

Camas – Washougal Fire Department
Fire Marshal's Office
"Working for a Safer Community"



April 11, 2016

Mayor Scott Higgins
City Council Members
City of Camas
616 NE 4th Ave.
Camas, WA 98607

Subject: Residential Fire Sprinkler Systems (RFSS)
Representative Liz Pike March 22, 2016 Correspondence to Council

Dear Mayor Higgins and Members of the Camas City Council:

The above referenced correspondence from Washington State Representative Liz Pike et al. asks the Camas City Council to reject the recently proposed ordinance that would make residential fire sprinkler systems (RFSS) mandatory in all new construction of one and two family homes.

We respectfully disagree with the statements made to substantiate their objections. We would like to address those statements, starting with what they term as "seven barriers":

Barrier 1: Lack of Education

There is a lack of awareness among homeowners about the life-safety benefits of sprinkler systems versus alarm systems, differences between new and existing single-family homes and other key facts that could help the public make better informed decisions about whether or not to voluntarily install sprinklers in their homes.

Smoke detectors/alarms are important for alerting occupants to a fire, but residential fire sprinklers suppress fire, saving property and lives. The Camas-Washougal Fire Department (CWFD) takes every opportunity to increase community awareness of the incredible benefits of RFSS. Just a couple of examples include:

- **Annual Open House:** For the last 15 years the CWFD has provided a side-by-side demonstration where two small rooms, one sprinklered and one non-sprinklered, are set on fire simultaneously. Very little damage occurs to the sprinklered room, while there is total destruction to the non-sprinklered room. A side-by-side demonstration is one of the best education tools to show the power of fire sprinklers. There is no more impactful lesson on the devastating speed at which a fire can grow and our demonstrations have been seen by thousands of citizens at these very well attended events.

Example Side-By Side Burn.

<http://www.bing.com/videos/search?q=side+by+side+fire+demonstration+camas&view=detail&mid=F4E74AF01EA75D838DF9F4E74AF01EA75D838DF9&FORM=VIRE>



- **Parade of Homes:** The Fire Marshal's Office (FMO) has participated in the annual Parade of Homes which is a great venue to educate our citizens and address some of the common misconceptions they have about RFSS such as:
 - a) Smoke alarms alone will provide enough protection
 - b) If a fire occurs, every sprinkler will activate and everything in the house will be ruined.
 - c) Sprinklers are unattractive and will ruin the aesthetics of the home

Barrier 2: Lack of Preferred Design and Installation Details and Guidelines

There is a lack of consistent criteria for installing fire sprinklers that would assist builders, installers, fire personnel, water purveyors and homeowners.

The Camas-Washougal FMO requires no drawings or calculations for NFPA 13D (RFSS) permits. This can save the builder a few hundred dollars. The only requirement is that the furthest room from the water meter can provide 26 gallons a minute through two fire sprinkler heads.

Barrier 3: Cost and Cost Recovery of a Voluntary Residential Fire Sprinkler System (RFSS) Installation

The cost of installing residential fire sprinklers can vary widely, and homeowners often have limited ability to recover these costs, both of which act as barriers to homeowners.

A review of quotes from the contractors who do the majority of residential sprinkler installations in Camas shows that costs vary from \$1.25 to \$1.35 per square foot. A system in a 1500 square foot dwelling would therefore cost between \$1875 and \$2025.

Barrier 4: Costs for Permit and Inspection

Installation of fire sprinklers require plan review and inspections, both of which add costs.

The city charges \$95 for a residential fire sprinkler permit. Typically there are two to three inspections associated with these permits.

Barrier 5: Increased Cost of Hook-Up Fees in Form of Stand-By System Development

Homeowners may have to increase the meter size serving their property in order to proceed, creating yet another cost burden associated with sprinkler installation.

In the city of Camas there are no additional costs for a larger meter and no additional system development charges.



Barrier 6: Shut-Off issues

Water purveyors may be exposed to increased liability as a result of a fire at a residence that has a RFSS but is inoperable due to routine maintenance, system damage, or any other issue that would cause water service to a property to be interrupted. (Hard-Wired smoke detectors are required in all new homes because homeowners could not be trusted to change the batteries in their smoke alarms; there is no reason to assume homeowners will do proper maintenance on fire sprinkler systems).

Per RCW 70.119A.210 Fire sprinkler systems—Shutting off—Liability.

- (1) A person or purveyor that owns, operates, or maintains a public water system shall not be liable for damages resulting from shutting off water to a residential home with an installed fire sprinkler system if the shut off is due to: (a) Routine maintenance or construction; (b) nonpayment by the customer; or (c) a water system emergency.
- (2) Any governmental or municipal corporation, including but not limited to special districts, shall be deemed to be exercising a governmental function when it acts or undertakes to supply water, within or without its corporate limits, to a residential home with an installed fire sprinkler system.[2011 c 331 § 4.]

A Camas resident, who had an RFSS installed 13 years ago, recently commented to me that his system is in the same operating condition it was the day it was installed, and unlike his smoke detectors, he has not had to do any maintenance on it.

Barrier 7: Water Use Efficiency Rule Credit for Use of Larger Meters

It is recommended that the state Department of Health provide an incremental credit to water purveyors for unaccounted for water, due to the inaccuracy of larger water meters at low flow.

- I spoke with Mike Dixel, the Water Resource Lead who manages water efficiency with the Washington State Department of Health, and he stated this barrier has little or no merit. Any leakage from larger meters would be infinitesimally small compared to the city's water usage.

In addition to addressing these "seven barriers" we would also like to respond to what the letter refers to as the "immeasurable impacts on the cost of housing (affordability) and homeownership (attainability)".

Last year in Camas there were 215 single family homes built and of those only one (less than ½ of 1 percent) did not have a sprinkler installed. In fact, at no time in the last five years was this number ever above 5%. The building boom Camas has experienced demonstrates that requiring sprinklers in one and two family homes has had no negative impact on the ability of a homeowner to purchase a home nor has it caused a downturn in home building in the city. Just the opposite is true; homes are being built at a record rate and most homeowners I speak with like the idea of living in a home protected by a life safety fire sprinkler system.

There are other benefits and cost savings that result from installing RFSS such as:

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- When homes are sprinklered, developers may decrease the width of a street leaving less of a carbon footprint.
- Longer dead-end streets are permitted where homes are sprinklered.
- The distance between hydrants may be increased and fewer hydrants can save the developer several thousand dollars.
- Lots previously considered "unbuildable" because of slope, lack of available fireflow, or lack of fire department access become viable for building.
- RFSS homes have proven to reduce injuries to firefighters and this reduction results in savings for the city. (Typically in the Portland-Vancouver area fire engine companies have three to four firefighters at a minimum while the CWFD has two-person staffing on a fire engine).
- Our office surveyed local insurance companies and researched what is happening on a national level and found that having a sprinkler system in the home may save the homeowner anywhere from five to ten percent on their homeowner's insurance premium.

In closing, please consider that RFSS are far and above the most effective fire protection equipment that can be installed in a home. They save lives. And contrary to what was stated in the representative's letter, they can be installed at a reasonable and cost-effective price.

Please take the time and watch this video from the Fresno Fire Department. The presenter is Chief Randy Bruegman who was my fire chief when I worked in Oregon and is a strong advocate for residential fire sprinklers. While light in delivery, it drives home the value of residential sprinklers and their role in protecting your home and family 24 hours a day 7 days a week.

<http://www.bing.com/videos/search?q=fresno+fire+department+you+tube+fire+sprinklers&&view=detail&mid=7FC114E57A47CAF66EAC7FC114E57A47CAF66EAC&rvsmid=FB8FA572A208AA7CE6A2FB8FA572A208AA7CE6A2&FORM=VDQVAP&fsscr=0>

Please don't hesitate to contact our office should you have any questions.

Sincerely,

Ron Schumacher
Fire Marshal
Camas – Washougal Fire Department