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In building construction, a rated wall is designed to subdivide a building into separate fire areas in an effort to slow the spread of fire or smoke from one side of the building to the other. These walls are designed to maintain a specific fire rating in accordance with all applicable building codes.

There are various types of rated walls that are present in almost every building type. The International Building Codes provides the following definitions:

*Fire Wall: A fire-resistance-rated wall having protected openings, which restricts the spread of fire and extends continuously from the foundation to or through the roof, with sufficient structural stability under fire conditions to allow collapse of construction on either side without collapse of the wall.*

*Fire Barrier: A fire-resistance-rated wall assembly of materials designed to restrict the spread of fire in which continuity is maintained.*

*Smoke Barrier: A continuous membrane, either vertical or horizontal, such as a wall, floor, ceiling assembly that is designed and constructed to resist the movement of smoke.*

These rated walls are originally designed to be a continuous solid barrier. Additionally, a fire wall is specifically required to be continuous from exterior wall to exterior wall and begins at the foundation and extends to a distance above the roof. Rated walls are also required to be continuous through all concealed spaces unless the construction assembly forming the bottom of the space has a fire rating equal to that of the rated wall.

During an addition and/or renovation project, a temporary separation wall will be required to separate the occupied portion from the construction/demolition areas. The International Fire Code, 2006 ed. References NFPA 241 for guidance for these insistences. According to NFPA 241, the wall must:

1. *Separate an occupied portion of the structure from the portion of the structure undergoing alteration, construction, or demolition when such operations are considered as having a higher level of hazard than the occupied portion of the building;*
2. *The separation wall must have at least a 1-hr fire resistance rating; and*
3. *Any opening protectives hall have a minimum of a 45-minute fire protection rating (construction tarps do not meet this requirement).*

*Firestopping: A precisely tested means and method for preventing the spread of fire (and to a lesser degree smoke) through a breach or gap in a fire-resistance rated wall.*

The Office of the State Fire Marshal highly recommends that facilities consult with a specialist or an engineer to obtain an engineering judgement and/or recommendation for a qualified contractor to perform the work. Firestopping should not be considered standard building maintenance.

## Office of the State Fire Marshal – Fire Prevention Division



In example #1, the facility has placed a barrier door in the separation wall for access to the construction side from the interior. In this instance, the door is not fire rated to provide a minimum of 45-minutes of fire protection.