

Audio Visual Equipment

Multimedia spaces, equipment, and control design will be approved through the UCF Office of Instructional Resources (OIR). Refer to the OIR website for additional Standards information related to OIR items.

OIR STANDARDS

1. Infrastructure/Installation for Vertical walls:

- a) In-wall boxes are the preferred basis of design for all AV support installations. Boxes shall be mounted 60" AFF to middle of in-wall box for most typical AV installations, unless otherwise noted. *In-wall boxes shall be owner provided and contractor installed including power and data infrastructure.*
- b) In wall boxes shall be mounted at 72" to the middle of the in-wall box for digital signage. *In-wall boxes shall be owner provided and contractor installed including power and data infrastructure.*
- c) Placement of wall mounted or overhead *(remove "overhead" in statement as is section 2 below)* equipment shall be coordinated with head room and ADA projection limitations.
- d) In-wall boxes are owner provided and contractor installed with contractor installed power and data infrastructure. *(Remove as is redundant)*
- e) Projectors and pans shall be designed and installed substantially centered on the actual projection screen surface. Placement of the screen must take into account projection *throw* distances and room layout to ensure adequate visibility to the audience, and projectors and screens must be coordinated with fire sprinkler heads for proper coverage. Projectors/Pans shall be *owner* provided with contractor installed power and data infrastructure. *(remove this paragraph as is covered below for ceiling hardware?)*
- f) All AV in wall cable must have a conduit or flex path way provided with pull string.*(remove as listed in General section below)*
- g) All ceiling mounted AV equipment shall be contractor installed unless otherwise noted in the design, including adequate anchor safety wires with at least 1 per speaker and 4 per projector pan. Ceiling speakers shall be oriented in manner that allows easy access for connections, service and switch setting *(remove this paragraph as this statement and speakers are listed below in 2C).*
- h) If not using a chief in wall box, where at all possible, connections for TV/IT/PWR and similar wall mounted connections shall be installed recessed in a manner that allows them to be hidden behind the AV component when mounted.
- i) *Touch screens panels for room lighting and AV (Audio Visual) controls shall be provided in an ADA accessible manner at the AV cabinet. Crestron is the basis of design. They may be desktop or wall mounted and shall be coordinated with the teaching lectern as needed. Power and data infrastructure are to be contractor provided. Touch screen panels are owner provided and installed.*

2. Infrastructure/Installation for above ceiling and ceiling hardware:

- a) Room lighting controllers shall be installed approximately 1' to the outside edge of the projection screen motor above the ceiling *(typically to the left if facing the screen)*. The

basis of controller design is Crestron (Remove this sentence as preferred manufacturers listed below in addendum). In rooms without motorized screens room lighting controls shall be located by the primary room entrance door above ceiling (OIR to clarify). Power and data infrastructure are to be contractor provided. A local disconnect switch shall be provided at the last connection before the controller to facilitate maintenance. Room lighting controllers are owner provided and contractor installed.

- b) Recessed motorized projection screens are the preferred design basis for drop ceiling installations. Units shall be low voltage, quiet motor type. A minimum of 8" of full clearance above the drop ceiling grid is required for all installations, this includes MEP installed components. Alternative mounting arrangements and supporting soffits may be needed for open ceilings and where the screens projects below the drop ceiling due to insufficient clearance overhead. All soffit installations must allow for future screen service and replacement without significant demolition and reconstruction. Access hatches and/or conduit with pull string to screen control termination boxes are required at soffit mounted screens to facilitate service access to connections and serviceable parts. A local disconnect switch shall be provided at the last connection before the screen (Remove this sentence as this is covered for above lighting controllers?)
- c) Placement of overhead equipment shall be coordinated with head room and ADA projection limitations.
- d) All ceiling mounted AV equipment shall be contractor installed unless otherwise noted in the design (does this cover projectors as they are OIR installed?), including adequate anchor safety wires with at least 1 per speaker and 4 per projector pan.
- e) Projectors and pans shall be designed and installed substantially centered on the actual projection screen surface. Placement of the screen must take into account projection distances and room layout to ensure adequate visibility to the audience, and projectors and screens must be coordinated with fire sprinkler heads for proper coverage. Projectors pans shall be provided with contractor installed power and data infrastructure installed on projector pan located behind the projector.
- f) AV J-hooks will be installed 4 to 5 feet apart creating a cable path between all ceiling and ceiling mounted equipment. One (1) J-hook will be installed at all above ceiling and ceiling mounted equipment.
- g) All speakers shall be installed taking into consideration the seating orientation of the room and evenly spaced when installed in the ceiling grid. Ceiling speakers shall be oriented in manner that allows easy access for connections, service and switch setting. Speakers shall be owner provided and contractor installed to include one (1) primary speaker wire installation for each room.

3. General Notes:

- a. All AV floor boxes must have continuous conduit to stub out above ceiling or to TV in-wall box per O.I.R. direction.
- b. All AV in wall cable must have a conduit or flex path way provided with pull string.
- c. All AV conduit installed will adhere to conduit manufacturer's capacity guidelines. One cable may occupy 53 percent of conduits inside area. Two cables may occupy 31 percent of conduits inside area. Three or more cables may occupy 40 percent of conduits inside area. If cable fill is greater than the manufacturer's conduit capacity guidelines, then additional conduit must be installed.

ADDENDUM

Equipment:

In-wall boxes

Motorized Recessed Projection Screens

- 8' Screen
- 10' Screen
- 12' Screen

Lighting Controllers

4K Projectors

2'x2' Speakers

Preferred Manufacturer/Model:

Chief/PAC526FCW

Draper/ 139039QU

Draper/ 139041QU

Draper/ 116370QU

Crestron/ GLPAC-DIMFLV8-PM-CP

Epson/

JBL/ LCT81C/T