TO: Distribution
FROM: Satish K. Babbar, R.A.
DATE: July 19, 2000
SUBJECT: Vertical Enlargements Required to have Higher Construction Classes than Existing Construction

EFFECTIVE: Immediately


PURPOSE: To establish minimum construction criteria for vertical enlargements erected as separate buildings/building sections

SPECIFICS:

REQUIREMENTS: Vertical enlargements required by tabular limits to have higher construction classes than the existing construction shall be regarded as buildings separate from the existing construction. The required separation shall, at the minimum, comply with the following, which shall be on the plans submitted:

1. Fire Divisions. Fire divisions shall separate/isolate the following from the existing construction:
A) THE ENLARGEMENT. (The existing roof construction may have to be replaced, or a new floor may have to be erected over the existing roof in order to achieve the required separation by fire divisions.)

B) MEANS OF EGRESS. Unless otherwise accepted by the Borough Commissioner, all means of egress for the enlargement shall be isolated by fire divisions from the existing construction and shall discharge down to grade. If doors are provided into the existing construction, they must be at least 1 1/2 hr. fireproof self-closing.

C) FIRE DETECTION, ALARM AND EXTINGUISHING SYSTEMS, and DOMESTIC WATER SUPPLY serving the enlargement shall be protected by fire divisions from the existing construction. Pumps and/or tanks may be located anywhere in the new or existing construction, provided, if located in the existing construction, they have non-combustible two-hour rated enclosures supported as required in 2 below. Riser piping and wiring may, in the alternative, be run within a protected stair enclosure. Fire extinguishing systems serving the enlargement shall have a separate water supply from those serving existing construction. Such water supply shall be protected as specified from where it enters the existing construction.

D) MAIN ELECTRICAL SUPPLY, NATURAL GAS SUPPLY, STEAM SUPPLY and REQUIRED EMERGENCY POWER SYSTEMS (including feeder cables from required generators to their points of entry into the vertical enlargement) for the enlargement shall be protected by fire divisions from the existing construction. Emergency generators, their fuel tanks and transfer switches may be located in separate two-hour enclosed rooms or spaces anywhere in the new or existing construction, provided such rooms located in the existing construction have non-combustible enclosures and are supported as required in 2 below.

NOTE: As an alternative to the foregoing, wiring may be encased in 2 inches (51 mm) of concrete or in any other listed electrical circuit protective system having a minimum fire resistance rating of one hour. (The electrical feeder cables to fire pumps are required by Reference Standards 17-1 and 17-2 to comply with this requirement.)

2. Structural Supports. Structural supports for the enlargement, including their bracing, shall comply with Table 3-4 of the Building Code according to the construction class of the enlargement. Non-combustible construction shall be supported/braced by non-combustible construction. The fire resistance rating of structural supports and their braces shall not be less than that of the construction they are supporting/bracing.
3. **Additional Fire Protection.** Concealed spaces between existing roofs and new floors over them shall be firestopped/sprinklered in accordance with the requirements applicable to the existing construction.