

## ELEVATORS AND CONVEYING SYSTEMS

---

Application :

Passenger elevators installed in conjunction with new building projects or building renovation projects should be designed and specified to incorporate the requirements contained in this Guideline. Elevator installation shall conform to the ANSI Standard A17.1 for Elevators and State

## ELEVATORS AND CONVEYING SYSTEMS

---

life span. Larger buildings with larger mechanical and electrical equipment located within the building (typically within basement and penthouse equipment rooms) require elevators of larger capacity and size to transport the equipment located in these areas for purposes of repair or replacement. Buildings that house large pieces of departmental equipment (typically research/laboratory buildings) also require elevators of larger capacity and size. Elevators that may be exposed to this type of heavy point loading require a C3 loading classification. Consideration shall also be given to the potential future use of a building when sizing elevators.

**Security Issues:** If an elevator provides direct access to a penthouse or basement mechanical area without intervening corridors and doorways, then a means shall be provided to prevent non authorized persons from having access to these mechanical spaces. This may be accomplished by means of a mechanical key switch (see the Keying Systems & Lockset Functions general guideline for key requirements for mechanical spaces) or electronic card reader.

### TYPES OF ELEVATORS

**Appropriate Application:** The following types of elevators are permitted on campus: Overhead Traction Elevator, In Ground Hydraulic Elevator, and Hole-less Hydraulic Elevator. In some instances, Cable Assisted Hydraulic Elevators may be used with concurrence of the Elevator shop.

Traction Elevators may be geared or gearless. Traction elevators (generally) are capable of faster speeds and smoother operation. All new installations shall have the elevator machine located directly over the hoist way. Offset machines located adjacent to the top of the hoist way

## ELEVATORS AND CONVEYING SYSTEMS

---

Size: Size of elevator should be determined by what the building will need to carry on the elevator. Clear ceiling height (underneath the drop ceiling) and clear wall-to-wall dimensions (handrails protrude from walls 2 inches usually) need to be determined. Once the inside area of the elevator has been determined the elevator hoist way may be sized (Usually with the assistance of an elevator contractor).

Consideration must be given to the intended use of the elevator. Will it be used for passengers, freight, or both? What will be the largest single pi







