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.


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 only)

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 preprogrammed 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 and 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.


11. Preferred manufacturers:
   1) Schumacher
   2) ThyssenKrupp
3) Other equivalent manufacturers as approved by Owner.

12. Hydraulic elevator machine rooms shall be placed at basement or first floor level of buildings.

13. Elevator pit light fixtures to be a 2 lamp 4’ fluorescent fixture with wire guard and LED lamps.

14. Hatch equipment shall be G.A.L. only.

15. Door operator shall be 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 warranty shall be performed by the installing Constructor.

18. All service tickets completed under the warranty period shall be submitted to Operations and Maintenance at the Physical Plant Building, Mail Code 0189.

14 21 00 – TRACTION ELEVATORS

1. Use MCE controllers only.

2. A.C. motors w/VFDs.

3. Roller guides only.

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. Scavange pumps.
   a) Use “Wagner” brand only.
   b) Pump specs.
      i. External motor pump and controls.
      ii. Clear top cover (for visual inspection).
      iii. Flood control.
      iv. Minimum head = 100’.
4. Temperature compensated hydraulic control valves only.

5. Owner requires solid piping with appropriate mufflers.

6. Use submersible hydraulic pumps only.

7. Roller guides 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 photoelectrically controlled door opening device.

2. Hatch access keyhole (lunar) required on every floor. Keyhole must have sleeve completely through door.

14 28 00 – ELEVATOR EQUIPMENT AND CONTROLS

1. Use MCE (Motion Control Engineering) controllers only with solid state starters on hydraulic units.

2. Elevator controller must accept “dry contact” input from smoke detectors in elevator lobbies, etc.