14 Conveying Systems

GENERAL

Designers shall verify that all applicable portions of these standards are incorporated into the project's design, drawings, specifications and final construction. Requests for variances from these standards shall be submitted in writing to the DCM Project Manager, using the KU Standards Variance Request Form found in Appendix A1.1, for review and written approval or rejection as indicated on the form.

RELATED DOCUMENTS & REQUIREMENTS

Refer to the following for requirements that also apply to work of this section.

- ❑ Division 1 - General Requirements

ELEVATORS – DESIGN GUIDELINES

General: Elevators will be furnished as called for in the Architectural Program and shall meet all the requirements of the Americans with Disabilities Act (ADA).

Elevator Lobbies: In situations where a full-sized, separate elevator lobby is infeasible, it has been acceptable to DOAS and the KSFMO to provide swing doors that are magnetically held-open and which close automatically upon fire alarm activation.

- ❑ UL-rated elevator door seals have been accepted under special circumstances, but require the prior approval of DCM, DOAS and the KSFMO.

Existing Cabs: In buildings to be totally renovated or where elevators are to be upgraded to meet the ADAAG's, existing elevator cabs shall be increased in size to meet the ADAAG's, unless technically infeasible due to shaft size limitations.

- ❑ When technically infeasible to completely comply with the ADAAG's for elevator cab size, elevator cabs shall be increased in size to the largest possible size within the existing shaft limitations.
- ❑ The University has found that the minimum 48" x 48" interior cab size can be more closely met when existing control panels are moved from the front wall to the side wall adjacent to the entry door, so the front wall can be moved out.

ELEVATORS – 14200

Elevator Warranty: The Elevator Contractor shall be required to furnish full maintenance and call-back service of the equipment for a period of twelve months, twenty-four hours a day, seven days per week, after the established Date of Substantial Completion of the elevator work.

- ❑ This service shall include monthly examinations of the installation by competent and trained employees of the Contractor.
- ❑ It shall also include all necessary adjustments, greasing, oiling, cleaning, supplies, and parts to keep the equipment in good operation, except such parts made necessary by misuse, accidents, or negligence not caused by the Contractor.
- ❑ Service personnel must advise the Department of Facilities Operations of their presence on campus prior to servicing equipment. Failure to do so is sufficient grounds for the University not to honor claims for compensation.
- ❑ The Elevator Contractor shall notify the Director of Facilities Operations in writing 30 days prior to expiration of the maintenance warranty.

Submittals: The contractor shall provide a certified statement that the elevator manufacturer will provide all detailed electrical schematics for maintenance and service of equipment. Shop drawings are not to be approved until after this information is provided.

- ❑ All special tools normally required for programming and service shall be included. This shall include all connection wiring diagrams as well as all circuit board diagrams including all normal voltages, component ratings, wave forms, and similar information required for full service/repair of all parts.
- ❑ If electronic devices are required to program the elevator's operation, one of them shall be provided for each project installing or renovating one or more elevators.
- ❑ The Director of Facilities Operations will provide a proprietary nondisclosure statement if required by the manufacturer.

Finishes: Materials in public and freight elevators shall be designed for hard usage in terms of hours and wear-and-tear.

- ❑ Stainless steel cab enclosures, doors and hoistway frames are recommended for maximum durability.
- ❑ Floor finishes are to be scheduled to be provided by the General Contractor, and shall match those in adjacent lobbies.
- ❑ Cabs are to be scheduled to include the provision of wall studs for protective mats. Verify with users if mats are to be provided by the elevator supplier as part of the construction work, or if they shall be a future item KU will provide as needed.

Controls: Key controls are required for access to floors or roofs of limited, non-public or restricted access. Braille shall be integrally cast into new number plates, and if retrofit to existing controls, shall be mechanically-attached or epoxied onto existing controls; double-stick tape attachments are not acceptable.

Ceilings: Removable ceilings are recommended for ease of maintenance.

Sump Pits: A sump pit shall be provided in the bottom of all passenger elevator shafts, but no lines shall drain out of it, whether onto grade or into a sewer. Instead, Designers shall indicate that a liquid limit switch shall be provided in the sump and shall be wired to alarm to a location designated by KU-FO, who will arrange to provide portable pumps to drain the sump.

Emergency Communication System: Provide hands-free audio and visual 2-way emergency communication between each car and the KU 24-hour monitoring service. System shall automatically dial pre-programmed number of KU's monitoring service and identify elevator location to monitoring service. System is to be contained in flush-mounted cabinet complete with identification and instructions for use.

- **Elevator Emergency Phone**: (Furnished and installed by Contractor) Model VRT-1000-COP flush-mount, vandal-resistant unit with visual signal, as manufactured by Lincoln Land Enterprises, (708) 371-2477, Fax (708) 371-2449. Provide unit with voice box (VR-44) to communicate with monitoring service. No substitutions are acceptable. For new installations or when front panels are replaced, units shall be flush and integral with the elevator panel.
- **Work by KU-NTS:** NTS shall provide a data outlet in the elevator equipment room, using the blank conduit and boxes provided by the GC. NTS will note on this outlet the telephone numbers of the elevator phone and of the monitoring service, to be used in programming the phone. NTS will provide a section of telephone cable for the Elevator Contractor to connect to the elevator control panel.
- **Work by Contractor:** Designers shall show on the construction documents a 1" conduit with a single-gang box at one end, extending from the closest available NTS closet to the elevator equipment room adjacent to the elevator control panel, for provision by the General Contractor. The Elevator Contractor shall connect the NTS-furnished telephone cable to the elevator telephone via the elevator control panel and plug this cable into the NTS data outlet. The Elevator Contractor shall then program the elevator telephone and test it's operation, in the presence of KU-DCM reps, until it has been verified as operational.
- Refer to Appendix A14.1 - Elevator Telephones for a graphic explanation of these requirements.

Elevator Controllers: Provide new, solid-state, variable-frequency controllers.

- Note: The elevator contractor must supply any and all proprietary diagnostic programming and adjustment tools, along with complete adjusting and diagnostic information which may be necessary to adjust or correct any problem within the solid-state system. These diagnostic programming and adjustment tools and information must be non-expiring and upgrades for these diagnostic tools are to be included in Elevator Contractor's proposal.

Construction Use: Contractors desiring to use the elevator during the construction period shall make satisfactory arrangements with the Elevator Contractor, who shall remain responsible for its use and maintenance during the construction period.

- ❑ Use by contractors or suppliers shall not void or alter the warranty or guarantee provisions for the elevator. Contractors shall arrange for extended warranties at their own expense, if necessary to reinstate the Owner's specified warranty periods.
- ❑ The Office of Design and Construction Management representative on the project shall be made aware of the details of any such arrangement.

Field Tests: The Contractor shall provide a copy of the test report for weight loading as a part of the acceptance tests required by ANSI 17.1. Also include a copy of this report in the O & M manuals.

WHEELCHAIR LIFTS – 14420

General: Vertical lifts are strongly preferred in lieu of stair-glide lifts. Stair-glide lifts have been constant operating and maintenance problems for the University, rarely remained long in-service before portable batteries lost power and can be exiting problems when they reduce the required exit width.

Controls: Key Controls are recommended, with signs posted at each stop advising users where keys can be obtained for use, either at a departmental office reception area or other full-time location agreed upon by the user group during design.