“

TOLEDO FIRE & RESCUE DEPARTMENT

C-122 High-Rise Summary

Emergency Manual

Date Revised: 07/28/2025

Last Modified: 07/28/2025 11:13

Export C122 to PDF
Export -Entire C Manual- to PDF

Mission Statement:

To safely accomplish the goal of getting a 2 ½” line flowing 250 GPMs of water for sixty uninterrupted minutes during a High-Rise fire and to support such an operation effectively and safely.

High Rise Defined:

High-Rise Structure is defined as, “Any structure where all or portions of a building are beyond the reach of ground based firefighting equipment, specifically aerial ladders.”

Command:

The Command structure at high rise fires will follow the Incident Command System as explained in section C-57 of “TFRD’s Emergency Procedures Manual”. This includes the response of two Battalion Chiefs on a high-rise regular alarm.

Initial Incident Commander’s Responsibilities:

The first arriving officer will establish the Incident Command System (ICS) and should assign **Lobby Control, Water Supply, and Recon/Attack** as their first sectors. As the incident progresses and additional information is gathered, the remaining sectors should be assigned to include Search/Rescue, RIT, FOB/Staging, and EMS. A comprehensive size-up of the structure, including a 360-degree assessment, is critical for effective decision-making. If a full 360-degree assessment is not feasible due to the building's size the Incident Commander (IC) must delegate this task to an incoming unit. Nothing showing on a high-rise alarm means absolutely nothing.

- **Lobby Control:** In response to a confirmed High Rise fire, the first arriving engine driver will

assume Lobby Control until properly relieved. Lobby Control should complete the following:

- Fire Alarm Control Panel (FACP): Lobby Control should locate the FACP and identify the source of the alarm and location if possible. (Note: FACP will often have an "Alarm ACK" button, scroll through all alarms, do not press reset). Silence the alarms to facilitate communication and make an announcement through the PA if possible. On most alarm systems if the audible/visual alarms activate again, a new device has been activated.

- Pump Room: Locate the Fire pump and determine if it's running. Note the **Churn Pressure** and report this to the Water Supply engine driver for FDC connection. (Note: Churn Pressure is the pressure generated by the pump when it's running and not flowing. If the system is not running, report pressure on gauge at fire pump panel).

- **Water Supply:** In response to a confirmed High-Rise fire, the second arriving engine should locate the FDC, obtain a dedicated water supply, and supply the FDC with (2) 3" hose lines at 50 PSI below the churn pressure. If the churn pressure is not known, supply the system with 125PSI, adding 5PSI per floor. **Note:** Per Ohio Fire Code, a fire hydrant must be located within **100' of an FDC connection** therefore, connection to the hydrant should be manageable by the driver alone, with the balance of the unit being assigned as the IC requires.

- **Recon/Attack Group:** The Recon/Attack group is arguably the most critical role in a high-rise incident, functioning as the "offensive coordinator" of the operation. This group should be staffed with at least 6-8 firefighters to achieve success. The group leader will provide a "scene size" up to the IC, providing the required information to create an Incident Action Plan. This includes strategy for the attack, determining the most appropriate stairwell for standpipe connection and the subsequent deployment of hose lines. The Recon/Attack group must ascertain the following four critical pieces of information:

  - What are the conditions encountered (size up)?
  - What floor/floors is the fire on?
  - What room/rooms number(s) is/are involved?
  - How much hose is needed to extinguish the fire?

Note: Recon/Attack members should not commit themselves to a hallway or fire involved unit that is beyond the extinguishment capabilities of a water can. If high heat conditions are encountered at any time in the recon process, members are to retreat to the stairwell in which they came or a place of refuge.

- **Hose Line Deployment and Standpipes:**

  - The remainder of the Recon/Attack Group should coordinate the hose connections and deployment. Unless otherwise instructed, it is best to stage the floor below the fire and await specific instructions from the Recon/Attack group leader. If possible, keep the high-rise packs mounted until the exact location for connection is determined. During this time the remainder of the Recon/Attack group can size up the floor below. Once a room number is provided select the most appropriate standpipe on the ***floor below*** the fire and estimate total hose length required. For residential high-rise fires consider 50ft for the floor below connection, 50' for advancement into fire apartment, and measure using walk off method on the floor below (apartment to closest standpipe).

- **Test/flush the standpipe:** Standpipe valves are subject to failure. Test/flush the valve to verify its functionality before committing to that location. Failing to do so could result in significant delays, as precious time would be lost if the entire attack effort is forced to relocate to a different stairwell after hose is attached. Once standpipe valve is tested and flushed connect the in-line gauge, additional elbow or cheater as required, then the required hose for deployment.

- **Floor Below Stretch:** The floor below stretch should be considered for hose line advancement. It allows the remaining line to be flaked out on the floor below, without running it up beyond the half landing. Flaking hose above the half landing requires firefighters at pinch points that are subject to smoke/heat. Officers must delegate stairwell positions to maintain control of corners and pinch points. The floor below stretch method enables monitoring of the standpipe pressure gauge from a location outside of the IDLH environment, enhancing safety and operational effectiveness.

- **Standpipe Pressure:** A minimum of **65 PSI** is recommended as the industry standard for high-rise firefighting using (3) lengths of 50’ 2 ½” hose. If adding more than (3) lengths, add an additional 5 PSI of outlet pressure per length. Once the hose line is charged, the flow pressure must be gated to at least 65 PSI to ensure adequate gallons per minute (GPM). The nozzle operator must flow water with the nozzle wide open, while maintaining communication with the standpipe attendant on the floor below to adjust the pressure. Only after the hose line is charged and the nozzle pressure set should the line be advanced. Subtle bends and kinks may cause inadequate pressure due to the lower operating pressures observed in standpipes. The firefighter monitoring the standpipe pressure must remain at this location to adjust as required during fire suppression.

- **Search/ Rescue Group:** Search/Rescue personnel must exercise extreme caution when entering Immediately Dangerous to Life or Health (IDLH) environments in a high-rise fire setting. Due to the limited availability of hose lines, a thorough risk/reward assessment must be conducted before committing to areas of the structure that are actively involved in the fire. Firefighters **SHALL** not enter heavily involved hallways or units unless a line-of-sight rescue is feasible. In residential high-rise, consider searching open doors for potential victims rather than opening closed doors. The doors are meant to prevent smoke spread into apartments. The following are search considerations that differ from traditional search methods:

  - **Stairwells, Hallways, Common Areas, and the Fire Floor:** Historically, these are the most common areas where victims are located, and the first places to search. The attack stairwell leading up to the roof must be cleared. It will be filled with smoke and as the smoke and heat rises it may trap occupants self-evacuating. In addition, certain buildings may have automatic locking doors, potentially trapping individuals in the stairwell above the fire floor.

  - **Searching Adjacent Floors:** After completing the above, search the two floors above, two floors below, and the top floor. The decision to evacuate or shelter in place will be based on commands IAP. Unless the occupants are in immediate danger, consider sheltering the occupants in place.

  - **Search Operations Based on a Solid Action Plan:** All search/rescue activities should be

guided by a clear action plan that incorporates sectoring and accountability for all group members. Search/Rescue groups should be supported by a rescue/removal team so that the Search/Rescue group can maintain progress. Coordination with an active hose line for protection is strongly recommended to ensure safety throughout the operation.

- **RIT Group:** The RIT Group shall set up **one floor below** the fire. Strong consideration should be given to staff the RIT group with multiple units. The RIT group has an immense workload, transporting the required RIT equipment and high-rise packs, setting up the RIT line, and managing the large areas encountered in typical high-rise operations. A RIT line should be established on the floor below the attack connection.
- **EMS Group:** The EMS Group shall establish a Triage and Rehab area **three floors below** the fire floor. This sector will include one medic transport unit, one engine, and an EMS supervisor (such as unit 122). Additional staffing to support this sector may be considered by the FOB Commander based on the demands of the incident.
    - EMS personnel will be fully equipped in their PPE and SCBA and bring up all required ALS equipment. Stair chairs, scoop stretchers, and mega movers are recommended.
    - EMS Group will maintain communication with the Lobby sector to coordinate the transport of patients from the FOB to the lobby and subsequently to the designated transport area.
    - Fire crews requiring rehabilitation shall report to the EMS floor. This process will be conducted in accordance with "Emergency Procedures Firefighter Rehabilitation C-85". Once a committed crew has used a bottle, they must report to the EMS level for rehab. After being cleared by rehab, the crew shall return to the staging area for reassignment.
    - This procedure will be followed for two bottles. After completing their second rehab, the crew shall be rotated outside the FOB to exterior staging for an extended break and resupply before reassignment.
- **Elevators:** Elevators are subject to failure, and the safest means to travel to the fire floor is the stairs. However, if the fire floor is higher than 6 floors, elevators can be an efficient means of travel if properly evaluated and captured. No elevator used by members shall go above interior staging floors. **Elevators must never travel to the floor of origin**, and not higher than (2) floors below the fire. For detailed information on elevator use, see the appendix in the High-Rise manual. Elevators shall not be used in the following circumstances:
    - 5 floors or below, use the stairs
    - Heavy fire noted from exterior, use the stairs
    - Fire, smoke, or water noted in the elevator shaft, use the stairs
    - Elevators that do not have a Fire Service Operation, use the stairs
    - Freight style shall not be used, use the stairs
    - Flashing Maltese Cross (smoke/water detected), use the stairs
- When the decision has been made to use the elevators, all elevator cars shall be recalled to the ground floor in the lobby using the firefighter elevator keys, by placing the elevators in Phase 1. After evaluating, placing into Phase 2, and performing operational checks, the elevator may be used if beyond (5) floors. Each car that will be used to travel should have an operator with

knowledge of how to use it during fire operations. The operator should have forcible entry tools, full turn out gear and SCBA. During the onset of the incident, this may not be practical. In this circumstance, the elevator can be returned to the lobby after members have determined the area is clear, and stairwells for escape are identified. Reaching in an placing the car to “Off” position will return the car to the lobby.

Additional Considerations:

1. This procedure is intended to serve as a summary of the “Toledo Fire & Rescue High-Rise Manual”. All topics outlined herein are further detailed in the full manual. Personnel are strongly encouraged to consult the manual for comprehensive guidance, detailed explanations, and additional operational considerations.

2. Proper preplanning is the key to success for high-rise incidents. Take the time to preplan the buildings in your district and collaborate with your second due engine companies.

3. Consider calling a 2nd alarm on a confirmed High-Rise fire early in the incident. High-Rise fires are arguably our most physically demanding incidents and require a vast number of resources to manage. Delaying the required resources will present additional challenges for the members and IC. In this same thought process, members will be performing extremely strenuous activities, in potentially high heat conditions. RIT and EMS groups should anticipate this and be ready to manage a medical emergency.

4. The Recon/Attack line may be the only line in place during the onset of the incident. Most standpipe systems are designed to flow a maximum of 500 GPM per riser, limiting options for back up lines and RIT lines, one or the other unless another further riser is selected. Ensuring that the Recon/Attack group is staffed with adequate personnel, and managed by strong leadership and tactics will promote the best outcome for the incident.

5. All standpipe threaded connections within the City of Toledo are required to have Toledo Threads per the Toledo Fire Protection Code, however this is not always the case. An adapter for Toledo to National threads is located on every TFRD Engine and should be used if a standpipe with National Standard threads is encountered.

6. Recognition of wind driven fires is paramount for the safety of our members and civilians within the structure. Wind conditions at just 20MPH resulted in triple LODD in N.Y. Wind driven fires could become a catastrophic blow torch with just a single failed window, tactics must be adjusted. See the High-Rise Manual for key indicators of wind driven fires.

7. Large open area commercial high-rise differs from residential high-rise in that is lacks compartmentalization. Tactics must be adjusted accordingly. Search lines and/or ropes should be considered for crew accountability.

8. If exterior fire through a failed window is noted, all efforts should be made to knock down the fire from the exterior using deck guns, Blitz nozzle, or aerial master stream.

9. Truck crews, unless otherwise assigned, should consider bringing up PPV fans, both electric and gas, to pressurize stairwells. Concentrate on the “dirty” (attack) stairwell first, then “clean” (evacuation)

second.

See Also: Toledo Fire & Rescue High-Rise Manual
