



Investigation Report

Case

Case Details

2021-0007	Casagrande, Charles	Closed	2021-2678
Case Number	Lead Investigator	Status	Name
	Accidental		Smoking
Confidentiality	Disposition		Fire Cause
03/15/2021	01:40		
Start Date	Start Time	End Date	End Time
Primary Fire Department	Secondary Fire Department	Law Enforcement	

Case Narrative

Case Background

BLOOMINGTON FIRE DEPARTMENT
310 N. Lee
Bloomington IL 61701
REPORT OF INVESTIGATION

Date of fire: March 14, 2021
Date of Investigation: March 14, 2021
Address: ██████ Reeveston Bloomington IL 61701
Incident number: 21 - 2678
Investigation number: 21 -0007

Synopsis of investigation:

Based on my examination of the fire scene which included careful burn pattern analysis, information provided by the witness and information provided by the fire department. It is my opinion that the area of origin is located along the exterior, western wall of the patio, at ground level of apartment ██████. The movement and intensity burn patterns indicate the outward spread of fire from the exterior wall, up the vinyl siding, to the decking of the apartment above. It then from there into the vented soffit and into the common attic space. The first materials ignited is the contents located within the planter's box consisting of cigarette butts and various other ordinary combustibles material. The ignition source of the fire is that of disposed of smoking materials. Therefore, the fire is classified as "Accidental"

Methodology:

The fire scene examination was conducted using a scientific methodology*, the basic method of fire investigation and a systematic approach* as discussed in the 2021 edition of NFPA 921; "Guide for Fire and Explosion Investigations" and 2014 edition of NFPA 1033; "Standard for Professional Qualifications for Fire Investigators".

Background:

On March 14, 2021 the Bloomington Fire department was called to this location for a report of an apartment on fire. First arriving unit on scene was Police Officer Rueb (Employee number 11750) who reports the first-floor apartment fully involved. Body camera footage reveals the front porch of apartment ██████ is fully involved with extension to the second-floor balcony and eventually into the soffit of the building. Video also reveals that the sliding glass door to apartment number is still intact. This is apparent through the observation of the decorative gridding found within the pains of the sliding glass door.

Engine 1 (E1) and Truck 1 (T1) crew arrive on scene first and report a working apartment fire. A 2 ½ inch hand line is pulled and much of the initial fire is extinguished.

T1 crew was assigned to the second floor above the apartment of origin to check for extension. T1 crew reports once they made entry to the second floor, it was clear of smoke, heat, or fire. FF Owens and FF Wilkinson both report that when they got to the second floor, they did not have their SCBA regulator on and were pulling ceiling to check for fire extension within the attic space. After several inspection holes were created, fire was observed within the attic space.

Additional fire apparatus was requested and several hand lines were pulled into the building for additional fire control. After several minutes of attempted fire control, the fire began to self-ventilate through the roof at the peaks of the

apartment complex beginning within the center of the complex, then migrating along the south and west. It was at that point that command made the determination to go defensive and pull firefighters out of the building. During defensive operations a portion of the attic and second floor had collapsed into the first floor along the eastern section of the apartment complex.

For further information regarding the actions of the other units on scene, refer to the attached fire report.

I was contacted to conduct an origin and cause investigation at this location. I responded to the headquarters fire station with my personal vehicle and then responded to the fire scene within the investigation vehicle. I made contact with incident command and informed them of my location. Initial interviews of the fire crews were conducted while on scene.

Interviews:

On March 14, 2021 I was able to speak with the tenants of apartment number [REDACTED] (phone [REDACTED] DOB: [REDACTED] and [REDACTED] (phone # [REDACTED] DOB: [REDACTED] who stated the following.

- They stated that they moved to Bloomington from Washington State in August
 - They stated that they moved because they lost their job due to COVID and wanted a change a scenery.
 - [REDACTED] stated that about thirty minutes prior to the fire he had left to go to Taco-bell for a "door dash" order.
 - [REDACTED] stated that she had smelled what she thought was the furnace kicking on.
 - [REDACTED] stated that as she was walking to the restroom, she looked out the sliding glass door and noticed a fire.
 - [REDACTED] stated that she saw the fire along the western exterior wall on the patio at ground level.
 - [REDACTED] stated that the fire was a little above waist high (4 feet) and about 3 feet in width.
 - [REDACTED] stated that she ran to the kitchen to fill up a pot with water and ran outside.
 - [REDACTED] stated that she ran out the front door with the water and attempted to dump the water on the fire.
 - [REDACTED] stated that she was unable to due to the heat and smoke, so she tossed it around the corner of the wall on fire.
 - [REDACTED] stated that she ran away from the fire with the pot and tossed it next to an orange car.
 - [REDACTED] stated that she then called 911.
 - Both stated that they are smokers, usually only smoking 1 – 2 cigarettes a day.
 - Both stated that they have smoked that morning, [REDACTED] coming back from breakfast while in her car.
 - Both stated that they do smoke on the front patio and dispose of their cigarette within a planters box which is located along the western wall of the patio.
 - Both stated that the only other items located on the patio was the planters boxes, two lawn chairs, a cat crate, and some blankets to cover the cat crate.
 - [REDACTED] states that there are no outlets along the western exterior wall.
 - [REDACTED] stated that there are no candles, space heaters, grills, or other heat producing devices located on the patio.
 - Both stated that there are no painting products, rags containing cleaning products or paint products of any kind on the patio.
 - Both deny smoking on the patio the day of the fire.
- In a follow up interview conducted with both [REDACTED] at separate times, both state the following.
- [REDACTED] stated that he had left about a half an hour prior to go to taco bell
 - [REDACTED] stated that he had smoked that day, about 1 to 2 cigarettes and that it was at night
 - [REDACTED] stated that there may have been some Christmas lights plugged into the outlet along the southern porch wall.
 - [REDACTED] stated that if there were, they were probably used about a week prior to the fire. Not since then.
 - [REDACTED] stated that he does not use a stain or anything that would spontaneously ignite when painting his models.
 - Both stated that they removed the smoke detectors due to them going off while cooking.

Fire scene examination:

The scene examination was conducted from exterior to interior, beginning along the southern side of the complex while firefighting operations were still in effect. The building is a 20-unit apartment complex located within the Traditions apartment complex. The apartment complex is approximately 205 feet in length by 67 feet in width, two story wood frame construction with asphalt shingles on the roof. No sprinkler system is found within the building. There are smoke detectors found throughout the complex and are found to be in working condition. There are fire stops located within the attic space of the complex. The fire stops run from north to south and are located in-between each section of apartments. There are no fire stops separating the north from south apartments.

Exterior:

The exterior of the apartment was documented beginning on the south side of the building during firefighting operations. During documentation, I observed that the fire has self-vented through the roof from the center all the way to the east side of the complex. The exterior wall along the eastern end of the south side of the building shows signs of building collapse at this time. Truck 2 is located on the south side of the building with active defensive firefighting operations in progress.

(South side of complex)

Eastern most exterior wall has shown signs of building collapse at this time. Thorough documentation of the east side of the building is not conducted at this time due to safety concerns and firefighting operations.

The North side of the building is documented next during firefighting operations. I was able to observe that the fire had self-vented through the roof from the center of the complex, all the way to the east. The exterior wall along the eastern end of the northern side of the building shows signs of building collapse at this time. I was able to observe through the windows of the first and second floor that portions of the roof and the second floor had collapsed into the first floor.

At the location of apartment [REDACTED] I was able to observe movement and intensity patterns beginning on the exterior of the complex at the first floor patio moving upward and outward to the ventilated soffit and to the roof. It was noted that there are no other movement and intensity patterns located along the exterior of the apartment complex. Further documentation of this area is conducted after firefighting operations are discontinued and the scene is deemed safe for further evaluation.

(North side of complex, apt [REDACTED])

The utilities are located along the west side of the apartment complex. All utilities are secured. Upon further evaluation of the electrical service there is no evidence of smoke or heat damage to or from the electrical service. The service to the building appears to be in normal working order. The fire did not originate from this location.

(Ariel photo provided by PIO)

Once the fire was under control I was able to conduct further examination of the area around apartment [REDACTED]. Beginning from the exterior to the interior I documented the area. By utilizing the movement and intensity patterns located within the patio of apartment [REDACTED] as well as the undamaged portion of the adjacent living room from the smoke or heat of the fire, it is determined that the area of origin is to the exterior patio of apartment [REDACTED]. Further review of the body camera footage from Police Officer Rueb confirms this. Movement and Intensity patterns located within the patio indicate an upward and outward spread of fire from the western most wall of the patio along the vinyl siding,

to the underside of the patio to the apartment above,

across to the support column and into the vented soffit leading to the attic space.

Through systematic removal of fire debris collected within the patio on the first floor, along the west wall I was able to locate the remains of a cat crate with a colorful blanket that covered it, two wooden "planter's boxes" stacked on top of each other, as well as a plant pot.

(planter box on patio on west wall)

(Planter box's stacked)

Upon further evaluation of the fire debris I was able to locate the remains of multiple cigarette butts as well as multiple empty cigarette packages (Marlboro Menthol Smooth 100's)

(BFD Photo 108, 120, 123 – 127) within the area of the cigarette butts as well as within the "planter's boxes". Within this same area is an aerosol can, contents are unknown. Movement and Intensity patterns along the uppermost planter's box indicates damage from the inside out and from the top down.

Along the upper portion of the south wall, within the area of the southwest corner is a patio light. Upon further evaluation, the insulation surrounding the wiring within the wall is found to be intact with minimal damage to it.

Movement and intensity patterns suggest that this is a result of the fire, not the cause of the fire.

Along the south wall of the patio, to the left of the sliding glass door, there is an outlet with an item plugged within. Movement and intensity patterns found within the area and video provided by BPD indicate that this is a result of the fire, not the cause of the fire.

Interior:

The interior of apartment [REDACTED] has appeared to suffer mostly water damage from firefighting activities, with some smoke and heat damage within the area of the front door as well as the sliding glass door, thus once again indicating an exterior not interior fire. Upon further examination of the interior of the apartment, it is noted that there are two cigarette boxes, one empty and one partially full located on the counter separating the living area from the kitchen. The cigarette boxes are of the same make and model as the ones found within the fire debris.

It is also noted that throughout the entire apartment there is the location for three smoke detectors, however no smoke detector is found within those locations or throughout the remainder of the apartment. In a follow up interview with [REDACTED] both indicate that the smoke detectors go off every time they cook, so they took them down. Both could not remember the exact location of the smoke detectors.

The water heater and furnace are located in a utility closet off of the kitchen. Both are found to be in working order. The electrical breaker panel is located within the utility room and is found to have breaker #15 in the Tripped position. Breaker # 15 is registered as the "bedroom". The apartment is found to contain a normal amount of contents one would expect to find within a livable space.

Apartment [REDACTED] was found to be directly above [REDACTED]. Movement and intensity patterns found within, as well as the building materials from the roof that had collapsed into the apartment indicate a fire that had begun from the outside and transitioned to the interior of the attic space. The fire did not originate from the apartment [REDACTED].

Weather:

Weather at the time of the incident cloudy / windy conditions with a direction of travel from the ENE at 25mph with gusts upwards of 31mph and a pressure of 29.31in and a Humidity level of 62%.

Items Retained:

There were no items retained.

Conclusion:

Based upon my examination of the fire scene, including careful burn pattern analysis, Information provided by the police department, information provided by the witness and information provided by the fire department. It is my opinion the area of origin for this fire is located on the exterior patio of apartment [REDACTED] along the west wall. The first material ignited were the miscellaneous combustibles and paper products found within the area of the planter's boxes.

All potential ignition sources have been considered and evaluated as a possible cause of the fire including the patio light found within the southwest corner of the patio and the outlet to the left of the sliding glass door along the south wall. All possible ignition timing sequence theories and fire spread scenarios have been considered and evaluate. The weather conditions at the time of the fire indicates no thunderstorms or lightning in the area in the hours prior to the fire, however wind direction and speed did play a significant role into the growth and progression of the fire.

Therefore, after my examination of the fire scene, evaluating all available information provided to me using the levels of scientific certainty, as discussed in the 2021 edition of NFPA 921; "Guide for Fire and Explosion Investigations" and the 2014 edition of NFPA 1033; "Standard for Professional Qualifications for Fire Investigators", it is my opinion, the ignition source for this fire is the improperly disposed of cigarettes.

Using the elements of fire caused, the cause of this fire is classified as "Accidental".

The Bloomington Fire Department reserves the right to issue a supplemental report of any new or additional information that may become available at a later date.

Respectfully submitted,
Investigator Casagrande CFI, CFEI
Bloomington Fire Department

Technical Review by
Investigator Langellier CFI, CFEI
Bloomington Fire Department

References:

NFPA 921 "Guide for Fire and Explosion Investigation" 2021 edition

NFPA 1033 "Standard for Professional Qualifications for Fire Investigator" 2014 edition

Case Synopsis

Investigation Comments

Fire

Ignition Sequence

Smoking	Courtyard, patio, terrace		
Fire Cause	Area of Origin	Equipment Power Source	Equipment Portability
Area of Origin Comments			
Heat Source		Material Ignited	
Equipment Involved In Ignition	Equipment Make	Equipment Model	Equipment Serial Number

Fire and Smoke Spread Information

Fire Spread Material	Fire Spread Avenue
Smoke Spread Material	Smoke Spread Avenue
Fire Comments	

Weather

Visibility	Relative Humidity (%)	Wind Speed (Mph)	Wind Direction
Temperature (Fahrenheit)	Precipitation	Lightning	Information Obtained From Weather
Weather Comments			

Property Summary (1 of 1)

Property

Name

█████ Reeveston _____

Address

Apt/Suite/Room

Bloomington | MCLEAN | _____ | 61701

City

County

State

Postal Code

Pre Fire Value

Content Loss Value

Structure Loss Value

Property Description

Structure

Multifamily dwelling | _____

Property Use

Structure Occupancy

Alarm Type

Smoke Detector Present

Smoke Detector Performance

Sprinkler Standpipes

Sprinkler Standpipes Performance

Interior Exam

Exterior Exam

Property Details (1 of 1)

Property

Name

● Reeveston _____

Address

Apt/Suite/Room

Bloomington _____ MCLEAN _____ 61701 _____

City

County

State

Postal Code

Pre Fire Value

Content Loss Value

Structure Loss Value

Property Description

Area

Area Type

Area Description

Area Quality

Structure

Multifamily dwelling _____

Property Use

Structure Occupancy

Alarm Type

Smoke Detector Present

Smoke Detector Performance

Sprinkler Standpipes

Sprinkler Standpipes Performance

Structure Length (Ft)

Structure Height (Ft)

Structure Width (Ft)

Number Of Stories

Number Of Units

Wood Frame _____

Construction Type

Structure Type

Structure Material

Foundation

Exterior Covering

Roof Type

Roof Material

Interior Exam

Exterior Exam

Alarm and Security Services

_____	_____	_____	_____
Sprinkler Standpipes	Smoke Detectors Present	Smoke Detector Locations	Fire Suppression
_____	_____	_____	_____
Doors	Windows	Other Entrances	

Alarm Protection/Security Comments			

Utilities

_____	_____	
Electrical Status	Electrical Entrance	
_____	_____	
Fuel Status	Fuel Type	Fuel Company
_____	_____	
Water Status	Water Company	

Telephone Status		

Utility Comments		

Property Supplemental Questions (1 of 1)

Agencies

Agencies

Primary Fire Department	Secondary Fire Department
Private Investigator	Law Enforcement
Electric Company	Gas Company
Agency Comments	

Additional Information

Media Coverage

No Media Coverages tied to this Incident

Property

_____	_____	_____	_____
Mortgage Holder	Lein Holder	Tax Records	Contract Leases
_____	_____		_____
Titles / Registrations	Zoning / Codes	Deeds	

Business/Personal

_____	_____	_____
Accounting	Inventory	Banks/Credit/Unions/Etc
_____	_____	_____
Business Personal Tax	Criminal History	Civil Litigation

Business Comments		

Scene Details

_____	Emergency	
Arrived At Scene	Authority To Enter	
_____	_____	_____
Scene Secured	Securing Agency	Security Manner
Additional Investigators		

Conclusion

Case Conclusion

Signature

Casagrande, Charles

Lead Investigator

Signature

Date Submitted

Document Attachment List