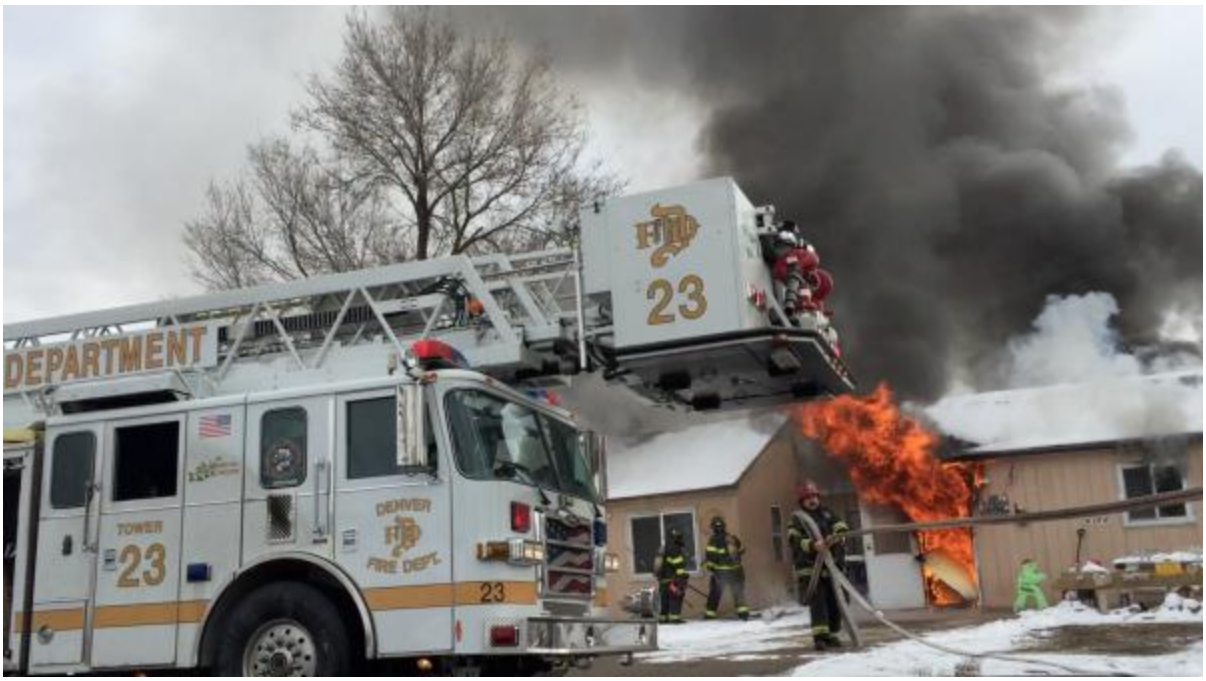
After Action Review: 1208 S. Mariposa St.



Date: 3/19/16 Time: 0937 Incident Number: 16-0028626

Address: 1208 S Mariposa, Denver CO 80223

Summary- Companies that responded to this fire encountered a highly modified structure with interior hoarding conditions. Heavy smoke and fire were present on arrival and numerous hazards developed during extinguishment. Four hand lines were used to control fire as well as 3 extra apparatus (HAMER 1, Truck 12, and Engine 5). The IC was able to manage this incident effectively by using single resources. 2 firefighters received slight burns to the neck/ears and were treated on scene by DHMC, their turnout gear and SCBA's sustained heat damage and were pulled out of service to be inspected. Fire cause is under investigation. The positive actions of the DFD enabled this difficult fire to be placed under control in approximately 30 minutes.

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Risk vs Benefit: TR23A (initial IC) reported all occupants out, heavy fire in building, Defensive Strategy declared.

Units Initially Dispatched: E23, E11, E16, TR23, T16, T19 RIT, Rescue 1, Chief 7, Chief 3, Ops 2

First Arriving Unit: TR23 (TR23A initial IC)

Additional Units Requested: E05, T12, HAMER 1, Air/Light, Arson 04, Arson 09

Initial Assignments:

IC: Chief 3 RIT: Truck 19 Safety Officer: Ops 2

Chief 7: Charlie Side (not Division)

Engine E23: Attack Line Alpha side Truck TR23 :Force Entry/Search/Utilities

Engine E11: 2 ½ line C side Truck 16: Assist open up bldg R01: search from C side

Engine 16: supply line alley, 1 ¾ line C side

Initial Strategy: Defensive

Initial Supply Line: 3 Inch # of Lines 1 Supply Engine E11 Humat: Yes

Attack Line: 1 ¾ Alpha side, 2 ½ Charlie side, 1 ¾ Charlie side, 2 ½ Alpha side (pulled later by T16)

Back-up Line: N/A

Was the building laddered: Yes 2 Means of egress: Yes

Building Size: 2500 sq ft Type: Lightweight

Occupancy: Residence Stories: 2 with basement

Involvement Upon Arrival: Heavy fire venting Alpha Side door, fire in breezeway between 2 buildings, heavy smoke throughout

Initial Location of Fire: Alpha side South building

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Command Structure:

Chief 3 – IC

Ops 2- Safety Officer

T19- RIT

All units working as Single Resources, Groups/Divisions not implemented.

Command Structure Notes: All units operated as single resources, Groups/Divisions not used, Chief 7 used as Charlie side but not used as a Division, Charlie Division not specifically created, Chief 7 acted as Charlie side assisting IC with information flow. Span of Control never exceeded 1:8. Although IC was at max for span of control, max was only for a short period, because of layout of building and need to change assignments and locations of companies, staying at single resource level was ideal and Groups/Divisions would have been difficult.

Communications: **TAC 7 and face to face. Radio transmissions clear, channel not overwhelmed with activity.**

Special Challenges: **Building had been extremely modified, originally was 2 separate single family residences but breezeway with large swamp cooler had been built between residences to make one large open residence, for this fire the 2 residences were referred to as South building and North building, 2nd floor had also been added to the North building C side but was only accessible from interior of Alpha side North building, North building also had a very small basement, all areas of the residence (including attic) heavily loaded with contents (hoarding conditions), Charlie side back yard had large amounts of storage, single car garage in back had been turned into a residence.**

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Hazards:

Hoarding conditions (including unseen hoarding in attic), storage in backyard, power lines down, fallen power lines hard to see in the storage, large swamp cooler on roof of breezeway, ammunition and firearms in room AB corner, multiple additions and modifications made to building.

Safety Issues:

Defensive Strategy clearly stated by IC but several companies went Offensive without informing IC, large swamp cooler on roof, power lines down, ammunition exploding in AB corner, hoarding conditions, multiple additions and alterations to building.

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Evaluation and Summary

1. **What was our goal?**
2. **What went well?**
3. **What could have gone better?**
4. **Recommendations**

Goal: Search, Evacuation, Extinguishment. After determining that all parties were out, with heavy fire and smoke throughout a lightweight building, Defensive Strategy declared. Throughout fire, strategy changed depending on conditions, fire was in a very challenging building, general goal of extinguishment was accomplished (except for hot spots) in 32 minutes.

What went well: Excellent initial report and actions, 360 completed by IC, risk vs benefit completed and strategy declared, 2 water supplies established, additional apparatus called for when all initial units assigned, multiple hazards clearly identified, several changes in strategy occurred during this fire (all were appropriate due to encountering and then mitigating hazards), 4 hand lines were pulled and operated to overwhelm fire, companies operated effectively in a highly modified residence that had a confusing layout and hoarding conditions.

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Evaluation and Summary (cont'd)

What could have gone better:

1. IC had declared defensive strategy yet several units went offensive without informing IC. TR23C and TR23D started search in North building due to additional information of possibility of occupants. However, need for search was not communicated to IC and was started without IC's knowledge. Engine 23 went offensive with their attack line in South building while incident still in Defensive mode.

2. Lack of coordination between truck and engine companies may have contributed to fire spread in regards to timing of venting/application of water.

3. First-in Engine's application of water was delayed due to method of establishing water supply, longer than normal elapsed time to pull attack line and apply water, application technique not ideal.

4. Downed power line in backyard was identified but was difficult to see it due to all the storage.

5. Swamp cooler hazard was identified and stated on radio but companies still went underneath it to work.

6. E23 noted large fluctuations in the pressure in their attack line.

7. Staged company left their staged apparatus and walked to C side of incident without informing IC.

8. Companies worked on scene for extended period of time without formal rehab or relief.

9. Fire rekindled later in shift.

10. Several PPE/SCBA issues noted; SCBA waist strap not fastened, helmet flaps not down, some personnel on roof while not on air.

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Evaluation and Summary (cont'd)

Recommendations:

1. **Maintain the strategy designated by IC, if conditions/information change then communicate need to change or deviate from strategy to IC and only change strategy if IC changes it. At this incident, IC could have changed strategy based on need to search, which may have included tactics to lessen high heat conditions/fire flow path in area that needed to be searched.**
2. **Coordinate truck company vent actions with engine company operations. Be aware that actions taken, even if "Venting for Life", could potentially change flow path of fire quickly and drastically and diminish survivability conditions in a structure or could affect interior conditions for firefighters subsequently entering to search an area. At this incident, windows were being vented in breezeway and North building while at the same time water was not being applied by an engine company, venting actions appeared to have created flow path of fire into North building, creating extreme heat conditions in the area, just as firefighters entered to search.**
3. **Improve proficiency with differing methods of establishing a water supply as well as improve proficiency/speed with placing a hand line in operation. Due to on scene video, time frames were established for certain actions at this fire, the time elapsed for the first-in engine after arriving at the intersection of Arizona and Mariposa (very near to fire building), securing a water supply North of Arizona on a dead end street, and then laying in to front of residence was 1:15. Other methods of obtaining a water supply could have put the engine on scene quicker, thus saving valuable time and allowing a hand line to be in place faster. Due to on scene video, a time frame of 2 minutes was established from the time that personnel exited the first-in engine in front of the residence until water was flowing on the fire. Fire growth was rapid and faster deployment would have been beneficial. Fog nozzle setting was not checked and initial application was at full fog, then partial fog with crew entering building in full standing position. Also, at this point in the incident, the declared strategy was Defensive and the engine company entered several feet into the building with their hand line. Visible fire**

was knocked in the South building of the structure but visible fire in the breezeway and North building was not immediately addressed.

4. **Better identification of downed power lines on Charlie side. Chief 7 was monitoring and assisting IC with actions on Charlie side and as such made all companies aware of downed power line in backyard. However, due to extreme clutter in backyard it was difficult to visualize entire wire. A combination of cones/fire line tape to delineate a hazardous area could have quickly been put in place, either by the Safety Officer or a company already on the Charlie side.**
5. **Regarding swamp cooler identification; this was a difficult hazard to address and was addressed multiple times via radio announcements. Solution was constant vigilance of area by IC, Safety Officer, and Chief 7 and was a viable option at this fire. Cordoning off the area or denying access to this area would have been impossible due to the configuration of the structure. At one point a company was observed under the hazardous area but was noticed by Chief 7 and the company subsequently relocated to a safe location. As the incident progressed, it became well known that this was a hazardous area.**
6. **Regarding fluctuating line pressures on E23's hand line; 3 hand lines were operating off of Engine 23 at height of the fire. E23 was in front of structure with one 3" supply line going to E11, E11 was working at the hydrant. Further research, which could include replicating the same set-up, could be done to troubleshoot the extent of the fluctuations and determine cause/solutions.**
7. **When staging at a fire, remain staged with apparatus until assigned by IC.**
8. **Implement a rehab plan that accounts for working conditions and time spent working of each company at the incident. If possible, place first-in companies in service and rotate in fresh companies to complete overhaul. At this incident, fire was not under control for approximately 30 minutes and then extensive overhaul was needed due to hoarding conditions. First-in companies were on scene for an extended period of time. Also, the Safety Officer should assist IC in making sure that rehab is in place and effective. At this incident, the Safety Officer left the scene during overhaul to respond to Station 23 and assist Tower 23 with inspecting/decommissioning PPE/SCBA's that were damaged in the fire. At future incidents, the Safety Officer should remain on**

scene through overhaul and other personnel should be used for tasks at locations away from the incident.

9. **Use of the DFD's rekindle box at incidents where there is a high probability of rekindle. The current rekindle box is in-service but uses dated equipment and technology. A new rekindle box is being placed in service in April, 2016 and will be easier to use.**
10. **Proper wear/use of PPE/SCBA. One person was observed with a loose, unfastened SCBA waist strap. Loose/hanging straps could easily get caught in the contents of a structure, especially while operating in hoarding conditions. Also observed was a FF on the roof and not on air. Rule of Thumb- if a person is in or above an IDLH atmosphere, that person should be on air. Lastly, 2 FF's received slight burns to the ears/neck area; the protective flaps on the helmet, when pulled down, effectively diminish heat/flame exposure to the wearer and may have helped at this incident.**

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Civilian video footage of this fire can be found at
https://www.youtube.com/watch?v=PCI5Ka8vjlk&feature=player_embedded

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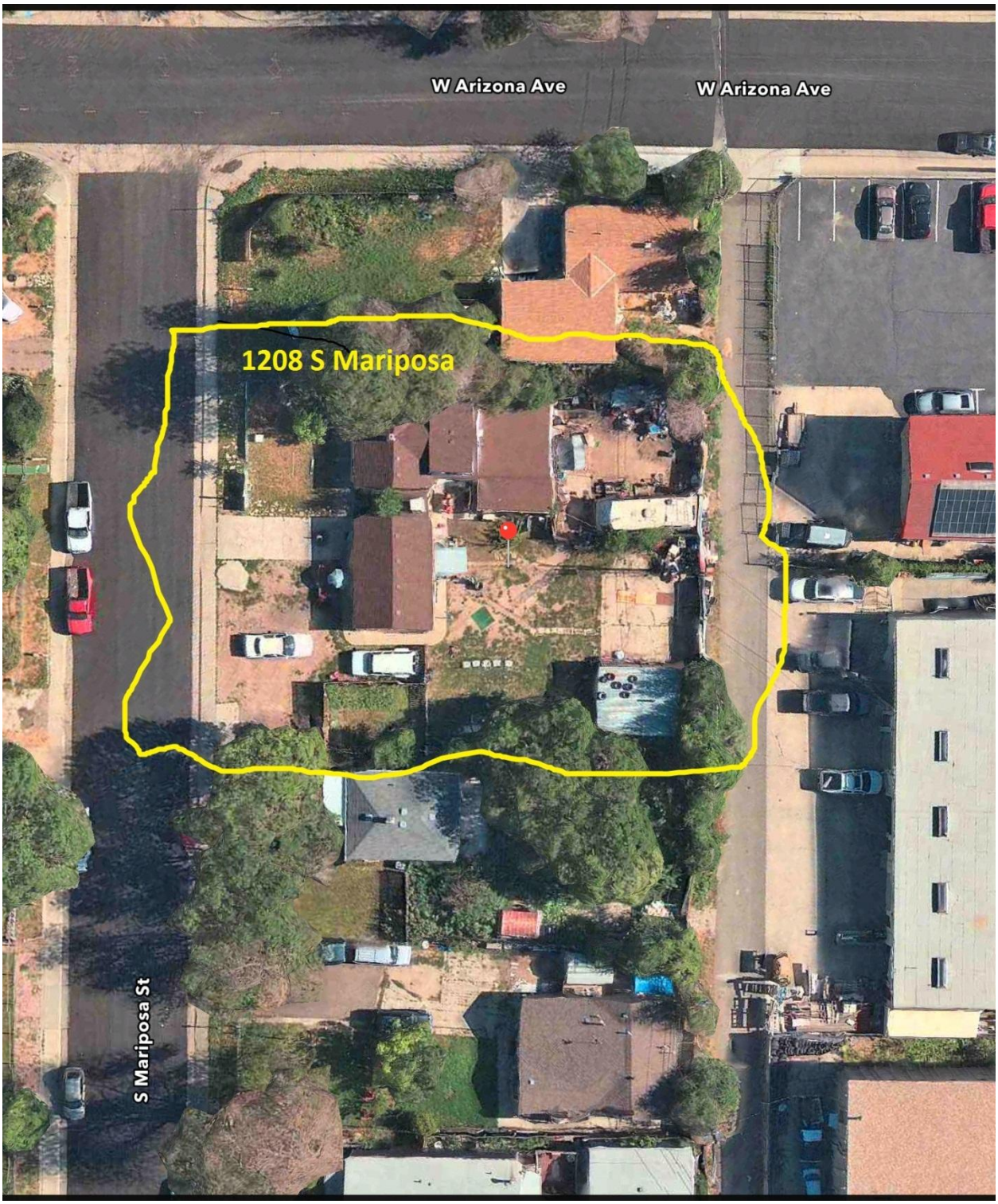

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