07/07/2025

GSM Network Summary

Company: All Round Cabling Solutions

Address: [redacted]Emu Heights NSW 2750

PH: 1300 63 8311

Email: info@arcs.sydney

TELSTRA/OPTUS/VODAFONE 4G/5G Network Coverage

Client: [redacted]
Address: [redacted] Jamisontown NSW 2750

GSM Network Performance

Equipment Used: Nextivity CompassXR

Floor Plan layout provided by client, uploaded to wave app for seamless grid pattern testing or floor Plan with priority area shown for VODAFONE Network. Testing was completed in several workplace areas.

Please also refer to the attached detailed report

Testing/Results

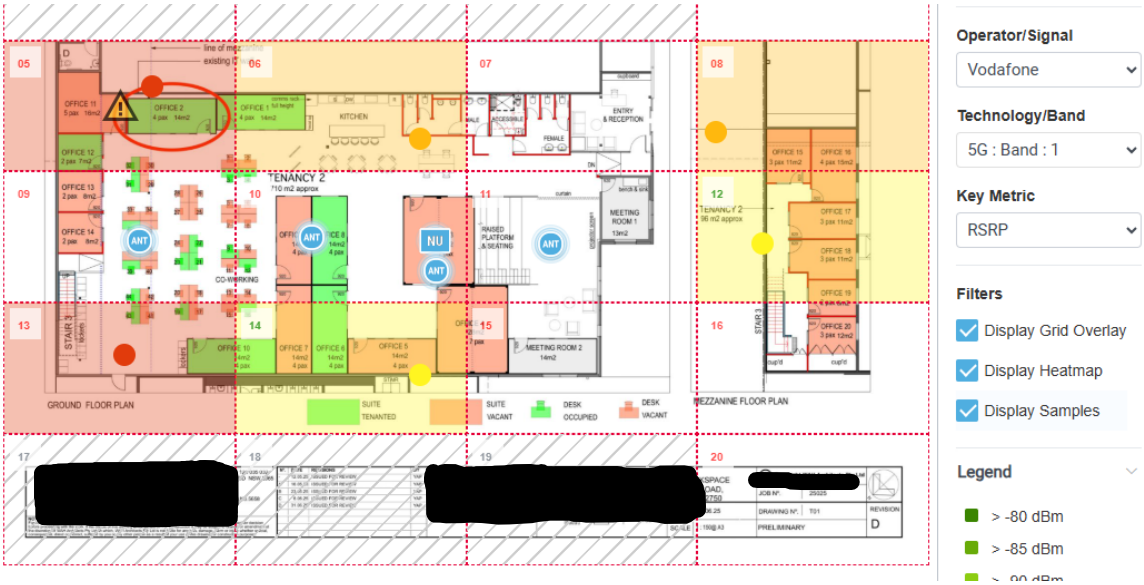
Testing has been completed and all results captured for all TELSTRA, OPTUS & VODAFONE GSM 4G/5G bands including dedicated 5G Band 78 The following networks/bands passed within the complex! 5G networks failed

Signal Strength Pass/Fail Criteria

Optus 4G Pass Criteria: RSRP > -105 dBm

Vodafone 4G Pass Criteria: RSRP > -105 dBm

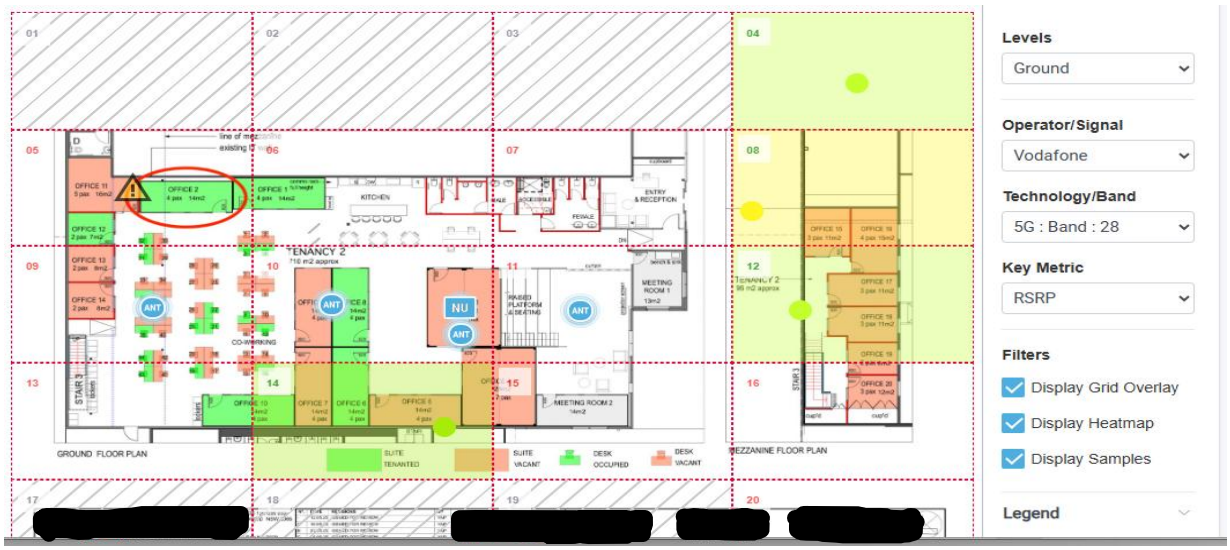
Telstra 4G Pass Criteria: RSRP > -105 dBm



Vodafone Band 1 5G

Testing showed minimal to no coverage throughout the ground floor see above medium/poor coverage (see orange/yellow areas on map)

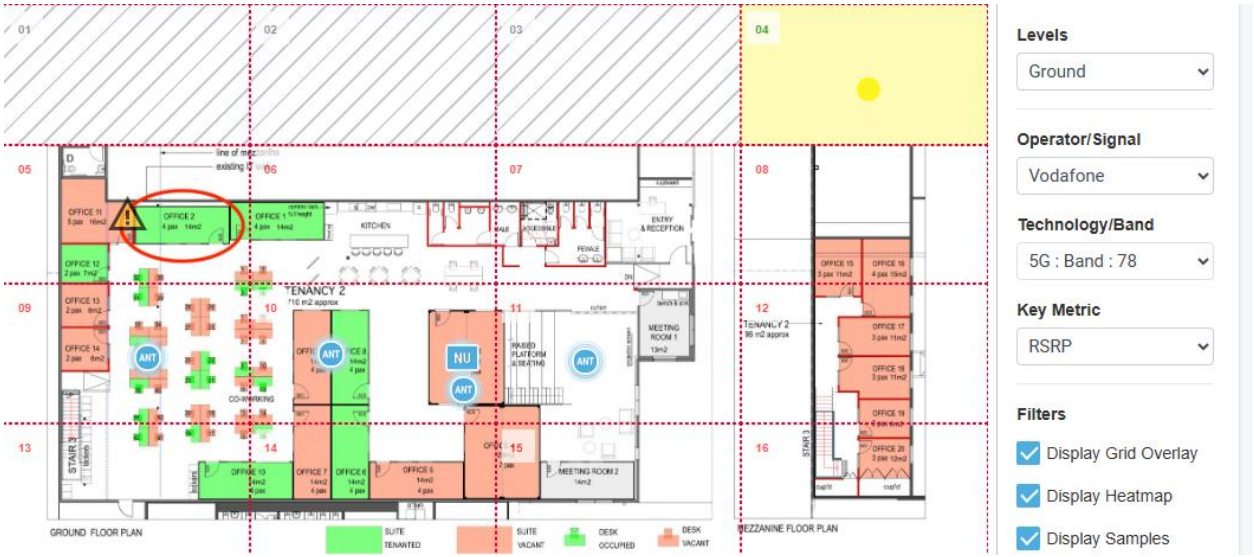
Red area dead zone



Vodafone Band 28 5G

Shows good coverage in areas with green & yellow markers, Good external network coverage would be suitable for a G41 5G donor antenna to boost internal network coverage.

Please note coverage is limited to certain areas within the ground floor on the complex.



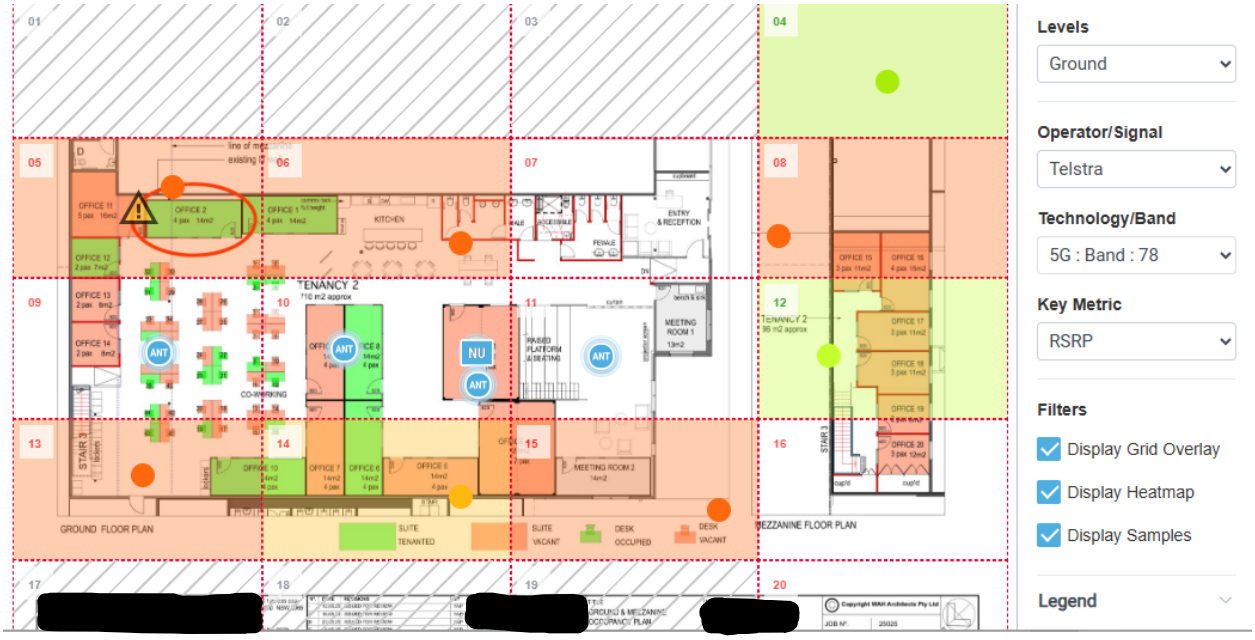
Vodafone Band 78 medium external coverage for donor antenna and would be suitable for upgrading to a G51 repeater to provide excellent internal complete coverage of 5G

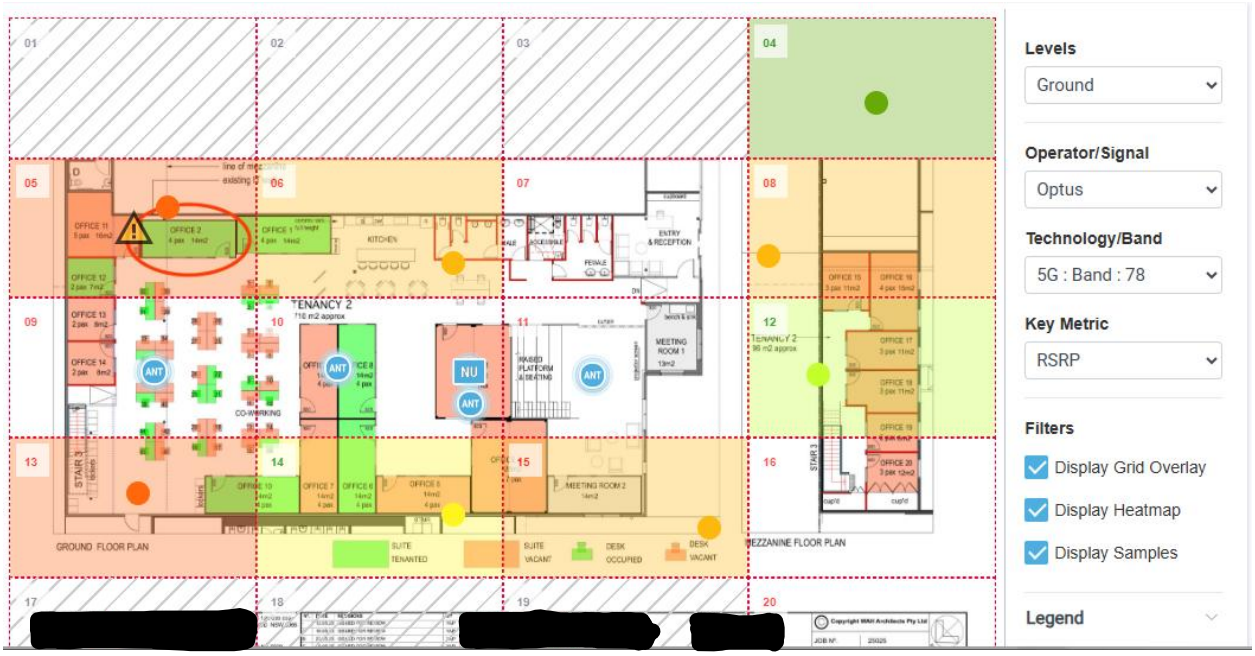
Out Come / Recommendation

Based on the test results, ARCS can provide suitable network coverage within the complex [redacted] Jamestown to increase performance on the Vodafone GSM network. We can use either G41 or G51 as band 78 is available. I would recommend the G51 as a suitable and effective Repeater. With one Donor antenna (External) and 3 Internal antennas to cover the floor space.

The 4G network appears to have good signal quality on all carriers, with all new phones now functioning on the 5G, clients would need to switch between 4G and 5G networks whilst onsite. Alternately a 5G booster would better suit the clientele.

Telstra and Optus showed very poor signal quality of the 5G network within the complex, this may also be worth considering later. As shown here.


Levels
Ground
Operator/Signal
Telstra
Technology/Band
5G : Band : 78
Key Metric
RSRP
Filters
Display Grid Overlay
Display Heatmap
Display Samples
Legend
GROUND FLOOR PLAN
MEZZANINE FLOOR PLAN
TENANCY 2
SUITE TENANTED
SUITE VACANT
DESK OCCUPIED
DESK VACANT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Conclusion

Vodafone, Telstra and Optus network lack 5G signal for adequate internal network coverage due to the metal structured roof and containers located within the complex, we have sufficient signal quality Externally to Boost the current networks to provide sufficient network coverage within the complex.

For Vodafone

1x Donor antenna (roof mounted preferred)

2-3 Internal antennas

1x network unit with remote monitoring (for performance and upgrade)

1s Splitter

Coaxial cable and Fitting.

Others TBA

Telstra and Optus both lack sufficient network coverage for 5G within the complex and you may wish to consider upgrading to installing G51 as demand grows to provide coverage of the 5G with complex for both Telstra and Optus.