

Modify 26 09 00 per the following instructions:

1. Changes are shown in red, using “Track Changes” function
2. Deletions are shown ~~struck through~~
3. Additions are double-underlined
4. The remainder of section is unchanged.

Section affected:

26 09 00 INSTRUMENTATION AND CONTROL FOR ELECTRICAL SYSTEMS

26 09 23 Lighting Control Devices

.01 General

- A. Intent – PSU designs shall strive for simple and effective methods of lighting control that is robust and easy to maintain.
- B. Automatic Lighting Controls:

1. Interior ~~All interior~~ building ~~corridor, office, storage, individual restroom, and similar~~ spaces shall be controlled via automatic means, typically occupancy sensors ~~(wallbox, wall mount, or ceiling mount).~~

a. Utilize primarily ceiling or aimable wall/ceiling mount as they provide better coverage than wallbox style.

b. Use “vandal-resistant” models for wallbox mounting in individual bathrooms and small public rooms.

c. Use dual-switch-relay models for offices and similar spaces requiring dual level lighting (switch closest to the door frame controls the low-light level).

~~4-d.~~ Dual-technology is typically preferred, but consider whether the use of one technology over another is more appropriate for specific applications.

e. When ceiling sensors are used, other than in corridors, always provide manual switch(es) on the load side to allow some user control.

f. Allowable manufacturers of stand-alone equipment are Leviton, Sensor Switch, and Watt Stopper.

g. Discuss with Engineering Services the use of networked sensor systems for new construction and major renovation projects. Acceptable products are Lutron Energi Savr Node, Sensor Switch nLight and Watt Stopper DLM. These systems are also appropriate for more complicated control of specific spaces such as:

1. classrooms

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2. conference spaces

2-3. daylight harvest of large areas

~~3-2.~~ Specify all ceiling and wall-mount (non-wallbox) sensors with output relays to allow the BAS system to ~~minotef-monitor~~ occupancy so that local HVAC can ~~shut-down~~reduce to minimum levels when no occupancy is sensed. This is especially effective for large offices, classrooms, labs, and similar spaces. Discuss control strategy with Engineering Services at schematic design phase.

~~4-3.~~ Require in the contract documents that the successful ~~sensor-controls~~ vendor submit final layout drawings for review and approval as part of the shop drawing package. ~~Note-Include in contract documents~~ that the Vendor may have to modify their layout from that ~~shown-designed, as necessary~~ to meet vendor-specific requirements or limitations. No extra costs to be allowed.

~~5-4.~~ Carry-Specify an allowance for ~~extra-additional~~ sensors and include (as well as spare parts) turned over to PSU.

~~6-5.~~ Provide wallbox timer switches for Telephone, Mechanical, Janitor, and similar rooms. Switch (es) must give visual warning 5 ~~mintues~~minutes and audible/visual warning 1 minute before lights turn off, similar to Watt Stopper TS-400. Set switch to 30 minute delay.

END of revision

Update Commentary:

Section was updated primarily for the following reasons:

- 1) Update of occupancy sensor control requirements to reflect current PSU control strategies
- 2) Added list of acceptable controls manufacturers and new technologies.