



# New London Fire Department Fire Prevention Division

The New London Fire Marshal's Office is dedicated to providing the citizens of New London with a professional service through efficient code enforcement, fire investigation and public education. The goal of this division is to minimize loss of life and property through effective life safety code inspections and fire investigations. The Fire Marshal's Office has an open door policy and encourages open communication and feedback from the members of the community.

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January 2, 2020

Annual Report 2019

Background Photo – Konomoc Ladder at a fire on Willetts Avenue

# New London Fire Department Fire Prevention Division

## 2019 Annual Report

### **Fire Prevention Division (overview)**

The Fire Prevention Division investigates fire causes and supervises the department's building inspection and fire safety program in accordance with the requirements of Connecticut General Statutes. In this assignment, the Fire Marshal integrates the division efforts with those of the Housing Code Enforcement team and various other federal, state, and local agencies. Among the other assignments is the issuance of various licenses and permits, plan review for new construction or building renovations and hazardous materials inspections such as gasoline stations and fireworks / pyrotechnic displays. This office will witness the operational acceptance testing of life safety systems to ensure proper operation during an emergency. The Fire Prevention Division is staffed by the Fire Marshal, two Fire Inspectors (one currently vacant) and a Secretary (currently vacant), for a total of four (4) employees (currently 2).

### **Fire Safety Code Inspections**

This office is required by state statute to inspect all buildings within the jurisdictional boundaries of New London based on the inspection schedule outlined in Connecticut General Statutes 29-291 and 29-292. To accomplish this division uses the Connecticut State Fire Safety Code, Connecticut State Fire Prevention Code among several other documents. The division personnel are certified / trained by the State of Connecticut. This training mirrors the professional requirements set forth in NFPA 1031. Certified staff are required to attend continuing education in order to maintain state certification. Below are some examples of what the Fire Prevention Division has brought into compliance during 2019.



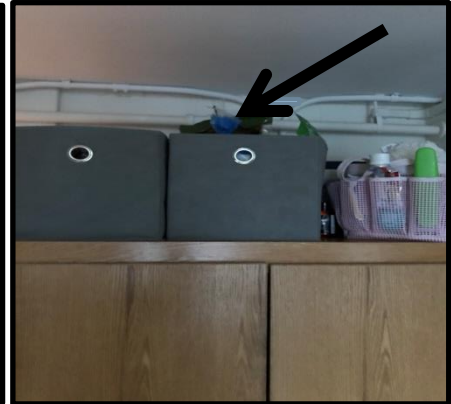




Illegal basement apartment



Blocked Fire Exit



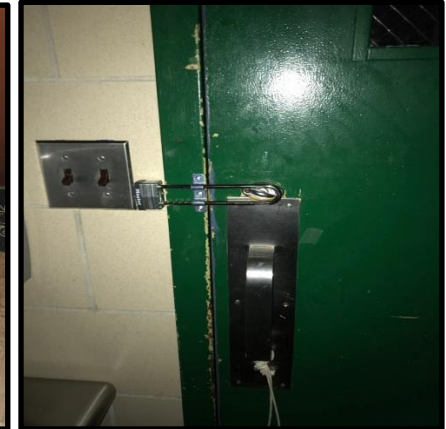
Blocked Sprinkler Head



Illegal Squatting Garage



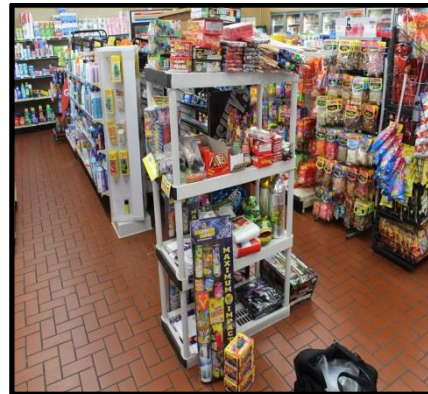
Theft of Electricity



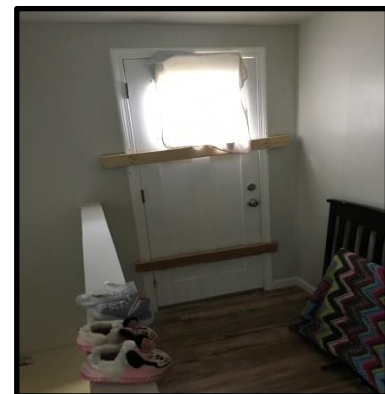
Non-compliant locking



Tampered Smoke Alarms



Selling Illegal Fireworks

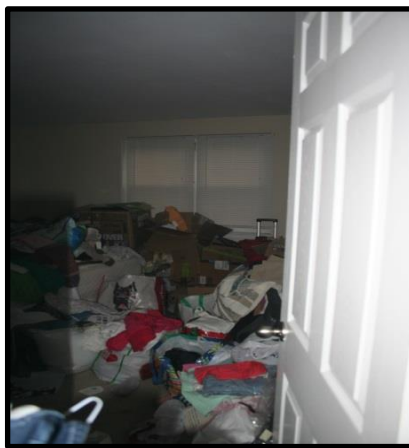


Blocked Exiting

Hoarding is a behavioral pattern characterized by excessive acquisition of and an inability or unwillingness to discard large quantities of objects that cover the living areas of the home and cause significant distress or impairment.

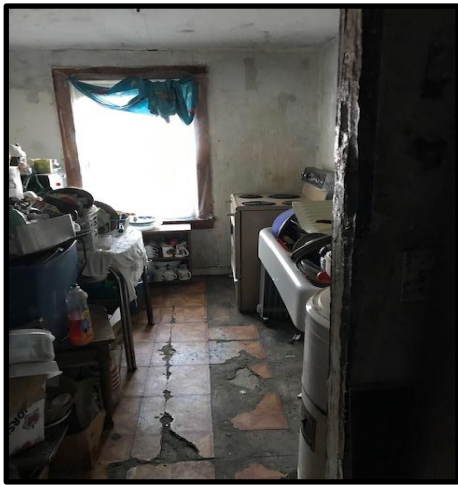
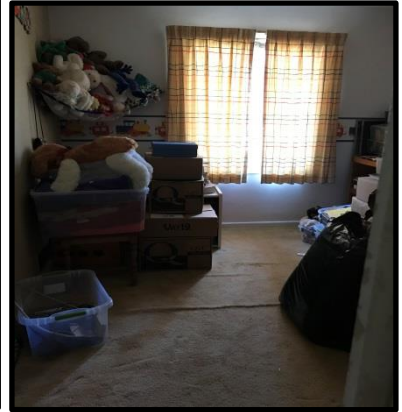
Hoarding can create an unsafe and unhealthy living condition that can lead to health issues, physical injury, fire and other life threatening conditions. Over the last several years the Fire Marshal's Office has seen an increase in complaints regarding this condition. The State of Connecticut through the Connecticut Hoarding Working Group has established best practices to handle this concern. This past year the New London Fire Marshal's Office has handled several hoarding complaints and has brought each one into compliance. This can only be accomplished through the assistance of our Human Services partners (Jeanne Milstein and Keishla Moto-Santos). Below are photos of some of the success stories:

**Before**



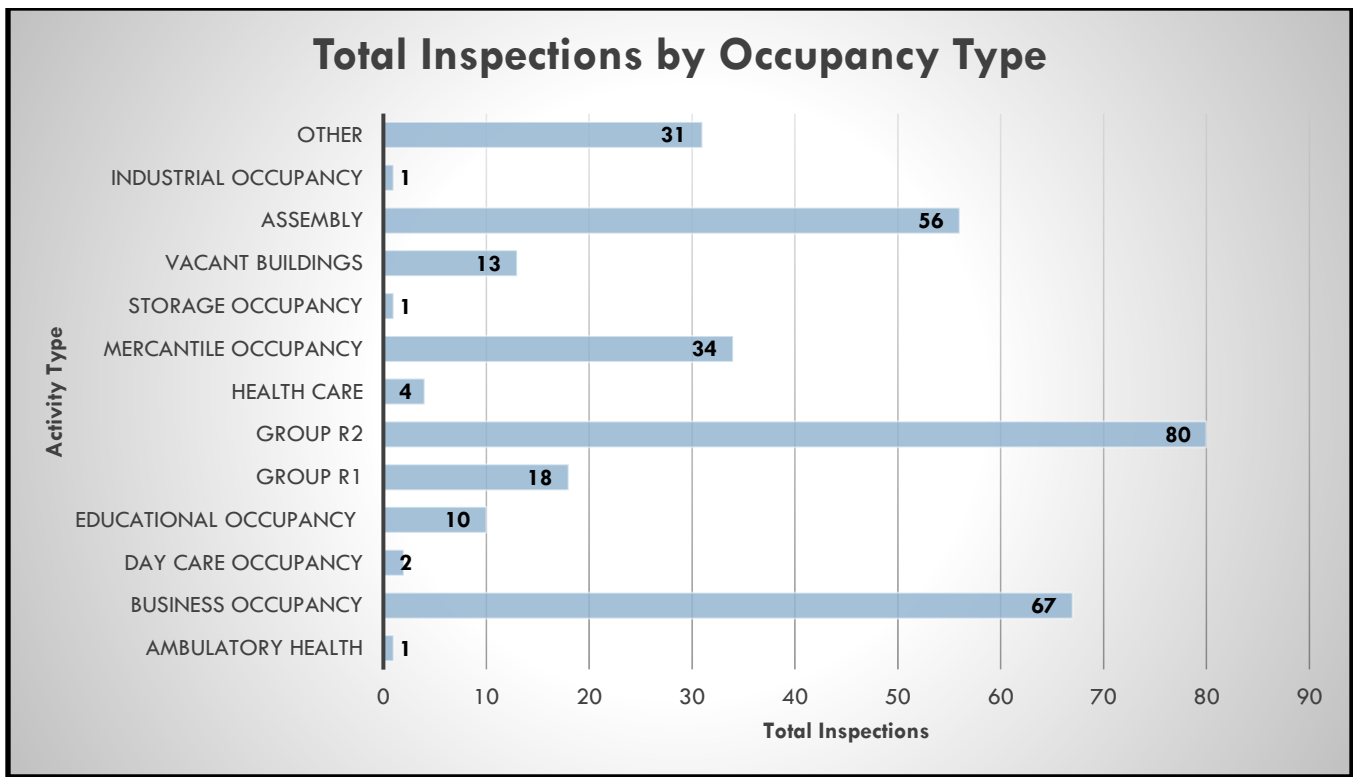


**After**



**Hoarding can create unsafe  
and unhealthy living  
conditions**

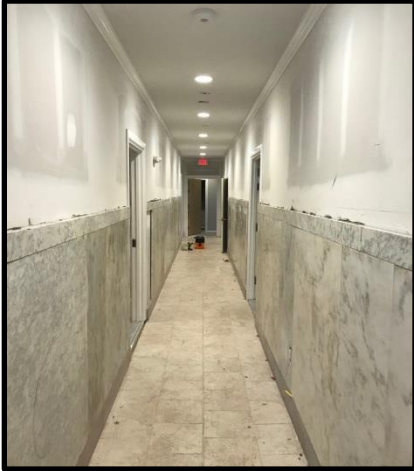




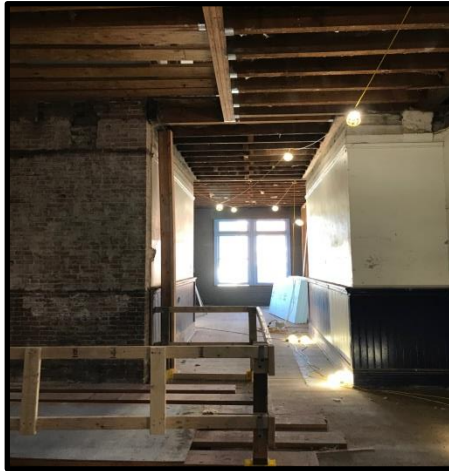
### **New Construction / Renovation Plan review / Inspections / Complaints**

The Fire Prevention Division conducts plan review of new construction or renovation of buildings that fall within our jurisdictional authority. This division will ensure that the submitted construction documents conform to the appropriate codes. We work very closely with the building department and often partner with them to conduct joint site inspections to ensure compliance and to provide better service to our common customers. These plan reviews range from very simple construction projects to the more complex construction of multi-story buildings. As the construction progresses Inspectors will make many site inspections to ensure compliance with the codes. On the larger scale projects daily inspections may be required to meet the inspection requirements. Below are some examples of the types of inspections conducted by this division during the past year.

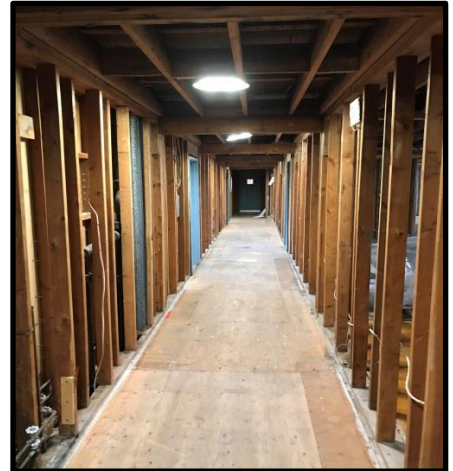




53 Bank Street



16 Huntington Street



70 Farmington Avenue



389 N Frontage Road



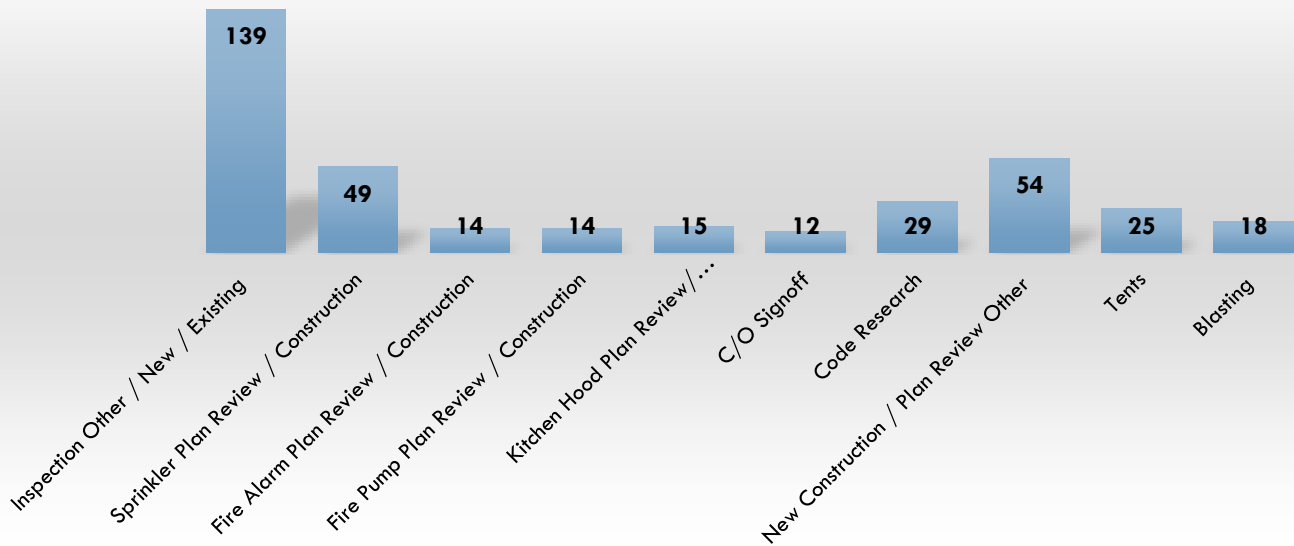
391 N Frontage Road



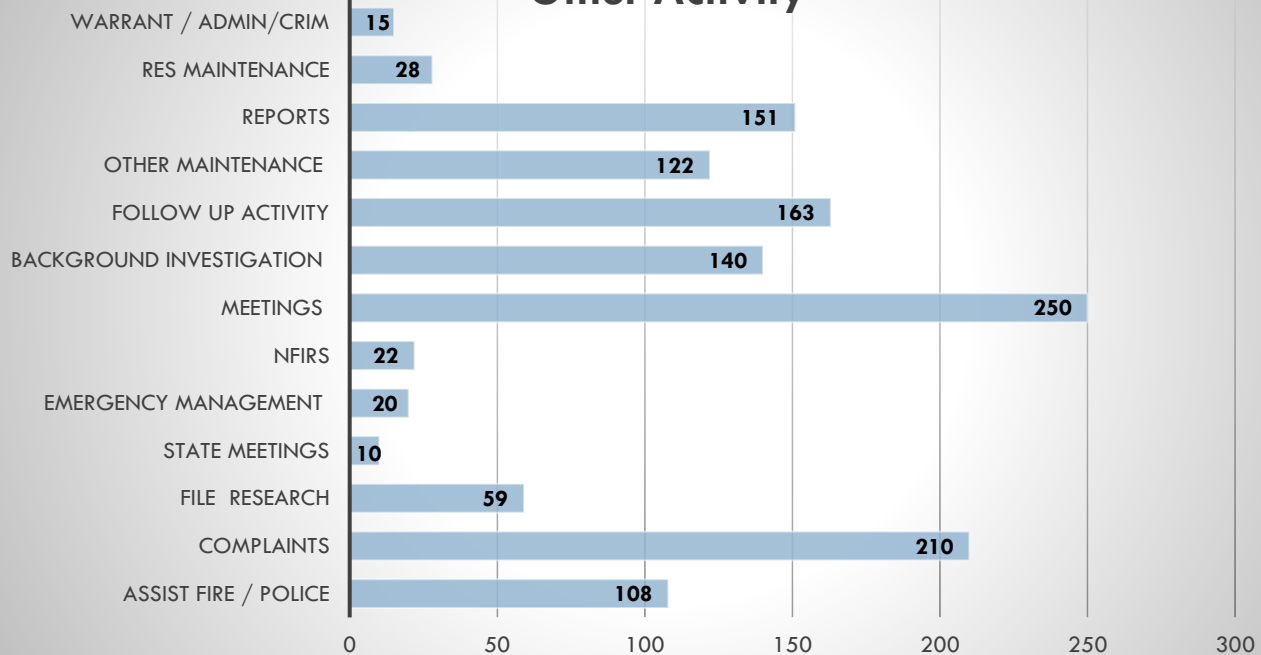
500 Bank Street



## New Construction Inspections by Type



## Other Activity



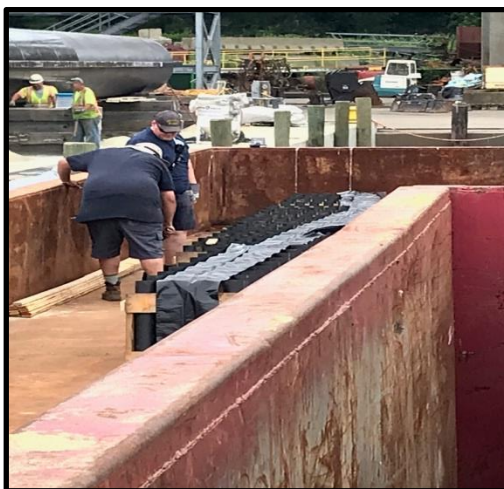


## **Hazardous Materials Inspections**

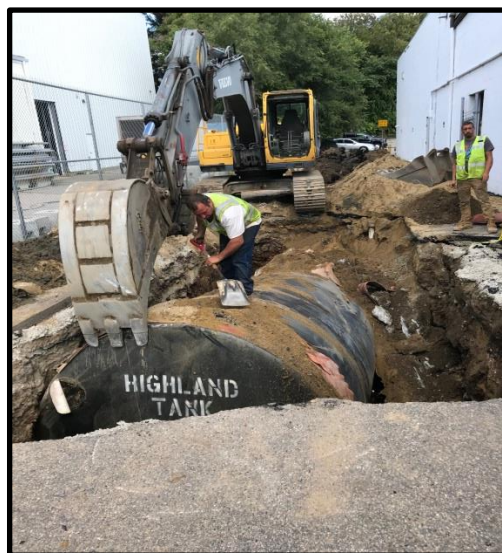
The Fire Prevention Division approves permits and conducts inspections for use of explosives, fireworks displays and pyrotechnic displays in accordance with state statutes and regulations. Hazardous materials inspections such as service stations are also inspected according to the state and local regulations. In total this office has accomplished 64 activities associated with this category.



Fireworks Inspections / Sailfest



Fireworks Inspection / Sailfest



Underground Storage Tank Removal



Underground Storage Tank Removal



## Fire Investigations

As required by Connecticut General Statutes 29-302 the members of the Fire Prevention Division conduct origin and cause fire investigations within the jurisdictional boundaries of the City of New London. The reasons fires are investigated are as follows: 1. to bring to justice those that may have committed the crime of arson 2. to determine types of public education that may be necessary to prevent future fires from occurring. 3. uncovering problems in consumer products that may lead to product recalls. This year the fire prevention conducted 150 fire investigation activities. The success of this division is as a result of the partnership with the New London Police Department and the Connecticut State Police Fire and Explosive unit. Below are a few examples of some of the investigations from 2019:



70 Farmington Avenue



95 Trumbull Street



464 Montauk Avenue



139 Nautilus Drive



15 Clover Court



127 Colman Street





## **The Fire Investigation Process**

Usually before the fire is even extinguished the media is looking to the fire investigators for the cause of the fire, and at this point the fire investigation is just beginning. In most cases the determination of the fire cause is uncovered within a few days of the fire. Larger scale fires such as the fire that we are using as one of our examples in this report can take months of research and laboratory testing to make an accurate determination. In some instances despite the effort and research from the fire investigators some fires after investigation are undetermined in their cause. Our fire investigators follow a systematic approach as outlined in the National Fire Protection Association (NFPA) NFPA 921 A Guide for Fire and Explosion Investigations. This narrative in no way explains all of the requirements set forth in this document but is designed to give you the basic understanding of the physical work that is involved in a fire investigation. It has been said that fire investigators have some similarities to archeologists in that fire investigators are required to dig out fire scenes layer by layer eventually removing fire related debris until reaching the bottom. This is a slow process as the investigator has to take care not to disturb evidence while removing the excess debris. Below are photos to show you the process:



Kitchen Before (Note the pile of debris on the floor)



Kitchen After (layer by layer the fire debris is removed)



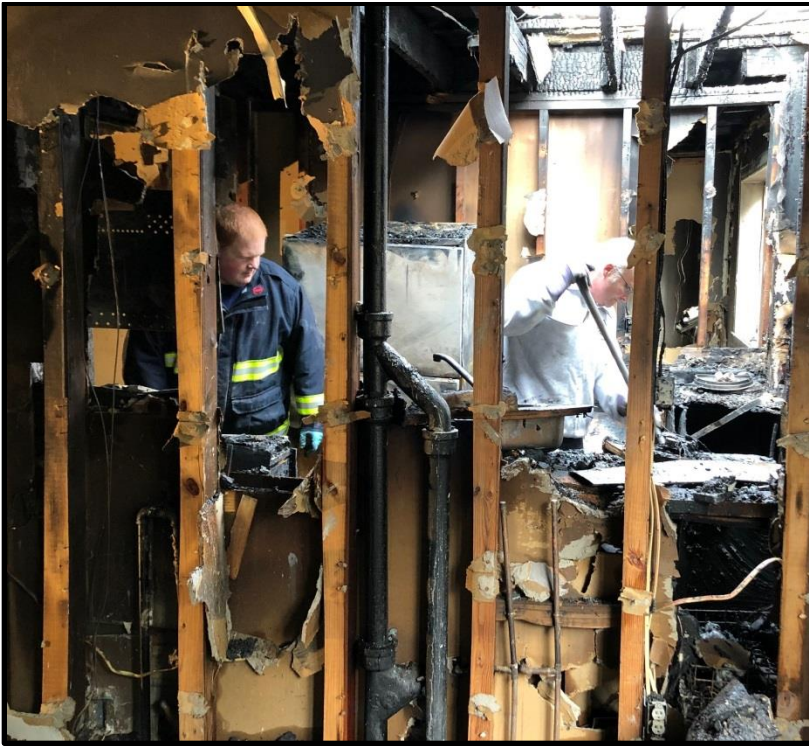


Photo Left:

Fire Inspector Heiney and Fire Marshal Skau digging layer by layer until they removed all of the fire debris that fell down as the fire was occurring.

The picture was taken from the living room through the kitchen wall (removed by the firefighters to extinguish the fire).

Photo Right:

The pile of fire debris is shoveled from the kitchen area and placed into piles located near where they were originally removed from. It is hard to see but there are 3 separate piles next to the kitchen. Each pile is sifted and examined in more detail to uncover smaller pieces of evidence. Each pile is located in such a fashion so that it corresponds to its original location





## Fire Investigation Process continued



Bedroom Before

This is an example of what a bedroom can look like before the fire investigators begin the delayering process. In this case you can see layers of the lathe that fell onto the floor from the walls and ceiling. The plaster creates a mud like substance that also needs to be removed

Bedroom After

All of the fire debris has been removed and you can clearly see the mattress and mattress frame. The remains of end table is located in the bottom right of the photo. This fire was contained essentially to a single bedroom but the investigators spent a great deal of time processing this fire scene.



## **Public Education**

The goal of Fire Prevention is to educate the public on fire prevention principles so as to prevent fires from occurring and how to properly respond should they be involved in a fire. The Fire Prevention Division has presented 36 sessions during the last year in schools, neighborhood groups, and other community programs. The sessions that this division presents are in addition to the many public education activities that are conducted by the on duty fire companies. Those numbers are not encumbered in this report. Below are some photos from some of the public education events from 2019.



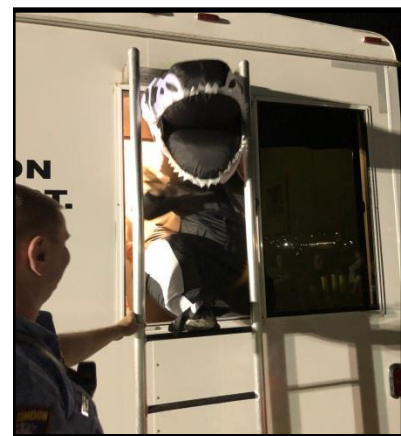
**Left - Texas Roadhouse "Andy the Armadillo" puts out a stove fire in our fire prevention trailer! This was part of a back to school party.**



**Right – Fire Marshal Skau and Fire Inspector Heiney are with children from the Salvation Army**



**Left – Firefighter Markeno Grant provided fire prevention education to children who came to our trailer at "Trunk or Treat".**



**Right –The dinosaur did fit through the window to escape !**

**Fire: Its Cure Is Costly, Its Prevention Cheap!**





## **Code Pal Toolkit**

The Fire Prevention Division received a Fire Prevention and Safety Grant in 2010 for the purchase of this software. For the last nine years this software has been the data base for all fire prevention data. It allows the division to conduct field inspections and enter (or view) the data / issue reports / research code / research property information in the field. Mid 2018 the Building Department came online with the same program. 2019 was the first complete year of the integration of the departments. This allows electronic interdepartmental permit review and sign off eliminating interdepartmental snail mail sign offs. In 2019 we have finalized the integration of code pal to the fire apparatus. It is hopeful that early 2020 this will be accomplished. The firefighters will have viewable access to the data base that will allow specific property searches. This will allow the responding firefighters to view the information collected in the database such as previous Fire Marshal activity, building permit / inspection information, and property owner information. The Fire Prevention Division is currently working on bringing our permit process online. This will allow most Fire Prevention Division permits to be completed and approved on line eliminating the need for most of our customers to physically stop into the Fire Marshal's office. This software has been extremely valuable to the day to day operation of this office.

## **Inspection Training**

As required in CGS 29-298 the Fire Inspector and Fire Marshal are required to be certified by the State of Connecticut. In order to maintain certification the Fire Inspector and Fire Marshal are required to attend ninety hours (each) of continuing education during a three year cycle in order to maintain their



certification. Additional training is required for emergency management, EMT and other locally required training. The division has 62 training activities for the year.

### **2018 / 2019 Activity comparison**

Comparing the data collected from the past year you will find negligible increase in activity overall (increase of 41 activities or .24%). Some noteworthy statistics are an increase of 6% in “New Construction” activities. The primary driver to this increase is the increased new construction ongoing throughout the City. “Other Activity” has increased by 40 % with meetings (mostly related to New Construction or potential projects) and complaints being the two largest increases in that category. A decrease in “Inspections by Occupancy Type” saw a 11% decrease. The primary factor to this decrease is the increase in other activities. “Fire Investigation” activities have also increased by 16%.

### **Summary**

The intent of this report is to show a snap shot of the amount of and diversity of the work accomplished by the Fire Prevention Division. For brevity, I have not included all of the data (activity) that is collected in the Code Pal system. This data is on file within the Fire Prevention Division. In total the Fire Marshal and the Fire Inspector average 9.69 activities each day combined. It is hard to place a quantifiable time frame for each activity because actual activity time can vary from one half hour in duration up to and including an entire day. Despite the amount activity as described above this office falls short of completing the inspections as mandated in Connecticut General Statutes 29-305. Statistically, more fires occur in homes than any other occupancy types. That statistic holds true for New London where most fire loss occurs within the residential housing stock (to include the last 11 fatal fires). These buildings continue to be our largest risk. While inspections of these properties are a



priority this office falls short of the annual inspection requirement. According to the data collected this office inspects approximately 26 percent of what CGS 29-305 actually requires. Without additional staffing this office cannot achieve the mandates required within CGS 29-305. Despite this, the Fire Prevention Division is proud of the quality of the service that the division is able to provide to the residents of the City of New London.

It is the primary mission of the New London Fire Department to provide a range of programs and services, designed to protect the lives and property of all the inhabitants and visitors in the City of New London from the adverse effects of fires, sudden medical emergencies, exposure to hazardous materials or exposure to any other dangerous conditions, either natural or man made

New London Fire Department Mission Statement

