# Survey Report - Sample

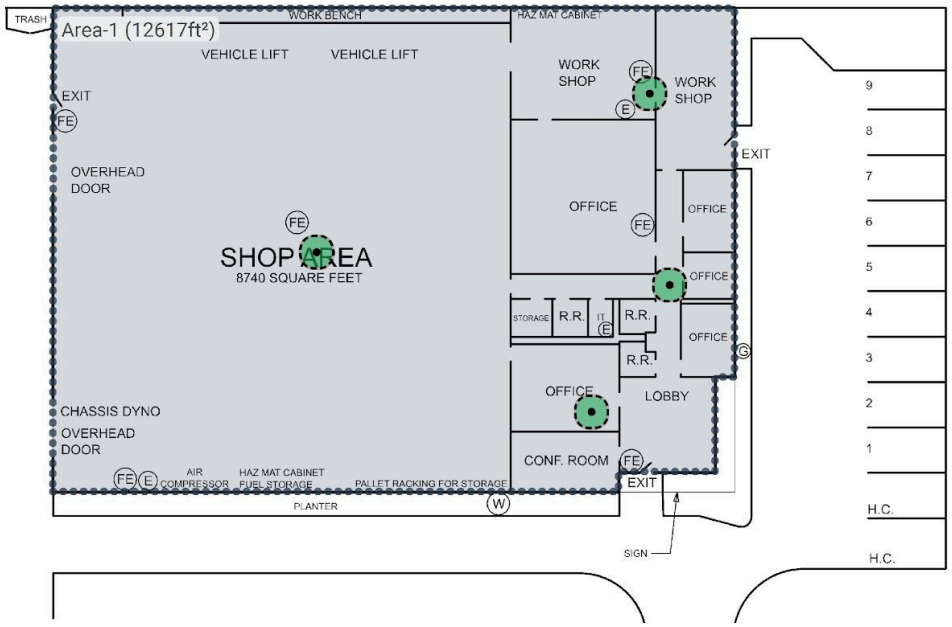



Name: **Wireless Survey**
Location: **United States**
Responsible Person: **e-Mayhem, LLC**

| Project Description and Disclaimer |
| --- |
| This is a sample report to demonstrate the predictive survey capabilities of the Ekahau utility on an office/warehouse flex space.<br><br>This report was generated using a sample floor plan FOR DEMONSTRATION PURPOSES ONLY using approximations of densities and permeability which may not accurately reflect yours or any given space due to variability in physical characteristics/properties of the building; typically related to differences in construction materials, placement of structural or utility objects, real world air quality conditions or other external variables which cannot be accounted for.<br><br>The Predictive survey is an excellent baseline for estimating the scale and scope of your deployment, however it doesn't replace an active survey which performs physical analysis at the site as there may be large variances or unknown interference/impedance sources which may drastically affect the performance of your wireless network in any given area.<br><br>e-Mayhem provides this survey for informational purposes only, but it is not intended to guarantee any quality of service or accuracy of measurement as all figures are purely hypothetical given the constraints we have provided. |

# Sample Site

## Survey routes and Access Points for Sample Site




| View as / Project Offset: | Measured |
|---|---|

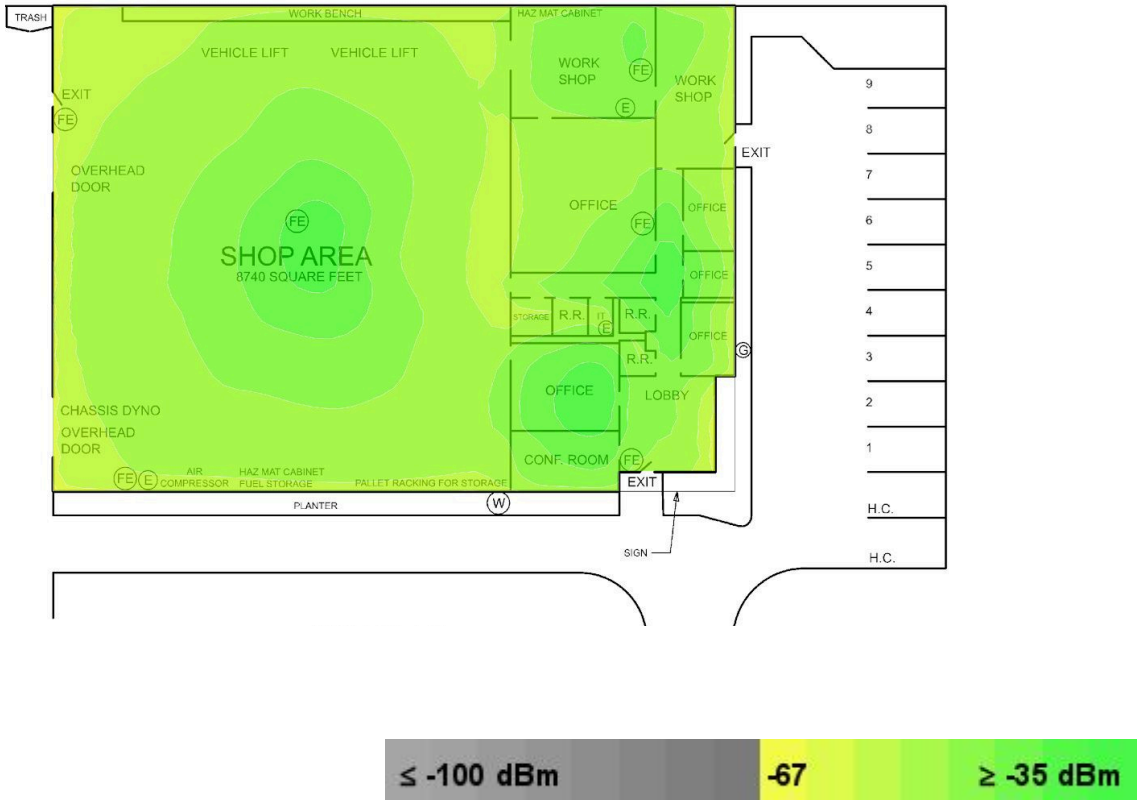
## Area-1 (12,617 ft²)

| Coverage Requirement: **Ekahau Best Practices** | | |
|---|---|---|
| **5 GHz** | Signal Strength Min | **-67.0 dBm** |
| | Secondary Signal Strength Min | **-75.0 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 %** |
| **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 min. -85.0 dBm** |
| | Round Trip Time (RTT) Max | **200 ms** |
| | Packet Loss Max | **0.0 %** |
| **Capacity Requirement** | | |
| | **50** | Generic Laptop [VoIP, Lync/Skype] |
| | **10** | Generic Barcode Scanner [Normal SLA (2 Mbps)] |
| | **30** | Generic VoIP Phone [VoIP, Lync/Skype] |
| | **Total: 90 (30.2 Mbits/s)** | |
| **Notes** | | |

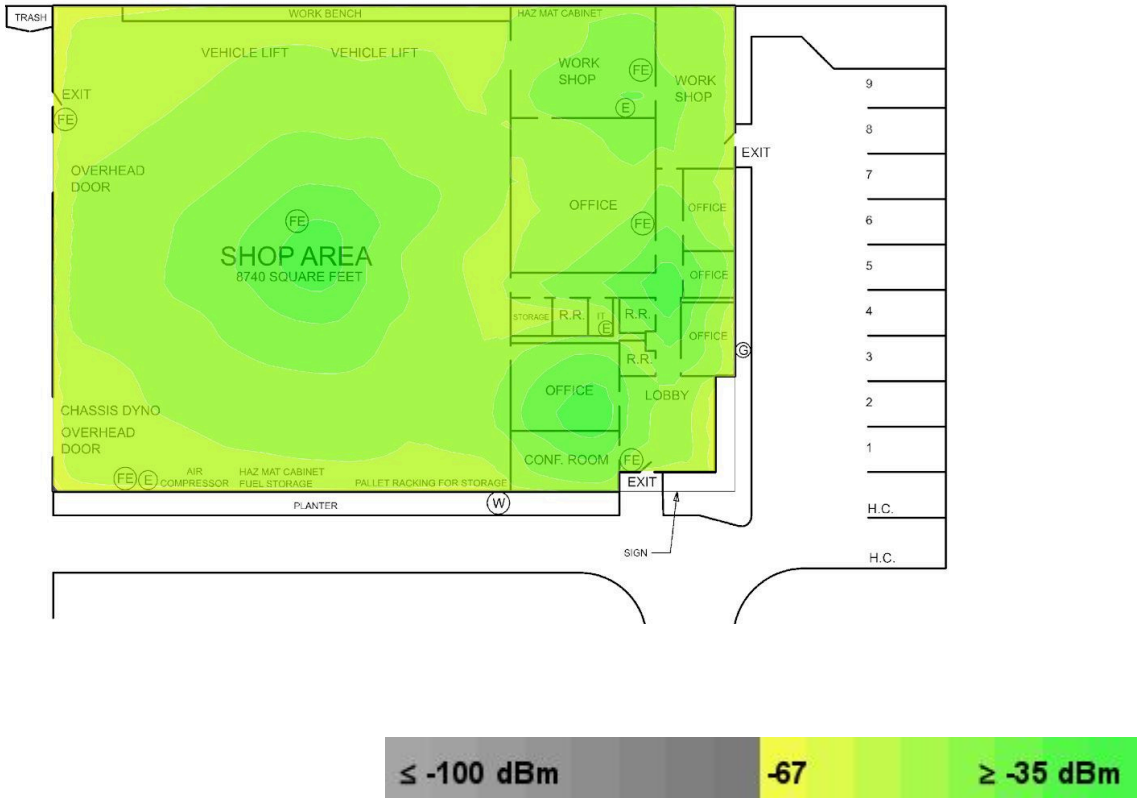
Signal Strength for Sample Site on 2.4 GHz band

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.



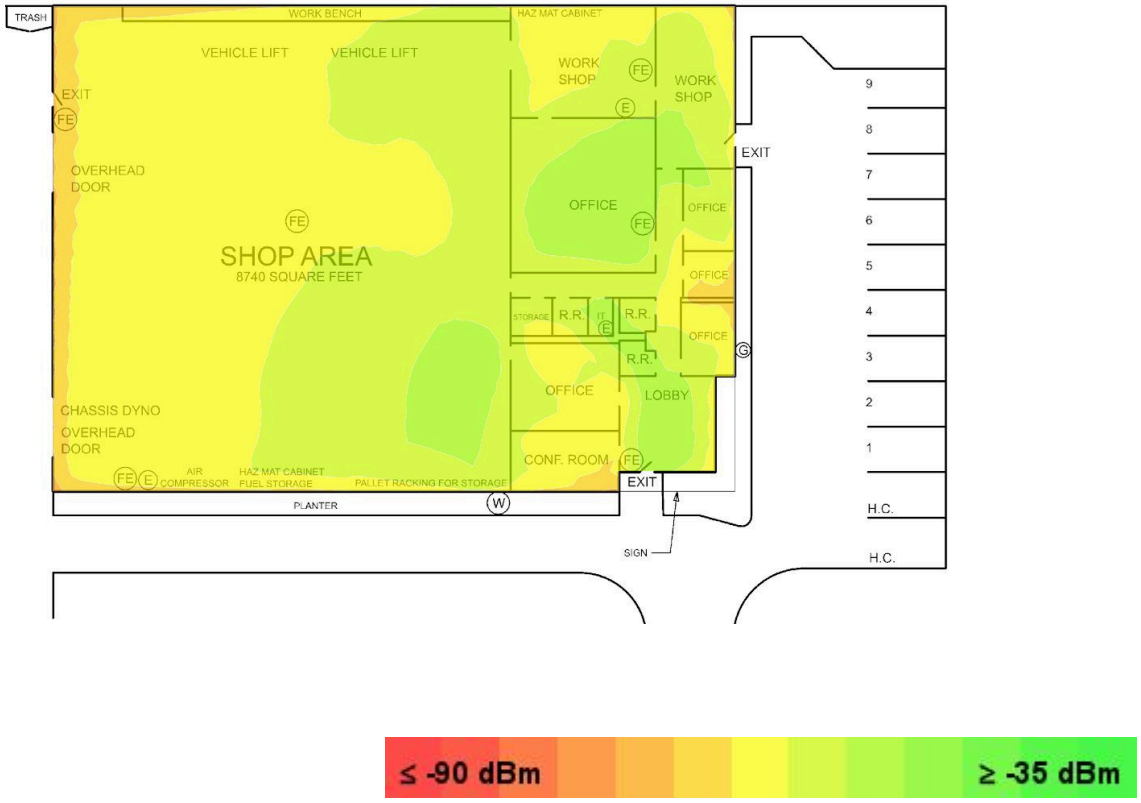
Signal Strength for Sample Site on 5 GHz band

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.



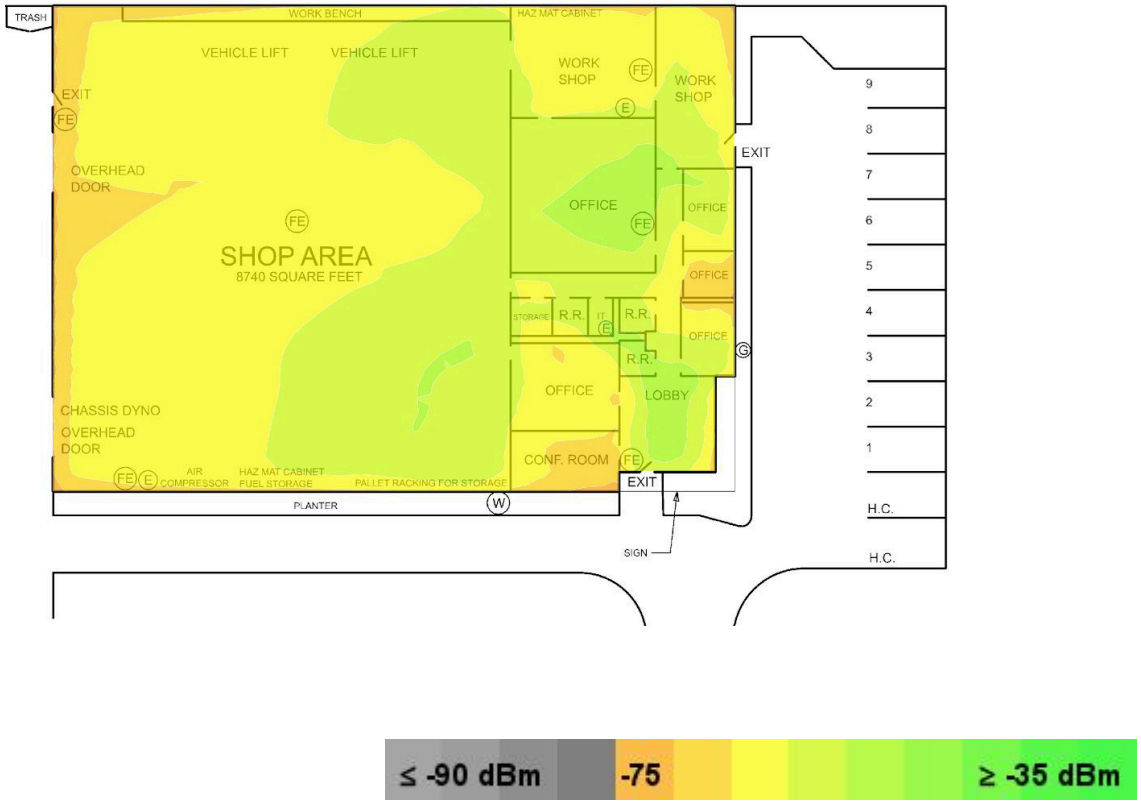
Secondary Signal Strength for Sample Site on 2.4 GHz band

Secondary Signal Strength shows the second strongest RSSI on any given location on the map. This heatmap helps to ensure smooth roaming for clients and quality of service for certain latency-sensitive applications, such as VoIP calls.



## Secondary Signal Strength for Sample Site on 5 GHz band

Secondary Signal Strength shows the second strongest RSSI on any given location on the map. This heatmap helps to ensure smooth roaming for clients and quality of service for certain latency-sensitive applications, such as VoIP calls.



Signal To Noise Ratio (SNR) for Sample Site on 2.4 GHz band

Signal-To-Noise Ratio indicates how much the signal strength is stronger than the noise (co-channel interference). Signal must be stronger than noise (SNR greater than zero) for data transfer to be possible. If the signal is only barely stronger than noise, you may encounter occasional connection drop-offs.






Signal To Noise Ratio (SNR) for Sample Site on 5 GHz band

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Channel Interference for Sample Site on 2.4 GHz band

Channel interference indicates the number of access points overlapping at each location in a single channel.






Channel Interference for Sample Site on 5 GHz band

Channel interference indicates the number of access points overlapping at each location in a single channel.






Noise for Sample Site on 2.4 GHz band

Displays the calculated co-channel interference level.






Noise for Sample Site on 5 GHz band

Displays the calculated co-channel interference level.






Data Rate for Sample Site on 2.4 GHz band

Data Rate is the highest possible speed (measured in megabits per second) at which the wireless devices will be transmitting data. Typically the true data throughput is about half of the data rate or less.






Data Rate for Sample Site on 5 GHz band

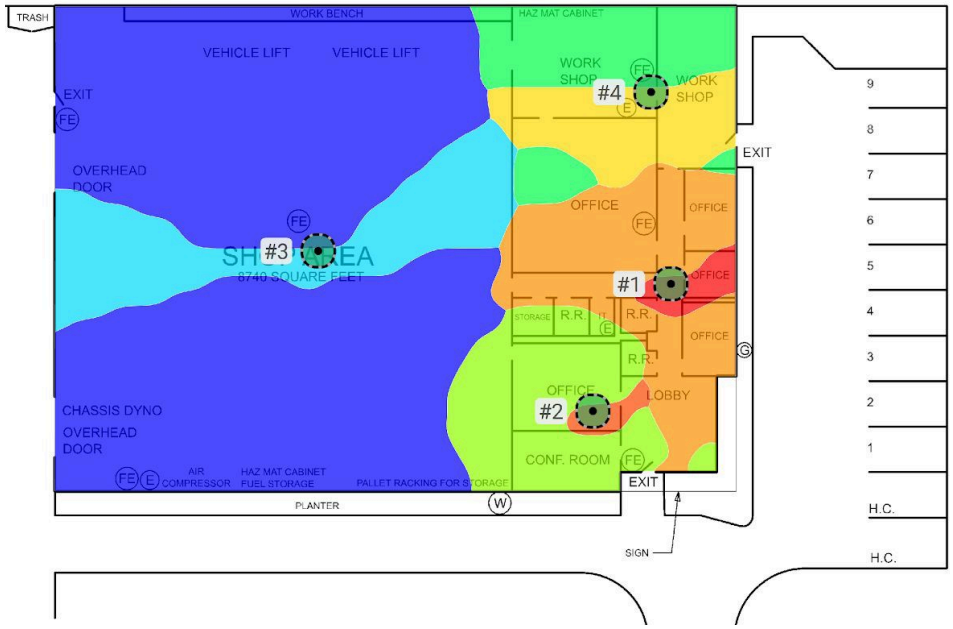
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## Associated Access Point for Sample Site

Displays the access point the client device is associated with.The image shows Predicted Association - Signal Strength



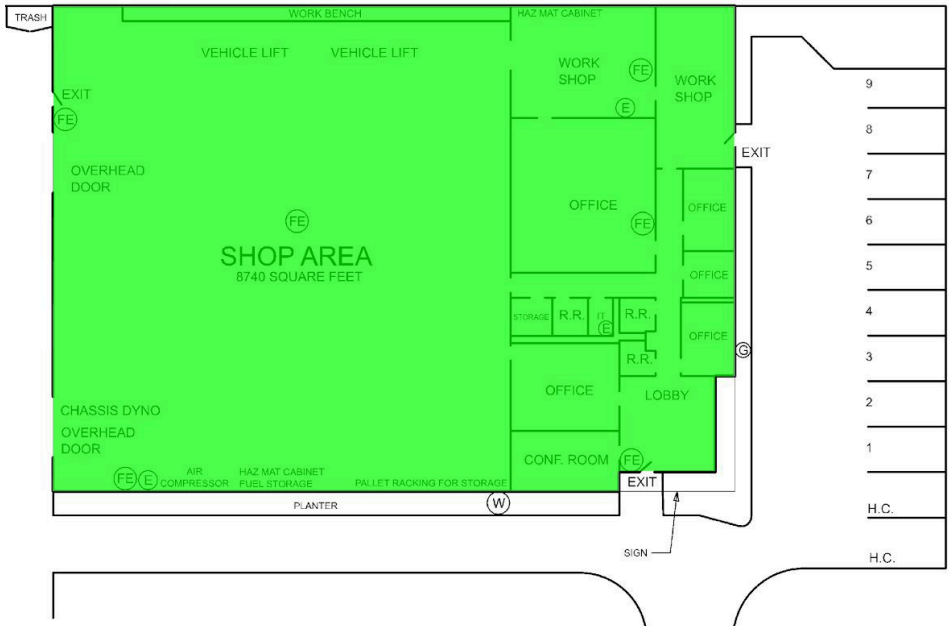



| AP # | Access Point | | | |
|---|---|---|---|---|
| 1 | Hall1-MR44 | | Meraki MR44 | |
| | ●802.11ax | 11 | 6 mW | Meraki MR44 2.4GHz |
| | ●802.11ax | 153 | 25 mW | Meraki MR44 5GHz |
| | Bluetooth | - | 1 mW | Meraki MR44 BLE |
| 2 | Office1-MR44 | | Meraki MR44 | |
| | ●802.11ax | 1 | 6 mW | Meraki MR44 2.4GHz |
| | ●802.11ax | 161 | 25 mW | Meraki MR44 5GHz |
| | Bluetooth | - | 1 mW | Meraki MR44 BLE |

| | | | | |
|---|---|---|---|---|
| 3 | Shop1-MR44 | | Meraki MR44 | |
| | ●802.11ax | 6 | 6 mW | Meraki MR44 2.4GHz |
| | ●802.11ax | 104 | 25 mW | Meraki MR44 5GHz |
| | Bluetooth | - | 1 mW | Meraki MR44 BLE |
| 4 | Shop2-MR44 | | Meraki MR44 | |
| | ●802.11ax | 1 | 6 mW | Meraki MR44 2.4GHz |
| | ●802.11ax | 132 | 25 mW | Meraki MR44 5GHz |
| | Bluetooth | - | 1 mW | Meraki MR44 BLE |

Network Health for Sample Site on 2.4 GHz band

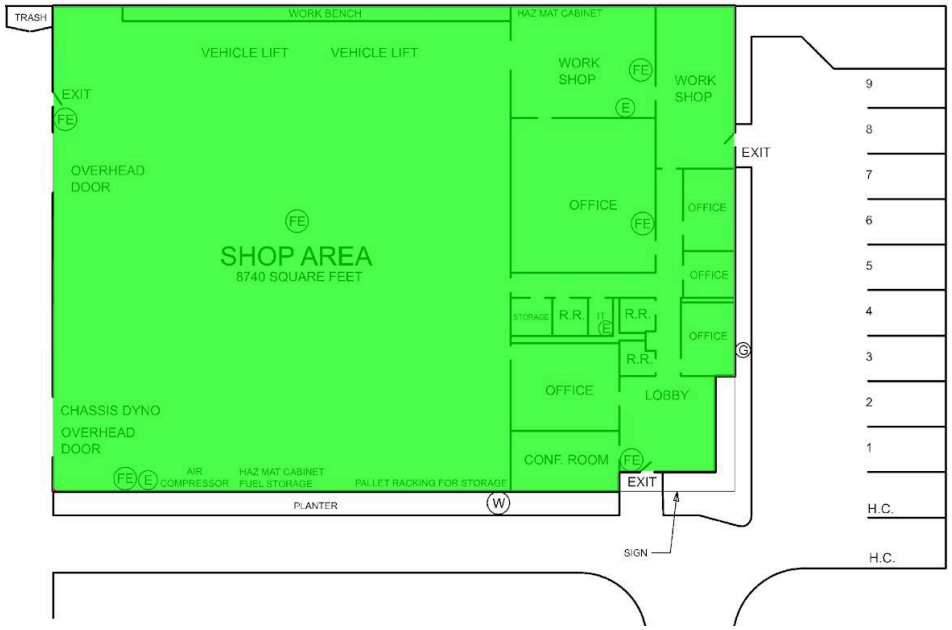
Wi-Fi is typically built for a certain purpose or several purposes, such as VoIP, web browsing, or location tracking. With Network Health, you can, with a single visualization, display whether the network meets your requirements or not.




Fail | Pass

Network Health for Sample Site on 5 GHz band

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Fail Pass

Network Issues for Sample Site on 2.4 GHz band

Network Issues complements Network Health by showing the requirement that is below the threshold level at each location. Whereas Network Health answers the question "Does it work?", Network Issues answers the question "If it doesn't work, why?".




S.Str

Network Issues for Sample Site on 5 GHz band

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S.Str S.Str2

# Access Points on Sample Site



# My Access Points on Sample Site

## Simulated Access Points on Sample Site

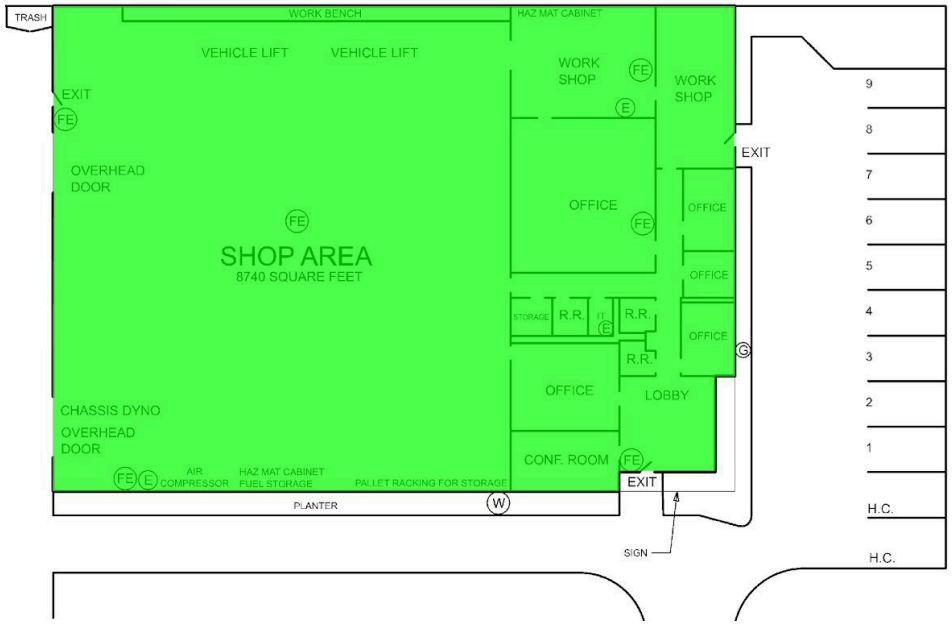
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## Measured Access Points on Sample Site

None.

Channel Width for Sample Site on 2.4 GHz band

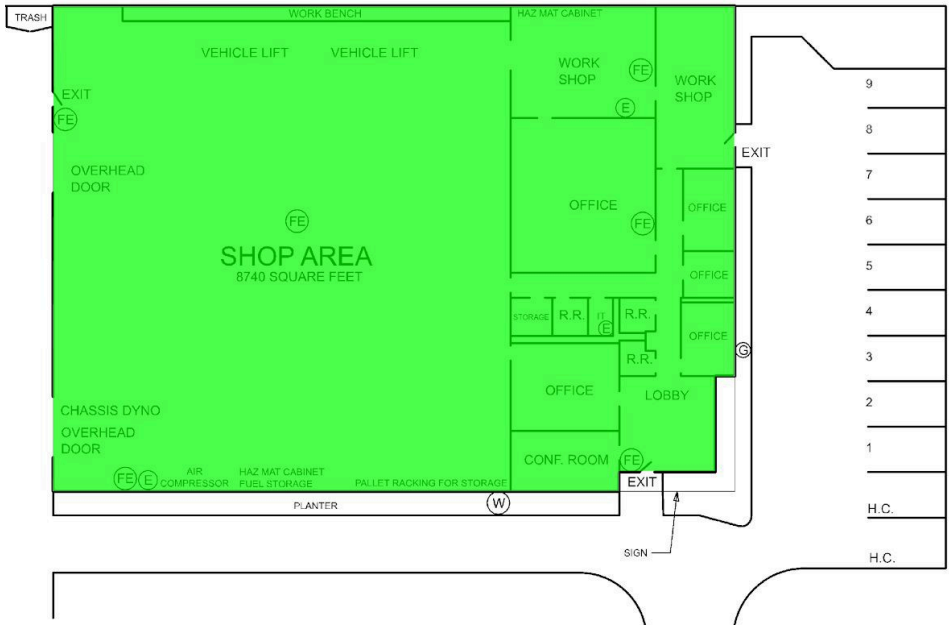
Shows the maximum channel width available in each area.






Channel Width for Sample Site on 5 GHz band

Shows the maximum channel width available in each area.






## Network capacity configuration

| | 2.4 GHz | 5 GHz |
|---|---|---|
| Minimum Data Rate | **12 Mbits/s** | **12 Mbits/s** |
| Band steering | **N/A** | **N/A** |
| Number of SSIDs | **2** | **2** |
| Max. Associated Clients | **200** | **200** |
| RTS / CTS | **No** | **No** |