

Constant Hall 1st Floor

- 45 rooms first floor = 90 data outlets (45 RJ 45 outlets and 45 patch panels), also 90 cat6 cables (each can only be up to 90 meters or 295.276 feet long)
- Length = 9.375 in (measured on my monitor for reference, so it may be different from others') = 215 ft (so roughly 23 ft/in scaling)

Longest cable is about 159 horizontal + 10 vertical (169 ft), shortest cable is 11 ft (1 horizontal foot + 10 vertical feet)

- Average is $169 + 11 = 170 / 2 = 85$ feet, $85\text{ft} * 45 = 3,825$ ft of cabling needed for 1st floor
- 1000 ft cat6 = 149.99, so $149.99 * 4 = \$600.00$
- 45 RJ45 outlets (4 Port Cat 6 RJ45 Keystone Female to Female Wall Plates)* \$11.59 = \$521.55
- 4 Patch panels (Newyork Cables **24** Port Patch Panel Rackmount or Wall Mount - Unshielded RJ45 Patch Panel, Compatible with Cat 5/5e/6 Cabling) * \$38.97 = \$155.88

\$1,277.43 for first floor.

Constant Hall 2nd Floor

- 141 rooms = 282 data outlets (141 RJ 45 outlets and 141 patch panels), 282 cat6 cables
- Same scaling for 2nd floor: 9.375 in = 215 ft

Longest cable is 82 ft (72 horizontal + 10 vertical), shortest cable is 18 ft (8 horizontal + 10 vertical)

- Average length of cable is $82 + 18 = 100 / 2 = 50$ ft, so $50 \text{ ft} * 282 = 14,100$ ft of cabling needed for 2nd floor
- 1,000 ft cabling packages (14 of them) * \$149.99 + \$20.95 (extra needed: Cat 6 Ethernet Cable 100 ft) = \$2120.81
- 141 RJ45 outlets * \$11.59 = \$1634.19
- $282 / 48 =$ roughly 6 **forty-eight** port patch panels (2 per equipment/telecom room)
- 6 patch panels (48 Port Patch Panel Cat6 Unshielded - Rackmount or Wall Mount RJ45 Patch) * \$54.97 = \$329.82

\$4084.82 for 2nd floor.

\$1277.43 + \$4084.82 = \$5362.25 total budget

RJ45 outlets for 1st and 2nd floor: <https://www.amazon.com/Ethernet-Keystone-Compatible-Devices->

[spons&psc=1&spLa=ZW5jcmlwdGVkUXVhbGlmaWVyPUFZNU9ISjZVQTdNNyZlbnNyeXB0ZWRJZD1BMDgwNjc0MzJaWVJKNllKU0U3QkcmZW5jcmlwdGVkQWRJZD1BMDExOTg2NjI0SlFBSzQwVVQ2VE0md2lkZ2V0TmFtZT1zcF9hdGYmYWNoaW9uPWNsaWNrUmVkaXJlY3QmZG9Ob3RMb2dDbGljaz10cnVl](#)

[Wallmount/dp/B07R4PMXPX/ref=sr_1_2_sspa?dchild=1&keywords=patch+panel&qid=1613440242&sr=8-2-](https://wallmount.com/dp/B07R4PMXPX/ref=sr_1_2_sspa?dchild=1&keywords=patch+panel&qid=1613440242&sr=8-2-)

[spons&pssc=1&spLa=ZW5jcjnlwdGVkUXVhbGlmaWVyPUEwMUUpWSkpYUU5SSVlYJmVuY3J5cHRlZElkPUEwOTA5Mzc5MkpQWEEdMRDE2S042MiZlbnNyeXB0ZWRBZElkPUEwOTIzNTY0MTAyQ0tHWkpLOUY2SyZ3aWRnZXROYWw1lPXNwX2F0ZiZhY3Rpb249Y2xpY2tSZWRpcmVjdCZkb05vdExvZ0NsaWNrPXRydWU=](#)

https://www.rackmount.com/dp/B07RB2Z5F8/ref=sr_1_1_sspa?crid=3KMI0P6WGGQ7S&dchild=1&keywords=patch+panel+48+port+cat6&qid=1613440966&srefix=patch+panel+48+port%2Caps%2C153&sr=8-1-

[spons&psc=1&spLa=ZW5jcjnlwdGVkUXVhbGhmaWVyaPUFTUkdPVFY3TEhLNEYmZW5jcjnlwdGVkSWQ9QTA4OTU4OTUxN0dKRjdaM0pEVUrtTjMvUyY3J5cHRlZEFkSWQ9QTA3ODQ0ODYzT0tStkVCTUI5MDIhJndpZGdlE5hbWU9c3BfYXRmJmFjdGlvbj1jbGlja1JlZGlyZWN0JmRvTm90TG9nQ2xpY2s9dHJ1ZQ==](#)

1000 ft cabling for both floors: https://www.amazon.com/1000ft-Unshielded-Twisted-Ethernet-trueCABLE/dp/B07C848GTK/ref=sr_1_2_sspa?dchild=1&keywords=cat6+cable+1000ft&qid=1613441484&sr=8-2-

spons&psc=1&smid=A2NFTNJT88MXC2&spLa=ZW5jcmlwdGVkUXVhbGlmaWVyPUFKSkRGSENNVdIOTImZW5jcmlwdGVkSWQ9QTA4NmM5MTgzVDRFODFYSzIjTR1laJmVuY3J5cHRlZEFkSWQ9QTAwMDQ2MDcyQ1dTtZlStjNZSUZJJndpZGdldE5hbWU9c3BfYXRmJmFjdGlvbj1jbGlja1JlZGlhZGZWN0JmRvTm90TG9nQ2xpY2s9dHJlZQ==

[Network/dp/B017R12KF2/ref=sr_1_1_sspa?dchild=1&keywords=cat6+cable+100+ft&qid=1613441179&sr=8-1-](https://www.network-dp.com/B017R12KF2/ref=sr_1_1_sspa?dchild=1&keywords=cat6+cable+100+ft&qid=1613441179&sr=8-1-)

[spons&psc=1&spLa=ZW5jcjnlwdGVkUXVhbGhmaWVyPUEExVzM0MVRHQJJaNTE4JmVuY3J5cHRlZElkPUe_wNDQzNzc1MIE5MThzMjlUUK9aTiZlbmNyeXB0ZWRBZElkPUe_wODg3MTeyMjlrWTZZOE5EMVVtUiZ3aWRnZXROYW1lPXNwX2F0ZiZhY3Rpb249Y2xpY2tSZWRpcmlvjdCZkb05vdExvZ0NsaWNrPXRydWU=](#)