

CONTENTS

LETTER FROM THE CHIEF	2
INTRODUCTION.....	4
OVERVIEW OF HAMILTON FIRE DEPARTMENT.....	5
BUILDING DESCRIPTION.....	8
WEATHER CONDITIONS	12
INCIDENT NARRATIVE	13
CONTRIBUTING FACTORS; FINDINGS AND RECOMMENDATIONS.....	23
ADDITIONAL FINDINGS	31
STAFFING.....	39
LETTER FROM THE COMMITTEE	40
APPENDIX A Hamilton Fire Department Company Tactics and Operations.....	41
APPENDIX B Butler County Sheriff’s Office BRICS Radio System Data Analysis	63

LETTER FROM THE CHIEF

February 28, 2019

With the line of duty death of Firefighter Patrick Wolterman on December 28, 2015 our members, our department, and our community experienced the pain and grief that most departments and communities will never know. Our loss is secondary only to that of the Wolterman family. Other departments and other families have experienced losses. Each of those is as important and personal to them as Patrick is to us.

In the wake of that tragedy our members examined the causes and circumstances of that fire and worked with NIOSH to provide information which was published on July 14, 2017. NIOSH report # 2015-19 reports the facts and circumstances as gathered by NIOSH investigators. This report has been undertaken internally, considering the factors identified by NIOSH and applying them to our local practices.

At the time of the fatality, Hamilton had begun a focused development program for officers and firefighters. Including the recommendations from NIOSH and building a system of officer development, our department has evaluated how to apply those recommendations and improve our department. We are committed to learning from the circumstances of that night and remembering those lessons which were learned. They came at a high price, one which we are determined to never pay again.

In compiling this report and analyzing the information presented, great care was taken to assure we were looking at circumstances and fact finding. While there are points on which there was disagreement, the findings and contributing factors are based on facts. Many “what if” scenarios were posed, but the facts remain. Every contributing factor is viewed from the perspective of an opportunity for improvement in our department policies, training, and development. Those improvements, where possible, have been implemented and are ongoing. Where we have not found the means or opportunity for improvement, the discussion and search for improvement continues.

My tenure as fire chief for the city of Hamilton began with the retirement of Chief Dawson. One duty which was not completed at that time was this report. As I endorse this report, my hope is that the fire service reader will look at his or her department in light of these factors and decide if there is room for improvement. I urge you to make that improvement. For the civilian reader, I hope that your understanding of the circumstances involving structural firefighting is increased. The work is not simple, the dangers are not always apparent, and the men and women who chose to put themselves at risk do so in service of their communities.

Mark F. Mercer, Chief
Hamilton Fire Department

On December 28, 2015, Firefighter Patrick Wolterman tragically lost his life in the line of duty as a result of a fire that was intentionally set. The Wolterman family and the Hamilton Fire Department suffered an unimaginable loss on that day. This report is dedicated to Patrick Wolterman. We honor Patrick's courage and selfless dedication to duty by acknowledging the lessons learned from this incident and to continue implementing the recommendations of this report.

What should not be lost in the conversation is the courage those fire crews displayed on that terrible night. They were faced with a dire, urgent situation with multiple reports of an elderly couple still inside. They were focused on our highest calling of saving a life and are to be commended for their bravery. The purpose of this report is not to judge or second guess the actions of those fire crews. Our purpose is to have an understanding of this fire so that we can better prepare ourselves for similar incidents in the future and hopefully prevent another tragedy.

I would like to take this opportunity to thank the members of this Department. We have a long and proud history of serving the citizens of Hamilton. Even in the aftermath of this horrible event, you displayed resolve in supporting each other and remained steadfast in meeting our mission of service to our citizens. This devotion to each other and your dedication to duty will assist in our continued recovery from this devastating loss.

The Hamilton Fire Department would like to say thank you to all the citizens of Hamilton and the surrounding communities for their overwhelming outpouring of support following the tragedy. We are grateful for all of the public safety agencies throughout the region that came to our aid immediately following the incident. We also recognize and thank the Hamilton Police Department and the Butler County Prosecutor and his team for the countless hours of investigation, arrest, and successful conviction of the two men responsible for this arson fire and the murder of Firefighter Wolterman.

We cannot even begin to comprehend the grief experienced by the family of Patrick. Yet despite their broken hearts, the strength and dignity displayed by the Wolterman family throughout this long ordeal was an inspiration. As we remember Patrick as a courageous Firefighter and friend, we are also reminded that he was a loved husband, son, and brother of the Wolterman family.

Steven A. Dawson, Chief

Hamilton Fire Department, Retired

INTRODUCTION

On December 28, 2015, the Hamilton Fire Department experienced a loss of one of its members while battling a structure fire at 1310 Pater Avenue. This was a loss the department had not experienced in the last 40 years. An investigation into the incident began immediately at the scene.

After the funeral services were conducted, a committee was formed to examine all the facts of the matter. The committee met many times analyzing the data and forming opinions. Some were agreed upon, others were not. The committee was selected to have a wide variety of experience and positions. While this committee had some passionate discussions, every committee member's input was valued.

The main objective of this committee and this report was to examine the events and the facts of the incident and to make recommendations to improve safety and reduce risk. The result of hours of research is presented in this report. The committee has reviewed all aspects of the incident from the initial dispatch to the Post Incident Analysis (PIA) that was conducted following the incident. The committee has examined a wide variety of evidence and documentation, such as the Department's Standard Operating Procedures/Guidelines, photographs, audio recordings, training and education records, written statements from personnel that were on the scene, personal protective equipment, and other investigative reports.

This report contains findings and recommendations along with contributing factors. These have been identified and are intended to be used as an educational tool that may, in the future, serve as measures that may preserve the life and safety of firefighters. All aspects were examined, from the singular actions of firefighters all the way to administrative decisions and practices. Some of the decisions contained in this report may be complex, however, a comprehensive approach towards improving the safety of all members can and will raise the level of service to the citizens of Hamilton.

OVERVIEW OF HAMILTON FIRE DEPARTMENT

The City of Hamilton is located on the Great Miami River between the City of Dayton and the City of Cincinnati. Hamilton is the County Seat for Butler County. Hamilton's occupancies include single family residences, multi-family residences, low rise retail and high rise offices, commercial and industrial facilities. The City of Hamilton is populated with approximately 63,000 residents. It covers just over 22 square miles.

Hamilton Fire Department (HFD) is a fire and emergency medical services (EMS) based system. It provides 24/7 fire and EMS services. HFD is responsible to respond to all incidents regarding fire suppression, medical treatment and transport, hazardous material emergencies, river rescue operations, along with fire prevention and public education. At the time of the incident, it employed 96 career firefighters and EMT/Paramedics. The Fire Chief, two Deputy Chiefs, the Operations Lieutenant, the EMS Coordinator and the Fire Investigator comprise the administrative staff. Three Deputy Chiefs are command positions and line officers consist of seven (7) Captains and ten (10) Lieutenants.

HFD operates on a three shift system (A, B and C) in which members work a 24/48-hour shift rotation. Each shift will work their 24-hour assignment and then be off duty for the next 48 hours. Each shift is commanded by a Deputy Chief. Five (5) fire apparatus are assigned with an Officer (OIC), a Fire Apparatus Operator (FAO) and two (2) Firefighters. Each fire apparatus is assigned with four (4) personnel, but due to vacation and Kelly days, it is staffed at a minimum of three (3) personnel (OIC, FAO and FF1) on most days. Emergency medical care is provided by three (3) Advanced Life Support (ALS) units staffed by two (2) Paramedics each, with one (1) Supervisor per shift. HFD staffs an additional ALS unit when personnel are available due to a minimum number of people off. The City of Hamilton is divided into five (5) response areas each assigned to an Engine/Quint. The City is also divided into three (3) response areas for EMS each assigned to a Medic unit.

HFD recently made the decision to use two Engine Companies as back-up Medic Units. E21 and E26 are now being utilized as medic units when the three front line Medic Units are on runs. The assigned personnel leave the Engine at the station and all assigned members then take the Medic Unit housed at that station and make the dispatched EMS call.

HFD recently began utilizing E22 and T22 in a cross staffed manner that require members to go from one unit to the other unit depending on the nature of the dispatch. T22 is staffed by personnel at Station 22 for any structure fire, auto accident with entrapment or any other emergency the Officer assigned deems necessary. E22 is staffed by the same personnel at Station 22 for all EMS related calls and any detail that they may need to respond which takes

them out of quarters. While E22 is out of Station 22, it will respond to any emergency to which it is dispatched regardless of the nature of the call; if a structure fire is dispatched, T22 would remain unmanned at Station 22. Along with fire and EMS response, the members assigned to Station 22 have the duty of staffing the River Rescue Unit housed at Station 22. If a river incident is dispatched, members assigned to E22 will respond with the River Rescue apparatus and one fire apparatus to the incident.

HFD is a part of the Butler County Hazardous Material Cooperative. Whenever a Hazardous Material incident is reported in Butler County and a response team is needed, the members assigned to Station 25 will respond. Members of Q25 will respond with HazMat 25 along with M25 which leaves Q25 unavailable to respond to other runs.

HFD staffing for a shift consists of the following:

Location:	Apparatus:	Assigned:	Minimum Staffed:
Station 21 - 220 North Brookwood	Engine 21/Medic 21	4	3
Station 22 - 77 Pershing Ave	Engine/Tower 22	5	3
	Medic 22	2	2
	Battalion 20	1	1
	River Rescue 20	0	
	Medic 28	0	
Station 24 - 605 Main St	Engine 24	4	3
	Medic 24	2	2
Station 25 - 335 North Erie	Quint 25	4	3
	Medic 25	2	2
	HazMat 25	0	
Station 26 - 651 Laurel Ave	Engine 26/Medic 26	4	3

In 2013, due to fire division reorganization, Fire Station 27 located at 1224 Shuler Avenue was closed. The closure of this station changed the first due engine from Engine 27 to Quint 25. The driving distance from the fire station to the scene of the fire increased from 0.5 miles to 1.4 miles, and the distance to the second due engine was 2.1 miles.

HFD is rated as a Class 2 fire department by Insurance Services Office Inc. (ISO). This is known as the Public Protection Classification program which assesses the fire protection systems in a community. They assign a classification from 1-10, Class 1 being the best. HFD's last rating was completed in 2013.

BUILDING DESCRIPTION

The structure at 1310 Pater Avenue is a single family residence that sits back just a few feet off the street. It is two stories in height with an unfinished cellar that is only accessible from the exterior. It is of Type V construction (wood frame). The structure measures approximately 18' wide by 46' deep with a front porch on the first floor level, a rear patio to the first floor level and a rear deck to the second floor level. The main entrance is on the A side of the structure toward the B side of the house. There is a rear entrance located on the C side located on the back patio that leads to the kitchen on the first floor. Entrance to the unfinished cellar level is through the two hatch doors located on the C side of the structure. There were two exterior exposures located on the B and D sides, both are single family residences. There is a detached garage on the property located at the B/C corner exterior to the house.

In this report, the identification of the locations will be addressed in different sectors that are identified as follows:

- **A side**
 - This is the side of the structure that faces the street and is identified as the address side



- **B side**

- Moving in a clockwise direction, the side of the structure adjacent to the A side is the B side



- **C side**

- Continuing in a clockwise direction, the next adjacent side is the C side, also known as the rear of the structure

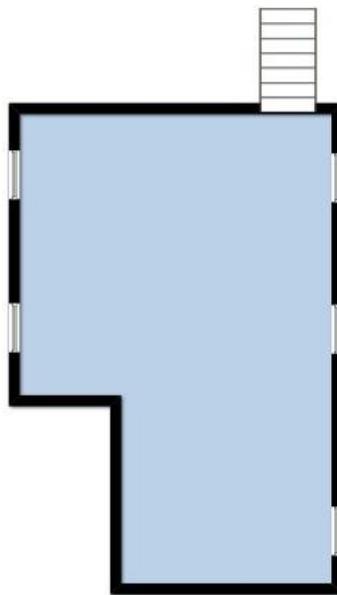


- **D side**

- Still moving in a clockwise direction, the side next to the C side is the D side



Layouts of the first and second floors and the basement level:



Basement Level



First Floor



Second Floor

WEATHER CONDITIONS

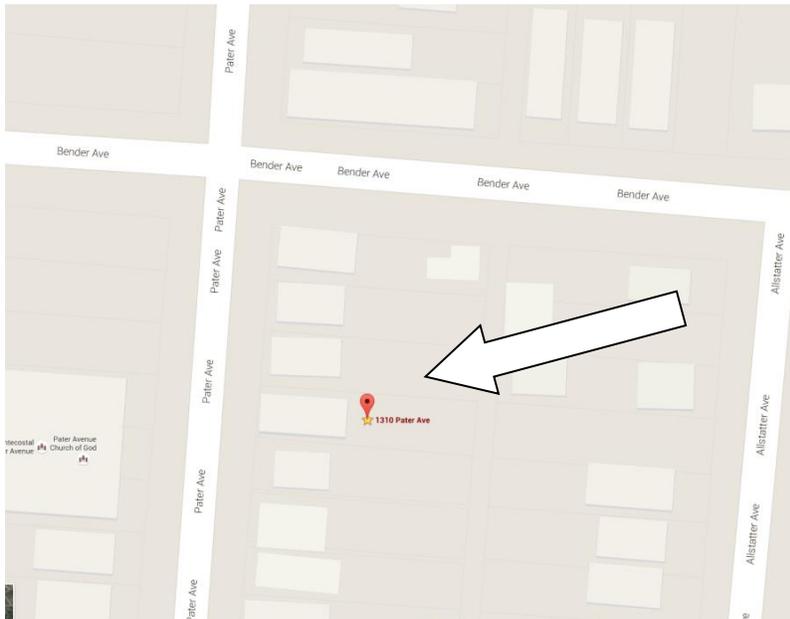
The weather conditions at the time of the incident were:

Temperature 39.9 degrees F with a wind-chill of 32.9 degrees F

Wind direction was from the East/Northeast with a wind speed of 11.5 MPH with wind gusts up to 30 MPH (this is from the C side of the structure)

This data is from the time between 12:53 am and 1:53 am from the weather website “WEATHER HISTORY FOR KHAO.”

WIND DIRECTION:



INCIDENT NARRATIVE

On December 28, 2015, at **01:03:25** AM, the Butler County Communications Center (9COM) received a call from ADT Security advising of a residential burglar alarm at 1310 Pater Ave., showing dining room motion detector, front door, and two rear doors. 9COM dispatched the Hamilton Police Department (HPD) on Channel 9 Tango (9T) to 1310 Pater Ave. at **01:05:38** for a residential alarm showing dining room motion, front door and rear door #2. Slightly more than a minute later, at **01:06:56**, 9COM advised HPD that an additional officer should respond, as “the owner has made comments that they’d better send several units if anybody comes to his home.” At **01:10** 9COM received a cell phone call advising of a fire on “Pater Road” near Grand. The call reception was very broken, and no further information was able to be obtained. At **01:11:04**, HPD Officer 118 arrived on scene and stated that there was possibly a house fire, and at **01:11:53** he radioed that there was heavy smoke coming from 1310 Pater Ave. Officer 118 followed this with two reports that he asked 9COM to relay to the fire department that there is hydrant on the corner of Bender and Pater (at **01:12:12**) and that “there’s an old man and an old woman that live in there” (**01:12:29**).

At **01:12:16**, 9COM began dispatching Hamilton Fire Department (HFD) units Engine 21 (E21), Engine 24 (E24), Engine 26 (E26), Medic 22 (M22), Medic 25 (M25), Quint 25 (Q25), Tower 22 (T22), and Battalion 20 (B20) over the fire station house speakers as well as on Channel 9 Bravo (9B) to 1310 Pater Ave. for “a structure fire, unknown on occupants, possible elderly occupants”. Due to the nature of the HFD radio system, only the initial dispatch information is heard over the house speakers; any subsequent information is only broadcast over 9B and heard over the truck or portable radios. Each engine/quint responding that night was manned by three personnel: an Officer in Charge (OIC), a Fire Apparatus Operator (FAO), and a Firefighter (FF1). Each responding medic unit was manned by two Firefighter/Paramedics (PM1 and PM2). 9COM assigned radio channel Fireground 5 (FG5) to use for operations.

While HFD units were being dispatched, 9COM asked HPD if they knew if the occupants were out of the house (**01:12:36** 9T), and Officer 143 answered “No, we don’t know” (**01:12:44** 9T).

At **01:13:13** on 9B, B20 advised 9COM using his portable radio that he was responding. 9COM acknowledged this message immediately on 9B, and advised that “officer on scene advising heavy black smoke from the residence”.

During the same period, on 9T, Officer 118 repeated his traffic of heavy smoke (**01:13:30**), and at **01:13:48** he radioed 9COM stating that a female bystander has advised that the residents live upstairs. Officer 150 also advised 9COM that they were not opening any doors (**01:13:59** 9T).

After receiving this information from HPD, 9COM advised B20 on 9B that if the house is occupied, “the male and female live on the second story” (01:14:03). B20 then acknowledged this message using his portable radio (01:14:13 9B).

Also at this time, on 9T at 01:14:09, Officer 182 transmitted to 9COM that there was “heavy smoke coming from the cellar. There is an open cellar door in the back”.

Beginning at 01:14:36 on 9B, additional HFD units advised they were responding, starting with Q25 using their truck radio, followed by E26 using their truck radio (01:14:45), M25 using their truck radio (01:14:53), and E24 also using their truck radio (01:15:01). At 01:15:13, 9COM stated on 9B “Units responding, there’s smoke coming from the back cellar door in the rear”. No responding units acknowledged receipt of it. This was followed by T22 responding on 9B using the OIC portable radio (01:15:27), E21 responding using their truck radio (01:15:32), and M22 responding using their truck radio (01:16:17).

After all units had gone responding, B20 told E21 on 9B that they would be RAT21. E21 acknowledged the assignment at 01:17:08.

At 01:17:24, Q25 OIC advised on 9B that they were on the scene of a “two story wood frame” structure with “heavy smoke showing from two, three sides of the building. We’re going to do a 360. E26 please make our water supply or assist here on the corner.” Q25 OIC ordered Q25 FF1 to bring the thermal imaging camera (TIC) and forcible entry tools off the truck, and to stretch the 1 ¾” crosslay hoseline with the Task Force nozzle to the front porch. As Q25 OIC exited the apparatus, he was approached by an HPD officer who advised him that the neighbors stated that the residents could still be inside. Q25 FAO and FF1 stretched all five sections of the assigned preconnected hose, and Q25 FAO began stretching the supply hose to the hydrant. During this time, Q25 OIC called B20 on FG5 using his portable radio and asked if there was confirmation of people being out of the structure (01:18:12). B20 answered that there was no confirmation, and there may be people inside (01:18:23). As Q25 OIC began his size-up, he noted significant wind speed and no smoke from the rear (C side) of the building.



1310 Pater Avenue Side A

At **01:18:16**, M25 arrived on scene, and assisted Q25 FAO with securing the water supply at the hydrant. Upon being given the proper signal, M25 personnel opened the hydrant and walked to the scene.

As the above operations were occurring, E26 arrived on scene, and E26 OIC and E26 FF1 began to do a size-up by walking past the A side of the building and proceeding down the B side to the C side. E26 crew found the cellar doors on the C side, noting that one was in the fully open position. They then proceeded to open the other.



Cellar Doors Side C

B20 arrived on the scene at **01:20:12**, and immediately asked 9COM on 9B to send out a page for a safety officer. 9COM acknowledged this request. B20 began walking to the address,

bringing the accountability board with him, and noted heavy smoke from the A side and the A-B corner, with no noticeable smoke from the rear.

E24 arrived on scene at **01:20:21**, followed by M22 at **01:20:33**. M22 personnel were assigned to be the initial accountability officers.

At **01:21:40**, Q25 OIC called B20 on FG5 and advised that they had their two out (referring to the “two in-two out” principle of having adequate personnel on scene prior to entering a hazardous environment). He visually noted no active fire seen through the front windows, and stated that they were going to make entry on the A side of the structure. B20 also noted that he could see no visible flames at this point. Both the attack hoseline and the back up hoseline were charged, and Q25 forced entry through the locked front door using the halligan tool. Upon opening the door, Q25 OIC encountered significant black smoke from the ceiling down to about a foot off the floor, which he described as not hot and not pushing. Q25 FF1 took the nozzle and entered the structure through the front door, followed immediately by Q25 OIC.



Door entered by Q25 Side A

T22 arrived on scene at **01:22:12**. As the T22 officer approached the scene, he too noted strong winds and heavy smoke but no visible flames.

B20 called 9COM on 9B at **01:22:34** and requested a mutual aid engine from Fairfield Township, and E212 was then dispatched at **01:23:23**.

E21 radioed that they were on scene at **01:22:45**.

At **01:23:04**, B20 called Q25 on FG5 and asked for a status update. Q25 did not immediately respond. After Q25 made entry into the structure, other crews on scene noticed changes in fire

conditions. E24 OIC described the smoke as transitioning to deep brown/black under pressure, and heard Q25 OIC yelling to Q25 FF1 to open the nozzle. B20 stated that within a very short time after Q25 made entry, flames began shooting out through the front door and under the porch roof. B20 called Q25 on FG5 at **01:23:12** and gave the order "Let's back out, back out, back out!" E24 OIC was located outside near the front porch, and heard Q25 OIC calling for Q25 FF1, and at **01:23:27** E24 OIC called a Mayday on FG5, stating that there's a "guy that's still inside". B20 immediately acknowledged the Mayday, and E24 OIC followed this with another transmission on FG5 that "we have a firefighter inside, and it's flashed". T22 FAO, who was also near the porch, picked up the backup line and began directing a straight stream into the front door.



Two 1 ¾" hose lines advanced to the front door

At **01:24:04**, B20 called 9COM on 9B and requested another mutual aid engine company. Chief 211 from Fairfield Township went responding at **01:24:37**, and asked 9COM on 9B if there was a Mayday. 9COM stated "negative, no Mayday, just verifying how many engines B20 wanted". Chief 211 answered "you're clear, I thought they had a Mayday on the fireground". E212 from Fairfield Township went responding at **01:25:34**.

On FG5, at **01:25:05**, B20 asked for an update from E24. E24 OIC answered that they were going to make entry through the front door to try to find the missing firefighter. E24 OIC and E24 FF1 followed the original attack line through the front door until E24 OIC's hands fell into a hole in the floor. He found the hoseline burned and still flowing water, and he attempted to whip it around the hole in order to extinguish the fire. E24 FAO, who was just approaching the scene, assisted in deploying a 2 ½" hoseline to the B side, then proceeded to the C side with Q25 OIC. T22 FF1 broke out the cellar window on the B side near the A-B corner, and T22 FAO

broke out the other B side cellar window. As E21 FAO approached the scene from the B side, he noted fire coming out of the B side cellar windows, and at **01:25:36** he radioed command on FG5, advising heavy fire in the basement. This was immediately acknowledged by B20.



Side B basement windows

Per B20's request, E211 from Fairfield Township was dispatched at **01:26:15**. E212 arrived on scene at **01:26:42** and requested an assignment. B20 advised them to come to the command post. They would later take a 1 ¾" line to the rear of the structure.

B20 asked E24 for another update at **01:27:03** on FG5, and E24 OIC responded that they needed another hoseline at the front door.

At **01:27:31**, M22 called 9COM on 9B and asked them to dispatch M24 to the scene. M24 was then dispatched at **01:27:46**.

E24 OIC, still inside the structure near the hole in the floor, radioed B20 on FG5 at **01:28:18** and stated that he could hear a PASS alarm sounding in the basement. E21 crew, now operating the 2 ½" hoseline at the B side cellar window, also heard the PASS alarm in the cellar. Upon hearing this, E21 FAO and E21 FF1 left E21 OIC on the hoseline and went to the C side to assist the crews there.



Hole in the floor just to the right of the entry door

Chief 211 arrived on scene at **01:28:28**.

B20 requested an update from E26 at **01:29:03** on FG5, and the E26 OIC responded by stating that E26 was at the front door assisting E24. This was followed by a request for an update from E21, and the E21 OIC advised he was on a 2 ½" hoseline on the B side.



First Floor showing location of the hole

T22 OIC and T22 FF1 made entry into the cellar using the exterior cellar doors on the C side, and radioed on FG5 at **01:30:08** that they were in the basement and could hear the PASS alarm. T22 personnel noted that the fire was mostly in the B side floor joists, and they encountered very low visibility and accumulated water covering the floor. E24 FAO and Q25 OIC also made entry into the cellar, as well as E21 FAO and E21 FF1.

M24 advised that they were responding at **01:30:14**.

At **01:30:52**, B20 requested on 9B that 9COM have Chief 20 respond to the scene.

Chief 211 called B20 on 9B at **01:32:34** and asked him to have a medical helicopter placed on standby.

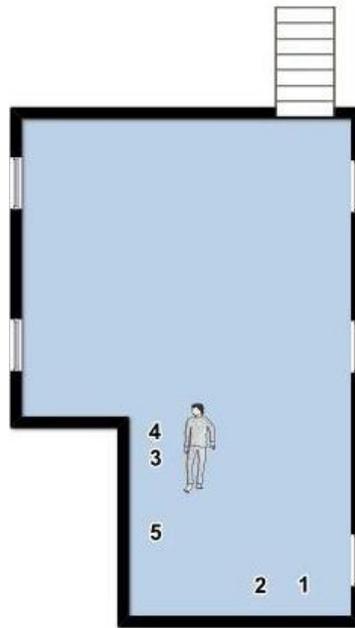
B20 called for an update on FG5 at **01:32:51**, and T22 OIC responded at **01:33:04** that they had located the downed firefighter. The crews in the cellar then began the process of extricating Q25 FF1 from the cellar using the Stokes basket.



Location in the basement where Q25 FF1 was located



Debris in the basement containing Q25 FF1's boot



Basement with Q25 FF1 location found

#1 Boot #2 Helmet #3 Face piece #4 Hood #5 Glove

At **01:33:22**, E24 OIC's SCBA air cylinder began to get low on air, and he radioed on FG5 that E24 was exiting the building. After E24 exited, E26 OIC and E26 FF1 proceeded to the front door and pulled back the original attack hoseline, which was still spraying water. They removed the hose from the building and placed the nozzle on the front porch near the A-D corner.



Q25 attack line with hole burned through the hose

M24 arrived on scene at **01:35:04**.

B20 radioed 9COM on 9B at **01:35:19** and requested to have AirCare respond to the Butler County Airport. He then asked on FG5 for all companies to give a Personnel Accountability Report (PAR). M25 responded at **01:36:49** on FG5 that they had PAR. This was followed by another transmission from M25 on FG5, at **01:36:55**, that Q25 FF1 was out of the building and they were taking him to the medic unit. Q25 FF1 was found to be pulseless and apneic, and resuscitation efforts were conducted by personnel; on the scene according to protocol.

While Q25 FF1 was being attended to, B20 again requested PAR on FG5, at **01:37:11**. E212 responded with PAR, followed by confirmations from E24, T22, E21, and E26.

At **01:44:35**, M24 radioed 9COM on 9B and stated that they were transporting Q25 FF1 to Ft. Hamilton and to have AirCare respond there.

Chief 211 asked 9COM for an engine company from Liberty Township to respond to the scene at **01:43:08**.

Operations continued on the scene in a defensive strategy until the fire was determined to be extinguished.

Subsequent cause and origin investigation by Fire Marshall 20 from HFD and by investigators from the State Fire Marshall's Office found the cause of the fire to be arson.

CONTRIBUTING FACTORS; FINDINGS AND RECOMMENDATIONS

The incident that occurred on December 28, 2015 at 1310 Pater Avenue occurred due to a sequence of events, none more or less important than the other. Contributing factors are the situations that occur in a linear sequence that, when all happen in a confined timeframe, lead from a certain event to another certain event. The purpose of this section is to offer a view on certain details and suggest modifications for future responses.

1) Contributing Factor: Arson

Finding: The investigation into the fire was conducted by HFD, the Ohio Fire Marshall's office, the Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF) and the Hamilton Police Department. After the investigation of the fire scene was complete, the fire was ruled to be arson.

The fire was shown to be intentionally set using gasoline in the basement of the house. The use of gasoline caused the fire to burn intensely and caused the fire to spread rapidly. The floor above the fire was weakened due to the intense fire and was not able to support the weight of fire fighters. The time of day contributed to a delayed discovery of the fire and delayed fire department response.

The location of the fire was in the basement, which was hidden from normal view allowing the fire to grow undetected. The time the fire was started and its location in the house was intended to cause a delayed response. The length of time that the fire burned before notification was made to the fire department was crucial in compromising the strength and stability of the structure for safe fire department operations, especially fire suppression and search for occupants.

The majority of structure fires to which the HFD responds are in Single Family Dwellings (SFD). The routine fire patterns of a SFD are analyzed and HFD trains on operations for these fires. When arson is the cause for a structure fire, numerous factors that are not anticipated affect fire behavior and structural stability. Those factors include:

- Where the fire was started: Fires intentionally started in hidden and unprotected areas of a structure cause the fire to grow unnoticed and increase involvement of structural members, weakening the structure. Fires set in egress paths trap occupants and increase risk to fire fighters and occupants.

- The use of an accelerant: The rapid spread of fire and intense heat caused by gasoline or other accelerants increases the involvement of the structural members and reduces the time to structural collapse.
- Fuel involved in the fire: Accidental fires in residential occupancies are fueled by the amount and type of household materials normally found in a home. Additional fuel or different types of fuel intended to increase fire load or intensity in an arson fire increase risk to fire fighters and occupants.

Fire patterns and fire intensities are not normal when arson is involved. Some fires burn faster or hotter depending on the situation. This factor must be considered regarding what effects it had on the structure prior to the arrival of Q25.

Recommendation:

The Hamilton Fire Department makes every effort to determine if a fire is intentional or accidental. In every case of intentional fire, an investigation is conducted to determine who set the fire and the circumstances of the fire. All cases of arson are pursued to reduce the instances of intentional fire in the future including criminal prosecution, juvenile fire setter counseling, state custody and supervision of mentally incompetent individuals, and any other available remedy.

To reduce the risk of arson and unintentional fires in the future, the recommendation is to continue these practices and enhance them where possible. This should include prosecution in all known arson cases, public fire and life safety education focused on at-risk parts of the community, and engagement by the fire department at all levels of fire prevention.

2) Contributing Factor: Communications

Finding: At the time of the incident, the standard protocol for dispatching fire units was followed. That included the initial dispatch by 9COM on the station alerting VHF system as well as the 800 MHz system used for mobile and portable communications. After initial dispatch, no communications were done over the VHF system. In the time between the initial dispatch and the fire crews' arrival at their apparatus and turning on mobile and portable radios, any information transmitted on the 800 MHz system was not received in the fire stations. Fire crews acknowledged calls and advised that they were responding from either mobile or portable radios. As apparatus is started, there is a short period during which the mobile radio is not receiving. During this time, if an

officer has acknowledged the call on his portable radio and is donning his fire gear, he or she may miss the additional information.

After 9COM dispatched the run at **01:12:15** over the house speakers on VHF, all communications for the incident, including additional information not provided on the initial dispatch, were provided on the 800 MHz system, which was received only by mobile and portable radios, not station alerting equipment. As units acknowledged the call and notified 9COM that they were responding, 9COM received information from HPD on the scene of smoke coming from cellar doors in the rear of the structure. 9COM repeated this traffic on the 800 MHz system while a few of the dispatched units had not acknowledged they were responding and were not yet monitoring the 800 MHz system. B20 stated as he was walking to his truck in the apparatus room that the ambient noise was sufficient that he could not make out any radio traffic on his portable.

During size-up of the fire ground by subsequently arriving officers, confirmation of fire conditions and fire location were not communicated.

Recommendation: Information that is passed to responding units will help them with their plan of action once arriving at the scene. Information that is of any importance should be passed to all units that are responding. Units that do not receive all the dispatch information can be taking actions that other units may not be anticipating.

HFD has worked with 9COM to find a better communication procedure for additional information. This includes procedures by 9COM to time the additional information so that as many units as possible can hear it and procedures by HFD to assure all units are prepared to receive the information. 9COM now waits until all units dispatched have transmitted that they are responding prior to providing additional information for most calls. For all fire calls, the information is provided after the shift commander, Battalion 20, acknowledges the call. HFD units no longer state they are responding from the station using their portable radios. All units must state they are responding while in their truck, while it is running, from their truck radio. This procedure will enhance the receiving of information by all responding units.

All officers and firefighters who have information about fire location or fire conditions must share that with the incident commander and any fire crews operating in the hazard zone to manage risk while trying to accomplish fire ground objectives.

3) **Contributing Factor:** Size up did not reveal location of the fire

Finding: A complete 360-degree evaluation of the structure was not completed.

The company officer and fire fighter are those at greatest risk during offensive firefighting operations. Members must size up and determine their risk and select the safest approach to achieving their objectives. A 360-degree survey is used in order to determine the safest approach to tactical operations. Each side of the fire ground presents its own conditions and risk that must be assessed. Members must know what is burning, where it is and where it is likely to travel. The value of the visual observation of all four sides cannot be underestimated. Any company officer and fire fighter must avoid the tunnel vision of the task at hand; they must take the extra time needed to size up the total situation. Until the 360-degree survey is complete, the company officer must be cautious in committing fire crews.¹

First arriving crews believed there were people trapped on the second floor because of the dispatch information that was given. As a result, there was a great sense of urgency on the responding units to gain access to the building and search for and rescue those occupants. Upon entry to the first floor, Q25 OIC reported low heat conditions were present.

Recommendations: The performance of the 360-degree survey is critical in establishing the current conditions of the incident. HFD must train all officers in reading the conditions present and risk management associated with those conditions. Training should be conducted at all levels as to how to read the conditions of the incident and how to make the appropriate decisions according to risk/benefit strategies.

The officer must determine what fire attack mode is appropriate (transitional, offensive, and defensive) based on fire conditions and resources on the scene. The officer must also consider if there are any parts of the structure in which occupants may be safe from the fire and could be saved. This survivability profile determines the level of risk that may be taken in order to save savable lives when possible.

All fire officers should be using the same size-up process and communications model on the fire ground. Following the incident, a survey of training needs and a pilot of Blue Card Command for three deputy chief officers identified a better communications

¹ International Association of Fire Chiefs (IAFC On Scene: February 1, 2012)

model. All officers have completed the training and all new officers are enrolled either prior to promotion or at the time of promotion for training. In addition, training opportunities were expanded and in some cases mandated for company officers. Specific fire ground SOPs were written with the focus of specifying size up procedures, use of thermal imaging, and selection of company tactics based on size up. The complement of thermal imaging cameras (TIC) was updated so that each officer arriving on the scene has a TIC and size-up tactics were developed to include their use as part of the scene size up

Fire ground principles were included as part of the policy which included risk management principles for operations, victim survivability profiling, selection of fire attack modes, as well as clarifying roles of units working at fire scenes. Those policies include consideration of modern fire attack principles and their application to the Hamilton Fire Department operations.

These policies were delivered in face-to-face training sessions.

4) Contributing Factor: Openings were made or enlarged prior to extinguishment

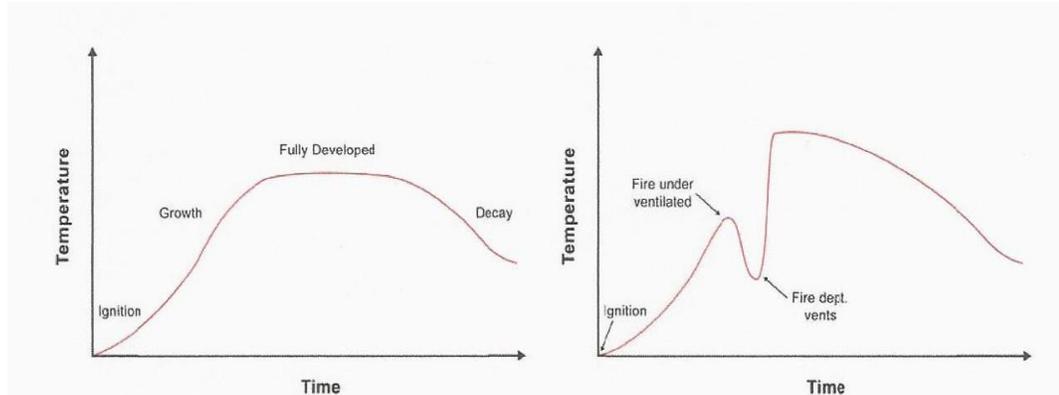
Finding: A second cellar door was opened just before Q25 forced open the front door for entry.

The weather conditions were a factor in the incident that night. The wind was from the ENE with a wind speed of 11.5 MPH and wind gusts up to 30 MPH. The wind speeds at the time served the same as PPV (positive pressure ventilation) that night.

First off, no two fires are the same, and a consistent approach to size up as well as a thorough understanding of fire dynamics, including the impact of wind driven fires and ventilation limited fires, are necessary to reduce the risk to fire fighters on the fire ground.

Fire fighters must think of opening the front door as ventilation as well as forced entry for access. Studies have concluded that the growth of a fire after ventilation is influenced by the path of the outside air travel to provide oxygen to the fire. When ventilation is in proximity to the fire, the initial fire growth is more rapid.

A realistic explanation of the fire environment would be ignition followed by a growth stage, a decay stage, ventilation, a second growth stage, flashover, a fully developed stage and finally a decay stage.



Graph on the left simulates a normal growth fire
Graph on the right simulates a ventilation limited fire

The Pater Avenue fire was a ventilation limited fire. As the fire in the cellar burned intensely and discovery was delayed, the oxygen level was depleted and high heat continued to generate combustible smoke. On opening the front door, the officer reported thick smoke, but not much heat. As Q25 FF1 breached the weak floor, the strong wind was blowing from the rear of the structure through the cellar and out the front door. This provided oxygen to the superheated and fuel rich smoke, creating an intense wind-driven fire.



View of entry door Q25 accessed

Recommendation: The evaluation of fire and smoke conditions is a perishable skill and training must be maintained. HFD must continuously train its officers and acting officers in the skills of incident management and awareness. Extensive scientific research has identified the impact of ventilation on fire conditions, particularly research by NIST and UL focusing on modern fire attack, the basis for the SLICE-RS approach to fire attack operations. This information was introduced to the Hamilton Fire Department in April of 2014. Training must be developed in the changing environments that firefighters will encounter on today's fire ground. Department-wide hands-on training for this has been accomplished, though nearly two years after the Pater Avenue incident and over three years after introduction to the fire department.

The Hamilton Fire Department administration and members must embrace current research and tactics and must develop its personnel with training and education to reduce risk on the fire ground and improve both efficiency and effectiveness. Training opportunities have been increased including those for fire fighters and officers to attend off-site training.

5) **Contributing Factor:** Equipment

Finding: Q25 FF1's radio was found to be in the OFF position and dispatch records show that Q25 FF1 did not turn his personal portable radio to the ON position. BRICS Radio System Data Analysis (Appendix B) shows in the Radio Equipment Affiliations section that no radio signal from 09 QNT 25-B (Q25 FF1) was ever received.

Every truck and squad position has a portable radio that is assigned to it for the shift. Each radio has a six (6) digit identification number that is assigned to that radio. When the microphone is keyed at any time, the identifying number will appear at 9COM. Each portable radio is equipped with an orange Priority button located at the top of each unit. When this button is depressed, the six-digit number will display on all fire consoles, a tone is activated on all fire consoles, and the letters EMER will flash on the talk group the initiating user's portable radio is on. When the Priority button has been activated, that unit's radio has priority over all other communications on the system and will override any active transmissions when the push to talk button (PTT) is activated. According to HFD SOP 1.10 Radio System Procedures (06/2010) 1.10.13 (f), if the user is trapped or needs rescued, user will state "MAYDAY" if possible, and give their location and unit ID.

HFD SOP 2.26 MAYDAY Alert (06/2010) outlines the procedure for a MAYDAY situation. 2.26.3 states a firefighter MUST declare a MAYDAY when confronted with a number of different scenarios including “injured and in need of immediate assistance or unable to reach a safe location under their own power.” 2.26.4 states the procedure for issuing a MAYDAY. It states after the MAYDAY is called that all communications will remain on the fire ground talk group. This procedure is to be utilized first. If this is not possible, then the orange Priority button can be used.

With Q25 FF1’s radio in the OFF position, he was unable to call for help or push the Priority button. With the activation of the Priority button, notification may have been sent to 9COM immediately notifying them of the situation. (It was noted in the summaries 9COM did not know of the MAYDAY at the time) Also, Q25 FF1 was not able to receive any radio traffic or information. Key information was broadcast during dispatch and while units were responding. Once on scene, while performing his tasks given to him by his company officer, Q25 FF1 would not have heard any updates or reports that may have been given by other units on the scene, nor would he be able to hear any orders that may have been issued by the Incident Commander.

Recommendation:

This situation has been addressed with the members of HFD prior to this report. Steps have been taken to update SOP/SOGs to make sure all firefighters are equipped and protected prior to entry into any hazardous environment, including having their portable radio turned to the ON position and on the correct channel.

Following the Pater Avenue incident, all SOPs were reviewed and revised appropriately. While many had been reviewed within the previous year, each was reviewed from the perspective of potential impact at the Pater Avenue incident.

ADDITIONAL FINDINGS

1) Finding: Crew integrity was not maintained on the scene

According to HFD SOG 2.1 Accountability System 2.1.6 (a), it is the responsibility of the firefighter to make sure members are in the areas their supervisor expects them to be, or if they need to engage in some other activity, it is their responsibility to inform their supervisor to gain approval.

Some members made the decision to engage in the rescue attempts of Q25 FF1 with good intention. These decisions may not have had any negative consequences in this situation but accountability must be maintained in even the most stressful situations.

No fire fighter is allowed to be alone or separated from their crew at any time while entering, operating in, or exiting an IDLH atmosphere. HFD should address these issues with members through SOP/SOG evaluation and training stressing the importance of accountability while on emergency scenes.

2) Finding: Accountability System was left unmanned for a period of time.

Fire ground accountability is a system that is used to track the location of fire crews while operating in the hazard zone on emergency scenes. The lack of accountability has contributed to line-of-duty deaths. The accountability system in place with HFD is similar to the system adopted by the Butler County Fire Chief's Association.

Firefighters wear full protective equipment while on the fire scene. While it is necessary for thermal protection, it makes it difficult to distinguish which firefighter is with what crew without proper identification.

HFD SOG 2.1 Accountability System addresses the need for the accountability board to be maintained by the Accountability Officer. It states the officer, above all other responsibilities, must maintain location of crews operating in the hazard area.

The accountability board went unmanned at the scene for an unknown period of time. The Incident Commander (IC) must know the locations of all units at the most critical times. While the accountability board was unmanned, the IC would not have known

where resources were located or where other units may have been if another emergency was declared.

Accountability MUST be addressed at ALL levels. Accountability is everyone's responsibility. Each person involved in an incident must make a strong commitment to follow all policies and procedures regarding accountability.

HFD should review and update, if needed, the SOP/SOG on the accountability system and further train personnel on each position's responsibilities, and the importance of maintaining this position at all times.

- 3) Finding:** At the time of the event, the Hamilton Fire Department SOP/SOG manual had not been updated to reflect the new and revised procedures that have been implemented over the last few years. This is needed to address the changing environment of operations the Department has encountered.

The Hamilton Fire Department made changes to staffing and deployment over the past few years, reducing daily staffing by two fire apparatus and closing one firehouse in the 2013. This meant the response procedures for structure fires needed to be amended and territory assignments needed to be adjusted. The current SOP/SOGs outline procedures for dedicated engine and truck company operations. With E22 and T22 being cross staffed, there is never a definite knowledge of what unit will be responding. This can drastically affect operations at the scene of the emergency. Medic units are expected to perform fire ground duties as fire suppression companies. On this incident, Q25 advised that M25 was on the scene and since they were dressed out, that accomplished the 2 in, 2 out.

Prior to the incident, the SOP/SOG Committee initially met in 2014 and updated some of the SOP/SOGs. The committee met several times during the year of 2015. Since the incident, it has met on a regular basis, quarterly, to continue to update and evaluate the policies and procedures. The SOP/SOG manual was last fully updated in 2010.

Following the Pater Avenue incident, all SOPs were reviewed and revised appropriately. While many had been reviewed within the previous year, each was reviewed from the perspective of potential impact at the Pater Avenue incident. This committee will continue to meet and discuss any changes or revisions that may need to be made to keep the department up to date.

- 4) Finding:** HFD is now being dispatched by the Butler County Communications Center (9COM) for all emergencies. This was done previously by the City of Hamilton Dispatch Center (2COM). The City of Hamilton combined dispatch centers with Butler County in 2014. HFD SOP/SOGs still addressed procedures for the use of 2COM in certain areas of communication. Consequent to the merger with 9COM, certain procedures that were used and/or performed through 2COM are not available anymore. HFD must know all the available resources that 9COM offers along with any resources or procedures that are no longer available to them. Obtaining 9COM's operation and training manuals and training in the procedures that 9COM uses for the variety of emergencies it handles is important for HFD within its realm of emergency services.

Training with 9COM should be conducted on a regular schedule. With the implementation of 9COM as the communication center for HFD, training should be provided so that both entities shall know of the resources and/or procedures both use to provide emergency services.

HFD must continue to evaluate and revise the SOP/SOG manual to reflect the current staffing and operational levels that now exist within the department due to reduction in manpower and response units along with administration realignments. A review and revise process for the SOP/SOG manual must be held on a timelier and consistent schedule, keeping them up to date.

- 5) Finding:** Although HFD has extensive experience in structural firefighting, the need for more training is clearly identified. At the time of the incident HFD had just initiated a structured fire officer development program, but there had been a lag in hands on training in fire behavior, strategies and tactics, proper use of technologies such as thermal imagers, and incident command.

A review of the documented training records for the officers and acting officers on the scene of 1310 Pater Ave from 1-1-12 through 12-28-15 (the date of the incident), an almost four-year period, reveals the members had very little training on strategies and tactics or fire behavior during this time. An analysis of the numbers shows a maximum of two (2) hours a year and a minimum of zero (0) hours a year for strategy and tactics, and a maximum of one (1) hour a year and a minimum of zero (0) hours a year for fire behavior.

The Hamilton Fire Department should implement a comprehensive and cohesive training program with organized instruction and hands on evolutions. This program should include all areas of fire operations. At the time of the incident, the Deputy Chief of Training was solely responsible for the department training program but had been tasked with many other administration duties, as well. In addition, a thorough training on the use and operation of thermal imagers should be included.

This committee recognizes the large volume of runs that units on the department are making on a daily basis which limits the time made available in which to train. Dedicated “unavailable” training has become very difficult to accomplish while on duty. The need for off duty training is greater now than it has been in the past. The time made available for training needs to be more efficiently and effectively used, primarily by having a centrally organized and well administered training program.

Following the Pater Avenue incident, one captain was given the responsibility of organizing and overseeing department wide monthly training with the support of the Labor Management Training Committee in addition to his duties as a line fire officer. During the next budget year, an increase in department staffing included a training officer whose focus is oversight and management of the department training program.

The expanded training program and supporting budget along with the hard work and dedication of the department’s members has made it possible to accomplish live fire training evolutions, expanded opportunities for off-site fire fighter and fire officer training, and enrollment in the Blue Card Command program for all officers.

6) Finding: The Fire Ground channel (FG5) was not monitored during the incident.

When E24 OIC declared the MAYDAY, he did that on FG5. 9COM was asked during the incident by Chief 211 if they were aware of a MAYDAY situation. 9COM stated they had no MAYDAY and Chief 211 advised he thought he heard a MAYDAY on FG5. During the incident, 9COM did broadcast over FG5 while it was trying to contact E21 as he had inadvertently pushed his Priority button. While monitoring the fire ground channel may not have a direct impact on fire scene operations, it may or may not affect operations within the SOP/SOGs of HFD, such as requests for assistance or the need to carry multiple radios with the IC just to talk with 9COM. The Butler County Regional Dispatch Center’s training manual was forwarded to the committee for review. Butler County’s radio policies were reviewed by the committee also. Future training in the policies and

procedures pertaining to Butler County Dispatch should involve personnel from their agency directly. Personnel from Butler County Dispatch are trained in their procedures and abilities and would be the best resource available for service users, such as HFD, to understand them.

At the time this report was being written, HFD and Butler County Dispatch met and procedures were discussed as to the Fire Ground being monitored. New procedures were put into place by both agencies to try and correct the situation whenever possible. Upon request from the Incident Commander, 9COM shall monitor the Fire Ground Channel whenever 9COM has available personnel. 9COM will advise the IC whenever that is not available.

7) Finding: Fire Ground Staffing

The initial fire department dispatch to this structure fire included a full dispatch complement, with all units recommended for the call available. With the extent of the fire and the involvement of the structure, all units were assigned to duties prior to arrival or immediately upon arrival. This left no fire ground staffing available in staging until mutual aid engines E211 and E212 were requested and arrived. During routine fire ground operations, the units dispatched would be similarly assigned, with RAT having no duty that interferes with their assignment to provide rescue of fire fighters, if necessary.

Shift commanders have the authority to request additional units, either from HFD resources or mutual aid resources. In addition, dispatch directions include automatically dispatching mutual aid units in any instance that a normal response complement of HFD units is not available for any type of call, whether fire or EMS. On this incident, the shift commander did request mutual aid engines early in the incident.

8) Finding: Floor layout above the basement

The floor layout for the first floor of the structure compared to the floor layout of the basement was not the same. As Q25 made entry, the floor would have been solid to the feel. It was found later that the floor at the entry was not above the basement but was above solid ground. The basement did not start until entry was made into the living room.

Specific fire ground SOPs were written with the focus of specifying size up procedures, use of thermal imaging, and selection of company tactics based on size up. The complement of thermal imaging cameras (TIC) was updated so that each officer arriving on the scene has a TIC and size-up tactics were developed to include their use as part of the scene size up

Fire ground principles were included as part of the policy which included risk management principles for operations, victim survivability profiling, selection of fire attack modes, as well as clarifying roles of units working at fire scenes. Those policies include consideration of modern fire attack principles and their application to the Hamilton Fire Department operations.

These policies were delivered in face-to-face training sessions.

9) Finding: Rapid Assistance Team response

Engine 21 (E21) was assigned RAT and due to their distance from the fire scene, they could not perform their RAT assignment at the time of the incident.

At the time of the incident HFD SOG 2.11 (06/2010) Rapid Assistance Team (RAT) 2.11.3 Procedure still identified that RAT would be assigned by 2COM on the dispatch of any Signal 400 (structure fire) to the fourth responding engine company. If there are not five (5) engine companies available, 2COM will assign RAT to the last unit dispatched. The Incident Commander shall retain the authority to change the RAT assignment to another unit. At the time of dispatch, B20 assigned E21 as RAT, consistent with department practice.

HFD recognized the need for firefighter safety and implemented the training necessary in the fall and winter of 2007. With the assistance of the Cincinnati Fire Department, HFD trained instructors in the deployment of the Rapid Assistance Team. These instructors then trained every member on the department in the procedures of firefighter rescue. The procedures used at the time of training should be examined and updated to coordinate with the changing environment of the HFD. As fire fighters are hired, RAT is a part of their orientation training. All fire fighters and officers have had initial RAT training, and refresher training has been conducted as part of monthly training assignments.

HFD has made changes following reorganization regarding mutual aid being dispatched with initial alarm complements. Mutual aid is automatically dispatched any time the normal compliment of five (5) suppression units and two (2) medic units is not available. 9COM has been instructed on which municipalities to contact for each section of the City. This procedure shall require that HFD begin to train with such municipalities to ensure proper knowledge, skills, and abilities. This shall hold true for not only firefighting strategies and tactics, but RAT operations as well. HFD must ensure the safety of its members and the members of our mutual aid communities. This should be done by developing a standardized and coordinated training program for the area.

HFD has recognized the need to examine and make changes in the RAT format so it may respond to a firefighter MAYDAY in a more effective manner. HFD is in the process of updating its SOP/SOG and discussing issues associated with fire ground safety with the City Administration.

10) Finding: Safety Officer assignment

There was no dedicated Safety Officer assigned to the incident at 1310 Pater Avenue. The call was dispatched at **01:12:15**. A Safety Officer was requested through dispatch at **01:20:12** by B20 according to HFD SOP/SOG. A Safety Officer arrived on the scene at **02:05:13**.

According to HFD SOP/SOG 2.9 Incident Safety Officer (6/2010) 2.9.2 Policy, the function of the Safety Officer is retained by the Incident Commander (IC) until such duties are delegated to a qualified Incident Safety Officer (ISO). 2.9.10 Response/Call-in Procedure also states the IC may assume the duty of the ISO as long as that individual can effectively do so. If an additional person is needed to staff the ISO position, then the three following procedures may be used:

- 1) During normal business hours, a Staff Deputy Chief will make the emergency response for the incident.
- 2) After normal business hours, 2COM (9COM now) shall issue a page to the Safety Officer Page group of the need for an ISO.
- 3) Use the RAT Officer as the ISO.

B20 called 9COM at **1:20:12** and asked for an ISO to be paged according to the SOP/SOG. The choice of using the RAT as the ISO was not able to be implemented due to the fact the MAYDAY was called as E21 was arriving on the scene.

All officers on the Hamilton Fire Department have been trained as Incident Safety Officers. Also, there are ten (10) members that are not officers that are trained as ISO. Q25 OIC was Acting Lieutenant the date of the incident and is trained as an ISO.

SOP 2.7 Incident Command System (6/2010) 2.7.6 Assumption of Command/On Scene Report states the first arriving officer shall establish command. Command will be formally established by transmitting a brief initial report, which was done by Q25 OIC, on arrival. The officer must decide if initial command will be conducted from a fixed position or within the tactical operations of the first arriving unit. 2.7.7 Selection of Command Mode section c) declares if there is a need for immediate tactical activity, command in the offensive mode should be initiated in accordance with the TWO IN / TWO OUT rule, which Q25 OIC communicated prior to entry.

With Q25 arriving on scene at **01:17:23** until the time B20 arrived on the scene to assume Command at **01:20:12**, Q25 OIC assumed the roles of IC and ISO and attack crew officer all at the same time trying to assess the incident in terms of life safety, incident management and property conservation. Q25 OIC was then the attack crew leader once B20 took command. By the time B20 could completely fill his role as IC and ISO (since one was not delegated at this time) Q25 was already forcing the door to make entry. Since B20 had to assume the role of ISO at this time, he was unable to perform his 360 to establish his assessment of the incident.

HFD has recognized the importance of a designated ISO on the scene of all emergencies and all officers are trained as Incident Safety Officers. This practice of educating all officers must continue and be extended to the members who are not officers but may act in that position if needed. However, this will only serve to educate the members of HFD in the responsibilities of an ISO. This will in no way make them available on an emergency scene to dedicate themselves to the sole duties of ISO since they will be filling the tactical functions of their assigned positions. The role of an ISO must be dedicated solely and strictly to that of the safety of the incident scene with no other assignments or distractions. HFD should find a means to assign the position of a dedicated Incident Safety Officer at all times.

While these events occurring singularly may have no impact on a certain incident, collectively at the time of the Pater Avenue fire, they all contribute in some manner to the end result. These situations should be reviewed by HFD and discussed among its members as a learning objective. Some items may be out of the control of the organizations involved, while others may be evaluated and changes made to help future outcomes to emergency incidents.

STAFFING

UNIT	STAFFING	SERVICE TIME WITH HFD
Quint 25 - Q25	Acting Lieutenant/Paramedic	15 years
	FAO/Firefighter/EMT	14 years
	Firefighter/Paramedic	8 months
Tower 22 - T22	Acting Captain/Paramedic	12 years
	FAO/Firefighter/Paramedic	15 years
	Firefighter/Paramedic	4 years
Engine 24 – E24	Captain/Paramedic	23 years
	Acting FAO/Firefighter/Paramedic	12 years
	Firefighter/EMT	13 years
Engine 21 – E21	Lieutenant/EMT	35 years
	Acting FAO/Firefighter/Paramedic	4 years
	Firefighter/Paramedic	6 months
Engine 26 – E26	Lieutenant/EMT	19 years
	FAO/Firefighter/Paramedic	25 years
	Firefighter/Paramedic	4 years
Medic 25 – M25	Paramedic/Firefighter	10 years
	Paramedic/Firefighter	8 years
Medic 22 – M22	Supervisor/Paramedic/Firefighter	18 years
	Acting Paramedic/Firefighter	1 year
Medic 24 – M24	Paramedic/Firefighter	16 years
	Paramedic/Firefighter	11 years
Battalion 20 – B20	Acting Deputy Chief	13 years

LETTER FROM THE COMMITTEE

This committee would like to thank Chief Steven Dawson for assigning us as the members to conduct the internal investigation into the incident on December 28, 2015 at 1310 Pater Avenue. The amount of hours that went into this report was many. Through the course of those many hours, discussions took place among the members of what should be in the report, and what should not. Many different views were expressed by the committee members. All views and opinions were considered and analyzed, and all were taken very seriously. This report is the product of those meetings. Some will agree with the content of this report, and some will not. The reason for this report is to move in a direction that will enhance the safety and efficiency of the Hamilton Fire Department.

Recommendations that were presented in this report not only include the Hamilton Fire Department, but also agencies outside of the fire department. Cooperation in training and understanding must be accomplished if any new ground is to be broken. It was very difficult for this committee to find that fine line between investigating and grief.

The Hamilton Fire Department and the City of Hamilton have suffered a great loss. As we move forward, the department will continue to work towards providing the best and safest emergency services.

APPENDIX A Hamilton Fire Department

Company Tactics and Operations

Battalion 20 (B20)

Battalion 20 (B20) was at quarters at Station 22 when the alarm for a structure fire was dispatched at **1:12:15**. The dispatch report gave information that there were possibly elderly occupants. B20 went responding at **1:13:13** on his portable radio he had in his office where his sleeping accommodations were also located. Further information provided by 9COM advised B20 that if the house was occupied the residents live on the second floor. B20 proceeded to his vehicle and assigned E21 as RAT 21 from his vehicle radio once all units dispatched went responding. While B20 was still en route, Q25 OIC radioed B20 for confirmation of possible occupants in the structure (**1:18:12**). B20 confirmed that there may be occupants per 9COM's dispatch.

B20 arrived on the scene at **1:20:12** and requested a Safety Officer be notified. B20 proceeded to the fire scene, taking the accountability board from his vehicle with him. As he approached the house, B20 noticed a 1 ¾" line had been pulled to the front door and was being charged. He noticed smoke conditions as heavy and coming from the A side and AB corner. He noticed no smoke coming from the rear. B20 advised E26 OIC via face to face communication to assist Q25 with the attack line, but E24 OIC stated they would assist Q25. Q25 OIC and Q25 FF1 forced the front door and made entry into the structure (**1:21:40** per Q25 OIC's radio traffic on FG5). No flames were seen by B20 at this time but heavy smoke was present. At **1:22:34**, B20 radioed 9COM to have them send a mutual aid engine from Fairfield Township (9B). B20 stated that a few seconds after Q25 made entry, flames shot through the front door and under the porch roof. B20 radioed Q25 at **1:23:12** to "Back out, back out, back out" on FG5. E24 OIC issued the Mayday at **1:23:27** on FG5. B20 acknowledged the Mayday at **1:23:35** on FG5. E24 OIC advised that Q25 FF1 was still inside the structure at **1:23:42** on FG5. B20 requested another engine company from Fairfield Township at **1:24:04** (9B). At **1:24:50**, 9COM asked B20 if he wanted two engines from Fairfield Township and he replied that he did.

B20 called E24 for an update at **1:25:05**, and E24 OIC advised they were making entry (FG5). E21 FAO advised there was heavy fire in the basement at **1:25:36** (FG5). B20 radioed E24 to get Q25 FF1 out at **1:25:48** (FG5). B20 asked E21 for an update at **1:26:46**, and E21 OIC replied that he had no update (FG5). B20 asked E24 for an update at **1:27:02**, and E24 OIC replied that they needed another line to the front door (FG5). E212 from Fairfield Township arrived on scene at

1:27:34 and asked B20 for an assignment (FG5). B20 advised E212 to come to the Command Post at that time.

E24 OIC called B20 at **1:28:18** to advise him they could hear Q25 FF1's PASS alarm in the basement (FG5). B20 could not copy the radio transmission. E24 OIC repeated at **1:28:33** that they could hear Q25 FF1's PASS alarm in the basement and that they were fighting the fire and needed another line brought to them because the attack line had been burnt through (FG5). B20 acknowledged at **1:28:53** that Q25 FF1 was in the basement (FG5). B20 called E26 at **1:29:03** for an update (FG5). E26 OIC replied that they were at the front door with E24 at **1:29:08** (FG5). B20 called E21 for an update at **1:29:17** (FG5). E21 OIC replied that they were on the B side of the house flowing water through a 2 ½" line (FG5). E24 OIC called for B20 to have another 1 ¾" line brought to them through the front door due to the attack line having been burned through (**1:29:29** FG5). At **1:29:45**, Q25 OIC advised B20 there was a rear entry into the basement on the C side of the structure and a crew was already inside (FG5). B20 asked "who is on side C" at **1:29:55** (FG5). T22 OIC called B20 at **1:29:59** and stated that they were in the basement and could hear Q25 FF1's PASS device going off (FG5). At **1:30:31**, 9COM called for E21 D radio asking if there was an emergency (FG5).

B20 called 9COM at **1:30:52** to have Chief 20 (C20) respond to the scene (9B). 9COM acknowledged the radio traffic at **1:30:56**, and had additional information for B20. 9COM advised they received an emergency button activation from E21 D (**1:31:02**), and B20 replied that he had E21 with him (9B).

C211 attempted to contact B20 on FG5 at **1:32:00**, **1:32:12** and again at **1:32:25**. B20 acknowledged C211 at **1:32:32**, and C211 advised him to put a helicopter on standby (FG5). B20 asked for an update at **1:32:51** (FG5). T22 OIC replied at **1:33:04** that they had found Q25 FF1 and they would need assistance in removing him (FG5). B20 assigned E21 with assisting in the removal of Q25 FF1 from the basement (face to face). At **1:33:13**, B20 asked if they had Q25 FF1 coming out (FG5). E24 OIC advised B20 they were leaving the building at **1:33:22** (FG5). B20 asked T22 for an update at **1:34:35** (FG5). T22 OIC called for B20 at **1:34:51** and B20 acknowledged it but T22 never responded back (FG5). B20 advised 9COM to have Air Care respond to the Butler County airport at **1:35:19** (9B).

B20 called for a PAR at **1:36:42** (FG5). M25 responded that they had PAR at **1:36:49**. At **1:36:55**, M25 advised B20 they had Q25 FF1 out of the structure and were taking him to the squad, and B20 acknowledged (FG5). E212 OIC responded that they had PAR at **1:37:37** (FG5). E24 OIC responded with PAR at **1:37:47** (FG5). B20 asked T22 for PAR at **1:37:54**, and T22 OIC acknowledged PAR at **1:38:01** (FG5). E21 OIC responded with PAR at **1:38:05** (FG5). B20 asked E26 for PAR and E26 OIC acknowledged PAR at **1:38:15** (FG5).

E212 OIC advised B20 they needed water to the hose line in the rear of the structure at **1:38:58** (FG5). Q25 FAO advised them water was coming at **1:39:08** (FG5). B20 advised E212 to not enter the structure yet at **1:39:10** (FG5). E212 OIC stated they had made entry to the second floor and started a search and would hold their position until further at **1:39:24** (FG5). B20 ordered E212 out of the structure at **1:40:52**. E212 OIC asked B20 to repeat the traffic, and B20 repeated to exit the structure. E212 OIC repeated the order and B20 confirmed the communication. At **1:43:18**, E212 OIC communicated they were out of the structure (FG5).

M22 (driven by M24 personnel) called 9COM at **01:44:35** on 9B to have Air Care meet the squad at Fort Hamilton Hospital instead of the airport. M22 transported Q25 FF1 to Fort Hamilton Hospital at this time.

After Q25 FF1 was transported from the scene and all on scene personnel were accounted for, B20 focused on the extinguishment of the fire still in the structure using defensive operations.

Quint 25 (Q25)

Q25 was dispatched from quarters at **1:12:15** to 1310 Pater Avenue for a reported structure fire. 9COM stated that HPD was already on scene, and reported heavy smoke from the structure. At **1:14:03** 9COM advised B20 that two elderly residents were possibly trapped on the second floor. The crew made their way to the truck, donned PPE, and Q25 went responding at **1:14:36** with a crew of three personnel (Q25 OIC, Q25 FAO, and Q25FF1). Q25 FAO chose the quickest, most direct route to the fire scene, while making sure to avoid any railroad tracks (at the advice of the OIC). Q25 FAO stated that they were notified by 9COM en route that HPD reported a hydrant on the SW corner of Pater Ave. and Bender Ave. Q25 FAO also noted the presence of medium gray, medium density smoke being blown across the roadway at Hancock Ave. and Hensley Ave.

Q25 was the first HFD unit on scene at **1:17:24**. Q25 FAO pulled past the hydrant and stopped the truck short of the structure at the A/B corner. Q25 OIC noted a two story wood frame structure with smoke showing from three sides during his on scene report. Q25 OIC stated that he witnessed a member of HPD strobing a flashlight to signal the location of the hydrant mentioned by 9COM. Q25 OIC also noted a large volume of white/gray smoke filling the street. As Q25 OIC was exiting the apparatus he was approached by a HPD officer stating "neighbors are saying that residents could still be inside." At **1:18:12** (FG5) Q25 OIC asked B20 for confirmation of the report that occupants may be trapped inside. B20 replied at **1:18:23** (FG5) and confirmed to Q25 that there may be occupants trapped inside. Q25 OIC then ordered Q25 FF1 to grab the thermal imaging camera (TIC) and a set of irons to place on the porch. Q25 OIC

told Q25 FF1 to stretch a 1 ¾" hoseline while he performed his size-up. Q25 OIC instructed Q25 FAO to assist with stretching the attack line with the task force tip. All 5 sections were stretched for the attack line.

Q25 FAO then pulled the 4" supply hose from the rear of the quint to the hydrant and returned to the truck for the hydrant wrench. Q25 FAO stated that M25 had arrived and staged at the NE corner of Pater and Bender, so he "slid the hydrant wrench to the hydrant for M25" (M25 connected and turned on the hydrant for this incident). Q25 FAO properly connected the supply line to the truck and sounded the horn to call for the hydrant to be opened by M25. He then assisted with removing any kinks in the attack line that had been stretched. Once the supply was properly charged, Q25 FAO opened the intake valve to supply Q25 with water.

Q25 OIC started his 360 on side A, moving clockwise down side B, where he noted "significant wind speed, at least 10 mph". Q25 OIC then reached the C side of the structure where he noted no smoke, stagnant or pushing, from the exterior on this side of the building. Q25 OIC stated that "all the smoke was from about the half way point of the house pushing out to the A side out into the street". Q25 OIC also noted an exterior hatch/basement access on side C. Q25 then went from side C back down the B side of the structure where he noticed two cellar windows near the AC unit. There was no evidence of smoke or flame from those windows at this time. Q25 OIC made his way back to the A side where he looked through the front porch windows and front door (the front door had a glass window), neither of which showed any active fire.



A Side of structure



B Side of structure



View from B/C side of structure



View from the C/D corner of structure

Q25 OIC then instructed M25 to don full PPE in order to provide a two in / two out scenario. He made a radio transmission to B20 at **1:21:40** (FG5), advising him that Q25 would be making entry on the A side of the structure, and they have their two in / two out personnel. Q25 OIC made his way to the front porch at this time. Q25 FF1 was waiting on the porch with the attack 1 ¾" line. Q25 FF1 stated to Q25 OIC that he had checked the front door and confirmed that it was locked. Q25 OIC proceeded to force the front door with a haligan while Q25 FF1 finished donning his PPE.

During this time Q25 FAO, with the assistance of others on scene, had stretched all 5 sections of a second 1 ¾" cross lay to be utilized as a backup line. As the backup line was being deployed, Q25 FAO received a call for water on the initial attack line, and so proceeded to charge the first 1 ¾" line stretched to the front door. Q25 FAO, at this point, began to set the outriggers on the truck for potential aerial operations. This was done with the help of E26 FAO. Q25 FAO stated that he then received a call for water on the second 1 ¾" backup line. Q25 FAO charged the second line and noted at this time he could see Q25 OIC and Q25 FF1 at the front door attempting to make entry. With Q25 was E24 OIC and E24 FF1.

As Q25 OIC forced open the front door, he encountered a significant amount of black smoke spanning from the ceiling down to about a foot off of the floor. Q25 OIC recalled that the smoke was not hot. Q25 FF1 was on the nozzle and made entry ahead of Q25 OIC. Q25 FF1 and Q25 OIC entered "a couple of feet" where they quickly encountered a wall. As a result, the entry team made a right turn toward the D side of the structure which led them into the front room on the first floor. Q25 OIC recalled an immediate revealing of fire from the floor. He initially thought it was coming from a vent in the floor. Q25 OIC then stated that he "screamed for Q25

FF1 to open the bale and keep the bale open.” Q25 OIC received no response from Q25 FF1, and could not hear Q25 FF1 breathing at this time (breathing noise from SCBA).



View of entry door Q25 accessed

It was at this point that flames coming from the floor became more intense. The fire began rolling up and over Q25 OIC and exiting out the front door and onto the porch ceiling. Q25 OIC recalled flame on his right arm and leg. The intense heat and flame caused Q25 OIC to withdraw, kicking backwards in what he described as a crab walk. Q25 OIC was screaming for Q25 FF1 to get out of the building. Q25 OIC was also tugging on the attack line which came back to him without resistance. As E24 OIC and E24 FF1 approached the front door, Q25 OIC walked down off of the porch, and removed his helmet, hood, and face piece.

As Q25 OIC was forcing entry to the front door, Q25 FAO was standing with his back to the structure “a few feet” from the pump panel. Q25 FAO stated that shortly after entry was made, he could hear Q25 OIC yelling. Then he heard E24 OIC calling a mayday over the radio (**1:23:27** FG5). Q25 FAO turned his attention toward the structure to see a heavy amount of fire rolling out from under the porch roof. At this point there was a call for a 2 ½” hose line. Q25 FAO proceeded to stretch the 2 ½” hose line with the assistance of others on scene. Q25 FAO stated that Q25 OIC asked for the stokes basket, so he ran to the back of T22 to retrieve it. He delivered the basket to the A/B corner of the structure. Upon returning to the Q25 pump panel, he noted that E26 FAO had charged the 2 ½” hose line, and he could see members on scene huddled around a basement window on side B, flowing water into it. Q25 FAO then

followed T22 and the stokes basket toward the rear of the structure, but stopped at the B/C corner, realizing he was too far from his pump panel. He turned back toward the street to make his way back to Q25. When he made it back to the pump panel, he recalled seeing someone pulling the initial attack line away from the front door. The line was leaking very badly. As the line was moved to the A/D corner, Q25 FAO walked over to inspect the nozzle. He quickly realized that the leak was coming from the hose, not the nozzle. He then traced the line back to the truck to ensure that he was shutting down the appropriate line. It was at this point Q25 FAO shut down the attack line and disconnected it from the truck.

Q25 OIC stated that as he came off of the porch and removed his face piece, he knew Q25 FF1 had fallen to the basement. It was at this point he shouted to B20 that he needed the stokes basket. He recalled seeing the cellar window at the A/B corner had been taken out. He saw lime-ish green colored flame coming off the piping to the AC unit. He instructed those around the area to mask up (SCBA) to avoid the possibility of inhaling toxic gasses resulting from said flame. Q25 OIC proceeded to side C of the structure with T22 OIC and T22 FF1 and the stokes basket. Q25 OIC made entry behind T22 personnel into the basement, through an outside hatch and stairwell. Q25 OIC recalled hearing Q25 FF1 PASS device sounding and the visibility being "poor, but not the worst". He also noted seeing fire in the floor joists above them. T22 OIC was first to find Q25 FF1 and began to attempt extraction. Q25 FF1 was found face down without his helmet, hood, or face piece. He was entangled and his SCBA harness had become detached, which prevented a traditional RAT drag removal. Knowing that it would be easier for one person to work on disentangling Q25 FF1, Q25 OIC ordered and assisted E21 FAO and E21 FF1 in clearing a path through the cellar from Q25 FF1 to the stairs on side C. The stokes basket was passed into the cellar and to the victim. Q25 FF1 was removed from the entanglements and rolled into the stokes basket by T22 OIC, T22 FF1, and Q25 OIC. Q25 FF1 was quickly removed by way of the stokes basket, up the cellar staircase, through the hatch and out to the back yard on the C side of the building.

Waiting for Q25 FF1 was a group of HFD Paramedics, with all necessary equipment, from all three front line medic units, M25, M24, and M22. Q25 FF1 was found pulseless and apneic, and treatment began immediately. Q25 FF1 was rapidly moved from the back yard to the back of M22, where treatment continued. M24 PM1 began transport of Q25 FF1 to Fort Hamilton ED at **1:44:35**.

Back at the pump panel, Q25 FAO heard the radio traffic that T22 had found Q25 FF1 and was beginning extrication (**1:33:04** FG5). It was at this point a third line (unknown size) was taken, stretched, and charged. Q25 FAO then assisted Fairfield Twp. personnel in pulling fence from the A side of the structure to provide better access for operations. It was then that the FAO witnessed Q25 FF1 receiving chest compressions while being moved on a cot toward M24. He

also noted that Q25 FF1's turnout gear was steaming, turnout coat was open, and he was not wearing his SCBA, Mask, or helmet. Q25 FAO remembers a lull in operations, and the fire scene seemed quiet.

After the removal of Q25 FF1 from the cellar, Q25 OIC exited the cellar to side C and walked around to the front of the structure and across the street. He and T22 FAO were later transported to Fort Hamilton ED by an HPD Officer.

Q25 FAO remained on scene and assisted with extinguishing the remaining fire using defensive tactics.

Engine 24 (E24)

E24 was at quarters at the time they were dispatched to the structure fire at 1310 Pater Ave. E24 was staffed by three personnel (E24 OIC, E24 FAO and E24 FF1). E24 went responding at **1:1501** on their truck radio. E24 FAO stated he heard there was a possibility of entrapment on dispatch. While responding, E24 FF1 advised E24 OIC that he would bring the irons. E24 FF1 stated he knew it was a confirmed structure fire while responding due to the on scene report from Q25 of "smoke showing from two, no three sides" (**1:17:24** 9B). E24 FAO asked E24 OIC if he should "dress for operations" or help other drivers with pumping operations. E24 OIC advised him to "dress out."

E24 pulled onto Pater Ave. coming off of Hancock and E24 OIC advised E24 FAO to stop at the intersection prior to where the structure was. E24 went on the scene at **1:20:21** (9B). E24 OIC noted a heavy haze of light brown smoke covering the street. E24 FAO confirmed he would "dress out" and meet E24 OIC after doing so. E24 OIC grabbed the thermal imaging camera (TIC) from E24 and walked to the front of the structure where he met the IC and asked him what he needed. The IC replied for E24 to assist Q25. E24 OIC stated he was concerned about the amount of wind coming from the back of the structure. E24 FF1 also noted the wind coming from behind the house and noticed smoke coming from "any crack or crevice" of the house.

E24 OIC observed Q25 OIC and Q25 FF1 on the front porch with a charged hose line getting ready to force entry. E24 OIC walked down the B side of the structure to try to find the location of the fire and possible escape routes. E24 OIC informed E24 FF1 that they were going to pull hose for the attack line. E24 OIC encountered E26 OIC on the B side of the house, where he was coming from the back of the house. E24 OIC heard the front door open and noticed a darker brown smoke coming out of the structure. E24 OIC then observed deep brown and black smoke under pressure coming from the front door. E24 OIC heard Q25 OIC yelling to open up

the nozzle. E24 OIC grabbed for his radio microphone to order everyone out of the structure and then the area was consumed in fire from the ceiling to approximately two feet from the floor at the doorway. Being about 10-12 feet away from the area, the heat and fire drove E24 OIC to the ground. E24 OIC could see Q25 OIC in the front door shouting for Q25 FF1. E24 OIC called for a mayday at **1:23:27** (FG5) as he knew someone had been injured in the apparent flashover. E24 OIC was not aware of the floor collapse at this time. E24 OIC transmitted at **1:23:42** that a firefighter was still inside. E24 OIC finished getting ready by putting his gloves on and was asked for an update from B20 at **1:25:05**(FG5). E24 OIC responded that they were making entry at **1:25:12** (FG5). E24 OIC noticed Q25 OIC backing out of the door at this time.

E24 OIC proceeded to the front door of the structure along with E24 FF1, following the original hose line from Q25. E24 OIC was able to follow the hose line through the door until both hands fell into a hole in the floor. E24 OIC received a burn on his left wrist at this time. E24 OIC pulled the hose line back towards him and found that it had burned through. E24 OIC started to sling the hose line around in the hole to try to extinguish any remaining fire. E24 OIC radioed that he had the nozzle at **1:27:10** (FG5) but needed a different one to be effective. E24 FF1 tried a couple times to press forward but E24 OIC informed him there was a hole in the floor.



Hole in the floor just to the right of the entry door

E24 OIC called B20 at **1:28:12** (FG5) to advise he could hear Q25 FF1's PASS alarm going off in the basement. B20 responded that he could not copy his radio transmission at **1:28:29** (FG5). E24 OIC repeated his message at **1:28:33** that he could hear Q25 FF1's PASS alarm in the basement and that he needed a new hand line brought to him due to the attack line being

burned through. At **1:29:29**, E24 OIC called for B20 to have another hand line brought to the front door. Another hose line was delivered to E24. E24 OIC used it on straight stream to extinguish the remaining fire that he could see. E24 FF1 gave the TIC to E24 OIC to try to search for Q25 FF1, but E24 OIC reported he was only seeing a white screen with a few red dots on the TIC. E24 OIC continued to extinguish spots of fire still present in the area. E24 OIC continued to flow water until he saw flashlights coming through the basement. E24 OIC remained at the hole until his low air alarm started sounding. E24 OIC announced at **1:33:22** that they were leaving the building. E24 OIC then went to look for E24 FAO and found him assisting with the extrication of Q25 FF1. E24 OIC and E24 FF1 went to the front of the structure at that time to exchange air bottles. E24 returned to the front of the structure and removed the front window.



Two 1 ¾" hose lines advanced to the front door

After getting the assignment to pull hose for the attack line, E24 FF1 dropped his irons at the AB corner and positioned himself just inside the gate at the front of the house. E24 FF1 heard the call for more hose and positioned himself with his back to the structure and pulled 3-4 handfuls of hose when he heard a commotion at the front door. He turned around to see Q25 OIC exiting the doorway, which was filled with bright orange flame from about one foot off the floor to the ceiling. Q25 OIC conveyed that Q25 FF1 was still inside, and they had been separated by the intense heat and believed a rescue was needed to get Q25 FF1 out. E24 FF1 went to the front door with E24 OIC and manned the attack line. E24 FF1 also attempted to use the TIC and encountered nothing but a white screen. E24 FF1 stayed at this location until air alarms went off and went to the front of the structure to change air bottles.

E24 FAO was approaching the structure when he heard the IC call for everyone to back out of the structure (**1:23:12** FG5), then heard the mayday called. As E24 FAO got to the structure, he

could see flames coming from the doorway. He witnessed T22 FAO grab a 1 ¾" hose line (backup line) and put water on the doorway to protect Q25. E24 FAO assisted with the hand line by flaking the line to remove kinks and communicated with Q25 FAO. E24 FAO assisted with the deployment of a 2 ½" line from Q25. E24 FAO noticed Q25 OIC going to the rear of the structure and calling for a stokes basket. E24 FAO followed Q25 OIC to the rear of the structure to assist him at that time. At the rear of the structure, E24 FAO noticed T22 crew in the cellar and heard them state they had the Q25 FF1 at **1:33:04**. E24 FAO masked up at this time and assisted Q25 OIC in the cellar. E24 FAO made his way to the A side of the structure in the cellar to assist with Q25 FF1. E24 FAO assisted in removing Q25 FF1 from the basement and exited the cellar. After Q25 FF1 was removed on the cot to the squad, E24 FAO returned to the front of the house to find his crew. E24 FAO assisted E24 on the front porch until they were ordered off the porch for master stream operations.



Location in the basement where Q25 FF1 was located

E24 would make no more entry into the building and remain on the outside doing overhaul work or observing operations.

Tower 22 (T22)

T22 was in quarters at the time of dispatch. T22 was staffed with three personnel (T22 OIC, T22 FAO and T22 FF1). T22 OIC awoke from the initial dispatch and recalled hearing “structure fire with an elderly resident inside” and the street Pater Ave. T22 OIC stated he went to E22 (where his fire gear was), “dressed out” and walked approximately 20 feet in full gear to T22. T22 OIC turned on his portable radio and announced T22 was responding (1:15:27 9B). T22 OIC stated that at this point his crew had not yet arrived at the truck, and he questioned whether he had heard the dispatch correctly. As he was considering this, T22 FF1 arrived at T22 and dressed out. T22 FF1 stated that he did not hear the initial dispatch as well as he would have liked, as he woke up from a sound sleep. T22 OIC asked T22 FF1 where his driver was. T22 FF1 stated he might still be asleep. T22 OIC walked from the truck to the dorm room, where he was met by T22 FAO coming through the door. T22 FAO stated he did not hear the initial alarm dispatched. T22 OIC advised T22 FAO that there was a structure fire with victims and to step it up. T22 FAO dressed in bunker pants and T22 left quarters.

En route, T22 OIC and T22 FF1 heard Q25 OIC on scene report of “a two story structure with smoke showing from two to three sides” (1:17:23 9B). T22 FAO and T22 OIC also heard B20 confirm to Q25 OIC the possibility of people still in the structure (1:18:23 9B). T22 OIC told his crew they would be performing a “Search and Rescue”. T22 OIC heard Q25 OIC state “he was going to make an attack”. T22 advised on scene at 1:22:12 (9B).

T22 FAO positioned T22 nose in toward 1310 Pater Ave. behind Q25. T22 FAO told T22 OIC he was going to see what the on scene personnel needed help with. T22 OIC exited the truck and grabbed a pike pole off the bumper of T22. T22 FF1 climbed off the truck and grabbed a set of Irons from the exterior officer side of T22. T22 FF1 followed T22 OIC to the A side of the structure while T22 FAO walked towards Q25. T22 OIC states he saw heavy smoke pushing through the neighborhood with high winds coming from the East. T22 FF1 saw heavy smoke coming from the A/B side of the structure with no visible flames. T22 FF1 noted hand lines stretched to the front of the house. T22 FF1 watched the crew of Q25 advance from the front porch inside the A side door.

T22 FF1 stated at that moment conditions changed, and visible flames started pushing from the A side door. T22 FF1 saw the heat and flames push crews on the front porch to their knees and off the porch. T22 OIC, as he neared the front porch, saw the first floor “flash,” and he saw Q25 OIC roll away from the front door with flames impinging on his helmet and upper body. T22 FAO was nearing Q25 when he saw Q25 OIC being forced out of the door by a large amount of fire. T22 OIC initially didn't realize Q25 FF1 was not accounted for. Within a matter of seconds, T22 OIC heard Q25 OIC shout that Q25 FF1 was still inside. T22 FAO heard E24 OIC call for a “Mayday” (1:23:27 FG5). T22 FF1 heard the “Mayday” as well.

T22 FAO immediately stretched a 1 ¾" hand line and started flowing water into the doorway. T22 FAO then passed the hand line off to another crew. T22 FAO grabbed Q25 OIC's TIC (thermal image camera) and gave it to the engine crew inside the doorway.

T22 FAO then returned back to T22 to retrieve his helmet and pair of gloves. T22 FF1 and T22 OIC "masked up". T22 FF1 went to the B side of the structure and broke out a basement window next to an HVAC unit. T22 OIC noticed flames coming from the B side basement window and went onto the front porch in an attempt to retrieve one of the hand lines to redirect the water into the basement window. T22 OIC found the hand line was already being manned by another crew. T22 OIC left the front porch and encountered Q25 OIC. He asked Q25 OIC if Q25 FF1 was still inside. Q25 OIC stated "Yes".

T22 OIC and T22 FF1 walked to the C side of the structure where they encountered a first floor rear door. At about this time, T22 FAO heard Q25 FF1 had fallen through the floor. T22 FAO grabbed a hatch ladder off Q25 and placed it against a fence on the B side in case they needed it to extricate Q25 FF1. T22 OIC told T22 FF1 "to take the back door." T22 FF1 first tried to turn the handle with no success. T22 FF1 used the halligan to break out the glass of the rear door. T22 FF1 reached in to unlock the door while T22 OIC was holding open the storm door. T22 OIC stated once the door was forced, they encountered thick black smoke that was ten to fifteen inches from the floor.

T22 OIC told T22 FF1 that they were not going in the structure. T22 OIC felt they were disturbing the thermal layers so he closed the storm door and they exited the rear porch.



Door accessed by T22

T22 OIC and T22 FF1 continued looking for an alternate entry. T22 FF1 heard a PASS alarm coming from the basement. T22 OIC stated that as he was coming off the rear porch, T22 FF1 got his attention and showed him a rear cellar door on the C side of the structure (close to the D side). T22 FF1 described the basement entry as a cellar type entry with two double doors that meet in the middle. T22 OIC and T22 FF1 found the cellar doors were open (in the upright position). T22 FAO had just vented the basement window on the B side near the C side when he noticed T22 OIC and T22 FF1 about to enter the basement cellar. T22 FAO went to the front of the structure along with M22 personnel to retrieve the cot to have it close by the cellar door. T22 OIC entered the basement cellar with T22 FF1 close behind. T22 OIC noticed an increase of adrenaline from hearing the PASS alarm. T22 advised they were in the basement and could hear Q25 FF1's PASS at **1:30:08** (FG5). T22 FF1 encountered low visibility with water on the floor and water coming from the exterior crews continuing to apply water. T22 FF1 stayed on the boot of T22 OIC due to the low visibility. T22 OIC found the basement to be moderately cluttered, and he was impeded by a hose stream coming from the B side basement window. T22 OIC noticed fire in the basement confined to the floor joists near the B side. T22 OIC called for the hose stream to be shut down, and this was done shortly after. T22 OIC continued toward the sound of the PASS alarm, and Q25 OIC joined them in the basement.

T22 OIC found Q25 FF1 prone and unresponsive just past the B side window toward the A side. T22 OIC radioed that they had found Q25 FF1 at **1:33:04** (FG5). T22 OIC cradled Q25 FF1's head in his left elbow as he tried to get a grip on his SCBA shoulder strap with his right hand, but he was unable to find the strap. While T22 OIC was assessing Q25 FF1, T22 FF1 was trying to move debris, chair sized items, to clear a path for removal while still trying to stay in close contact with T22 OIC. T22 FF1 noted that the smoke conditions had improved at this point. T22 OIC called out two to three times for webbing. T22 FF1 heard T22 OIC request webbing and was able to get his out of his right side pants pocket and gave it to T22 OIC. Within a very short time, a crew was there with a stokes basket to remove Q25 FF1. As the stokes basket arrived, crews were able to roll Q25 FF1 onto it after a slight delay due to Q25 FF1's legs being entangled. T22 FF1 assisted in packaging Q25 FF1 into the stokes basket. T22 OIC assisted in moving Q25 FF1 to the C side cellar steps. T22 FAO went to the bottom of the cellar steps and helped get Q25 FF1 up the steps. T22 OIC noted that Q25 FF1's SCBA pack was only connected by the waist strap.

T22 FAO assisted getting Q25 FF1 to the Medic Unit. T22 FF1 set his halligan down on the left side of the steps on his way out of the basement, as medic crews were there with the cot. T22 FF1 walked behind them doffing parts of his gear in case he was able to help in the ambulance. T22 OIC removed his face piece once outside. T22 OIC visualized that his SCBA was getting low on air, and he joined a large group of fire fighters as Q25 FF1 was taken to the squad on the cot.



Debris in the basement containing Q25 FF1's boot

T22 OIC told T22 FF1 that there were enough personnel in the squad and that they were still needed for fire extinguishment. T22 OIC and T22 FF1 changed out their bottles and continued to assist in extinguishing the fire using defensive tactics.

Engine 26 (E26)

E26 was in quarters at the time of dispatch to the structure fire at 1310 Pater Ave. E26 was using Reserve E27, and went responding at **01:14:45** on their truck radio. E26 was staffed with 3 personnel (E26 OIC, E26 FAO and E26 FF1). E26 OIC recalled that they were dispatched for a structure fire with smoke coming from a basement hatch. E26 FAO stated that as they were heading east on Grand Blvd. they could see smoke hovering over Grand Blvd. E26 OIC and E26 FF1 recalled hearing Q25's on scene report of heavy black smoke from three sides and that Q25 was going to complete a 360 size up (**1:17:24 9B**). E26 FF1 heard Q25 radio E26 to get a water supply. As E26 turned onto Pater Ave., E26 FF1 heard M25 radio a message that they would be getting the water supply.

E26 pulled onto Pater Ave. and stopped several residences short of the structure on the south side (**1:17:44 9B**). E26 FAO told E26 OIC that he was going to assist Q25 FAO. E26 FF1 grabbed the set of irons and met up with E26 OIC. E26 OIC and E26 FF1 started doing a 360 size up, going from the A side, down the B side and to the C side. While doing this size up, they came across the basement hatch with one door open near the C/D corner of the structure. E26 OIC

opened the second door to the basement hatch, and they returned to the front of the structure via the B side.

E26 FAO helped layout the 1 ¾" attack line from Q25 and then laid out a second 1 ¾" backup line from Q25. E26 FAO recalled that after laying out the lines he noticed the smoke coming out of the front door became dark in color and "angry" looking. E26 FAO noticed a few flames move across the porch ceiling near the front door, and quickly after that the "flashover" occurred. After arriving back in front of structure E26 OIC told E26 FF1 to mask up. E26 FF1 saw the Q25 crew make entry into structure, and noted thick black smoke was pushing from the front door. E26 FF1 recalled E24 OIC yelling it "was going to flash". At this time, E26 FF1 heard B20 radio crews to get out of the structure (**1:23:12** FG5).

Immediately after the apparent flashover, E26 FF1 heard Q25 OIC yelling for Q25 FF1 and shouting that Q25 FF1 could not be found. E26 OIC then heard E24 OIC call for the Mayday (**1:23:27** FG5).

E26 FF1 saw T22 FAO bring the 1 ¾" backup line to the A/B corner of structure, where he began spraying water into the front door of the structure. E26 OIC opened the screen door that was pushed closed by the hose stream striking it. E26 OIC tried to locate Q25 FF1 inside the front door, but was unsuccessful. E26 OIC recalled that at this time E24 OIC and E24 FF1 replaced them at the front door. E26 OIC and E26 FF1 advanced the backup line to the E24 crew to use through the hole that was found in the floor, to try to cool or extinguish the fire for the RAT crew to make entry into the basement. E26 crew then moved to the rear of the structure, where they noted that the RAT crew had Q25 FF1 supine in a stokes basket at the bottom of the cellar stairs. Q25 FF1 was removed from the basement and placed on a waiting cot and moved to M22.

With Q25 FF1 moved to M22 for transport to Fort Hamilton, B20 called for PAR (**1:36:42** FG5) and ordered everybody to the A side of the structure. After PAR, E26 was assigned to do a 360 walk around of the structure and report back findings to B20. E26 crew completed their assignment and informed B20 of no visible fire, but smoke coming from the B side wall on the front porch and gabled ends of the attic on the A and C sides (face to face). E26 OIC reported to B20 he noticed a strong smell of natural gas coming from the basement. A city troubleshooter was called, and upon his arrival, the E26 crew assisted him in locating the underground service in order to shut off gas to the structure.

For the remainder of the fire, E26 OIC and E26 FF1 assisted with completing extinguishment and overhaul in multiple locations of structure.

Engine 21 (E21)

E21 was at quarters when dispatched at **01:12:15** to 1310 Pater Ave for the structure fire. All units were assigned Fire ground 5 (FG5) to use for communications on the fire ground. E21 was staffed with three personnel (E21 OIC, E21 FAO and E21 FF1). E21 OIC advised Butler County Communications (9COM) that E21 was responding at **01:15:32** using the truck mobile radio. Shortly after, B20 called E21 on Channel 9 Bravo (9B) at **01:16:29** and assigned them RAT duties. This message was not acknowledged, so B20 repeated the assignment at **01:17:00** (9B). At **01:17:08**, E21 acknowledged the traffic, stating "E21, RAT 21, clear." During the process of preparing to respond, E21 FF1 heard radio traffic about hydrant location and the possibility of occupants.

As E21 turned on to Pater Ave., E21 FAO saw heavy smoke blowing across the street from strong winds out of the east. E21 FAO proceeded down Pater Ave., turned left on Bender Ave., and parked at the corner of Bender and Pater. E21 OIC advised 9COM that they were on scene at **01:22:45** (9B). Just as E21 was arriving, E24 OIC declared a mayday on FG5 at **01:23:27**, stating that there was a flashover and a firefighter was still inside unaccounted for. E21 FF1 exited the truck, got the set of irons and RAT bag, and proceeded to the scene. E21 OIC noted brown smoke blowing across the street and E21 FF1 saw a large amount of fire coming from the front door and B side cellar window. As they got to the address, E21 OIC tripped and fell into the street, knocking off his helmet and glasses. He was helped to his feet by a police officer, and went to B20 for an assignment. Meanwhile E21 FAO had donned the rest of his gear, procured a halligan tool and flat head axe from another truck, and walked to the B side of the involved structure, hearing a firefighter from another company yell "he's gone, he's gone, he's in the basement." Seeing fire coming from the B side cellar window, E21 FAO radioed to command on FG5 at **01:25:36** that there was heavy fire in the basement.

E21 OIC then re-united with his crew on the B side of the building, and they began to place into operation a 2 ½" hose line with a combination nozzle that was stretched there by another company. To facilitate an exterior attack through the B side cellar window, they moved an outside air conditioning unit out of their way, seeing green flames coming from it as it released its contents. They then began to flow water into the cellar through this window, located on the B side near the A/B corner. They noted that the bulk of the fire seemed to be near the A side of the cellar, and they were able to darken it down significantly from this window. However, they were not able to reach all of the fire due to a furnace and ductwork obstructing their stream. During this time, E21 OIC and E21 FAO both heard a PASS alarm sounding in the cellar, and saw flashlights near the C side of the cellar. At **01:29:17**, command requested an update from E21 on FG5, and E21 answered at **01:29:24** that they were on a 2 ½" line, B side.

When it became apparent that the downed firefighter was in the cellar, E21 FAO and E21 FF1 left E21 OIC at the cellar window and proceeded to the C side to assist. E21 FF1 helped to carry a Stokes basket to the C side, and observed no smoke coming from the first floor, and only light smoke coming from the cellar, as he walked around the corner of the building. E21 FAO and E21 FF1 entered the cellar behind T22 crew, and began clearing debris to facilitate extrication of the firefighter. Both E21 FAO and E21 FF1 noted arcing electric lines above their heads while they were working in the cellar. At **01:33:04**, T22 OIC radioed command on FG5 that they had found the downed firefighter. E21 OIC, after shutting down the 2 ½" hose line, proceeded to the C side, where he found the downed firefighter being carried up the cellar stairs in the Stokes basket. He noted that E21 FAO and E21 FF1 were in the cellar at this time, assisting with removal.

E21 FF1 and E21 FAO assisted in pulling the Stokes basket to the cellar stairs. E21 FAO recalled that the downed firefighter's SCBA was "attached to him but was not on his back," and ended up down by his feet in the Stokes basket tangled around his legs. At **01:36:55**, a M25 PM radioed command on FG5 that the downed firefighter was out of the building. All members of E21 crew remember CPR being started immediately after the downed firefighter was placed on the cot.

After the downed firefighter was removed from the C side into the medic unit, all members of E21 crew changed their SCBA bottles and assisted in completing fire extinguishment and overhaul until relieved on the scene by emergency call-in personnel.

Medic 25 (M25)

M25 was staffed with two Firefighter/Paramedics and was in quarters at time of dispatch (**01:12:15** 9B) to the structure fire. M25 PM1 and M25 PM2 donned bunker pants with the anticipation they may be needed to don full fighter gear to aid in fire suppression. At **01:14:53** M25 went responding on 9B on their truck radio. At **01:18:16** M25 went on scene on 9B, positioning M25 at the northwest corner of Bender and Pater Ave. At **01:18:50** M25 radioed on Fire Ground 5 (FG5) that they were getting the water supply. Upon exiting the vehicle M25 PM1 assisted Q25 FAO by connecting the four-inch supply hose to a hydrant, and waited for the signal to call for water. After M25 PM1 fully opened the fire hydrant, he walked the supply line and removed several small kinks. M25 PM1 made his way back to the pump panel to assist Q25 FAO. M25 PM1 recalled that at this time he noticed heavy grey smoke blowing across the street. M22 PM1 informed M25 PM1 that they had their EMS equipment deployed.

M25 PM2 recalled that Q25 OIC asked M25 crew to get fully dressed in turnout gear to help with fire attack. M25 PM1 heard Q25 OIC advise B20 that he would be entering the structure on the A side on FG5 at **01:21:40**. At this time M25 PM1 and M25 PM2 returned to M25 to don fire gear and SCBA. Once M25 crew was dressed, they returned to the front of the structure. M25 PM1 recalled that on arrival back in front of the structure, he noticed that the fire conditions changed and a large amount of fire was present and blowing out of the front door. M25 PM2 heard B20 order all members out of the structure on FG5 at **01:23:12**. M25 PM1 saw T22 FAO deploy a backup line and begin to flow water into the front door. M25 PM1 then heard a MAYDAY called by E24 OIC on FG5 at **01:23:27**.

M25 PM1 and M25 PM2, now realizing the situation, returned to M25 to doff fire gear and retrieve their EMS equipment in case there were multiple injuries. M25 PM1 and M25 PM2 returned to the front of the structure and placed their gear to the north side of the structure.

Once in front of the structure M25 PM2 advised M25 PM1 that Q25 OIC requested that the Stokes basket be brought to the back of the house. M25 PM1 and M25 PM2 carried the Stokes basket through a neighbor's yard on the B side of structure. M25 PM1 and M25 PM2 had to break a small fence down between the two structures to get the Stokes basket to the rear of the house.

Upon delivering the Stokes basket to the rear of the house, M25 PM1 heard T22 OIC on FG5 at **01:33:04** state that they had found Q25 FF1. M25 PM2 was helping to clear a path for the cot on the C and D side of the structure. M25 PM1 recalled seeing Q25 OIC take the Stokes basket into the basement. M25 PM1 entered the basement and relieved E21 FAO, and called to the top of the stairs for T22 FAO to come to the bottom of steps to help carry Q25 FF1. M25 PM1 recalled seeing that Q25 FF1 was no longer wearing his SCBA facepiece. Upon extrication of Q25 FF1 the Stokes basket was placed on M22's cot. M25 PM2 checked Q25 FF1 for a pulse. No pulse was detected, and chest compressions were started. Q25 FF1 was moved to the back of M22. M25 PM1 and M25 PM2 stayed in M22 and assisted with patient care while Q25 FF1 was transported to Fort Hamilton Hospital.

Medic 22 (M22)

M22 was staffed with two Firefighter/Paramedics (PM1 and PM2) and was at quarters at Station 22 at the time they were dispatched to the structure fire at 1301 Pater Ave at **1:12:15**. M22 went responding at **1:16:17** on their truck radio. M22 PM1 recalled that the initial dispatch indicated that there were possible victims inside the structure. M22 approached the scene from Grand Blvd. and turned onto Pater Avenue, stopping several houses away to keep room for

additional apparatus. Both paramedics noted smoke coming from the house. M22 PM2 approached B20 and was advised of what units were on the scene and where they were located. M22 PM2 was given the accountability board and assigned to be the initial accountability officer. M22 PM1 advised M22 PM2 that he was going to move the squad closer to the scene in case there was a rescue.

M22 PM2 noticed the smoke was starting to get darker and denser. In a matter of seconds, M22 PM2 noticed heavy fire coming from the front door and porch area. M22 PM2 then heard the Mayday come over the radio (**1:23:27** FG5). M22 PM2 began retrieving equipment from M22. M22 PM1 went to the back of M22 to start preparing to possibly receive a patient.

M22 PM2 was standing in front of Q25 on side A of the structure when he was called to the D side by T22 FAO. M22 PM2 assisted him with moving the cot down the D side to the C/D corner. T22. M22 PM2 noticed several members at the stairs to a cellar access on the C side of the structure. M22 PM2 watched as members extricated Q25 FF1 from the structure to the cot sitting at the top of the steps. M22 PM2 recalled that Q25 FF1 was not wearing his face piece but was still wearing his SCBA. M22 PM2 checked for a pulse, and found no pulse present. He then unzipped Q25 FF1's fire coat and placed his hand on Q25 FF1's chest, and found no respirations. M22 PM2 started chest compressions. Q25 FF1 was moved into the back of M22 where M22 PM1 was waiting. M22 crew continued assisting with treatment of Q25 FF1 until they arrived at Fort Hamilton Hospital.

Medic 24 (M24)

At **1:12:15**, 9 Com dispatched HFD units E21, E24, E26, M22, M25, Q25, T22 and B20 on channel 9Bravo (9B) to 1310 Pater Ave. for a structure fire with possibly elderly occupants inside. 9COM assigned radio channel Fire ground 5 (FG5) to use for operations. M24 was the only HFD unit not initially dispatched to the structure fire. M24 was in quarters at the time of their dispatch. M24 was staffed with a Paramedic Driver (PM1) and a Paramedic Primary Patient Care Provider (PM2).

At **1:27:31**, M22 PM1 called 9COM on 9B and asked them to dispatch M24 to the scene. 9COM dispatched M24 on 9B at **1:27:45**. M24 went responding at **1:30:14**. M24 advised on the scene on 9B at **1:35:04**.

Upon M24's arrival on scene, both M24 PM1 and M24 PM2 went to B20 to see where they were needed. M24 PM2 recalled that B20 informed "me that we needed to get the squad (M22) moved so we could have a better means of leaving the scene." M24 PM1 went to M22 and joined M22 PM1 in preparing for the arrival of a fire fighter that had been injured in the fire. M24 PM2 went to M22 and asked M22 PM1 what he needed and informed him "we were moving his squad". M24 PM1 recalled that M22 PM1

informed him that one of the fire fighters had been injured in the fire, and crews were working to remove him from the structure.

M24 PM2 recalled hearing “they’re bringing him out now” from the back of the structure. M24 PM2 walked to the C/D corner and at that time the Stokes basket with Q25 FF1 was being placed on the cot. M24 PM2 noted that CPR was in progress as they moved the cot over to M22. At about this time, M24 PM1 recalled a FFTWP FF opening the rear doors of the medic unit and stating they were arriving with Q25 FF1. CPR continued once in M22. M24 PM2 assisted in getting defibrillator pads and intubation equipment ready, and then opened the drug box and prepared for the first round of Epinephrine.

Q25 FF1 was placed in the squad (M22) where he was treated according to findings following HFD protocol and training. M24 PM2 recalled that once the roles were established and treatment began to progress, he went to E26 FAO and asked if there was a driver available for the medic unit. Finding no one available to drive, M24 PM2 informed the crews in the back of the squad (M22) that “I would be driving us to the hospital”. He radioed 9COM at **01:44:35**, stating that they were transporting to Ft. Hamilton Hospital, and to have AirCare meet them there. Treatment was continued en route, and Q25 FF1 was delivered to the care of the ED staff.

APPENDIX B Butler County Sheriff's Office

BRICS Radio System Data Analysis

Note: An error was discovered in the timeline during review. At 01:24:14, it is listed that 09 CHF 211 radioed "You're clear, I thought they had a MAYDAY on the fireground." This was actually radioed directly after 01:25:06 from 09 9COM1 radioed "Negative, no MAYDAY, just verifying what Battalion 20 wanted."