

LOW-VOLTAGE – VOICE AND DATA, CATV, PAGING, AUDIO/VISUAL SYSTEMS

DESIGN GUIDELINES

1. Summary:
 - a. This section provides general guidelines and standards for voice and data systems, CATV, Paging Systems and Audio/Visual (A/V) systems.
 - b. Detailed information for voice and data systems, CATV and Paging systems are found in the *Washington University School of Medicine, BJC and Telecommunications Facility Corporation Low Voltage Structured Wiring Standard* (hereinafter referred to as "Low Voltage Standard") which can be found at <http://IT.WUSTL.EDU/Home/Policies>.
2. Design:
 - a. A special systems meeting during design shall include representatives from Telecommunications Facility Corporation (TFC), WASHU Media Services, and WASHU IT to coordinate all project specific requirements.
 - b. A/V system requirements shall be coordinated with WASHU Media Services.
 - c. Nurse Call systems that require integration with telecommunication systems shall be coordinated with TFC.
 - d. Refer to the Low Voltage Standards for Paging System requirements. All Paging Systems shall be coordinated with building and/or department specific requirements.
 - e. All items identified in the Low Voltage Standards shall be furnished, installed and tested by the Contractor. This includes all components required for a complete system to meet the project requirements.
 - f. All communications work shall only be performed by an Approved Low Voltage Contractor as listed on the *WUSM/BJC/TFC Approved Low Voltage Contractors* list found at <http://IT.WUSTL.EDU/Home/Policies>.
 - g. The following are general requirements. Refer to the WUSM Low Voltage Standards for detailed information. All project specific requirements shall be coordinated with the owner and the WASHU IT Construction Project Manager assigned to the project.
 - h. The list below are examples of items covered in the Low Voltage Standards:
 - Voice/Data outlets types and typical quantities.
 - Cable type and termination requirements.
 - Minimum raceway and box sizing and installation requirements.
 - Cable tray and J-hooks supports.
 - Rack, cable management and patch panel requirements.
 - Grounding requirements.
 - Firestopping requirements.
 - i. Analog telephone lines shall only be provided where required for specific equipment (i.e., refrigerator/freezer temperature monitoring systems, fax machines, cordless phones,

elevator phones, etc.) All analog lines required shall be confirmed with the WASHU IT Construction Project Manager.

- j. Location and quantity of wireless access points and cellular Digital Antenna System (DAS) jacks shall be coordinated with the WASHU IT Construction Project Manager. Renovation floor plans shall be submitted for review.
 - k. Any variations from the Low Voltage Standards must be approved by the Owner and the applicable representative from WASHU Media Services, TFC or WASHU IT.
3. Related Sections
- a. Raceways, Fittings and Boxes
 - b. Grounding
 - c. Washington University School of Medicine, BJC and Telecommunications Facility Corporation Low Voltage Structured Wiring Standard
 - d. Reference "Openings" for Finish and Access Control Hardware requirements.

EQUIPMENT and PRODUCT REQUIREMENTS

- 1. All equipment shall be per the WUSM Low Voltage Standards.

END OF SECTION