# Cody Meetinghouse AP Placement Report - Cisco 9162 -Version 3


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# Project Description

The AP placement and signal strength predictions are based on assumptions made for signal propagation through interior wall materials.

Based on those assumptions there will be a greater margin of error between the prediction and what may be experienced.

The AP placement was made based on optimizing for 5 GHz signals for both primary and secondary signal strength.

The APs will be assigned a channel for both 2.4 GHz and 5 GHz based on what is detected and reported to the controller. The controller manages channel adjustments as information is reported by each AP.

The Cisco Meraki Catalyst CW9162 access points are represented in this prediction.

Without measured attenuation and AP signal deviation measurements, the actual signal propagation will vary.

Version 2:

Moved several APs, including both that were in the chapel area.

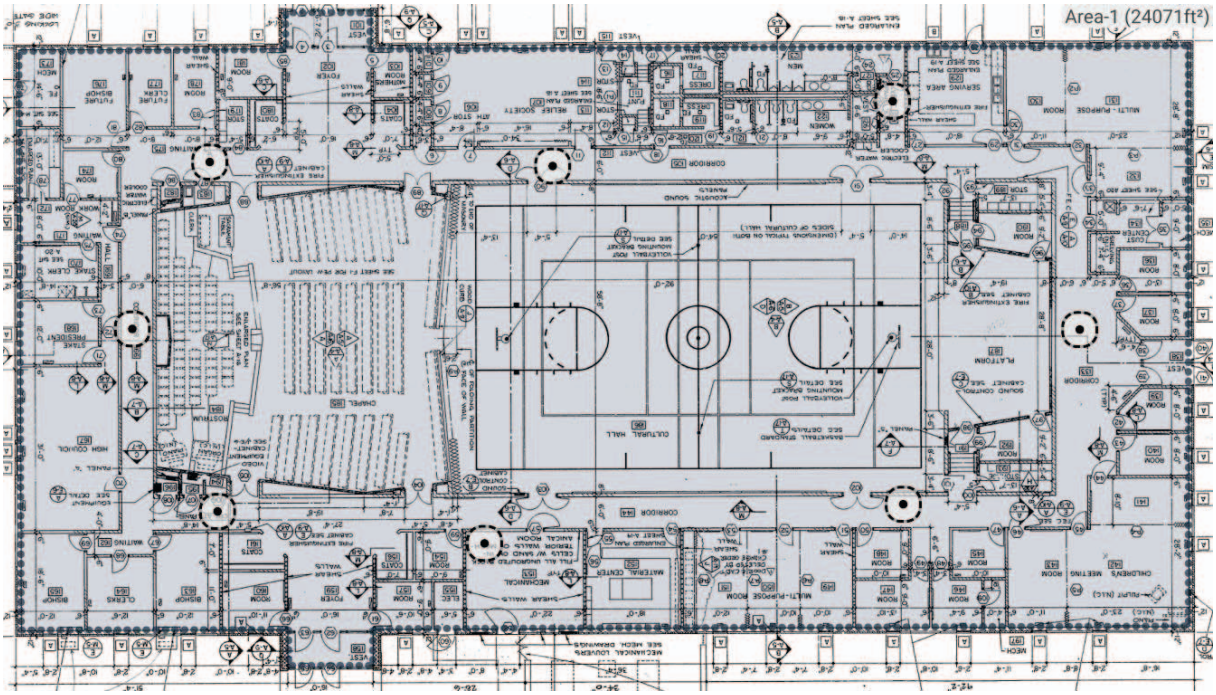
Removed 2 APs after adjusting the locations of the other APs.

Removed wall between chapel and cultural hall.  Accordion doors were left on plans.

Version 3:  Changed the coverage rating requirements from -65Db to -75Db and thus reduced the need for 8 additional APs (From 16 to 8 APs).  APs were renamed to still be in numerical order.

# Main Floor

Survey routes and Access Points for Main Floor




| View as / Project Offset: | Generic Laptop (-3 dB/-3 dB/-) |
|---|---|

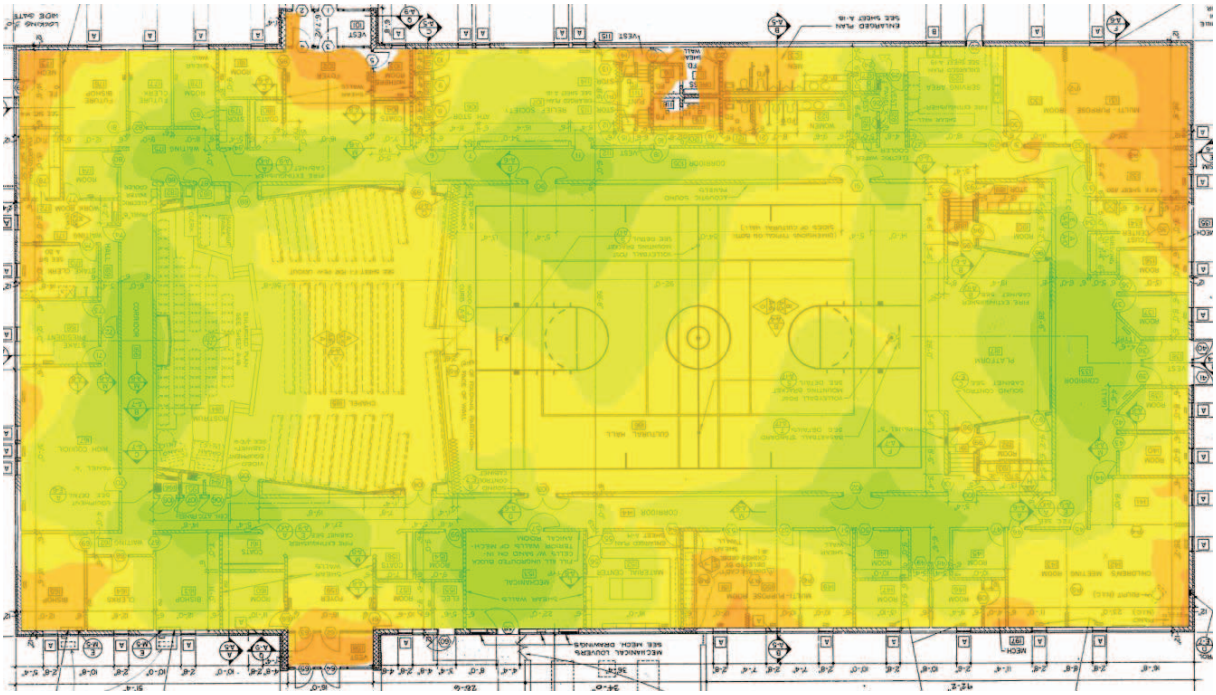
## Area-1 (24,071 ft²)

| Coverage Requirement: **LDS** | | |
|---|---|---|
| **2.4 GHz** | Signal Strength Min | **-75.0 dBm** |
| | Secondary Signal Strength Min | **-70.0 dBm** |
| | Signal-to-Noise Ratio Min | **20.0 dB** |
| | Data Rate Min | **24 Mbps** |
| | Channel Interference Max | **2 at min. -85.0 dBm** |
| | Round Trip Time (RTT) Max | **200 ms** |
| | Packet Loss Max | **0.0 %** |
| **5 GHz** | Signal Strength Min | **-75.0 dBm** |
| | Secondary Signal Strength Min | **-70.0 dBm** |
| | Signal-to-Noise Ratio Min | **25.0 dB** |

| | | |
|---|---|---|
| | Data Rate Min | **24 Mbps** |
| | Channel Interference Max | **1 at min. -85.0 dBm** |
| | Round Trip Time (RTT) Max | **200 ms** |
| | Packet Loss Max | **0.0 %** |
| **6 GHz** | Signal-to-Noise Ratio Min | **25.0 dB** |
| | Data Rate Min | **24 Mbps** |
| | Channel Interference Max | **1 at min. -85.0 dBm** |
| | Round Trip Time (RTT) Max | **200 ms** |
| | Packet Loss Max | **0.0 %** |
| **Capacity Requirement** | No capacity devices for this area | |
| **Notes** | | |

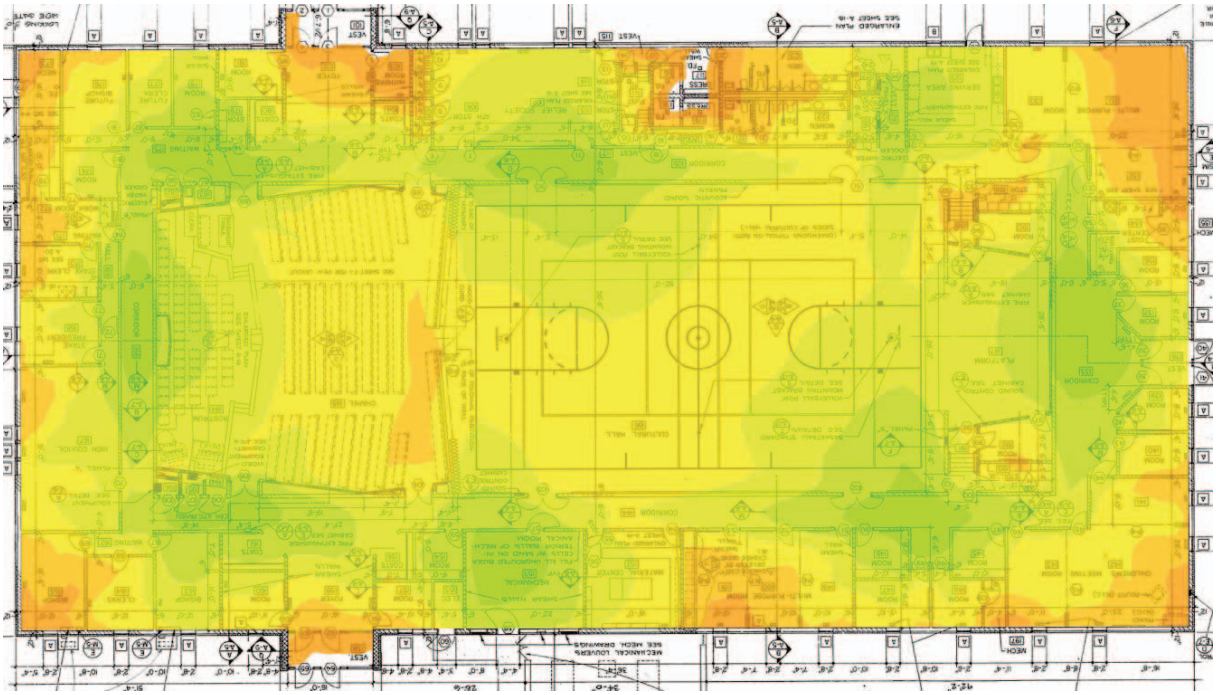
**Signal Strength for Main Floor on 2.4 GHz band**

Signal Strength - sometimes called coverage - is the most basic requirement for a wireless network. As a general guideline, low signal strength means unreliable connections, and low data throughput.



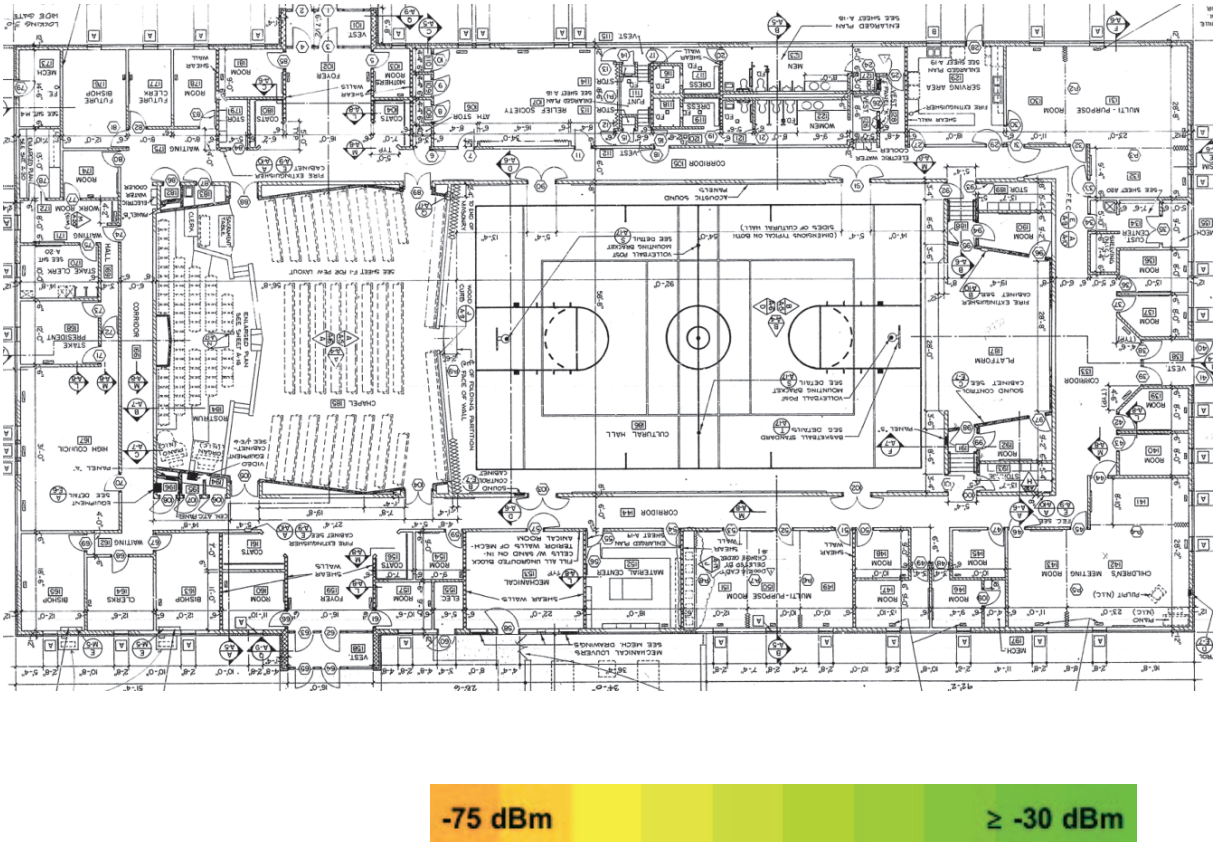
**Signal Strength for Main Floor on 5 GHz band**

Signal Strength - sometimes called coverage - is the most basic requirement for a wireless network. As a general guideline, low signal strength means unreliable connections, and low data throughput.

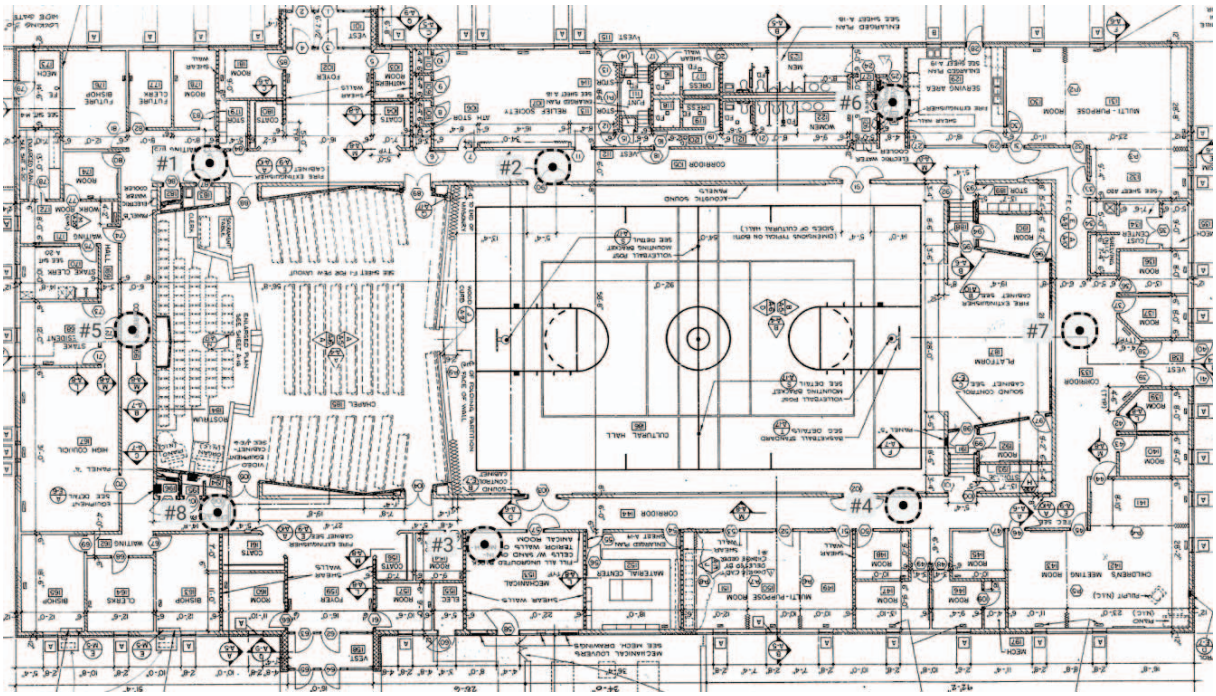


**Signal Strength for Main Floor on 6 GHz band**

Signal Strength - sometimes called coverage - is the most basic requirement for a wireless network. As a general guideline, low signal strength means unreliable connections, and low data throughput.



## Access Points on Main Floor



# My Access Points on Main Floor

## Simulated Access Points on Main Floor

| AP # | Access Point | | | |
|---|---|---|---|---|
| 1 | Simulated AP-001 | | Cisco Meraki Catalyst 9162 | |
| | Wi-Fi 6 | 11 | 6 mW | Cisco Meraki Catalyst 9162 2.4GHz |
| | Wi-Fi 6 | 108 | 25 mW | Cisco Meraki Catalyst 9162 5GHz |
| | Wi-Fi 6E | 1@40 (6 GHz) | 25 mW | Cisco Meraki Catalyst 9162 6GHz |
| | Bluetooth | - | 1 mW | Cisco Meraki Catalyst 9162 BLE |
| 2 | Simulated AP-002 | | Cisco Meraki Catalyst 9162 | |
| | Wi-Fi 6 | 1 | 6 mW | Cisco Meraki Catalyst 9162 2.4GHz |
| | Wi-Fi 6 | 44 | 25 mW | Cisco Meraki Catalyst 9162 5GHz |
| | Wi-Fi 6E | 1@40 (6 GHz) | 25 mW | Cisco Meraki Catalyst 9162 6GHz |
| | Bluetooth | - | 1 mW | Cisco Meraki Catalyst 9162 BLE |
| 3 | Simulated AP-003 | | Cisco Meraki Catalyst 9162 | |
| | Wi-Fi 6 | 6 | 6 mW | Cisco Meraki Catalyst 9162 2.4GHz |
| | Wi-Fi 6 | 149 | 25 mW | Cisco Meraki Catalyst 9162 5GHz |
| | Wi-Fi 6E | 1@40 (6 GHz) | 25 mW | Cisco Meraki Catalyst 9162 6GHz |
| | Bluetooth | - | 1 mW | Cisco Meraki Catalyst 9162 BLE |
| 4 | Simulated AP-004 | | Cisco Meraki Catalyst 9162 | |
| | Wi-Fi 6 | 11 | 6 mW | Cisco Meraki Catalyst 9162 2.4GHz |
| | Wi-Fi 6 | 52 | 25 mW | Cisco Meraki Catalyst 9162 5GHz |
| | Wi-Fi 6E | 1@40 (6 GHz) | 25 mW | Cisco Meraki Catalyst 9162 6GHz |
| | Bluetooth | - | 1 mW | Cisco Meraki Catalyst 9162 BLE |
| 5 | Simulated AP-005 | | Cisco Meraki Catalyst 9162 | |
| | Wi-Fi 6 | 1 | 6 mW | Cisco Meraki Catalyst 9162 2.4GHz |
| | Wi-Fi 6 | 140 | 25 mW | Cisco Meraki Catalyst 9162 5GHz |
| | Wi-Fi 6E | 1@40 (6 GHz) | 25 mW | Cisco Meraki Catalyst 9162 6GHz |

| | | | | |
|---|---|---|---|---|
| | Bluetooth | - | 1 mW | Cisco Meraki Catalyst 9162 BLE |
| 6 | Simulated AP-006 | | Cisco Meraki Catalyst 9162 | |
| | Wi-Fi 6 | 11 | 6 mW | Cisco Meraki Catalyst 9162 2.4GHz |
| | Wi-Fi 6 | 100 | 25 mW | Cisco Meraki Catalyst 9162 5GHz |
| | Wi-Fi 6E | 1@40 (6 GHz) | 25 mW | Cisco Meraki Catalyst 9162 6GHz |
| | Bluetooth | - | 1 mW | Cisco Meraki Catalyst 9162 BLE |
| 7 | Simulated AP-007 | | Cisco Meraki Catalyst 9162 | |
| | Wi-Fi 6 | 11 | 6 mW | Cisco Meraki Catalyst 9162 2.4GHz |
| | Wi-Fi 6 | 108 | 25 mW | Cisco Meraki Catalyst 9162 5GHz |
| | Wi-Fi 6E | 1@40 (6 GHz) | 25 mW | Cisco Meraki Catalyst 9162 6GHz |
| | Bluetooth | - | 1 mW | Cisco Meraki Catalyst 9162 BLE |
| 8 | Simulated AP-008 | | Cisco Meraki Catalyst 9162 | |
| | Wi-Fi 6 | 11 | 6 mW | Cisco Meraki Catalyst 9162 2.4GHz |
| | Wi-Fi 6 | 108 | 25 mW | Cisco Meraki Catalyst 9162 5GHz |
| | Wi-Fi 6E | 1@40 (6 GHz) | 25 mW | Cisco Meraki Catalyst 9162 6GHz |
| | Bluetooth | - | 1 mW | Cisco Meraki Catalyst 9162 BLE |

**Measured Access Points on Main Floor**

None.