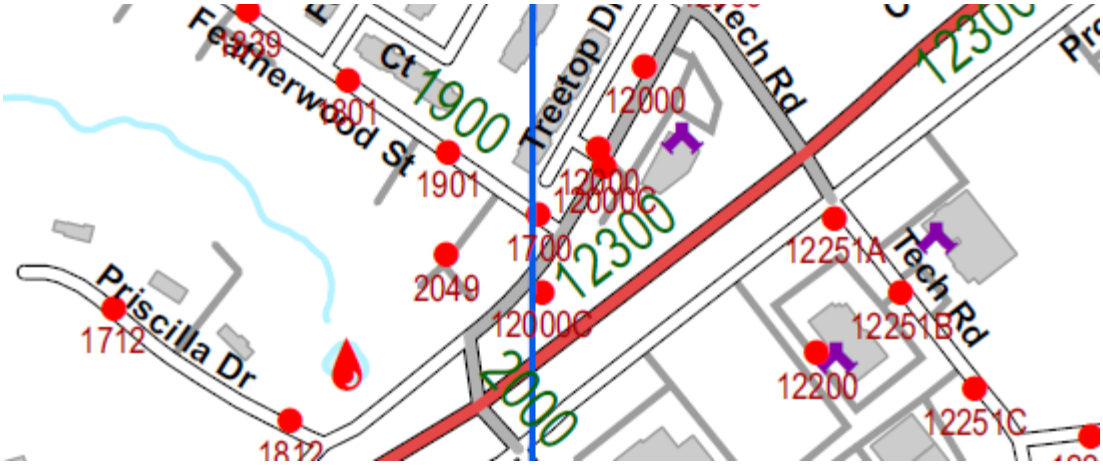
Incident 09-086661 – 2025 Featherwood Street, Silver Spring

2 alarm fire with 3 firefighters burnt

I. Introduction:

On August 21, 2009 at 0439 hours, Battalion 1 companies were alerted for a townhouse fire at 2027 Featherwood Street. Companies arrived on scene with heavy fire showing from side C of 2025 Featherwood Street, an end of the row townhouse. Exposures were three more townhouses in the row to the Bravo side; there were no other exposures. The weather was clear and the temperature was in the 70's. Water supply was readily obtained from hydrants at 2049 Featherwood Street, 12000 Old Columbia Pike and 1812 Priscilla Drive.



II. Building Structure, Access, Code Issues

The townhouses were of older wood construction with vinyl siding and Celotex insulation. The insulation and siding contributed greatly to rapid vertical fire spread. Framing was with dimensional lumber and floors were constructed of wood planks laid diagonally across the framing topped by plywood sub flooring. This floor construction is not typical of new houses. Had this been a newer home, the potential for floor burn through and/or collapse would have been greater. The unit of origin had a double decker wood deck on Side C. (Area of origin).

Road access was readily available on Side A & D via the development parking lot. The townhouse row was also immediately contiguous to Old Columbia Pike and various apparatus also used this road to deploy.

There were no known code issues. It is unknown if the smoke detectors were working or alerted the occupants.

III. Communications

ECC did a good job of obtaining information about the fire and communicating same to the companies while responding. Dispatch order for the engine companies became scrambled because of units clearing from an earlier call a mile away on Powder Mill Road. ECC tried to restore order, but at times was inconsistent in the dispatch order. Units also arrived on scene out of order and took varying positions based on the unit officer's assessment of the situation.

Original Assignment on 7A:

Engines	Trucks	RS, EMS, Command
719	715	RS715
841	701	A841
724		BC704
716		BC702
718		

Ultimate amended Assignment on 7G:

Engines	Trucks	RS, EMS, Command
715	715	RS715
719	701	A841
841		BC701
724		BC704
716		
702 (extra)		
718 (extra)		

Disposition of 1st alarm units on fireground according to what position they took or were assigned:

Engines	Trucks	RS, EMS, Command
715- Fire bldg	715 – Fire bldg	RS715
719 - backup	701 – Bravo Exp.	A841 (staffing used for E841)
724 - basement		BC701 (IC)
841 - RIC		BC704 (Aide)
716 – Bravo Exposure		
718 – Bravo Exposure		
702 – Bravo 2 Exposure		

As a result the IC had to spend valuable time trying to determine apparatus position on the fire ground and their disposition.

The standard for bidding on calls is that one should refrain from doing so unless you can make a clear difference. E715 responded from an EMS call around the corner and got a hose line in place quickly; it is hard to argue that they did not make a clear difference. Likewise, E702 was bidding from the area of New Hampshire Avenue & Rt. 29 and could see the flames; it is hard to argue that they were not clearly going to arrive much sooner than E718.

Nevertheless, the scrambled dispatch order did lead to substantial confusion which took time to sort out. Companies are reminded that they always need to clearly announce when they are taking a position different from their assigned order. If they are confused as to what they should do, they should seek clarification from ECC and/or command.

Overall radio discipline was good with everyone remaining calm and attempting to communicate clearly. Once divisions and groups were established, company officers effectively communicated through those supervisors. Of note, E715 Officer suffered a failure of his portable radio and could not communicate clearly with the IC. This situation was relieved when C715 took over as Division supervisor.

Personnel usually limited their traffic to vital information, which was good. There were a couple of exceptions; A724 asked for their assignment twice, and ECC inquired about access on Featherwood Street for a BLS ambulance call. Both of these transmissions occurred before the fire was under control. Units and ECC need to exercise good judgment as to the necessity of radio transmissions when units are actively engaged in an uncontrolled IDLH.

However, there was major issue with units not answering the radio. IC was attempting to conduct a coordinated strategy of sweeping the exterior combined with an aggressive interior attack. On at least two occasions, the IC could not contact a company to relay a vital order and had to seek another resource to perform the task. This lack of

ability to reach units did delay the firefight in some respects. All unit officers are strongly urged to monitor the radio, and to carry it in such a manner that it can readily be heard even when wearing PPE. By policy, if a unit fails to answer the radio three times, the IC is supposed to call a Mayday. The IC did not do this in this case, but should have until communications were established with those units.

There were also some issues with terminology used on the radio:

2nd Alarm: The IC asked for a second alarm early in the incident. He expected to get a full second alarm in addition to the units already on the scene. ECC elected to count the two extra engines on the first alarm as part of the second alarm and only dispatched two additional engines. So the IC was two engines short in his expectations.

Sweep: The advent of vinyl siding has lead to a strategy of *sweeping* the exterior walls of a house. This strategy involves hitting the flames with a stream that is parallel to the wall in question so as to not push the fire into the rest of the structure. This is a relatively new tactic and has been called various names. Whether units are told to sweep Side C or hit it from the rear, they need to know exactly what they are being asked to do. This is a term that should probably be defined in the next SSFF policy.

Withdraw: In two instances, the IC wanted units to move themselves and their equipment in an orderly manner to the exterior so that the fire could be fought from another position. The IC used the term *withdraw* for this concept. This should be differentiated from *evacuate*, which means to immediately leave the building and leave any equipment behind which is time consuming to carry out (such as hose lines). Since by SOP MCFRS is preferentially an aggressive interior attack department, terms should be clearly defined if it becomes necessary to modify or abandon the interior attack.

There were no communication issues with mutual aide units and the IC did provide timely updates to ECC.

IV. Preemegency Planning – No specific preplanning was done for this complex.

V. On Scene Operations

<u>*Initial operations:*</u> Company 15 units arrived on scene and performed a size up, established their own water supply with a hydrant out front, and did a 270° check of the building (alpha, bravo, and delta sides). They observed heavy fire on the exterior of side C. An IOSR was given, two out was identified and command in the attack mode was established. They also identified that all residents were out of the structure. E715 stretched a 1.75" line to the front door and made entry with the intent of attacking from the unburnt side. E719 followed up with a 1.75" backup line. RS715 followed with the intent of searching the house. T715 racked out the side A windows and threw ground

ladders to Side A. None of these units were aware that the basement below them was engulfed in heavy fire.

Ongoing Operations: Battalion 701 and E716, responding north on Rt. 29, also observed the fire conditions on Side C. When Battalion 701 arrived on scene to the A/B corner of the row, to his great concern he also observed heavy black smoke pushing from the front of the house (above). He immediately gave a size up to the interior crews and asked for a status report. E715 reported high heat conditions and attempted to ask for another unit to sweep the rear, but the radio transmission was garbled. BC701 assumed command and attempted to implement E715's request, but could not get ahold of E716. At this time a 2nd alarm was requested. E724 officer reported to the CP face to face and was given the Side C assignment instead. E724 swept the exterior with a 1.75" line from E719 and then observed that the basement was heavily involved (due to large quantities of plastic chairs and cans of sterno). This was communicated to the IC. The decision was made to have units withdraw from the first and second floors so that E724 could hit the fire in the basement from the rear. Units withdrew from the first and second floors and E724 used a 2.5" line from E719 to knockdown the basement fire from the exterior of Side C.

Concurrent with these efforts, a Bravo Division was organized with E718, T701, E716, and C705D. Units found significant fire in the attic and worked diligently to

control it by performing vertical ventilation, using hose streams and aggressively overhauling.

Units reentered the structure on the first and second floors but were still having issues controlling the remaining fire. At the recommendation of DC700, units were backed out of the original fire building and Bravo exposure B and a ladder pipe from T715 was utilized to knockdown most of the remaining fire.

At this juncture, control had been gained over the fire, and the remainder of the incident was simply labor intensive overhaul.

Command Considerations: Command was established early by E715 and then maintained throughout the remainder of the incident by BC 701. Command transition was not strictly by policy due to E715 Officer's radio failure. BC701 elected to assume command before obtaining a thorough situation report due to the rapidly evolving nature of the fire. A stationary command post was established in BC701's vehicle and was readily identified.

The location of the command post could have been much improved by moving closer to the fire building. Although most of Side A & B could be viewed from the CP, it was hard to see much beyond the front door and this led to some issues. The IC missed the size up as an end of the row townhouse and thought the townhouse was in fact the

second to the end. He was also unable to effectively see fire conditions other than those that were blatantly obvious from the front. This was alleviated to some extent by reports from company and other command officers.

Sectoring of units into groups and divisions was appropriate to the incident. Divisions established were Fire Building, Bravo Exposure, and Basement Division.

There was a delay in withdrawal of units when initially ordered by command. The division supervisor, who was unaware of the fire burning below him in the basement, attempted to change the ICs mind about the order. When he was informed of the fire in the basement, he ceased his discussion and exited. It is important for division supervisors to be able to communicate with the IC and advise on a course of action based on what they are seeing – and what the IC is not. However, as in this case, the opposite can be true as well – the IC was aware of a dangerous condition that the division supervisor was not. In this instance, it would have been better for units to follow orders first and ask second; the consequences would be losing more of the building if we exit; possibly risk a life if we stay; so all in all a pretty easy decision from the risk/benefit point of view.

Additional resources were requested early in the incident. The lack of a full second alarm was not a huge detriment to operations, but it would have been nice to have two additional engines.

Size up and Strategy: An initial size up was done by E&T715 officers who decided upon an aggressive interior attack. As mentioned before these units were unaware of the fire in the basement. BC701 performed a "drive by" size up of Side C and could see most of Side A upon arrival. He had categorized in his mind the situation as marginal due to the heavy black smoke pushing out the front (as seen in picture above).

The initial strategy was to coordinate an interior attack with an exterior attack on the vinyl siding. This transitioned to an exterior attack with a 2.5" line and then a ladder pipe with crews sent in to mop up afterwards.

At the task/tactical level, companies performed well with no major issues.

Positioning, water supply and attack lines: Positioning by the first due units was good. E715 left room for the truck to position on the side A/D corner but did not leave them room to proceed further into the court and down the row of town houses. Consideration should have been given to placing the truck further into the court in front of the Bravo Exposure(s). This would have allowed T715 to better utilize their ladder pipe to cut off the advance of the fire.

At this point it is worthwhile to note that use of the bed pipe is not always effective. When ladder pipe operations were ordered, T715 initially used the bed pipe. Due to insufficient height, the bed pipe had little impact. T715 therefore had to stop the

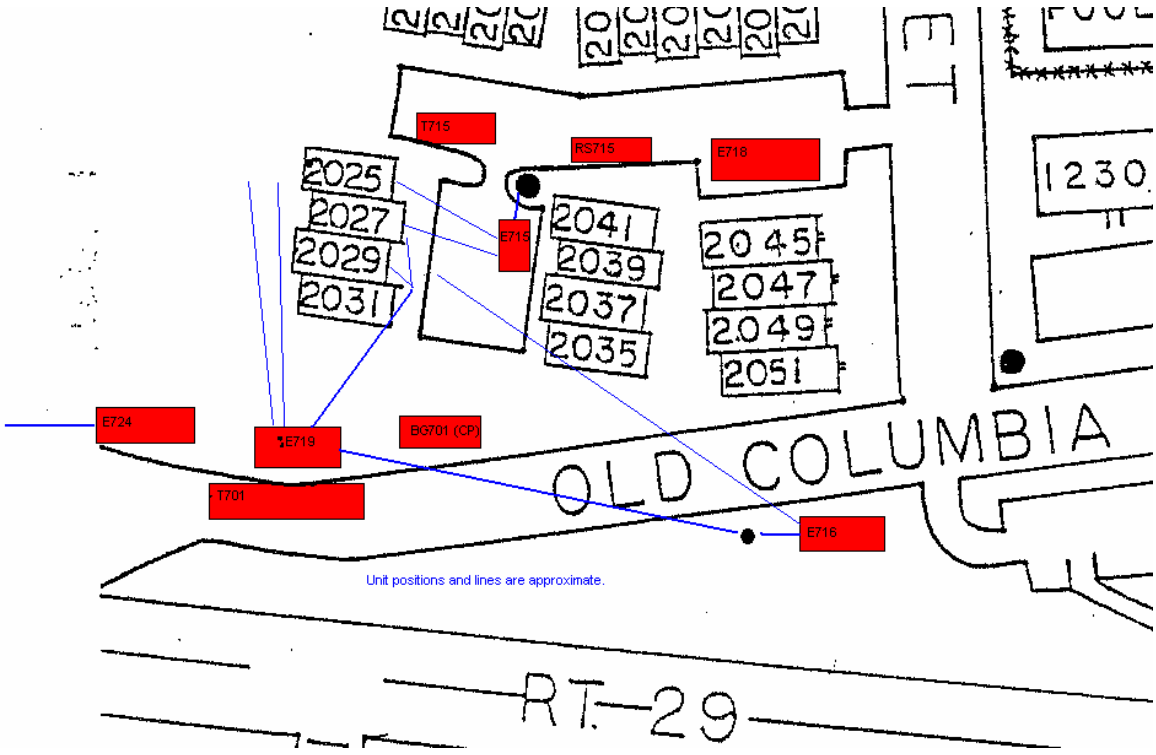
operation, relocate supply lines and place the ladder pipe in service. This led to a delay in knockdown of the fire.

The placement of the BC was discussed above. E719, E716 & E724 placed themselves adequately along Old Columbia Pike. T701 also positioned along here, but was not close enough to effectively utilize their ladder if needed.

Water supply was obtained by E715 from a hydrant in the court. E719 laid out as shown in the figure below and was supplied from E716. E724 laid back into the scene from a hydrant south of the incident. No issues were noted with water supply or pressure.

E715 supported three attack lines of varying sizes and supplied a ladder pipe on T715. E719 supplied three 1.75" attack lines (2 via a leader line) and a 2.5" line. Unit positions and line locations drawn below are only approximate.

The only unit equipped with CAFS on the fire ground was E718 and therefore CAFS was not used for attack purposes.



Ventilation:

Venting was accomplished horizontally in the fire building by racking out the windows. T715 proceeded to the roof to accomplish vertical ventilation, but this was not necessary as the fire had self vented. T701 accomplished vertical ventilation of the Bravo Exposure and this greatly assisted with smoke and heat conditions in that building.

Mutual Aide:

Mutual aide companies were generally seamlessly integrated into operations. However, E841 was assigned RIC and then RIG group supervisor, but was unaware of his assignments or duties. The IC should have appointed an in-county supervisor who was more aware of the MCFRS SOP.

The only other issue with Mutual Aide was the self dispatch of Chief 811 and BC806. The IC did not realize they were there until later in the incident and did not effectively utilize them in the command structure early on when they would have been of more assistance.

VII. Staging:

Staging was not used in this incident. Units were generally assigned as they arrived.

VIII. Support Functions:

Rehab:

Rehab was coordinated by EMS702 and this assistance was invaluable. I am unsure if the RAD 50 CO monitor was used to assess CO levels in the firefighters. This should be done routinely on any major fire.

Crews were rotated on a regular basis and group/division supervisors were polled about unit readiness on a frequent basis.

IX. Safety Group:

RIC/RID/RIG

A RIC was established early and the RIG was rounded out by RS742, AT719 & M712. AT719 did a size up and provided secondary egress to the roof and 2nd floor of Bravo Exposure B. RS742 staged on Side C. It is unclear whether the RIG activities were coordinated or known to the RIG supervisor E841; e.g. the positioning of RS742 and other issues. Again, the RIG supervisor should probably be an in-county officer familiar with the MCFRS SOPS and requirements.

Safety

Safety 700 responded to the scene and was assigned Safety. He provided valuable updates as to fire conditions and building stability. He also assumed responsibility for the initial investigations into the injuries sustained by Company 15 personnel.

Injuries:

The officer and lineman from E715 and the 3rd from RS715 all received minor burns to the ears. The officer also sustained a knee injury. The burn injuries were all due to the high heat conditions present on the first floor due to the fire in the basement below. There is no indication that any of these personnel violated any applicable safety policy as far as their PPE or tactical operations. However, both the lineman from E715 and the 3rd from RS715 were listed on the IECS as F/R Candidates and thus should not have entered

into an IDLH. I am unsure of their exact training levels and this issue is being handled by the Deputy Chief of Operations.

X. Accountability:

Regular PARs were conducted and the IC made a determined effort to maintain accountability of all units at all times. The issue of not answering the radio has been already discussed above. However, it is important to note that accountability became much easier as the incident went on and units were sectored out.

The assistance of BC704 (Leigh) in maintaining accountability cannot be overstated. The importance of a command aide or 2nd member of the command team was once again proved. This statement was also made in the Claridge Road report, the Frederick Avenue report, the Leisure World report and on and on. Battalion aides/drivers are needed.

XI. Investigations:

FEI was started automatically by ECC and arrived on the scene around 0530 hours. They pinpointed the origin as being on the bottom deck of side C and that the fire then spread vertically to the upper deck and to the siding/house wrap. They were unable to determine a cause. The investigation was unnecessarily complicated by the fact that the area of origin was covered by the overhaul pile created by companies working to overhaul the basement. The FMs should have involved in the overhaul process from the outset to prevent vital evidence from being covered up.

XII. Lessons Learned

This fire very much reminded the author of the double fatal townhouse fire in the District of Columbia in 1999. The fires were similar in that units responded out of order and first arriving companies were unaware of fire in the basement.
(NIOSH report: http://www.cdc.gov/niosh/fire/reports/face9921.html) The differences here were that other companies quickly communicated the presence of the basement fire and the fire was vented and knocked down before it flashed into the upper levels occupied by the initial attack crews.

Other lessons learned (most of these were referred to in the above passages as well)

1. First arriving companies need to be very careful when performing a 360 so as not to miss fire in the basement.
2. Companies are reminded that they always need to clearly announce when they are taking a position different from their assigned order.
3. All unit officers are strongly urged to monitor the radio, and to carry it in such a manner that it can readily be heard even when wearing PPE.
4. The RIG supervisor should be an in-county officer very familiar with the MCFRS SOPS and RIG requirements.
5. All units need to be familiar with terminology relating to tactics and transitioning from attack to defense; especially *withdraw, evacuate*, and *sweep*.
6. The FM's need to be involved in the overhaul process from the beginning.
7. Command aides/Battalion drivers are needed and necessary for personnel accountability and safety.

Credits:

Pictures courtesy of www.bvfd.com

Editorial assistance: FF M. Horrell, Sta. 22 C