

Completed by: **Jon Loutensock**Completion data: 08/28/2025

#### 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.

Interior wall material was set as hollow block (cinderblock).

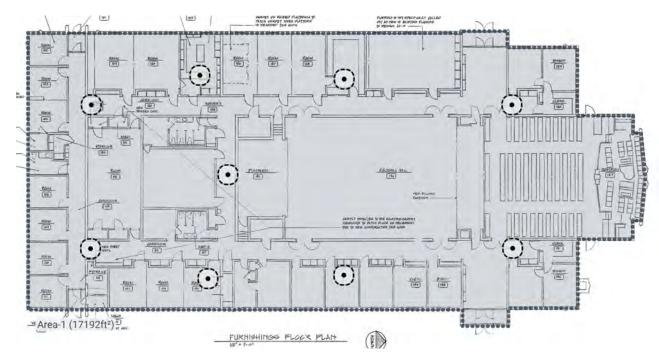
Without measured attenuation and AP signal deviation measurements, the actual signal propagation will vary.

The AP placement was made based on optimizing 5 GHz signals for primary signal strength. Secondary coverage was not a requirement.

The C9172I access point is represented in this prediction.

## **Davis Meetinghouse Standard Plan**

### Survey routes and Access Points for Davis Meetinghouse Standard Plan



View as / Project Offset:	Mobile Device	

#### Area-1 (17,192 ft<sup>2</sup>)

Coverage Requirement: Ekahau Best Practices			
2.4 GHz	Signal Strength Min	-67.0 dBm	
	Signal-to-Noise Ratio Min	20.0 dB	
	Data Rate Min	24 Mbps	
	Channel Interference Max	2 at min85.0 dBm	
	Round Trip Time (RTT) Max	200 ms	
	Packet Loss Max	0.0 %	
5 GHz	Signal Strength Min	-67.0 dBm	
	Secondary Signal Strength Min	-67.0 dBm	
	Signal-to-Noise Ratio Min	25.0 dB	
	Data Rate Min	24 Mbps	
	Channel Interference Max	1 at min85.0 dBm	

	Round Trip Time (RTT) Max	200 ms
	Packet Loss Max	0.0 %
6 GHz	Signal Strength Min	-67.0 dBm
	Secondary Signal Strength Min	-67.0 dBm
	Signal-to-Noise Ratio Min	25.0 dB
	Data Rate Min	24 Mbps
	Channel Interference Max	1 at min85.0 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 Davis Meetinghouse Standard Plan 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.



-75 dBm ≥ -30 dBm

#### Signal Strength for Davis Meetinghouse Standard Plan 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.



-75 dBm ≥ -30 dBm

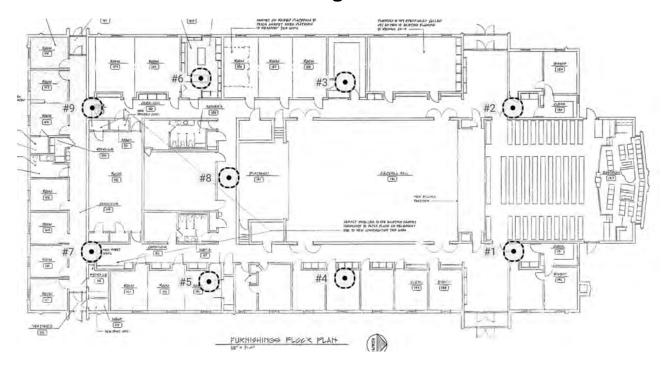
#### Signal Strength for Davis Meetinghouse Standard Plan on 6 GHz band

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.



-75 dBm ≥ -30 dBm

## **Access Points on Davis Meetinghouse Standard Plan**



## **Access Points on Davis Meetinghouse Standard Plan**

#### **Simulated Access Points on Davis Meetinghouse Standard Plan**

AP#	Access Point				
1	Simulated AP-001		Cisco CW9172I		
	Wi-Fi 7	1	8.0 dBm	Cisco CW9172I 2.4GHz	
	Wi-Fi 7	36	14.0 dBm	Cisco CW9172I 5GHz	
	Wi-Fi 7	1@80 (6 GHz)	14.0 dBm	Cisco CW9172I 6GHz	
	Bluetooth	-	0.0 dBm	Cisco CW9172I BLE	
2	Simulated AP-002		Cisco CW9172I		
	Wi-Fi 7	1	8.0 dBm	Cisco CW9172I 2.4GHz	
	Wi-Fi 7	36	14.0 dBm	Cisco CW9172I 5GHz	
	Wi-Fi 7	1@80 (6 GHz)	14.0 dBm	Cisco CW9172I 6GHz	
	Bluetooth	-	0.0 dBm	Cisco CW9172I BLE	
3	Simulated AP-005		Cisco CW9172I		
	Wi-Fi 7	1	8.0 dBm	Cisco CW9172l 2.4GHz	
	Wi-Fi 7	36	14.0 dBm	Cisco CW9172I 5GHz	
	Wi-Fi 7	1@80 (6 GHz)	14.0 dBm	Cisco CW9172I 6GHz	
	Bluetooth	-	0.0 dBm	Cisco CW9172I BLE	
4	Simulated A	P-006	Cisco CW9172I		
	Wi-Fi 7	1	8.0 dBm	Cisco CW9172I 2.4GHz	
	Wi-Fi 7	36	14.0 dBm	Cisco CW9172I 5GHz	
	Wi-Fi 7	1@80 (6 GHz)	14.0 dBm	Cisco CW9172l 6GHz	
	Bluetooth	-	0.0 dBm	Cisco CW9172I BLE	
5	Simulated A	P-007	Cisco CW9172I		
	Wi-Fi 7	1	8.0 dBm	Cisco CW9172I 2.4GHz	
	Wi-Fi 7	36	14.0 dBm	Cisco CW9172I 5GHz	
	Wi-Fi 7	1@80 (6 GHz)	14.0 dBm	Cisco CW9172I 6GHz	

	Bluetooth	-	0.0 dBm	Cisco CW9172I BLE
6	Simulated AP-008		Cisco CW9172I	
	Wi-Fi 7	1	8.0 dBm	Cisco CW9172I 2.4GHz
	Wi-Fi 7	36	14.0 dBm	Cisco CW9172I 5GHz
	Wi-Fi 7	1@80 (6 GHz)	14.0 dBm	Cisco CW9172I 6GHz
	Bluetooth	-	0.0 dBm	Cisco CW9172I BLE
7	Simulated AP-009		Cisco CW9172I	
	Wi-Fi 7	1	8.0 dBm	Cisco CW9172I 2.4GHz
	Wi-Fi 7	36	14.0 dBm	Cisco CW9172I 5GHz
	Wi-Fi 7	1@80 (6 GHz)	14.0 dBm	Cisco CW9172I 6GHz
	Bluetooth	-	0.0 dBm	Cisco CW9172I BLE
8	Simulated AP-010		Cisco CW9172I	
	Wi-Fi 7	1	8.0 dBm	Cisco CW9172I 2.4GHz
	Wi-Fi 7	36	14.0 dBm	Cisco CW9172I 5GHz
	Wi-Fi 7	1@80 (6 GHz)	14.0 dBm	Cisco CW9172I 6GHz
	Bluetooth	-	0.0 dBm	Cisco CW9172I BLE
9	Simulated AP-011		Cisco CW9172I	
	Wi-Fi 7	1	8.0 dBm	Cisco CW9172I 2.4GHz
	Wi-Fi 7	36	14.0 dBm	Cisco CW9172I 5GHz
	Wi-Fi 7	1@80 (6 GHz)	14.0 dBm	Cisco CW9172I 6GHz
	Bluetooth	-	0.0 dBm	Cisco CW9172I BLE