

DIVISION 14 – CONVEYING SYSTEMS

14 00 00 CONVEYING SYSTEMS

14 20 00 – ELEVATORS

1. Hydraulically operated elevators are preferred where vertical rise does not exceed fifty-five feet. Above that, electrical traction equipment should be used. Verify with Owner which is preferred for the project.
2. Elevators should service penthouse and basement equipment rooms.
3. Provide keyed stop switch in car (Adams only). Utilize Adams **barrel** keyed switches for fire service switches in car and hall stations.
4. Installations shall be in compliance with all applicable codes and standards.
5. Give consideration to the need for sound insulation between elevator equipment and adjacent occupied space.
6. All control stations that are normally accessible to the user shall be vandal proof construction. (Adams Survivor Plus series **preferred**)
7. Emergency Communication System: Two-way voice communication system, with visible signal, which dials a preprogrammed number of the monitoring station. (Goes off hook) The system must not require a handset. It is to be contained in flush-mount cabinet, with identification, instructions for use, and battery backup power supply. Upon pressing the button in the elevator the communication device performs a “ring-down” to immediately connect to the University’s Department of Public Safety. No pre-programmed voice message is allowed. The caller ID seen by Department of Public Safety will identify the elevator exactly as stated on the state elevator permit.
8. Each elevator machine room to have an emergency light (**LED preferred**) and **20-amp GFCI** outlet to assist service personnel in extricating people from the elevator cab during a power failure.
9. Temperature control is required in all elevator machine rooms due to sensitive electronics used in the controls. Temperature range shall be between 70 degrees F and 80 degrees F. (**Mini Split Units preferred**)
10. Hoistway vent damper: **Designer** must verify sequence **of** operation, **control type and location** with Fire Marshall.
11. Preferred manufacturers:
 - 1) Schumacher
 - 2) ThyssenKrupp
 - 3) Other equivalent manufacturers as approved by Owner **prior to bid.**

12. Hydraulic elevator machine rooms shall be placed at basement or first floor level of buildings.
13. Elevator pit light fixtures to be a 4'- 3500k LED vapor tight providing at minimum 15 footcandles average to space. ~~2-lamp 4' LED fixture with wire guard and LED lamps.~~
14. Hatch equipment shall be G.A.L. only.
15. Car door operator shall be Linear G.A.L. MOVFR only.
16. Car capacity, fire fighter phase I and phase II instructions shall be engraved on hall station and car station.
17. All annual safety tests during the one-year warranty shall be performed by the installing Constructor. (The initial test and the next annual at the end of the warranty period.)
18. All monthly service tickets completed under the one-year warranty period shall be submitted to Operations and Maintenance at the Physical Plant Building, Mail Code 0189. (Copies shall be placed in the machine room.)

14 21 00 – TRACTION ELEVATORS

1. Use MCE controllers with integral VFD only.
2. A.C. motors only.
3. Roller guides only. (ELSCO, Model "B" preferred)

14 24 00 – HYDRAULIC ELEVATORS

1. All hydraulic oil to be "PCB" free. No soy oil.
2. Jack casings to have electrolysis protection such as "Union-Gard" and have PVC liners.
3. Submersible power unit with MAXTON valves, only.
4. Oil scavenger pumps.
 - a) Use "Wagner" brand only.
 - i. External motor pump and controls
 - ii. Clear top cover (for visual inspection)
 - iii. Minimum head = 100'.
4. Owner requires schedule 40 black piping and prefers ThyssenKrupp mufflers.

7. Roller guides (ELSCO model "B" only.)

14 27 13 – CUSTOM ELEVATOR CAB FINISHES

1. Cars shall have treated wood flooring under tile or carpet.
2. All elevators to have nickel plated car sills and extruded aluminum hatch sill.

14 27 16 – CUSTOM ELEVATOR DOORS

1. Provide photo electrically controlled door opening device. (Door screen)
2. Hatch access keyhole (lunar) required on every floor. Keyhole must have sleeve completely through door.

14 8 00 – ELEVATOR EQUIPMENT AND CONTROLS

1. Use MCE (Motion Control Engineering) controllers only with integral solid state starters on hydraulic units and Integral VFDs for traction units.
2. Elevator controller must accept "dry contact" input from smoke detectors in elevator lobbies, etc.