Hotron Hall:

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100Mb connection for each of the 260 computers

100Mb connection for each of the 7 printers in the cubical farms

1Gb connection for each of the 15 Pixar computers plus 1 printer

1Gb connection for each of the 2 wifi connections

1Gb connection for each of the 4 computers in the security room plus the 2 printers

7 VLANs for the cubical farms

1 VLAN for both wifi devices

1 VLAN for the Pixar office

1 VLAN for the Security Room

need full throughput capabilities for the Pixar and Security Room

Only need about half the overall bandwidth need for full through put in the cubical farms

27Gb /2 (Only need about half the overall bandwidth for computers and printers)

13GB

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24Gb for Pixar and Security room

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40Gb total for the building

Laffin Hall:

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100Mb for each of the 585 users

100Mb for each of the 36 printers

1Gb for each of the 39 WiFi access points

36 VLANs one for each seperate room

1 VLAN for all the WiFi access points

Only need about half the overall bandwidth need for full through put

39Gb for WiFi

62Gb for computers and printers

100 Gb /2 (Only need about half the overall bandwidth)

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50Gb total for the building

Nassau Residence:

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1GB for each of the 130 dorm spaces with 5 ports 1 for each of 4 bed rooms and 1 for each living room area.

1Gb for each of the 3 WiFi access points

100Mb for each of the 6 printers 2 on each floor

18 cameras

1 VLAN for all WiFi access points

3 VLANs for each floor

5 1Gb ethernet ports for each dorm space but only 1Gb of throughput (allows the students to get upto 1Gb connection if no one else is using the internet in their dorm space but garantees 200Mb for each of the 5 ports of all are being used.)

130 dorm connections

520 bedroom connections

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650 total ethernet connections

217 per floor (VLAN)

45 Gb throughput need for each floor totalling

135 GB throughput possible for the building

40Gb Horton

50Gb Laffin

140GB Nassau

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230Gb total throughput for the entire CAN

Nassua:

15x 10Gb up switches with 48 1Gb down ports (5 on each floor)

3x Wi-Fi AP 1Gb Ethernet

Horton:

2x 10Gb up switches with min. 12 1Gb down ports (Pixar & Sec.)

1x 10Gb up switch with min. 12 1Gb down ports to support

12x 1Gb up switches with 24 100Mb down ports

1x Wi-Fi AP for Lobby

Laffin:

2x 10Gb up switches with 24 1Gb down ports to support

39x Wi-Fi AP

3x 10Gb up switches with min. 12 1Gb down ports to support

27x 1Gb up switches with 24 100Mb down ports

TOTAL:

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43x Wi-Fi AP with 1Gb up and 802.11ac wifi

15x 10Gb catalyst 3750-x up switches with 48 1Gb down ports with IP Services IOS

6x 10Gb catalyst 3750-x up switches with min. 12 1Gb down ports with IP Services IOS

2x 10Gb catalyst 3750-x up switches with 24 1Gb down ports with IP Services IOS

39x catalyst 2960-s 1Gb up switches with 24 100Mb down ports with LAN base IOS