

### **14 21 23 - Electric Traction Passenger Elevators**

Machine room less traction elevator.

### **14 24 00 - Hydraulic Elevators**

#### ***Signal Equipment:***

Use non-proprietary and universally maintainable controls and software. Equipment and software necessary for long-term maintenance shall be available for purchase by any licensed elevator maintenance organization. (Examples include Car control station and in-car position indicators, Hall push-button stations, Lanterns and gongs, Hall position indicators, etc.)

#### ***Special Features:***

Access for persons with disabilities, Fire emergency service, Medical emergency service, Earthquake requirements, and Emergency exit service.

#### ***Closeout Submittals:***

Maintenance Tools: Provide complete list of specialty tools required for general maintenance, including programmable and diagnostic tools.

#### ***Quality Assurance:***

Installer Qualifications: Elevator manufacturer installers, or firm with written approval from manufacturer and with five years, minimum of successful experience installing elevators similar to those required for the Project.

#### ***Elevator Maintenance Period:***

- Maintain complete elevator installation for 12 months, minimum beginning at start of warranty period per Procurement and Contracting Requirements.
- Provide monthly systematic examination, adjustment and lubrication of elevator equipment. Repair or replace worn electrical and mechanical parts using parts produced by elevator equipment manufacturer. Exception: Greater frequency required if problems occur with elevator operation.
- Perform work during non-peak traffic periods.
- Provide 24-hour emergency call-back service with 2-hour response if the elevator is empty, and 1-hour response time for trapped occupants.
- Parts: Locally maintain an adequate stock of parts for replacement and emergency purposes.
- Maintenance Personnel: Qualified and approved by elevator manufacturer, and with 5 years, minimum experience.

- Maintenance Logs: Prepare logs of each visit and submit to University within 72 hours after visit.
- Extended Elevator Maintenance Proposal: Submit proposal to extend maintenance by three years.. Include stipulated sum with premiums due annually.

***Manufacturer/Products:***

Elevator: Capable of producing premium quality commercial hydraulic elevators and accessories to provide a complete installation.

Experience: Five years, minimum.

Option: Manufacturer shall either manufacture the major components, or shall maintain a service facility within California with complete service parts for a period of 20 years, minimum after completion of project.

***Fabrication:***

- Doors: Power operated hollow metal doors with track, rollers and frame; two-point suspension, nonmetallic sheaves; 3-inch diameter, minimum for car doors and 2-1/2-inch diameter for hoistway doors. Finish: Stainless steel.
- Hoistway Entrances: Formed metal with struts, hanger headers, fascia plates, toe guards and Underwriters' Laboratory labels. Finish: Match doors.
- Entrance Protection: Provide infrared door detectors, complying with ADA and applicable codes.
- Car Finishes Front Returns: Stainless steel with inset buttons, swing return panels.
- Pads: Provide wall attachment buttons with protective pads.

***Operating Fixtures and Signals:***

- Car Control Station: Provide service cabinet with built-in, hands-free communications via touch-button for automatic dialing from elevator car, and automatic answering for calling from outside. Provide door hold-open button.
- Hall Call Buttons: Provide illuminated mechanical hall buttons.
- In-Car Position Indicator: Provide above elevator hoistway entrance or above control panel for cars serving more than two stops.
- Lanterns: Provide wall mounted lanterns at center opening doors, above each hoistway entrance and jamb mounted lanterns at side opening doors with audible signal, one for up-travel, two for down-travel.

***Miscellaneous Items:***

- Battery Operated Emergency Lighting: Provide in car.

- Two-Speed Fan: Provide in car.
- Other Items: Provide as required by applicable codes.

***Special Features:***

- Access for Persons with Disabilities: Comply with CCR Title 24, and ADAAG.
- Fire Emergency Service:
  - Provide control circuits to comply with CBC.
  - Comply with CCR Title 24.
  - Provide three-position "on-off-bypass" key switch at ground floor.
  - Provide instructions for operation in ground floor cabinet.
  - Connect elevators to smoke detectors in lobbies.
- Medical Emergency Operation: Comply with CCR Title 24.
- Earthquake Requirements: Comply with applicable codes.
- Emergency Exit Service: Provide system to lower elevators to next lower floor level, or to Ground Floor, and doors to open without assistance in power outage.

***Finishes:***

Exposed-to-View Surfaces in Car, Machine Room and Hoistway Entrances:

- Stainless Steel: Number 4 finish (satin directional polish).
- Baked Enamel: Clean, degrease zinc-coated metal surface; one coat zinc oxide primer sprayed and baked; two coats semi-gloss enamel sprayed and baked.

**14 28 16 - Elevator Controls**

Standard: Open protocol, non-proprietary, specified with trouble shooting and operational software, and serviceable by all licensed elevator contractors.

Basis of Design Manufacturer: Motion Control Engineering. <http://www.mceinc.com/>.

Elevator Keys: Standard: Provide 3 keys, installing 1 in elevator pit.

Closeout Submittal: Keys: Provide manufacturer name and model numbers for keys and coordinate closeout submittal with Section 08 06 05 – Key Schedule.