Fire Flow Worksheet Instructions

1. Scope

The following lists the procedure for determining required fire-flows using this Excel spreadsheet. The calculations are derived from the 2009 International Fire Code Appendix B.

2. Definitions

FIRE FLOW CALCULATION AREA. The fire-flow calculation area shall be the total floor area of all floor levels within the exterior walls, and under the horizontal projections of the roof of a building.

FIRE FLOW. The flow rate of a water supply, measured at 20 pounds per square inch (psi) (138 kPa) residual pressure, that is available for fire fighting.

3. Preparer Information

Preparer Name: Enter the name and contact informatio for the person preparing the form.

Architect / Engineer of Record: Enter the name and contact information for the archtitect or engineer of record.

4. Total Fire Flow Area

Total Fire Flow. The total fire-flow calculation area shall be the total floor area of all floor levels within the exterior walls, and under the horizontal projections of the roof of a building, except as modified below.

Type IA and Type IB construction. The fire-flow calculation area of buildings constructed of Type IA and Type IB construction shall be the area of the three largest successive floors.

Exception: Fire-flow calculation area for open parking garages shall be determined by the area of the largest single floor.

5. General Building Information

a. Complete the building information.
b. Choose a construction type from the drop down list.
c. Enter Total Bldg (see definitions above for details)
d. At this point the spreadsheet will automatically calculate the Bldg Fire Flow.

6. Fire Flow Reductions

Use this section to determine the amount of reduction in fire flow.

Fire Protection Reductions – The total required fire flow for a building may be reduced by the following option. The resulting fire flow must be no less than 1500 GPM @ 20 psi residual.

Sprinkler Systems. A reduction in required fire flow of up to 50 percent is allowed when the building is provided with an approved automatic sprinkler system installed in accordance with NFPA 13 or NFPA 13R.
(Greater than 50% reduction will required Fire Marshal approval)

7. Available Fire Flow

Enter the available fire flow to the site as indicated by a recent hydrant flow test. The fire flow shall be the flow available at 20 psi residual.