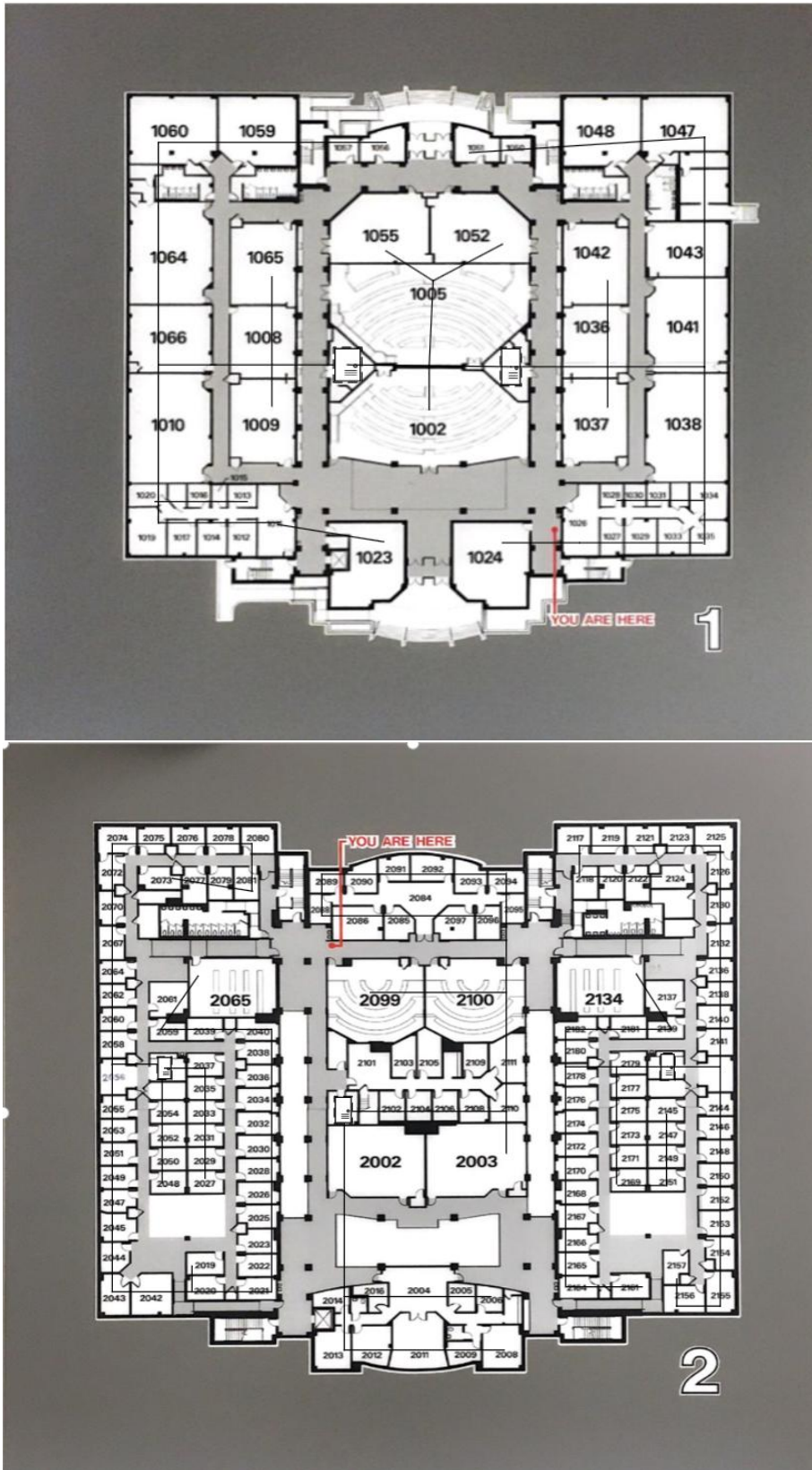


1. Diagram of Constant Hall Floor 1 and 2



## 2. Estimate of total cable needed

Floor 1:

Left side-

Longest cable: 150ft

Shortest cable: 20ft

Average cable: 85ft

$85(23 \text{ rooms} \times 2) = 3,400\text{ft}$

Right side-

Longest cable: 150ft

Shortest cable: 20ft

Average cable: 85ft

$85(20 \text{ rooms} \times 2) = 3,400\text{ft}$

Floor 2:

Left Side-

Longest cable: 165ft

Shortest cable: 10ft

Average cable: 87.5ft

$87.5(57 \text{ rooms} \times 2) = 9,997.5\text{ft}$

Middle side-

Longest cable: 170ft

Shortest cable: 10ft

Average cable: 90ft

$90(38 \text{ rooms} \times 2) = 6,840\text{ft}$

Right side-

Longest cable: 165ft

Shortest cable: 10ft

Average cable: 87.5ft

$87.5(57 \text{ rooms} \times 2) = 9,997.5\text{ft}$

### 3. Total cost of materials

Category 6a cable \$0.29 per foot X 35,000ft = \$10,150

[Amazon.com: trueCABLE Cat6A Riser \(CMR\), 1000ft, Blue, 23AWG 4 Pair Solid Bare Copper, 750MHz, PoE++ \(4PPoE\), ETL Listed, Unshielded Twisted Pair \(UTP\), Bulk Ethernet Cable : Electronics](#)

RJ45 Outlet \$8.99 X 186 outlets needed= \$ 1,672.14

[VCE Ethernet Wall Plate \(UL Listed\), 1-Port Cat6 Female to Female Wall Jack, Keystone Wall Plate with RJ45 Keystone Inline Coupler, White \(2-Pack\) - Amazon.com](#)

Patch Panel \$47.59 x 18 = \$856.62

[https://navepoint.com/navepoint-24-port-cat6-stp-patch-panel-1u-black/?\\_gl=1\\*15bzfby\\*\\_gcl\\_au\\*NTk2Mzk3NDQwLjE3Mzk0MDkyMjQ.\\*\\_ga\\*MTg4MzlwNDgzMy4xNzM5NDA5MjI0\\*\\_ga\\_704CJQFJ25\\*MTczOTQwOTlyNC4xLjAuMTczOTQwOTlyNS41OS4wLjA](https://navepoint.com/navepoint-24-port-cat6-stp-patch-panel-1u-black/?_gl=1*15bzfby*_gcl_au*NTk2Mzk3NDQwLjE3Mzk0MDkyMjQ.*_ga*MTg4MzlwNDgzMy4xNzM5NDA5MjI0*_ga_704CJQFJ25*MTczOTQwOTlyNC4xLjAuMTczOTQwOTlyNS41OS4wLjA).

Telecommunication Closets about \$5,000 each X 5 = \$15,000

<https://thenetworkinstallers.com/blog/small-business-network-setup-cost/>

Total cost: \$27,678.76