

# A/E Quality Alert



**Avoid Errors, Omissions and Costly Liability**

**Facilities Quality Office • Standards Service**

VA hires the best A/E firms in the country and yet we experience repeated errors and omissions on every project. These are not new or unusual items, but they consistently get past A/E and VA quality assurance reviews and result in construction change orders. Please review your project documents and make sure you do not make these mistakes.

## **Electrical, Contract Document Phase:**

50% of electrical design omissions are miscellaneous missing circuits. These design omissions result in costly construction change orders and even more costly project delays. Double check to make sure power circuits are provided for:

- Incubators;
- Motion intrusion detectors;
- Dumbwaiters;
- Glassware washers, and can washers;
- Water coolers, and automatic flush valves;
- Automatic temperature control panels, and control air compressors;
- Roll-up doors, door holders, and electromagnetic locking system devices;
- Atrium window washing equipment;
- Prewired lights inside air handling units, and power and lighting in attic areas;
- Projection screens and ceiling mounted microscopes;
- Heat tracing tapes;
- Fire alarm flow and tamper switches, and sprinkler controllers;
- Courtyard lighting, aisle lighting in auditoriums, planter lights, and exterior lighted signage;
- Smoke dampers, and elevator shaft damper control;
- Sterilizers in SPD areas;
- Power for mechanical equipment in existing buildings;
- Equipment requiring two power sources such as water heaters for the kitchen service, and high voltage starters for chillers;
- Medical gas alarm panels, and natural gas emergency shut-off system; and
- water/moisture detection systems for computer rooms.
- Elevator cab lights
- Water softening equipment

AEQA 10-95

*Department of Veterans Affairs*

**Facilities Management Office**

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## **Electrical, Contract Document Phase: (continued)**

- Design wiring for specialty lighting above hard ceilings to allow access;  
Do not show junction boxes above hard ceilings;
- Show all existing underground and aboveground conduits and cables and light poles etc. within or directly adjacent to the construction area whether they are reused or not. VA pays for all unshown items damaged by the contractor;
- Do not support conduits from existing or new ductwork, these should be independently supported;
- Check capacity of existing panels in the field before tying in new equipment;
- Do not show circuits without specifying panel breakers;
- Specify GFI receptacles within 36 inches of sinks;
- Do not specify fluorescent light fixtures in R/F shielded rooms;
- Ensure when using existing fire alarm circuits they conform to current fire alarm code;
- Coordinate motor HP with mechanical designer and fixed equipment with architecture during design and amendment period; coordinate need for reduced voltage starting on motors 60 HP and above;
- Double check all door holders in fire walls associated with smoke detectors;
- Coordinate sizes of circuit breakers with sizes of feeders;
- Double check circuit designations for correctness;
- Double check emergency power for critical areas;
- Double check and coordinate panel board schedules and electrical floor plans;
- Coordinate demolition work with mechanical and other disciplines;
- Check if existing lighting fixtures to be demolished contain PCB as they must be disposed of as per current state and federal regulations; and
- Coordinate automatic on-off control of exterior light fixtures with the medical center staff.

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