PART 1 - GENERAL

1.01 Each level of all occupied buildings will have at least one Satellite Equipment Room (SER). The SER will be connected to the Satellite Hub Room (SHR) with multimode and singlemode fiber as directed by the Office of Information Technology (OIT).

1.02 There are only two SHRs on campus. If additional rooms are required, the requirements for the SER can be used. Additionally, SHRs require patch panels to support the primary backbone.

1.03 Size and Quantity:

   A. The minimum size requirement for the SER is 100 square feet per 300 circuits up to 150 square feet for up to 600 circuits

   B. Where individual cable runs exceed the maximum length of 90 meters, an additional(s) SER will be required.

1.04 Physical requirements and demands of the SER:

   A. Each SER will contain patch panels, and flexible wire management necessary to collect all the communications cabling and distribute them to the necessary communications equipment in the SER. Include an adequately sized cable tray in the SER to serve the equipment.

   B. The electronics necessary to provide data communications over the wiring will be in the SER.

   C. SER in existing buildings requires a minimum ceiling height of 8 feet. New construction and where possible in existing buildings, the ceiling height is 10 feet.

   D. Coordinate placement with UAF Facilities Services.

   E. Room walls will be painted off-white and bare concrete floors will be painted light gray and sealed.

1.05 Environmental requirements for the SER:

   A. Room temperature is 65 degrees Fahrenheit plus or minus 10 degrees. The humidity range is 10-90% (non-condensing).

   B. Active air circulation is required to dissipate heat from the electronics.

   C. Accommodation must be made in the event building cooling and ventilation is reduced.

   D. No water, steam, or sanitary piping or connections allowed in room.
E. The room shall be fully sprinklered per NFPA 13 and Division 21 Fire Protection. Exceptions may be approved by the Authority Having Jurisdiction.

F. Avoid materials that produce static electricity and provide antistatic flooring materials

1.06 Security requirements for the SER:

A. Core room door locks to accept a “network management” key.

B. In shared rooms, the portion of the room containing the equipment must be partitioned off with access only available to OIT personnel.

C. SERs must be accessible through public spaces. Passage through any assignable or otherwise occupied space is not permitted. Access through electrical rooms will not be acceptable nor will access to electrical rooms through SERs be acceptable

1.07 Power requirements for the SER:

A. Install a UPS sized by UAF Facilities Services and OIT. Coordinate incoming voltage and connector type of UPS with design. Provide properly sized outlet or disconnect in the room for powering the UPS.

B. Label receptacles and termination box covers with panel and circuit numbers.

C. Consider in design a manual override switch to cut power to the equipment inside the room, only approval of OIT.

D. Install an additional convenience outlet, not powered by the UPS, for use by temporary equipment.

E. Install a 2 inch x 18 inch grounding bar mounted in the room with a stranded copper 6 AWG cable attached to a building structural ground or building grounding electrode system.

PART 2 - PRODUCTS

2.01 Due to rapid changes in network electronics, OIT will ensure that contemporary equipment is specified for each project.

PART 3 - EXECUTION

3.01 After installation, protect all patch panels and electronic equipment from construction debris.

END OF SECTION