

Apparatus Licence

Issued by Delegate of the Australian Communications and Media Authority



Licensee details

Customer ID	20013687
Licensee	SYDNEY TRAINS
Licensee address	Attn: Mr Christopher Go Level 2, Clyde Hub, 146-148 Manchester Road, Clyde, NSW 2142

Licence details

Licence service	Land Mobile
Licence subservice	Land Mobile System - > 30MHz
Licence number	1233870/1
Callsign	VL2RW
Date of issue	04/12/2023
Date of effect	04/12/2023
Date of expiry	01/12/2024

Licence conditions

Your licence is subject to conditions set out in the *Radiocommunications Act 1992*. Your licence may also be subject to such other licence conditions as determined by the ACMA (in licence condition determinations) from time to time, and is also subject to special conditions as detailed on this licence.

The conditions that are imposed on a licence vary according to the type of licence issued, the service being operated and the section of the *Radiocommunications Act 1992* under which the licence has been issued. For further information about the conditions that apply to your licence, please contact the ACMA (see contact details below).

Rights of appeal

A decision by the ACMA to impose further conditions or revoke or vary the conditions of your licence may be reviewable. If you are affected by, and dissatisfied with, such a decision you may apply to the ACMA to have the ACMA reconsider the decision under section 288 of the *Radiocommunications Act 1992*.

An application for reconsideration must state the reasons for the request, and should be sent to the Customer Service Centre, Australian Communications and Media Authority, PO Box 78, Belconnen, ACT, 2616. Applications for review of decisions can be made using the R051 - Application for review of Decision form, available on the ACMA website.

Important

An application for the ACMA to reconsider a decision to impose or vary licence conditions must be made to the ACMA within 28 days of the day on which you are informed of the decision. An application for reconsideration made after that time may not be accepted.

ACMA contact details

Customer Service Centre
PO Box 78
BELCONNEN ACT 2616

Telephone: 1300 850 115
Email: info@acma.gov.au

ACMA website: www.acma.gov.au

Advisory Notes applying to licence no.: 1233870/1

Conditions applicable to the operation of Land Mobile System station(s) authorised under this licence can be found in the Radiocommunications Licence Conditions (Apparatus Licence) Determination and the Radiocommunications Licence Conditions (Land Mobile Licence) Determination. Copies of these determinations are available from the ACMA and from the ACMA home page (www.acma.gov.au).

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Main Station Site

Station 1:

Site details

Site ID	54455
Site address	Railway site, LITHGOW NSW 2790
Co-ordinates (GDA94)	Latitude: -33.48013605 Longitude: 150.15851485

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691706
Transmitter power	50.00 W
EIRP	83.00 W
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691709
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 1

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 2:

Site details

Site ID	53794
Site address	Optus/Vodafone & GRN Towers, Cnr Emu & Hodgson Rd, GLENBROOK NSW 2773
Co-ordinates (GDA94)	Latitude: -33.7748316 Longitude: 150.62775331

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691638
Transmitter power	50.00 W
EIRP	41.00 W
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691639
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 2

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 3:

Site details

Site ID	54436
Site address	Railway site, BELL NSW 2786
Co-ordinates (GDA94)	Latitude: -33.52761913 Longitude: 150.27354022

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691640
Transmitter power	50.00 W
EIRP	41.00 W
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691641
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 3

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 4:

Site details

Site ID	54437
Site address	Road Bridge, BELL NSW 2786
Co-ordinates (GDA94)	Latitude: -33.50993691 Longitude: 150.28119772

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691642
Transmitter power	50.00 W
EIRP	41.00 W
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691643
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 4

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 5:

Site details

Site ID	54439
Site address	Railway site, BLACKHEATH NSW 2785
Co-ordinates (GDA94)	Latitude: -33.65314746 Longitude: 150.28316807

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691644
Transmitter power	50.00 W
EIRP	41.00 W
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691645
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 5

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 6:

Site details

Site ID	54441
Site address	Railway site, BLACKHEATH NSW 2785
Co-ordinates (GDA94)	Latitude: -33.62345445 Longitude: 150.27763552

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691646
Transmitter power	50.00 W
EIRP	41.00 W
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691647
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 6

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 7:

Site details

Site ID	54443
Site address	Railway Station, BLAXLAND NSW 2774
Co-ordinates (GDA94)	Latitude: -33.74412381 Longitude: 150.61054224

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691648
Transmitter power	50.00 W
EIRP	41.00 W
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691649
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 7

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 8:

Site details

Site ID	54444
Site address	Coughlan Rd Bridge, BLAXLAND NSW 2774
Co-ordinates (GDA94)	Latitude: -33.75530387 Longitude: 150.60591449

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691650
Transmitter power	50.00 W
EIRP	41.00 W
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691651
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 8

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 9:

Site details

Site ID	54446
Site address	Railway Station, GLENBROOK NSW 2773
Co-ordinates (GDA94)	Latitude: -33.76863371 Longitude: 150.61914643

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691652
Transmitter power	50.00 W
EIRP	41.00 W
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691653
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 9

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 10:

Site details

Site ID	54449
Site address	Railway site, KATOOMBA NSW 2780
Co-ordinates (GDA94)	Latitude: -33.71202625 Longitude: 150.31238265

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691654
Transmitter power	50.00 W
EIRP	41.00 W
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691655
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 10

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 11:

Site details

Site ID	54450
Site address	Kedumba Park, WENTWORTH FALLS NSW 2780
Co-ordinates (GDA94)	Latitude: -33.70878973 Longitude: 150.35455496

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691656
Transmitter power	50.00 W
EIRP	41.00 W
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691657
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 11

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 12:

Site details

Site ID	54451
Site address	Railway Station, KINGSWOOD NSW 2747
Co-ordinates (GDA94)	Latitude: -33.75856737 Longitude: 150.72111011

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691658
Transmitter power	50.00 W
EIRP	41.00 W
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691661
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 12

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 13:

Site details

Site ID	54452
Site address	Knapsack, LAPSTONE NSW 2750
Co-ordinates (GDA94)	Latitude: -33.76819037 Longitude: 150.64301686

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691664
Transmitter power	50.00 W
EIRP	41.00 W
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691665
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 13

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 14:

Site details

Site ID	54453
Site address	Railwaya site, LAWSON NSW 2783
Co-ordinates (GDA94)	Latitude: -33.71911282 Longitude: 150.42922095

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691666
Transmitter power	50.00 W
EIRP	41.00 W
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691667
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 14

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 15:

Site details

Site ID	54454
Site address	Railway Station, LINDEN NSW 2778
Co-ordinates (GDA94)	Latitude: -33.71507078 Longitude: 150.5046456

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691668
Transmitter power	50.00 W
EIRP	41.00 W
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691669
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 15

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 16:

Site details

Site ID	54456
Site address	Yard East Junction, LITHGOW NSW 2790
Co-ordinates (GDA94)	Latitude: -33.46830481 Longitude: 150.18525528

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691670
Transmitter power	50.00 W
EIRP	41.00 W
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691671
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 16

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 17:

Site details

Site ID	54457
Site address	Mount Mark, MEDLOW BATH NSW 2780
Co-ordinates (GDA94)	Latitude: -33.68755545 Longitude: 150.28995858

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691672
Transmitter power	50.00 W
EIRP	41.00 W
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691673
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 17

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 18:

Site details

Site ID	54458
Site address	Railway Station, MOUNT VICTORIA NSW 2786
Co-ordinates (GDA94)	Latitude: -33.58748757 Longitude: 150.25743724

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691674
Transmitter power	50.00 W
EIRP	41.00 W
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691675
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 18

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 19:

Site details

Site ID	54459
Site address	Railway site, NEWNES JUNCTION NSW 2790
Co-ordinates (GDA94)	Latitude: -33.47263424 Longitude: 150.24955356

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691676
Transmitter power	50.00 W
EIRP	41.00 W
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691677
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 19

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 20:

Site details	
Site ID	54462
Site address	Railway Station (Staff carpark), RICHMOND NSW 2753
Co-ordinates (GDA94)	Latitude: -33.5996147 Longitude: 150.75367345

Transmitter details	
Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691678
Transmitter power	50.00 W
EIRP	41.00 W
Emission designator	10K1F8WWN

Antenna details	
Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details	
Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691679
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN

Antenna details	
Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 20

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 21:

Site details

Site ID	54465
Site address	Railway site, SPRINGWOOD NSW 2776
Co-ordinates (GDA94)	Latitude: -33.69584895 Longitude: 150.54877847

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691680
Transmitter power	50.00 W
EIRP	41.00 W
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691681
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 21

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 22:

Site details

Site ID	54473
Site address	Railway Station, VALLEY HEIGHTS NSW 2777
Co-ordinates (GDA94)	Latitude: -33.70729648 Longitude: 150.58524007

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691682
Transmitter power	50.00 W
EIRP	41.00 W
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691683
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 22

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 23:

Site details

Site ID	54475
Site address	Railway Station, WENTWORTH FALLS NSW 2782
Co-ordinates (GDA94)	Latitude: -33.71681242 Longitude: 150.38408465

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691684
Transmitter power	50.00 W
EIRP	41.00 W
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691685
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 23

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 24:

Site details

Site ID	54477
Site address	Railway Station, WOODFORD NSW 2778
Co-ordinates (GDA94)	Latitude: -33.73579007 Longitude: 150.48160036

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691686
Transmitter power	50.00 W
EIRP	41.00 W
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691687
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 24

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 25:

Site details

Site ID	54478
Site address	Railway site, ZIG ZAG NSW 2790
Co-ordinates (GDA94)	Latitude: -33.47256868 Longitude: 150.20232911

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691688
Transmitter power	50.00 W
EIRP	41.00 W
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691689
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 25

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 26:

Site details

Site ID	54479
Site address	Railway site, Tunnel 1 Up, ZIG ZAG NSW 2790
Co-ordinates (GDA94)	Latitude: -33.4896644 Longitude: 150.23696401

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691690
Transmitter power	50.00 W
EIRP	41.00 W
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691691
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 26

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 27:

Site details

Site ID	54480
Site address	Railway site, Tunnel 2/3, ZIG ZAG NSW 2790
Co-ordinates (GDA94)	Latitude: -33.49603651 Longitude: 150.22761423

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691692
Transmitter power	50.00 W
EIRP	41.00 W
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691693
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 27

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 28:

Site details

Site ID	54481
Site address	Railway site, Tunnel 4/5, ZIG ZAG NSW 2790
Co-ordinates (GDA94)	Latitude: -33.49322658 Longitude: 150.21888128

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691694
Transmitter power	50.00 W
EIRP	41.00 W
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691697
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 28

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 29:

Site details

Site ID	54482
Site address	Railway site, Tunnel 6/7, ZIG ZAG NSW 2790
Co-ordinates (GDA94)	Latitude: -33.48944061 Longitude: 150.21491326

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691700
Transmitter power	50.00 W
EIRP	41.00 W
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691701
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 29

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 30:

Site details

Site ID	54483
Site address	Railway site, Tunnel 7/8, ZIG ZAG NSW 2790
Co-ordinates (GDA94)	Latitude: -33.48644361 Longitude: 150.21393322

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691702
Transmitter power	50.00 W
EIRP	41.00 W
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691703
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 30

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.

Technical characteristics

Below is a summary of the technical characteristics of the licensed service. Further technical details not displayed here may be found on the ACMA website.

Supplementary Station Site

Station 31:

Site details

Site ID	54484
Site address	Tunnel 9/10, ZIG ZAG NSW 2790
Co-ordinates (GDA94)	Latitude: -33.48290865 Longitude: 150.20909722

Transmitter details

Assigned frequency	418.325000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691704
Transmitter power	50.00 W
EIRP	41.00 W
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Receiver details

Assigned frequency	408.875000 MHz
Bandwidth	12.5000 kHz
Freq. assign. ID	0000691705
Transmitter power	N/A
EIRP	N/A
Emission designator	10K1F8WWN

Antenna details

Antenna ID	70044
Antenna polarisation	V - Vertical linear
Antenna azimuth	
Antenna height (m)	0
Antenna type	Yagi (Vertical Polarisation)-Y

Special Conditions applying to Station 31

The level of all discreet spurious components, measured at the output of the transmitter, must not exceed -30dBm.

No interference shall be caused to any Radiocommunication station or service and no protection from interference by such stations or services shall be afforded.