

Maury Highschool

Brei White

Maury Highschool Information

54 classrooms

3 floors

2 Telecommunications closets

Wiring

Total Cable Length=(Number of Classrooms+Number of Telecomm Closets+1)
×Average Cable Run Length

Total Cable length= 2 x (54+4+1) x 80 (Multiplied by 2 because of two
connections per classroom)

=9440 meters

Budget

Name	Price	Quantity	Total Price
Ethernet Wall connectors	\$7.89	54	\$426.06
RJ45 Connectors (25 Pack)	\$21.99	13	\$285.87
48 Port patch panel	\$195.95	2	\$391.90
48 Port Switch	\$301.12	2	\$602.24
Short cat 5 patch cables	\$7.99	54	\$431.46
Cat 5A Ethernet Cable	\$123.00	10	\$1230.00

Total Price= \$3,366

Fire wall

The [firewall](#) chosen is \$7,351.34 and can handle 200-300 users.

Subnet/VLAN for Staff:

Subnet: 192.168.1.0/24

VLAN: 10

Connects to the core router/switch.

All staff devices (computers, printers, etc.) are in this subnet/VLAN.

Subnet/VLAN for Students:

Subnet: 192.168.2.0/24

VLAN: 20

Connects to the core router/switch.

All student devices (computers, printers, etc.) are in this subnet/VLAN.

Plan

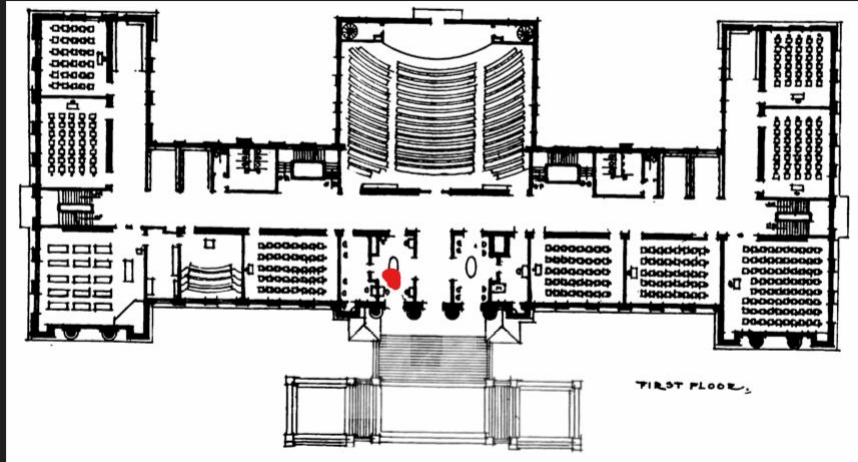
2 cat5 cables will be able to go to each classroom

There is a telecommunications room on 1st and 3rd floor.

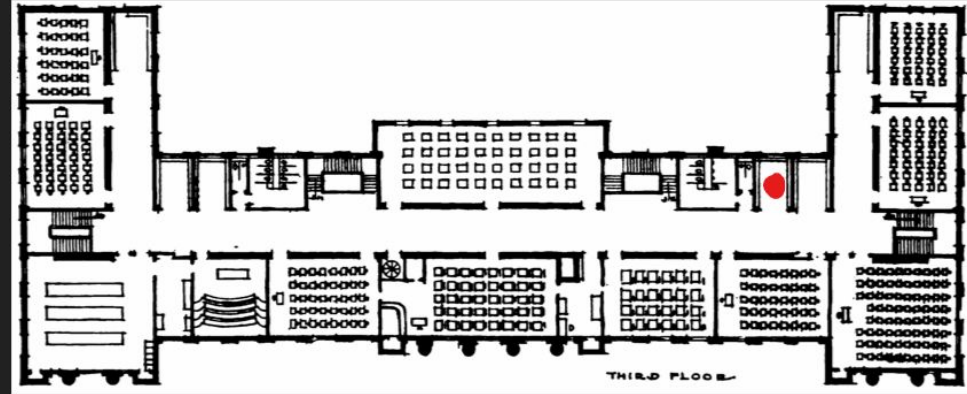
Both rooms will have 1 switch and patch panel.

The 1st floor telecommunication room will have the firewall and router.

Telecommunication Locations



First Floor



Third Floor