

2.05 Fire/Smoke Damper Submittal Guidelines for Tenant Improvements (2016)

Reference: SFBC, § 717.2; Department of Building Inspection, AB-047; SFMC, § 608

Purpose: The SFBC has clarified the smoke detector requirements for fire/smoke damper activation. Depending on building design, the sequence of operation for those dampers can vary greatly. In order to facilitate the testing of these devices, the Fire Department requires the following information to be submitted on the mechanical and fire alarm plans. Buildings designed under the 1996 California Building Code, or after, shall comply with applicable Building and Fire Department Administrative Bulletins for Smoke Control Systems. For “Non-Infringement Statements”, refer to DBI AB-047.

Any time a new fire/smoke damper is shown, the following information must be provided:

1. Location of smoke detectors or duct detectors for damper activation and a description of which method is being utilized per the SFBC, § 717.3.3.2;
2. Narrative description of the building smoke control system/ management system, where applicable;
3. Sequence of operation matrix for the new smoke detector(s) and fire/smoke damper(s). Provide information on whether the damper is normally closed or normally open, and description of how protection is provided when the power fails to the damper (i.e. fails closed).
 - a. The purpose of this information is to assist the plan reviewer and the field inspector. Each building is to be handled on a case by case basis depending on the original building design.
 - b. The Fire Department's goal is to insure that the contractor installs the dampers as the engineer intended, and that new dampers don't hinder existing systems.
 - c. Fire/smoke dampers shall be accessible for inspection and servicing. Concealed detectors that are used to activate dampers must have a remote alarm indicator complying with 2016 NFPA 72, §23.8.5 and §17.4.7.
4. Duct and plenum detectors must be listed for the air velocity, temperature, and humidity anticipated at the point where it is installed. The Mechanical Engineer of Record shall identify airflow, velocity, max/min temperatures, and humidity at the location where in-duct or plenum smoke detectors are installed.
5. Operating temperature of the fire-damper or fire/smoke damper actuating device;
6. Indication when an override switch is provided in the Fire Command Center (FCC) on the Fire Fighter Smoke Control Panel (FFSCP);
7. Description of how protection is provided when the building fan systems are shut down (i.e. Building Management Systems) if duct detectors are used to activate smoke dampers (i.e. dampers are arranged to close when fans are shut down);