



Montgomery County Fire and Rescue Service

POST INCIDENT ANALYSIS

**2nd Alarm Commercial Building Fire
1091 Taft Street
Rockville, Maryland**

Incident Date: April 14, 2014



**Submitted by
Battalion Chief Mark E. Davis
On May 11, 2014**

Incident Overview

Note: This post incident analysis (PIA) is based upon a review of the incident audio tape, interviews with crews who operated at the fire scene and the completion and review of PIA Unit Fact Sheets.

On April 14, 2014, at 0909 hours, Montgomery County Fire Rescue Service units responded for a report of “black smoke coming from the building” at 1075 Taft Street in Company 3’s first-due response district.

While units were being dispatched, additional 911 calls were received reporting:

- “Flames coming out of a pipe on a building;”
- “ A commercial building on fire;”
- “A carpenter workshop with flammable liquids inside;” and,
- “The building is being evacuated.”

It was clear that some type of building was on fire.

Weather conditions (Woodley Park Elementary School weather station) at the time of incident were clear with temperatures in the upper 60⁰Fs and winds out of the south-southwest at 10 mph with gusts up to 20 mph.

Units arrived on the scene to find heavy fire and smoke conditions showing from one end of a 28,600 square foot warehouse/workshops-style structure. The complex was home to numerous business occupancies which were addressed 1057 Taft Street through 1099 Taft Street. The fire was located in 1091 Taft Street and was found to be rapidly extending into 1089 and 1087 Taft Street.

First-arriving crews found that all occupants of 1091, 1089, and 1087 Taft Street had self-evacuated the structure prior to the arrival of fire rescue personnel. Within 7 minutes of Tower 703 establishing command in the “attack mode,” the roof over 1091 Taft collapsed, causing serious structural damage to the entire Alpha-Bravo corner of the building.

Command was assumed by Battalion Chief 703 who ordered the use of large caliber attack lines and master stream devices in a defensive fire attack effort to stop the lateral fire spread at 1087 Taft Street – which also was the location of one of several, masonry firewalls in the structure. Command also ordered a similar approach taken on the Charlie Side of the structure in 1071 Taft Street – which was home to another woodworking/carpentry shop.

A Fire Task Force plus a full 2nd Alarm were used to bring the fire under control. A number of the units on the 2nd Alarm were used to build out a large volume water supply operation and to support fire extension control efforts at the fire wall locations.

Because of the collapsed roof and structurally unsound walls, Command ordered the partial demolition of the building as part of the overhaul operations. An excavator (and operator) from the Montgomery County Department of Transportation's Division of Highway Services was requested and used to remove the unstable walls and as much of the collapsed roof as possible. Final overhaul operations continued for several hours using compressed air foam hand lines.

An origin and cause examination was conducted by MCFRS Fire and Explosive Investigations – but it was limited to employee interviews only due to the structural damage. The findings of that examination indicated that the fire started in a spray booth area where a worker was power sanding a piece of wood. The worker reported that the dust collection system was not being used at the time of the sanding. When the sander began issuing sparks – a fire started in the combustible dust and quickly grew in size and intensity.

There were no injuries to civilian or fire/rescue personnel. Damage to structure was severe and numerous businesses beyond the fire units were unable to re-open due to water, smoke, and utility damage.

Units on the Incident

1st Alarm

Engine 703	Tower 703	Ambulance 703
Paramedic Engine 723	Truck 725	Battalion 703
Paramedic Engine 732	Rescue Squad 703	Battalion 704
Paramedic Engine 721		
Paramedic Engine 733		
		Chief 705
		Chief 705 Delta
		Duty Chief 700
		Safety 700
		EMS703

Rapid Intervention Dispatch

Truck 723	Medic 742
Rescue Squad 742 Bravo	

Task Force

Paramedic Engine 725	Truck 740	Canteen 705
Paramedic Engine 728		Air 716

2nd Alarm

Engine 726

Engine 740 (failed)

Paramedic Engine 718

Engine 705

Engine 705Bravo (replaced E740)

Truck 731

Tower 718

Medic 742 Echo

Special Alarm

Paramedic Tower 708

Structure/Site Layout

- The structure housing 1057 through 1099 Taft Street is one of many “light industrial” occupancies in the City of Rockville’s Southlawn/Redgate Planning Area.

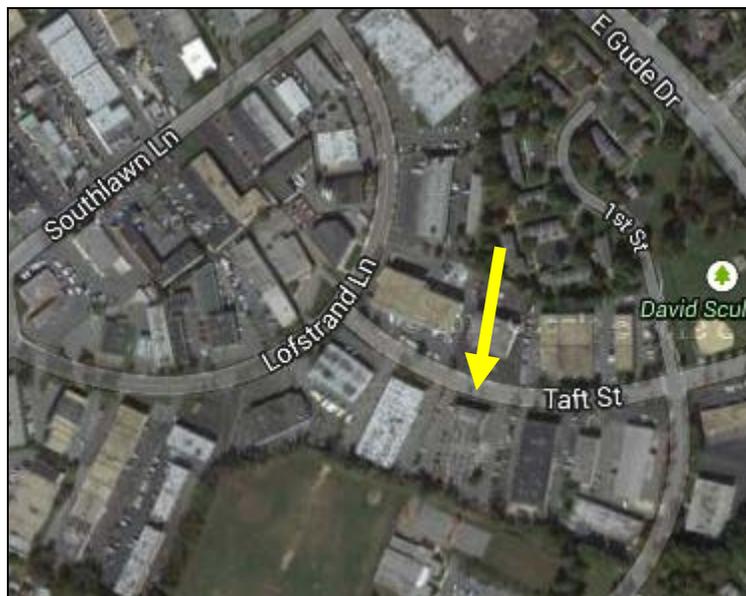


Figure 1: The 28,600 square foot structure is one of many similar in the area. (Google Maps)

- The 28,600 square foot structure was built in 1972 and is considered Type II construction with no fire suppression systems in place.
- The structure had a simple layout – it was divided length and width-wise into several different occupancies of various square footages and uses.
- In addition, the structure had several, masonry firewalls which effectively divided the structure into six, large compartments – which were further divided into smaller occupancies.

- The structure had a limited basement area which only existed on the southern end (Side Bravo) of the building. There were six occupancies in this lower level area – most of them involved automobile repair operations. Each occupancy had a Taft Street address and was approximately 100 feet deep. The occupancies were separated from the fire area above by a heavy concrete floor. They suffered no fire damage; however, they did suffer extensive water damage.

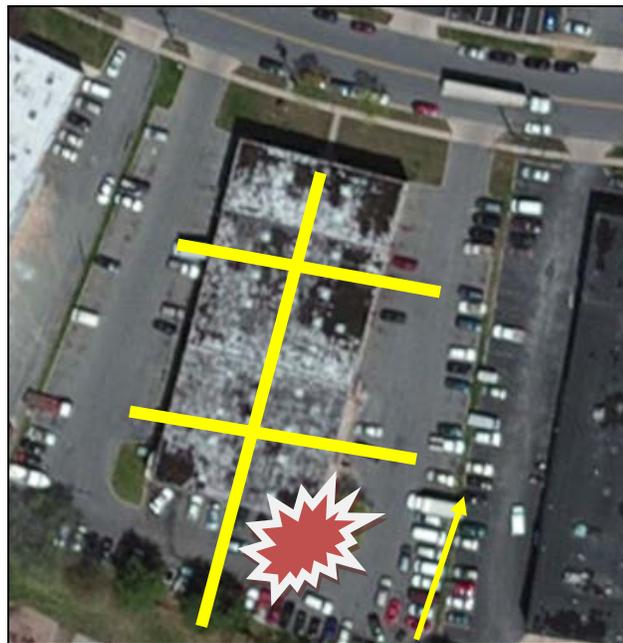


Figure 2: Longitudinal and latitudinal firewalls created six, large compartments which played a significant role in controlling the spread of fire. (Google Maps)

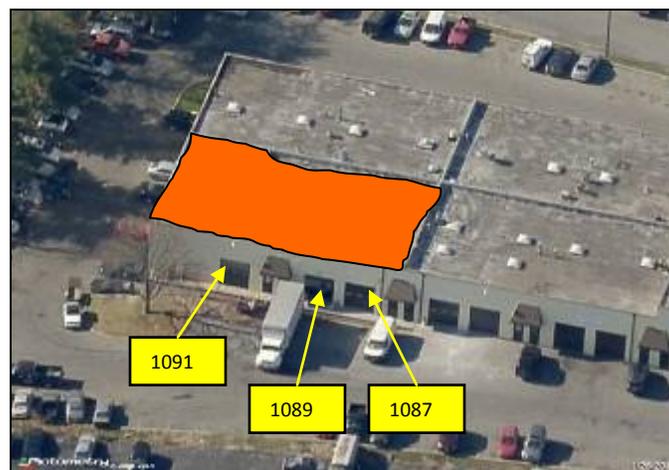


Figure 3: Since the occupancies had addresses on this side of the structure, the side was designated as Side Alpha by Command (Battalion Chief 703). The “orange” area in the photograph represents the area totally destroyed by fire. Roof collapse also occurred in this area.



Figure 4: The lower level automobile repair shops are shown in this view of Side Bravo. Note the sky lights on the roof – once the fire broke through the roof, the sky lights on the Side Charlie roof area melted and allowed fire to extend into those occupancies.

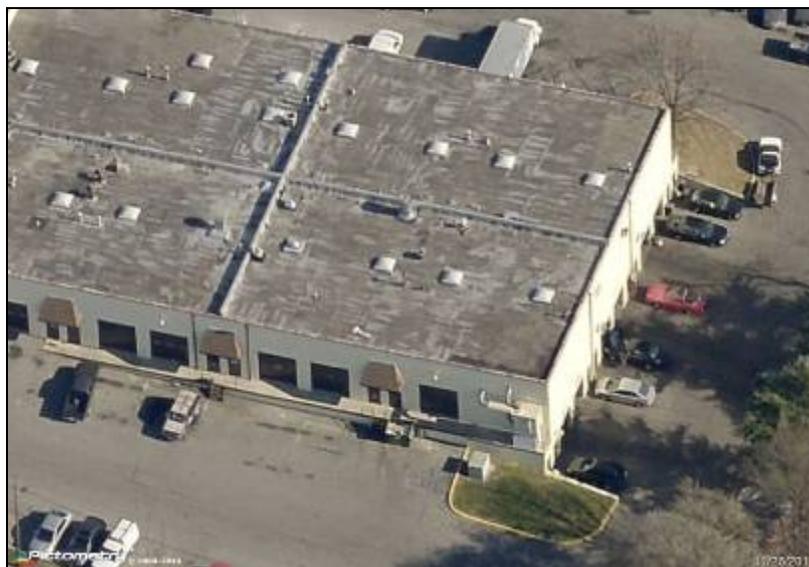


Figure 5: The Side Charlie occupancies had a similar layout to the Side Alpha occupancies and also housed a wood working shop that stored a significant amount of wood working materials. Some fire spread occurred on the Side Charlie roof when flames jumped the firewall from Side Alpha and burned the roof deck surface. When flames melted the skylights, several small “drop down” fires occurred inside the Side Charlie workshops.

Fire Code History

- A review of the past and current fire code requirements for the structure revealed no code compliance issues.
- It is noted that had the structure been protected by an automatic sprinkler system, the fire most likely would have been confined to the woodworking area and quite possibly extinguished prior to the arrival of MCFRS personnel.
- It is noted that had the dust collection system been operational during the wood sanding operation, rapid fire development may have never occurred.

Communications

- There were several 911 calls for this incident. The initial dispatch sent units to 1075 Taft Street for smoke coming from the building. Fortunately, 1075 proved to be the correct structure – just one of many addresses for the same structure.
- Based upon the number of 911 calls received, ECC dispatched the Rapid Intervention Dispatch (RID) at 0911 hrs - prior to the arrival of any fire/rescue units.
- Tower 703 was the first unit to mark “arrived” on the scene (0912 hrs) and requested the Rapid Intervention Dispatch (RID) and a Fire Task Force after establishing command in the “attack mode.” The Fire Task Force was dispatched at 0913 hrs.
- Command (Tower 703) soon after requested a 2nd Alarm which was dispatched at 0916 hrs.
- Battalion Chief 703 arrived on the scene at 0917 hrs, assumed the command from Aerial Tower 703, and established an Incident Command Post (ICP) in the parking lot of 1133 Taft Street – which was located immediately across the parking lot from Side Alpha of the fire building.
- Duty Chief 700 arrived on the scene at 0918 hrs and became part of the command team.
- In terms of radio operations, fire control operations were handled on 7-Charlie, staging was handled on 7-Delta, and Water Supply operations were handled on 7-Echo.
- Command used an operator on both 7-Charlie and 7-Delta up until the fire was placed under control.
- At several points during the incident, Command requested the 7-Charlie operator to activate a single alert tone and then Command broadcasted a message. This process was used to gain the attention of all personnel on the talkgroup so that an important message could be transmitted and received.
- The Vehicle Repeater System (VRS) was not activated or needed; and other than periods of high radio traffic, there were no radio failures or problems noted.
- Command Post 727 responded to the scene but was not used.

On Scene Operations

- Rescue Squad 703 was the first unit to arrive on the scene, although that was not known until the Post Incident Analysis Fact Sheet was reviewed.
- Rescue Squad 703's crew made a brief entry into 1091 Taft Street to conduct a search operation but had to retreat due to rapidly deteriorating conditions.
- Tower 703 was the next unit to arrive on the scene, followed shortly thereafter by Engine 703, Paramedic Engine 723, Battalion Chief 703, and Chief 705.
- Tower 703 took a position in front of 1089 Taft Street and the Unit Officer gathered information about the location of the fire in the structure and the whereabouts of the occupants.
- Engine 703 laid a single, 4-inch supply line from the fire hydrant located across the street from 1075 Taft Street and the 3-person crew went to work deploying a 2-1/2" attack line (w/smooth bore nozzle) and a Blitzfire portable master stream device.
- Early plans by Tower 703 involved placing the aerial tower's elevated master stream through the open bay door. However, that plan was struck down by Command (Battalion Chief 703) due to the concern of wall collapse.
- Tower 703 assumed an elevated master stream position which aided in fire control once the roof collapsed.
- Paramedic Engine 723 assisted with fire control on the Alpha Side by deploying an additional 2-1/2-inch attack line.
- On the opposite side of the fire area (Side Charlie), Paramedic Engines 721 and 733, along with Truck 725 and 731 engaged in fire spread control operations by handling several small, "drop down" fires that occurred in workshops where the skylights had failed.
- There was also a significant deployment of resources to the roof (Truck 731, Truck 725, Truck 740, and Tower 718) once fire spread under the roof deck became a concern.
- The roof had been resurfaced at least twice and had a combustible "fiber board" type of insulation layer next to the metal decking. This building up of roofing material extended fire control overhaul operations for several hours.
- Command placed the fire under control at around the 60-minute duration mark; companies remained on the scene for several hours completing overhaul.
- The incident was divided into the following groups/divisions: Division A, Division C, Roof Division, Delta Exposure, Rapid Intervention Group, Water Supply Group, Rehab, and Staging. All divisions and groups interacted and communicated effectively.
- Apparatus access was not an issue and all ladder trucks on the 1st and 2nd Alarms had good positions and were used effectively in the fire attack operation.
- Attack line selection was adequate for the fire conditions present and the type of occupancy. Class A foam solution was used on most every attack line and worked fine.

- For overhaul, compressed air foam was used through one attack line in order to reach and penetrate the areas that were unsafe to enter. A compressed air foam attack line was also used to reach smoldering roof materials.
- Initial water supply operations could not support the use of Tower 703's master stream and Engine 703's Blitzfire line. Once Engine 703 was supported by three, 4-inch supply lines, the water supply was sufficient for Side Alpha operations. Note: E703 driver hand jacked 2nd 4" line back to Paramedic Engine 723 and then Paramedic Engine 725 reverse laid from Engine 703 to provide the 3rd line.
- Hydrant hook ups utilized at least one 2 ½" butt cap in addition to the steamer connection.
- A similar water supply issue arose on Side Charlie when truck companies attempted to use elevated master streams while the engines also tried to support large caliber attack lines. This issue was resolved when additional 4-inch supply lines were put into service. This involved lengthy lay by Engine 705 Bravo and Engine 705
- Paramedic Engine 728 (Water Supply Group Supervisor) was charged with developing a water supply plan that included the use of fire hydrants on First Street and to Gude Drive
- The Water Supply Group used several engines from the Fire Task Force and 2nd Alarm to develop two, dual 4-inch supply water supply systems to support fireground operations.

A Photographic Review of the Incident

Many photographs of the incident became available to the Post Incident Analysis author – they are shown below. Each presents a unique view of the operation.



Figure 8: Taken by Chief 705 (Heflin), this photo shows the volume of fire present on arrival and the absence of a charged supply line to Engine 703 (the only engine shown here).



Figure 9: Taken by a worker from a nearby building, this photo shows Side Charlie of the fire building prior to the arrival of 1st Alarm units. Note the fire spread already occurring on the roof deck.



Figure 10: Engine 703, Aerial Tower 703 and Rescue Squad 703's crews are shown here just after arrival on Side Alpha but prior to the deployment of any attack lines. Note – there are no signs of structural cracks yet in the Side Alpha wall. (Photo by MCFRS)



Figure 11: Heavy fire involvement in 1091 Taft Street. (Photo by MCFRS)



Figure 12: The roof has not yet collapsed, but the roof decking is on fire and the exposed steel bar joists underneath of it are being attacked by flames. Note the crack in the masonry wall now forming – from the light fixture to the bay door frame header. Crews reported “hearing creaking noises.” (Photo by MCFRS)



Figure 13: While Aerial Tower 703 prepares for elevated master stream operations, crews deploy a 2-1/2-inch attack line flowing Class A foam solution. Note that the crack in the wall is getting larger. (Photo by MCFRS).



Figure 14: The roof has collapsed – as evidenced by the steel bar joist seen in the bay door opening. Battalion Chief 704 is seen in the foreground assuming the Side A Division Supervisor role. The 2-1/2" attack line is moved to try and cut off the fire spread. (Photo by MCFRS)



Figure 15: With the roof now collapsed, fire easily escapes vertically. Additional crews are arriving on the scene and Safety 700 now monitors the collapse potential. (Photo by MCFRS)



Figure 16: The stability of the Side Alpha/Bravo corner comes into question as additional cracks form in the exterior walls. (Photo by MCFRS)



Figure 17: Three cracks have developed in the Side Bravo wall after the roof collapsed. (Photo by MCFRS)



Figure 18: The corner crack is of most concern. When the bar joists expanded, they pushed out the walls some before falling in. (Photo by MCFRS)



Figure 19: The fire is now under control, but it is too dangerous to send crews inside for overhaul and the collapsed roof prevents aerial application of water. The decision is made to tear down the front wall – so folks are waiting on an excavator. (Photo by RVFD)



Figure 20: Apparatus placement on Side Charlie with Truck 725 and Truck 731. (Photo by RVFD)



Figure 21: Engine 703 and Aerial Tower 703's positions on Side Alpha. (Photo by RVFD)



Figure 22: The fire was stopped at the fire wall by placing attack lines on both sides of the fire wall from underneath the roof. (Photo by RVFD)



Figure 23: The Roof Division stopped the spread of fire to Side Charlie on the roof deck. They extinguished surface fire and controlled smoldering areas around the firewalls and skylights. (Photo by RVFD)



Figure 24: The combustible roof covering is burned away on this part of the collapsed roof. (Photo by RVFD)



Figure 25: Holes in the Side Charlie firewall can be seen where the steel bar joists once rested. The collapse caused little damage to the Side Charlie firewall. (Photo by RVFD)



Figure 26: The skylight openings can be seen on the Side Charlie roof deck. Fire spread into those occupancies when the plastic skylights melted. Also – the roof totally collapsed over 1091 Taft and partially collapsed over 1089 and 1087. The partial collapse is what made overhaul operations so time consuming and labor intensive. (Photo by RVFD)



Figure 27: A good overhead view showing the roof collapse. (Photo by RVFD)



Figure 28: By mid-afternoon, demolition operations were underway. (Photo by MCFRS)



Figure 29: The entire Side Alpha exterior wall was removed at 1091 Taft Street. As much roofing and fire debris as possible that the excavator could reach was also removed. (Photo by MCFRS)



Figure 30: Taken the next day, this photo shows Side Alpha of the structure. (Photo by MCFRS)



Figure 31: Although cracked, the exterior wall and firewall held up resulting in no damage to 1085 Taft Street. (Photo by MCFRS)



Figure 32: The now free-standing Side Bravo was cordoned off due to possible collapse and left to the property owner to handle. (Photo by MCFRS)



Figure 33: The built up roofing covering that proved so problematic during overhaul operations.
(Photo by MCFRS)



Figure 34: The fiberboard roof insulation that smoldered until uncovered. This insulation was sandwiched between tar and the corrugated metal deck. Some of this material was found smoldering the day after the fire occurred. (Photo by MCFRS)



Figure 35: This part of the roof was over 1089 Taft Street – which had a mezzanine level inside used for storage. It was very difficult reaching this area for final overhaul. (Photo by MCFRS)



Figure 36: Another view of the same mezzanine problem – looking toward Side Alpha from inside 1091 Taft Street.(Photo by MCFRS)



Figure 37: The mezzanine storage area of 1089 Taft Street. Note the lawnmowers. (Photo by MCFRS)



Figure 38: Another view of 1089's mezzanine storage area .(Photo by MCFRS)



Figure 39: Side Charlie – 1071 Taft Street – the skylight caught fire, melted, and fell in on the work bench. Crews found the small fire while checking for extension. (Photo by MCFRS)



Figure 40: More damage on Side Charlie – note the fire damage to the paint spray booth doors - more drop down fire from a skylight. (Photo by MCFRS)

Staging

- Units on the Fire Task Force and 2nd Alarm that were not immediately put to work were staged on Taft Street near First Street. Units reported to the Command Post for assignment or were given orders directly via radio.
- There were no issues with staging.

Support Functions

- Rehab was established on Taft Street and was handled by the EMS units and EMS703.
- Canteen service was provided by Canteen 705 and Canteen 740.
- Crews were relieved by fresh crews, or by crews leaving Rehab.
- Functions with outside agencies were properly coordinated (i.e. law enforcement and utility companies).

Safety Group

- No Stand-by Team was ever announced by the first arriving companies – however, an interior fire attack did not appear to be in the initial plans of those Unit Officers.
- Safety 700 arrived on the scene very early into the incident at 0914 hrs and assumed the role of Incident Scene Safety Officer. His feedback to the

Command Post concerning structural stability issues was very important given that he had “seen” the building for almost the entire time that fire/rescue had been on the scene.

- Several substantial structural cracks developed in the exterior masonry block walls on Sides Alpha and Bravo of the structure, and Safety 700 was instrumental in notifying the Command Post about the collapse hazard.
- Paramedic Engine 732 assumed the role of Rapid Intervention Company (RIC) on Side Alpha of the structure and the Rapid Intervention Group (RIG) was eventually built out using Rescue Squad 742 Bravo and Tower 723. The Unit Officer of Paramedic Engine 732 was assigned as the Rapid Intervention Group Supervisor.
- There were two, safety-related items worthy of noting:
 - Command only assigned one Incident Scene Safety Officer to the incident. Given the size of the structure and the clear collapse indications on Side Alpha, the overall safety of the incident would have been better served if Command had assigned additional Safety Officers – one for Side Bravo and one for Side Charlie.
 - At one point after the fire was placed under control - but with the Rapid Intervention Group still in place - Paramedic Engine 732’s crew was seen walking to Rehab. Command was not aware of any unit from the Rapid Intervention Group being relieved to go to Rehab – especially since the Rapid Intervention Group reports directly to the Incident Commander. The Unit Officer had taken direction from another Division Supervisor regarding Rehab for the Rapid Intervention Group, when he should have made the request through Command. While the fire control operations were de-escalating, the need for a Rapid Intervention Group still existed and going to Rehab should have been cleared with the Command first.

Accountability

- No accountability board was used. Crews were accounted for by using the MCFRS incident command tactical worksheet and the Daily Line-Ups carried in the Battalion Chief 703 car.
- An automatic, incident timer on the Battalion Chief 703 Mobile Data Computer was used to run a 10-minute incident duration reminder.

Investigations

- Due to the extensive fire damage and structural collapse – MCFRS fire investigators did not enter the structure to conduct an origin and cause investigation. Their findings were based upon interviews with the employees working in 1091 Taft Street and the visual findings they were able to obtain from outside the collapse zone.

Lessons Learned

- With large amount of fire or large commercial buildings involved officers may consider laying dual lines.
- Large fires in large structures require a significant amount of resources. When arriving to find heavy fire conditions in such structures, request a 2nd Alarm instead of a Fire Task Force.
- While a tower deployed at a low angle can be an effective deployment for master stream operations, it is dangerous when there is a significant amount of “wall overtop” of the basket. At this incident, the wall above the bay door opening was as high – if not higher – than the bay door opening itself. Meaning that the collapse zone was much larger.
- The smaller Blitzfire (sometimes called Blitz-lite) portable master stream devices presently carried on the Crimson front-line MCFRS engines do not have the “safety shutdown” feature that some of the older models carried on the reserve engines. Crews must be careful not to leave the newer Blitzfire device unattended, without secure it to an anchor, and must also be careful about disturbing the device’s position once it is flowing.
- On the MCFRS Crimson engines, there is no ability to deploy a ground-based master stream device in excess of 500 gpm. Each engine has mounted master stream device capable of 1,000 gpm – but there is no base carried so that the device can be remotely deployed. At this incident, it would have been helpful to be able to deploy a 1,000 gpm ground-based fire stream from Side Alpha.
- Multiple safety officers are needed at fires involving large structures – perhaps one per side. At this incident – with two sides of the structure showing signs of collapse – Command should have assigned additional safety officers.
- On multiple alarm fires – water and manpower are often the two most important resources needed. At this incident, Command assigned an engine company on a greater alarm to develop an additional, high-volume water supply using water mains not currently in use. Assignment of a Water Supply Group should be considered for all multiple alarm fire events.

Post-Incident Analysis Fact Sheets: Noteworthy Comments

The following comments were collected from the Post Incident Analysis Fact Sheets and are provided here for review and consideration. Each comment provides a unique view from a Unit Officer's or Group/Division Supervisor's perspective - spelling and grammar were not corrected.

Engine 703:

- "With the three supply lines in place E703 was able to supply AT703, (2) 2 ½" lines and (2) 2" lines."
- "Due to potential collapse of the A side wall, the crew was forced to operate further back from the front of the building. This caused issues with the blitz fire lite, as it was unable to operate at a low enough angle to flow in to the opening in side A. The crew attempted to overcome this by the direction of the A supervisor of lifting on the back of the blitz lite while pushing down on the front. This caused the blitz lite to kick out and almost lost control. The blitz lite was eventually abandoned due to the ineffectiveness of the water application and a 2" line placed in service. The 2" line was actually more effective due to the control of the line being able to put the water on the seat of the fire. In hind sight I would have shut down the blitz line and replaced it with a smooth bore from one of the numerous engines on scene."

Paramedic Engine 723

- "While working I could see that the building's exterior wall was cracking and separating at the A/B top corner."
- "While operating on the fire scene we experienced a close call. Company 3 was operating their (blitz) monitor nozzle. For some reason we witnessed it lift off the ground and Lt. Ward grabbed onto it to keep it from breaking lose in what would have been a large group of firefighters. I dove on top of Lt. Ward to help keep him from moving. While anchoring it down FF Caudell (E4 PE723) worked his hand into us and was able to shut down the nozzle. I'm thankful that nobody got hurt in this incident but it was proof again that crews should not use that device as a moveable piece while water is flowing. Unlike the original blitz this does not have that shut off and we were reminded of it again."

Paramedic Engine 732

- "At some point during operations, PE732 (the unit itself) was moved from initial parking spot to in front of command units. Two handlines were pulled from PE732 and unit was flowing handlines and foam. The operator was from St. 18 and no notification was made to PE732's crew or officer that unit was being utilized. Unit was exhausted of its Class A foam and then sent to CMF to refill foam; PE726 was moved into its place and utilized in similar fashion."

Paramedic Engine 721

- “Pulled 1-3/4” to knock down fire in wood shop and paint booth area
- “2-inch 300 ft also pulled”
- “Fire in these units came from skylights which were melted and dropped onto wood.”

Paramedic Engine 733

- “While observing conditions in units along Side C noted smoke pushing out of corrugated roof deck at the skylight penetrations and advised Division C that it appeared that there was a composite roof deck fire on our side of the fire wall and that we would need to access the roof after Side A discontinued master stream operations on Side A.”
- “It was only after we had been on scene for quite some time (1 hour +/-) that I understood that we were actually on Side C and not Side D per CMD’s nomenclature; this occurred because the assignment was dispatched as 1075 Taft St and 1075 Taft St is the unit that faces Taft St. I never heard CMD provide any clarification/direction designating the building nomenclature and thought that we were correctly positioned.”

Truck 725

- “Dispatched as First due truck, due to previous call was on the ICC just West of Georgia Ave. Attempted to alter dispatch assignment on 7C but ECC required BC approval instead of flopping AT723 to first due. Was unaware AT723 was responding from Station 26.”
- “BC Mallileu AOS and became the group supervisor on Side C. T725 and now T731 made entry to the roof using T725’s aerial ladder. PE721 setup a hose line using T725’s waterway. Both Truck companies began making inspection cuts and opening 4 x 4 holes down to the metal deck. T731 found fire under the metal deck, my unit never found any fire as we worked closer to the D side of the structure. The roof had two layers, rubberized coating, stone, membrane and fiberboard. After taking a break and the addition of two more truck crews, T725 finished making a trench parallel to the firewall across the entire metal deck about three feet wide from side B to D.”

Rescue Squad 3

- “First arriving unit (coming from CMF) observed occupants leaving the one story structure with black visible from the open bay door on the A/B corner and large vent on the Bravo side. AT703 arrived as we were exiting unit and established command as I removed occupants from the Side Bravo below level garage area with the assistance of Rockville City Police (Sgt. Berry). FF Vieth located the occupant from the shop of origin and advised the fire started in the back of the building and “thought” everyone was out.”
- “Following SOP for the first due rescue squad I verbally told AT703 OIC (initial command) my crew, after taking the actions above, was entering the structure with a crew of 3 to do a brief primary search. At this time there was thick black smoke approximately 5 feet from the floor with 20 foot ceilings.

The intensity and speed indicated a well advanced fire. We made it back about 15 feet but due to rapidly deteriorating conditions and the cluttered space we backed out. I believe it was at this time it was declared to be an exterior attack only on the affected address, we then moved to the D1 exposure to begin a search and determine the extent of fire spread. Primary search of the D1 was negative and crews were entering with handlines as we exited to move onto the search of the D2 exposure.”

Safety 700

- “Several cracks in the masonry walls on side Bravo and Alpha were noted. There was also wall separation occurring at the top corner of the building where side Alpha and Bravo met.”
- “Went up in the bucket of AT703 to have an aerial view of the structure. Observed several concerns of the structural integrity of the building. Where the steel bar joists had failed and collapsed, left 2 free standing walls. All findings and recommendations not to enter the original fire building were made to command.”

Engine 728

- “We arrived on the scene and staged at the corner of Taft st./ E Gude. We then were instructed by command to deploy two four inch supply lines and establish a secondary water supply; I was also assigned the water supply supervisor. As the water supply supervisor I managed the deployment of two sets of dual four inch lines supply lines that supplied the fire ground from high flow hydrants at Taft/E. Gude and Southlawn/Loftstrand. I along with my crew remained in our assigned positions until the fire was under control and we were placed in service.”

Engine 725

- “Engine 725 driver remained on 7D during the beginning of the incident and did not switch over to 7C. Engine 703 requested more pressure several time but the driver did not hear it because he was on 7D. Advised the driver after the incident that he needed to be on 7C once operated unless told otherwise.”

Conclusion

This commercial structure fire provides a good example of how strong building codes combined with strong, defensive fire attack operations can limit fire loss in large structures. While the structure was not protected by an automatic sprinkler system – it was protected by full-scale, masonry fire walls that created compartmentation that worked – even with the moderate fire loads present.

Crews did a good job of confining the fire spread to the compartment of origin. Large caliber attack lines and master stream devices were quickly deployed and supported through a dedicated water supply plan which was developed and expanded by later arriving companies.

Most importantly, personnel recognized the imminent collapse hazard that existed and took action to protect themselves. The roof collapsed just 7 minutes after command was established by Aerial Tower 703. But good risk assessment actions resulted in no injuries or damage to fire/rescue equipment.