

## Division 14 – Conveying Systems

### 14200 - Elevators

#### Code

1. Has the A/E specified all applicable code requirements, including provisions for handicapped? (The A/E must not depend on the elevator Subcontractor or the Contractor to meet code conditions.)  
(Specific drawing sheet #/specification page # \_\_\_\_\_)
2. Do all elevators, dumbwaiters, escalators, and moving walks meet the requirements of ANSI A17.1, ADA, NPFA, NEC, and the State of Florida?  
(Specific drawing sheet #/specification page # \_\_\_\_\_)
3. Do all buildings three or more stories in height have "fire service controls" and emergency power battery lowering?  
(Specific drawing sheet #/specification page # \_\_\_\_\_)

#### Diagrams, etc.

4. Is it specified that wiring diagrams and inspection certificates are to be furnished and placed under glass on wall-mounted frame, that the cost of all elevator inspections and certificates are to be paid for by the Contractor, and the certificate shall be dated to begin on the date of Substantial Completion or acceptance, whichever is later? Copies of all certificates shall be provided to the FAU.  
(Specific drawing sheet #/specification page # \_\_\_\_\_)

#### Finishes

5. Have brushed stainless steel doors and frames been specified and are cab interiors specified to be the manufacturer's standard plastic laminate, with ceramic or vinyl tile (verify with FAU's Facilities Planning Project Manager) which floors?  
(Specific drawing sheet #/specification page # \_\_\_\_\_)
6. Has the manufacturer's standard cab ceiling been specified that uses fluorescent or other energy efficient lighting in a vandal-resistant design? (Lay-in acrylic style panels are not allowed) with a minimum of 5 fc illumination?  
(Specific drawing sheet #/specification page # \_\_\_\_\_)

#### Features

7. Has it been specified that all exposed screws are to be tamper-proof?  
(Specific drawing sheet #/specification page # \_\_\_\_\_)
8. Has it been specified that top exits shall have contacts which will stop the car and ring a bell? Side emergency exits are illegal.  
(Specific drawing sheet #/specification page # \_\_\_\_\_)
9. Has it been specified that the emergency stop switch shall have an alarm bell connected to it which shall include a bell mounted under the platform and a bell located at the main floor lobby or some other designated place?  
(Specific drawing sheet #/specification page # \_\_\_\_\_)
10. Is it specified that the car operating panel shall include no buttons other than the

- emergency stop, alarm, open door, close door and floor buttons? All fire service switches required for operation of the elevator shall be key operated and in a separate cabinet having a locked door, including light and fan switches.  
(Specific drawing sheet #/specification page # \_\_\_\_\_)
11. Is it specified that all buttons shall be stainless steel and all markings and placement must be in accordance with provisions for handicapped?  
(Specific drawing sheet #/specification page # \_\_\_\_\_)
12. Is it specified that, in addition to the load weighing device, provision shall be made to ring a bell and a light if the car is overloaded beyond 120% of normal capacity?  
(Specific drawing sheet #/specification page # \_\_\_\_\_)
13. Is it specified that detector edges furnished in connection with the car doors shall be 3D?  
(Specific drawing sheet #/specification page # \_\_\_\_\_)
14. Is it specified that floor numerals should be neatly placed and in accordance with provisions for handicapped (Section 4.10)?  
(Specific drawing sheet #/specification page # \_\_\_\_\_)
15. Is it specified that elevator pits shall be waterproofed or designed to provide a dry pit area?  
(Specific drawing sheet #/specification page # \_\_\_\_\_)
16. Is it specified that where a sump pump is provided in the pit, the pump shall be set into the sump and a metal cover shall be provided to cover the entire sump and that the cover shall pose no tripping hazard and does not drain directly into main sewage system?  
(Specific drawing sheet #/specification page # \_\_\_\_\_)
17. Is it specified that conduit or plastic pipe shall not be installed in pit, hoistway or machine room? Only metal sump pump discharge lines are allowed in pits and hoistways and or oil/water separator is incorporated in sump discharge line?  
(Specific drawing sheet #/specification page # \_\_\_\_\_)
18. Is it indicated and shown on the plans that hoistways of elevators serving more than three floors shall be vented to outside air as required by code? Code requires vents in hoistways to include a mechanical louver connected to the building smoke alarm system. Vents are to be permanently closed and open upon activation of any lobby sensor (any sensor on any floor). \* This is applicable to elevators installed inside.  
(Specific drawing sheet #/specification page # \_\_\_\_\_)
19. Is it indicated that elevator machine room doors shall be fire rated as required by code and this rating is clearly called out on the plans, they are not less than 3' 4" in width, or wider if required to install and replace the equipment, are not less than 6'-8" in height (7'-0" preferred), self-closing and locking? Is it indicated that doors shall be provided with a lockset that is always operable from the inside without a key but a key is required to open from the outside?  
(Specific drawing sheet #/specification page # \_\_\_\_\_)
20. Is it indicated that machine room floors shall be smooth and level?  
(Specific drawing sheet #/specification page # \_\_\_\_\_)
21. Have machine rooms been designed to have a clear head room as required by code and is this clearly called out on the plans?

- (Specific drawing sheet #/specification page # \_\_\_\_\_)
22. Have power receptacles with GFI as required by code shown in machine rooms and pits? Is the elevator sump pump either hard-wired or connected to a non-GFI receptacle?  
(Specific drawing sheet #/specification page # \_\_\_\_\_)
23. Have lights fixtures been specified as required by code and shown in machine rooms and pits and have energy-efficient lights been specified?  
(Specific drawing sheet #/specification page # \_\_\_\_\_)
24. Has it been designed and clearly indicated that only elevator equipment shall be installed in machine rooms? No piping, drain/vent pipes, smoke stacks, air conditioning ducts, television or other items not related to the operation of the elevator are allowed in machine rooms.  
(Specific drawing sheet #/specification page # \_\_\_\_\_)
25. Has it been indicated that main line switches for elevators shall be of the fused type and shall provide means of locking the switch in the open position?  
(Specific drawing sheet #/specification page # \_\_\_\_\_)
26. Has it been indicated that fuses in the main line disconnect switch shall be "Class K5" or "Class R"? Fuses shall be properly sized for the load and rating of the disconnect switch.  
(Specific drawing sheet #/specification page # \_\_\_\_\_)
27. Has it been indicated that main line feeder wires must be phase identified in the main line switch and also at terminals of controllers?  
(Specific drawing sheet #/specification page # \_\_\_\_\_)
28. Has it been designed and indicated that stairways for access to elevator machine rooms shall comply with all applicable codes?  
(Specific drawing sheet #/specification page # \_\_\_\_\_)
29. Has it been designed and indicated that for access across a roof to the machine room steps or ramps with metal railing shall be built over pipes or other obstructions? (Access from a roof is not preferred by FAU.)  
(Specific drawing sheet #/specification page # \_\_\_\_\_)
30. Has it been indicated that all construction sites shall have removable barricades with toe boards to protect the hoistway or other open areas? Are the code requirements relative to open work in the hoistway on duplex systems being met?  
(Specific drawing sheet #/specification page # \_\_\_\_\_)
31. Has it been indicated that buildings having emergency power generators shall have the generators operable at the time of initial inspection by the State Elevator Inspector? (Elevator performance on emergency power shall be checked during inspections and tested as required.) Are air conditioners installed in machine rooms connected to building emergency power?  
(Specific drawing sheet #/specification page # \_\_\_\_\_)
32. Has the A/E designed elevator machine rooms no larger than necessary to house, maintain and repair the machinery, meet applicable codes, and has the A/E verified that the size shown will work with all approved elevator manufacturer's equipment?  
(Specific drawing sheet #/specification page # \_\_\_\_\_)

- 33. Has it been indicated that elevator machinery rooms are not to be used for storage of any kind?  
(Specific drawing sheet #/specification page # \_\_\_\_\_)
- 34. Has it been indicated that gratings shall be provided in shafts to permit safe lubrication of sheaves and equipment?  
(Specific drawing sheet #/specification page # \_\_\_\_\_)
- 35. Has it been indicated that all elevator equipment shall be specified to include solid state power control systems, not motor control systems?  
(Specific drawing sheet #/specification page # \_\_\_\_\_)
- 36. Has it been specified and shown on the plans that cab sizes and appurtenances are in compliance with Florida Building Code, ADA, and all other applicable code requirements? For buildings where equipment must be moved from floor to floor, has an elevator with a minimum inside cab dimension of seven (7) feet in one direction been provided (or as determined by the A/E with FAU Facilities Planning Project Manager and the users)? Have there been provisions to install a "stretcher car" in conformance with federal guidelines?  
(Specific drawing sheet #/specification page # \_\_\_\_\_)
- 37. Has the Fire Department recall and the Fire Alarm system interface been specified in accordance with the State Fire Marshal rules FAC 4A-47?  
(Specific drawing sheet #/specification page # \_\_\_\_\_)
- 38. Has it been specified that all exposed metals in the elevator machine room, pit and hoistway, shall painted with rust-inhibitive paint?
- 39. Where speed limitations are not a factor, has it been specified that submersible hydraulic power units will be used?
- 40. Has it been specified that a gate valve of ball-type shall be installed at both the hydraulic cylinder AND power unit?
- 41. Is it expressly understood that any defect in the hydraulic piston (scratches, gouges, rust, scores) will prohibit installation of said piston?
- 42. Has it been specified that telescopic pistons will not be used?
- 43. Has it been specified that a communication device be provided in the machine room for remote machine room locations?
- 44. In buildings of 60' of rise or more, is there an elevator panel located at or near the fire alarm control panel?

Non-Proprietary Elevator Control Equipment:

- 45. Has the A/E specified non-proprietary elevator equipment as follows:  
(Specific drawing sheet #/specification page # \_\_\_\_\_)   
  - a. Has the A/E included a statement in the specifications that elevator equipment must be able to be maintained by multiple qualified elevator service contractors and that this service will not require proprietary procedures? The A/E must verify that all "standard" manufacturers listed in the specification comply with this requirement.
  - b. Elevator control equipment shall be of a non-proprietary design. The equipment

shall be maintainable by any elevator maintenance company employing certified elevator mechanics without the requirement to purchase, lease, rent, or borrow additional diagnostic devices, special tools, instruction, etc. from the original equipment supplier.

- c. The equipment shall be provided with on-site capability to diagnose faults of all components, parts, circuit boards, etc. of the solid state controls. If the equipment requires a separate, detachable device/tool for fault diagnosis or adjustments, that device/tool shall be incorporated as a permanent part of the equipment and provided to the Owner as a part of the installation.
- d. The device/tool shall become property of the Owner and shall be provided with complete trouble-shooting guides and all technical information including passwords, addresses, etc. to completely adjust and perform the necessary tests required by the governing authority for the elevator.
- e. The device/tool shall be of the perpetual type (never need recharging or reprogramming).
- f. The equipment manufacturer must agree to sell any and/or all parts, printed circuit boards, programmed chips, transducers, controller power supplies, etc. to any elevator maintenance contractor providing services to the Owner for this location.
- g. Equipment installed not meeting these requirements shall be removed and replaced with equipment as specified at no cost to the owner.

Warranty & Service

- 46. Is it specified that the period of the warranty/free maintenance (24 hour callback service) by the installer must be three (3) years and the warranty period to FAU shall start at the time of Substantial Completion or time of acceptance of the elevator installation -- whichever is the later date?  
(Specific drawing sheet #/specification page # \_\_\_\_\_)

Excluded Manufacturer

- 40. Has it been specified that Schindler Elevator Corporation is not approved to provide elevators or escalators on any FAU project?  
(Specific drawing sheet #/specification page # \_\_\_\_\_)

End of Division 14 – Conveying Systems.