

Windham Residential Sprinkler Discussion

May 2018

Sprinkler References in Town Ordinances

- “ Fire Prevention and Life Safety Code - Chapter 95
 - . Section 95.4 Fire Suppression
 - “ Covers commercial uses only

- “ Land Use Ordinance - Chapter 140
 - . Section 550d8f Performance Standards, dead end streets
 - . Section 911b Sufficient Water
 - . Section 911m Traffic Conditions and Streets

Model Building Codes

- “ State adopted building code (MUBEC) is the International Building Code and the International Residential Building Code. Both of these codes as written require all single family and two family homes to be sprinkled. The State removed these sections when they adopted these codes.
- “ The State has also adopted the NFPA 101 Life Safety Code, which as written requires all single family and two family homes to be sprinkled. Again when the State adopted this code they removed this section.

Current Conditions

- “ 2 Cisterns
 - . Thornbury Way
 - . Balsam Lane
- “ 9 Dry Hydrants
 - . Anderson Rd at SDIX
 - . Brand Rd @ Belanger Ave
 - . Harding Drive@ # 25
 - . Highland Cliff Rd @ #26
 - . Highland Cliff Rd @ #166
 - . Lady Slipper Way @ #10
 - . Land of Nod Rd @ Morgan Ln
 - . Laskey Rd – *Privately Owned*
 - . Strawberry Ln
- “ 66 Residential Sprinklers Systems

Cisterns

- “ Cisterns are most commonly 10,000 gallon buried concrete tanks.
- “ Approximate tank cost \$20,000 (roughly \$2 a gallon) without excavation
- “ Require annual testing
- “ Easement for maintenance and use
- “ Any repairs are a confined space
- “ Could consume buildable land within the subdivision
- “ Provides a finite source of water for the general area

Dry Hydrants

- “ Piping installed into a static water supply; brook, river, pond or lake.
- “ Provides a water source to the general area
- “ Maintenance Required:
 - . Plowing
 - . Back flushing
 - . Dredging
 - . Annual testing.
- “ Average cost to build new is between \$30,000-40,000 to NFPA 1142 specifications.
- “ Under NFPA 1 Uniform Fire Code, Fire ponds need to be installed, tested and approved before actual building occurs.
- “ Once installed it requires the town to maintain
- “ Could consume buildable land within the subdivision
- “ Long term, soils may not support the pond and could be subject to drought

Residential Sprinklers

- “ Pump and 300 gallon tank located in the basement of each residence.
- “ Installed to NFPA Standard or State approved Life Safety System
- “ Living spaces protected by sprinkler heads
 - . Garages, attics, closets and bathrooms not required to have sprinkler heads
- “ Average Cost is \$2.10 per square foot
- “ Activation at the time of the fire once temperature is reached.(155°-165°F)

Residential Sprinkler Data

- “ Average Damage:
 - “ \$2,166 in sprinkled building
 - “ \$45,019 in non-sprinkled building
- “ Fires in sprinkled dwellings used an average of 341 gallons of water, fires in non-sprinkled dwellings used an average of 2,935 gallons of water.
- “ 90% of fires controlled by a SINGLE sprinkler head.

*<https://homefiresprinkler.org/fire-department-15-year-data>

Water Main Extension

“ Average cost to install new water main \$200/ft which includes:

- . Main
- . Fittings
- . Hydrants

*Based on most recent River Road project prices.

Fire Department Response

“ Equipment

- . 4 front line engines with 1,000 gallons each
(One is Gorham's)
- . 2 Ladders
 - “ 1 with 300 Gallons
 - “ 1 with 500 Gallons
- . 1 Tanker with 2800 gallons

“ In areas without public water we automatically request the two closest tank truck from neighboring towns.

“ Average response 7.49 minutes (from dispatch to arrival)