

DIVISION 14 – CONVEYING EQUIPMENT**ELEVATORS****14 20 00****GENERAL REQUIREMENTS**

Provide hydraulic elevators for maximum rise up to 40 ft.; traction elevators beyond 40 feet.

Coordinate electrical requirements as well as code requirements for the pit, overhead clearance, shaft ventilation, pit ladder, light and electrical outlet, equipment room and phone in cab. Locate shunt trip for the main breaker outside of the elevator equipment room.

SPECIAL SUBMITTAL REQUIREMENTS

Provide non-proprietary microcomputer diagnostic device and tools necessary for service of microprocessor. Provide wiring diagrams.

MATERIALS

Electronic microprocessor controller equipment by Motion Control Engineering or equal (no known equal).

CONTROLS/SIGNALS

All lanterns and push button fixtures shall be of vandal resistant institutional design and 110 vac PSB type, manufactured by Adams, Survivor Plus, or equal (no known equal - button face has limited travel by bevel machine in panel cover) and keyed switches shall be provided for: Fireman's service keyed to Adams WD01; fan/blower; independent service and top inspection. All keys shall integrate with campus keying system, Best "A."

WARRANTY AND INITIAL MAINTENANCE

Provide full maintenance service by skilled, competent employees for 12 months following date of final acceptance. Include monthly preventative maintenance, performed during normal working hours. Include repair/replacement of worn or defective parts or components and lubrication, cleaning and adjusting as required for proper elevator operation. Include 24 hour/day, 7-days/week emergency callback service. Exclude only repair/replacement due to misuse, abuse, accidents or neglect caused by persons other than Contractor's personnel.

EXECUTION OF WORK

1. Capacity: 2500 lbs.
2. Speed: 150 FPM for hydraulic, 350 FPM for traction
3. Door Operation: 7 feet-0 inches by 3 feet-6 inches single side slide automatic
4. Finishes: Stainless steel hoistway entrances, doors front and back, and interior returns; plastic laminate over baked enamel steel walls; luminous ceiling; resilient flooring
5. For hydraulic elevators, neither hydraulic pump nor motor shall be submersible.
6. Elevator machine room adjacent to elevator.

7. Motor contactor size shall be 2 NEMA sizes over standard or Furnas solid state starter for elevators (Nordic class 72D) shall be used.

Elevator machine for traction elevators shall be manufacturer's standard variable voltage traction type hoisting machine, geared. Where variable-voltage is required, provide standard solid-state converters for use with elevator machine motors. Where an SCR drive is required for power control, include power filters to avoid pollution of power supply for data processing equipment or other electronic control systems.

SERVICE/FREIGHT ELEVATOR FEATURES (TYPICAL)

Same features as for hydraulic elevator except as specifically noted below:

1. Capacity: 4500 lbs.
2. Platform Size: 6 feet-0 inches by 8 feet-9 inches nominally; 9 feet-0 inches high. All dimensions are unencumbered clear space.
3. Door Operation: 4 feet-0 inches by 7 feet-0 inches; two speed side slide automatic.
4. Finishes: Stainless steel panels over baked enamel steel walls; flush ceiling with recessed lighting; resilient flooring.

Remote hydraulic stations are not acceptable. If a remote station is required, obtain written approval from University's Representative. All below grade hydraulic piping shall have welding joints and installed in PVC enclosure with watertight joints. Provide means of detecting oil leak in the enclosure. All piping shall be suitable for petroleum oil product. Biodegradable oil may be used, but it must be submitted for approval by the University's Representative.

ADDITIONAL FEATURES

The following items shall be included in all elevators:

1. Telephone cabinet with telephone. 999 minutes auto disconnect. Called party must disconnect. Provide hook-up phone line in machine room and instrument hook-up in cab.
2. Exhaust fan
3. Hoistway access key switch and other associated elevator locks: Best "A" keyway
4. Service cabinet key: Best "A" keyway
5. Guide rails: Standard steel tees machined for splice plates
6. Roller guides: 6 inches for car and 3 inches for counterweight with adjustable limit stops for car. For traction cars use double roller guide.
7. Provide sealed P.V.C. waterproof shaft casings for all below-grade shafts.

PERMITS

Contractor shall be responsible for obtaining, either itself or through its subcontractors, all permits required by Labor Code Section 7301.1. Contractor shall bear all responsibility for, and assumes all risk with regard to, any delay associated with the issuance of such permits.