



# COLORADO

## Division of Fire Prevention & Control

Department of Public Safety

# FIRE & LIFE SAFETY

VOLUME ONE  
WINTER 2020





## Fire Safe Colorado

Fire Safe Colorado had its first official meeting in the Pikes Peak Region on January 31, 2020. This region includes Lake, Chaffee, Park, Teller and El Paso Counties. The El Paso County Citizens Center was gracious enough to host us.

There was excellent turn out with representatives from DFPC, Colorado Springs Fire Department, Genesis Healthcare, Sunny Vista Living Center, Peterson AFB Fire Department, Penrose St. Francis Health Services, Tri-Lakes Monument FPD, JCI/Simplex, Grinnell Fire Protection Solutions, USAFA Fire & Emergency Services, Peterson Fire & Emergency Services, Johnson Controls Fire Protection, Cheyenne Mountain Fire Department, NFPA, NFSA and SPCFPD.

The first stop in our 14 regions discussed the shortage of volunteers for fire service, public education on fire safety, collaborating on resources available, getting large smoke detector donations to southern Colorado, educating health care facilities about fire safety and evacuations, meeting points and the difference between life safety and fire inspections and available resources for fire investigations.

The best part of the meeting was discussion of a future meeting for the Pikes Peak Region in late April. Everyone attending was excited about collaborating with one another to better educate their communities and to combine resources they had available to do so. We are excited to see where Fire Safe Colorado is going to go and the impact it can make.

Please check our website [www.firesafecolorado.com](http://www.firesafecolorado.com) for a master calendar as well as training opportunities and educational material. We look forward to seeing new faces (and some returning) in the Colorado River Region which includes Mesa, Garfield, Pitkin and Eagle County.

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## Building Code Branch Personnel Changes

The Division of Fire Prevention and Control (DFPC) Building Code Branch (BCB) has added some new faces. Jack Howard and Bradley Duncan are both new DFPC building inspectors. Jack, born and raised on the Front Range, came to us from the construction world where he was an electrical contractor. Bradley is still getting used to Colorado winters. He recently moved here from Tennessee where he was a building and fire inspector for the State Fire Marshal's Office.

DFPC is very fortunate to have them both on our team. In addition to completing construction inspections, Bradley and Jack will also be rotating into and out of the inspection territories, along with the rest of our inspectors, to serve in the newly formed Professional Standards Unit. The DFPC Building Code Branch also put some old faces in new positions. The time had come to add another much needed Work Unit Chief to our group. It was a tough choice. Six highly qualified, motivated individuals applied for the position. Each brought differing skill sets to the table.

Bryon Horgen was ultimately offered and accepted the Inspection Unit Chief position. With Bryon serving as the new Inspection Unit Chief, Jon Weir's title will change to Building Code Branch Plan Review Unit Chief.

## Professional Standards Unit Formed

The Fire and Life Safety Section successfully formed the Professional Standards Unit (PSU) this year and received great feedback. Building and fire inspectors will now be assigned to the PSU on a six month rotating basis to provide outreach and education throughout the state.

Many of the professionals engaged in the programs that the Fire and Life Safety Section administers will encounter the PSU team in the near future. Or, you may have already met with the Dawn Tollis and the Building Code Branch's Kyle Parag and Dee Stevens, plus the Fire Prevention Branch's Cory Schreiner who are all currently serving on the PSU.



## SCHEDULING INSPECTIONS?

To schedule an inspection go to  
[www.colorado.gov/dfpc/fire-and-life-safety](http://www.colorado.gov/dfpc/fire-and-life-safety)

## Lead Fire Investigator Position Filled

DFPC is pleased to announce, as of January 1st, Dawn Tollis has transitioned from the Professional Standards Unit Chief to the Lead Fire Investigator position. She will be handling most investigations, but she will also be utilizing the resources we have within the Division to provide assistance to fire authorities and law enforcement across the state.

Dawn will be attending the State Farm Arson K-9 training in April and will be bringing home the newest member of our Investigation team when she completes the course. I'm sure she will be coming around and introducing her new partner to you all upon her return! Many of you had questions about the current process for requesting assistance for a fire investigation.

At this time, the watch center is handling our dispatch process. The phone number for that office is (303) 239-4360. They will contact Dawn and relay all pertinent information to her regarding the assignment, and she will call the requesting party to coordinate efforts. Should you receive any questions regarding investigations, please forward them to Dawn for response. Please join DFPC in congratulating Dawn on her new position!



## Fire Prevention Branch Annual School Fire Inspections

***We are already half-way through the 2019-2020 school year!***

That means we here at DFPC Fire Prevention Branch are in the thick of completing the school fire inspections. DFPC performs over 400 school inspections each year out of the over 1,900 Public Schools in the State, with only ten Fire Inspectors.

Local fire jurisdictions with qualified inspectors perform inspections at the other 1,500+ schools, and DFPC is here to support you in any way we can.

If your Fire Department, or District, has qualified inspectors and you would like some professional assistance or mentorship performing school maintenance inspections, please contact us.

We will also teach a class for a group of fire inspectors focusing on school fire inspections.

Jurisdictions that perform the fire inspections in their service areas are required to let us know that those inspections are complete. We only need a single report each year from each fire district, and we have a form on our website to make that job easier for you.

If you have a large number of schools, we will take a copy of your spreadsheet or tracker. We report these numbers to the governor, so we need everyone's cooperation to help keep our public schools the safest they can possibly be!

If you need to send in your school maintenance inspection report, or have school inspection questions, please send it to [cdps\\_dfpc\\_school\\_insp\\_reports@state.co.us](mailto:cdps_dfpc_school_insp_reports@state.co.us)

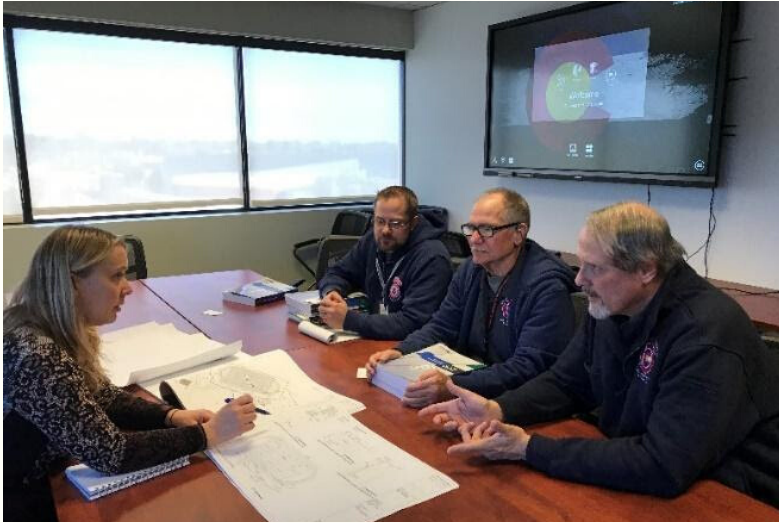
For more information, visit our website: [www.colorado.gov/DFPC](http://www.colorado.gov/DFPC)

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## School Construction Preliminary Review Meetings



DFPC recommends you schedule a pre-submittal meeting to review your design development or construction document progress set prior to submitting your school construction permit documents for application.

Please contact Joellen Thiel via email to schedule your preliminary review meeting.

She can be reached at [joellen.thiel@state.co.us](mailto:joellen.thiel@state.co.us). Pre-submittal meetings are held on Wednesdays and Thursdays.

## School Construction Plan Review Queue Update

Currently there are 20 projects in the DFPC Building Code Branch queue. There is a 3-4 week lead time from application date to review date.

9 of the 20 projects are new construction, additions or major renovations. The remaining 11 projects are smaller in scope. DFPC expects the lead time to increase to approximately 6-8 weeks in the near future.

Each week there is an average of 15-20 projects being submitted. This has been gradually increasing since late December.

Please give us a call if you would like to know exactly where your project falls in the queue.



## Fire Prevention Branch Personnel Changes

The Fire Prevention Branch welcomes our newest Fire and Life Safety Inspector, Craig Montoya to the team. Craig is a native Coloradan from Trinidad, who recently moved with his family to the Denver area. Craig's experience is in the healthcare and construction industries. Craig is already a valuable addition to the team.



## School Construction - 2019 Statistics

759 applications were received for permit.

1,260 plan reviews were conducted.

860 permits were issued.

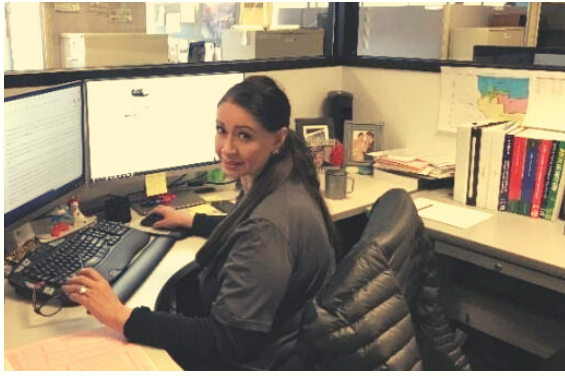
1,337 onsite inspections were performed.

582 Certificates of Occupancy or Certificates of Completion were granted.

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## DFPC Electronic Submittal Process



If you need help creating a password, submitting your online application, uploading documents, or making a payment, contact DFPC's Permit Technician, Phyllis LoSordo at 303-239-4125 or at [phyllis.losordo@state.co.us](mailto:phyllis.losordo@state.co.us).

## The Bottom Line on Joint Restraint Systems in Underground Fire Mains

*By: DFPC's Fire & Life Safety Section-Inspection Unit Chief, Chuck Altvater*

Joint Restraint Systems (JRS) are a marvel of modern engineering in pipelines, and when used in underground fire mains, can make the work of fire inspectors quite a bit easier when compared to inspecting thrust blocks.

The basic function of both thrust blocks and joint restraint systems is to prevent the outward force of water flowing through a bend in the pipe from pushing apart the joints on the pipeline. Thrust blocks do this by transferring the force of the water moving through the bend, through the thrust block and into undisturbed soil behind the thrust block.

Thrust blocks have been around as long as pipelines have been around, and the formulas for them are located in NFPA 24. The problems with thrust blocks are that they have to be calculated, formed, and poured correctly; they cannot encase the joint they are blocking, must go to "undisturbed soil", and once poured, must set before being buried or testing the pipeline.

Additionally, if the pipeline makes a downward turn, it is very difficult to put a correctly made thrust block over other parts of the pipeline. All of that takes extra time and resources for the contractor, so a smart engineer invented the Joint Restraint System for pipelines.

Essentially, a JRS turns the pipeline itself into its own thrust block by transferring the outward-pushing energy of the water flowing through the bends of the pipeline back to the straight portions of the pipeline through collars placed at the bend on the pipeline, as well as a certain number of joints on either side of the bend. Depending on the length of the pipeline, not every joint will require a JRS.

*What does this mean for the fire inspector?* It means the inspector must read the cut sheets for the JRS to know what torque the bolts in the system need to be tightened to. Some JRS only require bolts to be "finger tight." They must check every joint that is called out as requiring a JRS, which may be several in both directions from the bend.

Once all the JRS components are installed, torqued, and inspected, all exposed steel shall be covered in a bituminous coating, or other acceptable corrosion-retarding material, prior to being buried. Once the pipeline is buried, it can be hydro tested and super-flushed right away, eliminating the need for a return trip later.

***The bottom line on JRS is:*** do not assume all bolts must be "cranked down" all the way (read the cut sheets!), know how many JRS are required, and make sure all exposed steel are coated after installation.

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