142000 ELEVATORS

Cab shall be sized to accommodate a stretcher in a horizontal position along with attendants. Cab shall also accommodate large scale custodial equipment. Contact Facilities for additional information on custodial equipment.

1. Regulatory Requirements: In addition to local governing regulations, comply with provisions of the following for manufacture and installation of elevator systems.

    a. ASME A17.1, "Safety Code for Elevators and Escalators".

    b. Pennsylvania Vertical Transportation code.

    c. Americans with Disabilities Act (ADA), "Standards for Accessible Design".

    d. IBC most recent Accessibility Requirements

2. Pennsylvania L&I variances must be secured for all elevators having a sprinklered shaft. Variance is to allow for shunt tripping of power to elevator prior to sprinkler system activation (as required by code).

3. Acceptable elevator manufacturers include Thyssen Dover Elevator and Otis Elevator Co.

4. Require double wall hydraulic piston casings on hydraulic elevators with waterproof seals at pit floor, and with waterproof, high pressure seal at bottom of casings

5. Emergency telephones shall be provided in all elevator cabs.

6. Preferred interior wall finish for cabs is stainless steel.

7. Provide card-reader operation for access to restricted landings.

8. Require the Contractor to provide, at completion of installation, as-built installation information on reproducible mylar drawings indicating the control wiring, motor data, and all pertinent elevator information necessary for maintenance purposes. Contractor shall also provide a manual describing all adjustment procedures, maintenance requirements and a list of components including manufacturers and catalogue numbers.

9. Key switches used in hallways or inside elevators shall be on the University master key system. Fire service key switches shall be FEO-K1, which complies with both ASME

A17.1 and NFPA Guideline's. Twelve copies of the keys shall be provided to the University for the Emergency Services Department's use.

10. Control System:

    a. The elevator manufacturer/vendor shall provide a new control system with all required functions including, but not necessarily limited to, call allocation, logic functions, door control, speed sensing/position, all with microprocessor operation. The control system shall not require the use of any proprietary or specialized manufacturer diagnostic tools for purposes of trouble shooting and/or repair. No handheld tools (data entry devices) will be acceptable for diagnostic or adjusting use. The manufacturer shall turn over to the University all tools/devices required for the maintenance of the elevator including equipment to reprogram software source codes at no extra cost to the University at the completion of the project.

    b. All software, diagnostic, adjustment/tune-up manuals and documentation and any other documentation required for the maintenance of the elevator including tools or devices necessary to reprogram the software source codes shall be provided to the University for approval prior to commencement of the installation of the elevator equipment. Once provided, no substitution of the equipment described in the manuals and documentation will be acceptable.

    c. All printed circuit boards shall be available to the University for purchase as spare parts in any quantity deemed reasonable by the University. Overnight delivery of printed circuit boards must be available for emergency repairs. Printed circuit boards shall be accompanied by all pertinent documentation for installation and use. All components of the elevator must be commercially available from standard parts suppliers.

11. Elevator manufacturer shall provide a one-year warranty for all service and maintenance during a one-year period after acceptance. Require the Contractor to submit monthly service reports to the University during warranty period.

12. Install a ladder, stop switch, light and a sump pit in the elevator pit. Sump pump (provided under Division 15) may be required where there is a problem with water.

13. Provide a malfunction signal to the controller which will indicate when the elevator is out of order.

14. The design of hydraulic elevator machine rooms should be such as to provide for proper environmental conditions to prevent overheating or congealing of the oil. Consider providing air conditioning for elevator electronic controllers.

15. Provide security mirrors in all passenger elevator cabs.

16. Provide cab protective pads.

17. Elevators shall be integrated with the fire detection system and contain an ADA compliant visual alarm device. Elevators shall include an automatic return to lobby and shutdown feature in the event of fire detection.

18. Provide training, related to elevator fire service operation and reset and emergency procedures, to Facilities Maintenance, Environmental Health & Safety and Public Safety personnel when project is completed.

19. Where elevators are installed, the installation shall include a battery-operated lowering system that can be used in an emergency to lower the elevator and extract any entrapped passengers.

20. Where elevators are installed, an oil cooling system shall be specified.