

# New Durham Fire & Rescue Department Standard Operating Guideline (SOG)

**SOG 305**      Roof Operations

**PURPOSE:**    To insure safe and efficient roof operations.

**SCOPE:**        All incidents involving roof operations.

**SPECIFICS:**

- Early ventilation of a building is important to the success of fire control operations and the safety of firefighters and victims...
- A Ladder crew should be strategically placed to allow safe access to the roof, emergency exit from the roof, and in tactical positions that would permit effective defensive operations if needed.
- Roof Sector responsibilities will be assigned to personal that must be on the roof to supervise crews.
- Roof Sector crews must enter the roof from an established safe area and must have a secondary means to escape the roof, or to a safe refuge on an unexposed and structurally sound roof surface.
- The Roof Sector will be responsible for obtaining its own protective hose line as needed.
- First personnel reaching the roof must quickly evaluate conditions to assure the roof is structurally sound before attempting to work on it. The degree and extent of any signs of weakness must be considered before committing personnel above the fire. Once on the roof, the roof officer and the roof crew must evaluate their route and progress as they proceed out on the roof. A constant reevaluation of roof safety must be maintained throughout roof operations. Time and fire conditions will be constantly changing to weaken the roof.

**Trussed Roof**

- No firefighter shall operate on a trussed roof if there is any evidence that the fire has penetrated the attic or involves the trussed area.

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- Commercial /Tile/Slate/ Metal Roofs: Extreme caution must be used when operating on commercial or residential tile, slate or metal roofs. Roof crews must keep a close watch on roof and attic conditions and be prepared to exit roof with any changes.

### **Roof Sector Duties:**

- The initial Roof Officer must report to Operations the following conditions:
  - a. Roof design and construction (flat, peaked, trussed, etc)
  - b. Structural conditions
  - c. Fire conditions or effects of fire on roof
  - d. Locations of fire walls
  - e. Locations of objects that are affected by fire conditions i.e.: chimneys, etc
  - f. Ventilation plan
- The objectives for Roof Sector operations include:
  - a. Determining a safe working surface.
  - b. Complete adequate size ventilation hole(s) and achieve effective ventilation.
  - c. Coordinate roof ventilation with interior crews.
  - d. Coordinate with Interior Officer
  - e. Maintain roof –top monitoring of roof structure and fire conditions.
  - f. Provide progress reports to Operations.
- It may be necessary to establish a Roof Evaluation crew remote from the fire-involved roof to keep a watchful eye on roof conditions, where imminent collapse will occur. Such a location may be a ladder pipe or adjacent building.
- In some cases, more than one ventilation hole will be required to meet the 10% objective. As one hole is opened the Roof crew should cut additional holes in the next adjacent areas. Crews must move from the first hole towards safer areas with each consecutive ventilation hole. Caution. Additional holes consume time. The Roof crews must constantly evaluate the structural stability of the roof as it relates to changing fire conditions and time.
- The Roof officer must advise Operations when ventilation holes are completed and any change it may have on roof conditions. The officer shall monitor the radio at all times.
- Roof ladders shall be used for operations on any roof where the pitch presents a problem or crews cannot effectively operate aerial ladders or aerial appliances.
- All Roof personnel shall wear full protective clothing and SCBA when operating above a fire.