 Proximity to building One or more of the required access routes meeting this condition shall be located not less than 15 feet (4572 mm) and not greater than 30 feet (9144 mm) from the building, and shall be positioned parallel to one entire side of the building. The side of the building on which the aerial fire apparatus access road is positioned shall be approved by the *fire code official*

D105.4 Obstructions Overhead utility and power lines shall not be located over the aerial fire apparatus access road or between the aerial fire apparatus road and the building. Other obstructions shall be permitted to be placed with the approval of the *fire code official*

SECTION D106

MULTIPLE-FAMILY RESIDENTIAL DEVELOPMENTS

D106.1 Projects having more than 100 dwelling units Multiple-family residential projects having more than 100 *dwelling units* shall be equipped throughout with two separate and *approved* fire apparatus access roads

Exception Projects having up to 200 *dwelling units* shall have not fewer than one *approved* fire apparatus access road where all buildings, including nonresidential occupancies, are equipped throughout with *approved automatic sprinkler systems* installed in accordance with Section 903.3.1.1 or 903.3.1.2

D106.2 Projects having more than 200 dwelling units Multiple-family residential projects having more than 200 *dwelling units* shall be provided with two separate and *approved* fire apparatus access roads regardless of whether they are equipped with an *approved automatic sprinkler system*

D106.3 Remoteness Where two fire apparatus access roads are required, they shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the property or area to be served, measured in a straight line between accesses

SECTION D107 ONE- OR TWO-FAMILY RESIDENTIAL DEVELOPMENTS

D107.1 One- or two-family dwelling residential developments Developments of one- or two-family *dwelling units* where the number of *dwelling units* exceeds 30 shall be provided with two separate and *approved* fire apparatus access roads

Exceptions.

- 1 Where there are more than 30 *dwelling units* on a single public or private fire apparatus access road and all *dwelling units* are equipped throughout with an *approved automatic sprinkler system* in accordance with Section 903.3.1.1, 903.3.1.2 or

903.3.1.3, access from two directions shall not be required

- 2 The number of *dwelling units* on a single fire apparatus access road shall not be increased unless fire apparatus access roads will connect with future development, as determined by the *fire code official*

D107.2 Remoteness Where two fire apparatus access roads are required, they shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the property or area to be served, measured in a straight line between accesses

SECTION D108 REFERENCED STANDARDS

ASTM	F2200—14	Standard Specification for Automated Vehicular Gate Construction	D103.5
UL	325—02	Door, Drapery, Gate, Louver, and Window Operators and Systems, with Revisions through May 2015	D103.5

