

# STANDARD DRAWING NOTES AND SPECIFICATION:

## GENERAL:



1. ALL TELECOMMUNICATION ANTENNA AND ASSOCIATED EQUIPMENT INSTALLATIONS SHALL BE UNDER A LICENSED AGREEMENT WITH POWER AND WATER.
2. THIRD PARTY EQUIPMENT SHALL NOT BE INSTALLED ON POLES WITH EXISTING EQUIPMENT SUCH AS TRANSFORMERS, GBS, ABS, RECLOSERS AND CABLE TERMINATION.
3. ALL PERSONNEL WORKING ON THESE STRUCTURE SHALL BE AUTHORISED AND ACCREDITED WITH ALL THE APPROPRIATE TRAINING AND PERMITS.
4. THE POLE CROSS ARM ARRANGEMENT CAN VARY DEPENDING ON SERVICE LOCATIONS.
5. THIS ARRANGEMENT SUITS BOLTED, NON-BOLTED AND I BEAM POLE TYPES.
6. PRIORITY MUST BE GIVEN TO THE 600mm MINIMUM CLEARANCE BETWEEN THE TOP OF THE ANTENNA AND SERVICE CROSSARM WHEN CONSIDERING POLE SUITABILITY, IF MINIMUM CLEARANCE CAN NOT BE ACHIEVED THEN THE LOCATION IS NOT SUITABLE.
7. ALL ANTENNA AND ASSOCIATED EQUIPMENT TO BE INSTALLED ABOVE EXISTING ANTI-CLIMBING PLATE AS SHOWN.
8. ALL ANTENNA AND ASSOCIATED ELECTRICAL EQUIPMENT TO BE MOUNTED TO WITHSTAND CYCLONIC WIND LOADS IN ACCORDANCE WITH AUSTRALIAN STANDARDS.
9. NO WELDED FIXING PERMITTED. REFER TO PAGE 3 & 4 FOR MOUNTING GENERAL ARRANGEMENT.
10. ALL NON-BOLTED FIXINGS WILL BE DONE BY S/S STRAPPING.
11. MOBILE ANTENNA SHALL BE INSTALLED ON THE OPPOSITE SIDE OR PERPENDICULAR TO FUSE BASE WHERE EVER POSSIBLE.
12. ANTENNA AND ASSOCIATED EQUIPMENT POWER SUPPLY SHALL BE SOURCED FROM AN UNMETERED OVERHEAD NETWORK VIA SERVICE FUSE BASE.
13. ALL ANTENNA AND ASSOCIATED ELECTRICAL EQUIPMENT SHALL BE DOUBLE INSULATED OR COMPLY WITH AS3000.
14. ANTENNA AND ANCILLARY MOUNTS TO SUPPORT EQUIPMENT SHALL BE CERTIFIED BY SSMC.
15. EXISTING POWER POLE AND FOOTING TO SUPPORT PROPOSED EQUIPMENT TO BE CERTIFIED BY POWERWATER BEFORE INSTALLATION.
16. ELECTRICAL INSTALLATION SHALL BE IN ACCORDANCE WITH TELSTRA/OPTUS CIVIL DESIGN MANUAL AND EARTHING MANUAL, AUSTRALIAN STANDARD AS 3000, AS 3008, AS3015, AS3017, AS1768 AND ALL OTHER RELEVANT AUSTRALIAN STANDARDS, PWC SPECIFICATIONS, SERVICE AND INSTALLATION RULES.
17. CONTRACTOR SHALL MAKE THEMSELVES AWARE OF ALL SERVICES PRESENT ON SITE.
18. FOR GROUND PENETRATION AND EARTH WORKS, AN AUTHORISATION OF WORK IN THE VICINITY (AWV) PERMIT IS REQUIRED AND ISSUED BY PWC.
19. CONTRACTOR SHALL MAKE THEMSELVES AWARE OF ALL SITE CONDITIONS AND SAFETY REQUIREMENTS PRIOR TO COMMENCING WORK ON SITE.
20. PWC SHALL INSTALL CONDUIT ENTRY THROUGH THE POLE FOUNDATION AND BE RESPONSIBLE FOR RESTATE POLE FOUNDATION AS PER PWC REQUIREMENTS REFER TO DRAWING S01-04-04-01.
21. THE INSTALLATION OF THE SERVICE ARM AND FUSE TO BE COMPLETED BY PWC.

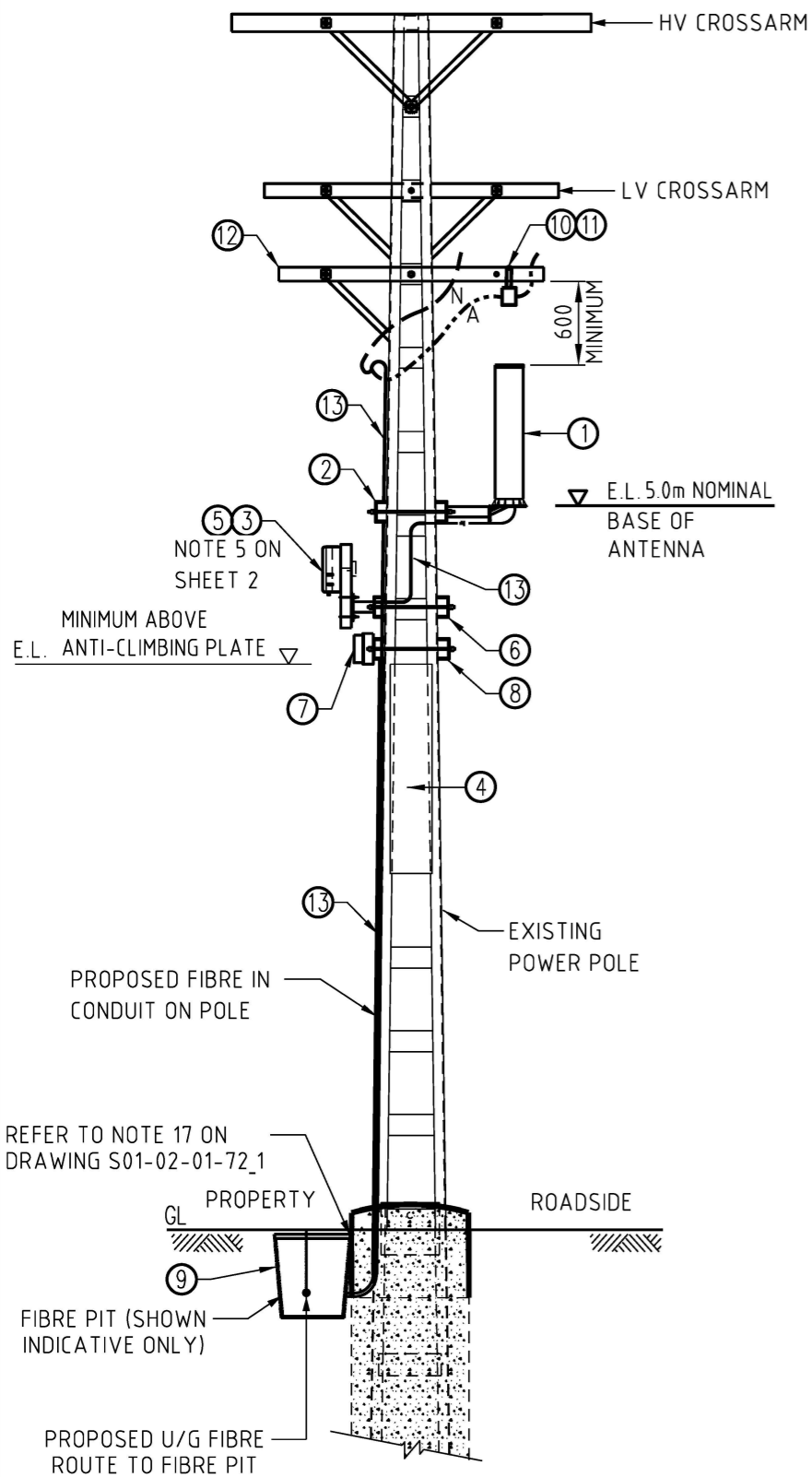
## AC SUPPLY TO RRU 2217

1. CONTRACTOR TO PROVIDE AND INSTALL 2.5mm<sup>2</sup> 2C + E PVC CABLE IN SURFACE MOUNTED 50mm uPVC HD CONDUIT FROM POS TO 5A POLE MOUNTED CB AS SHOWN IN TYPICAL ELEVATION ON S01-02-01-72\_2.
2. ELECTRICAL CONTRACTOR IS TO ENSURE ALL CABLING AND PROTECTIVE DEVICES ARE SUITABLE (CURRENT CAPACITY) FOR USE AS A 5AMPS SUPPLY.

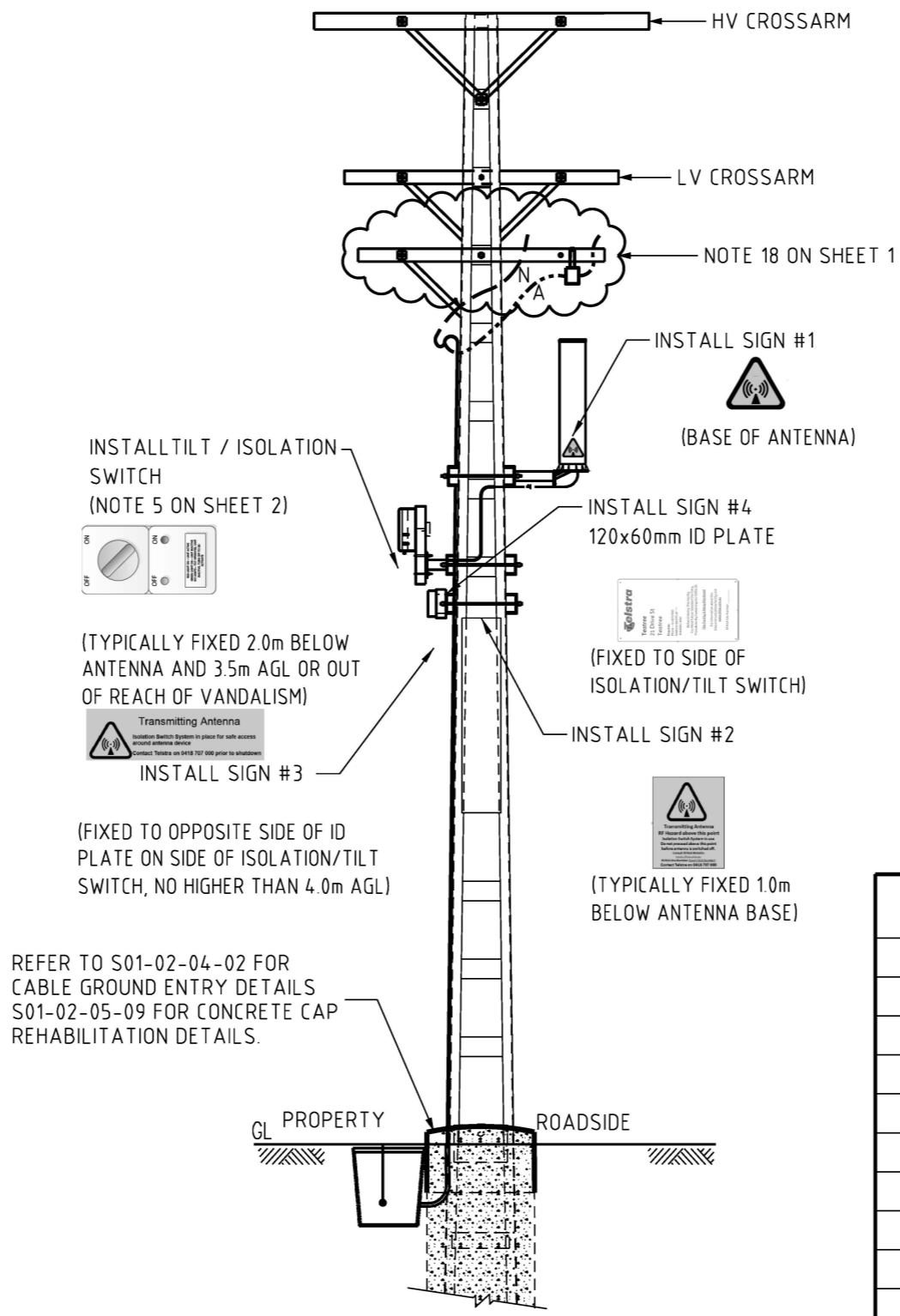
## EARTHING SYSTEM

1. ALL EARTHING AND BONDING IS TO BE IN ACCORDANCE WITH THE TELSTRA/OPTUS EARTHING REQUIREMENTS. LATEST EDITION WITH AMENDMENTS AT TIME OF CONSTRUCTION ARE TO APPLY.
2. ASSOCIATED ANTENNA TO BE CONNECTED TO PROPOSED ELECTRODE WITH 35mm<sup>2</sup> CABLE.
3. PROVIDE PROTECTIVE EARTH 35mm<sup>2</sup> G/Y INSULATED CABLE FROM ANTENNA MOUNT DIRECT TO EARTH STAKE IN PIT. 35mm<sup>2</sup> G/Y CABLE FROM HOUSING EARTH BOLT (SERVICE EARTH POINT) TO A LINE TAP ON THE DOWN CONDUCTOR.
4. FEEDERS EARTHED BY LINE TAPS TO DOWN CONDUCTOR NEAR HOUSING. PROVIDE 6mm<sup>2</sup> CABLE FROM NEUTRAL/EARTH LINK IN SWITCH ENCLOSURE BOX TO EARTH STAKE. PROVIDE BONDING CONDUCTOR FROM NEUTRAL/EARTH LINK TO SERVICE EARTH POINT.
5. THE FEEDER CABLING IS TO BE BONDED TO THE EXISTING SITE EARTHING SYSTEM. ALL BONDING CONDUCTORS ARE TO BE LABELLED AT BOTH ENDS IN ACCORDANCE WITH THE TELSTRA/OPTUS EARTHING MANUAL SECTION 3.5.

								DES . DRN P.HINDE CKD I.BASHIR APPD B.CHEUNG SCALE . ISSUED SEPT 2019 ALL DIM. IN mm		POWER STANDARD DRAWING TELECOMMUNICATION MOBILE ANTENNA INSTALLATION TO POWER POLE STRUCTURES STANDARD DRAWING NOTES		
1	ADDED NOTES 9, 10 & 18	CWM	MAY'20	BC	BC	A3	DRAWING NUMBER	S01-02-01-72_1	DRAFTING STANDARD TO A.S.1100		CAD PRODUCT - DO NOT AMEND MANUALLY	
0	ISSUED FOR CONSTRUCTION	PH	SEP'19	BC	BC							
NO	DESCRIPTION	DRN	DATE	CKD	APPD							
AMENDMENTS												



**TYPICAL ELEVATION**  
SCALE 1:50



**EME SIGNAGE ELEVATION**  
SCALE 1:50

**NOTES:**

1. REFER TO DRAWING S01-02-01-72\_1 FOR STANDARD DRAWING NOTES.
2. REFER TO DRAWING S01-02-01-72\_3 FOR MOBILES ANTENNA MOUNTING DETAILS.
3. REFER TO DRAWING S01-02-01-72\_4 FOR RRU & ISOLATION SWITCH MOUNTING DETAILS.
4. TELECOMMUNICATION COMPANY SHALL DETERMINE THE TYPE OF ANTENNA USED.
5. ISOLATION /TILT SWITCH SHALL NOT BE MERCURY TYPE.

ITEM	QTY	DESCRIPTION	ITEM NO	DRG REF
13	-	25mm GALVANIZED STEEL CONDUIT (GOOSE NECK AT TOP)	-	-
12	1	LV - SERVICE CROSS ARM	298554	S01-1-2-11
11	1	FUSE BASE BRACKET	406802	S01-1-4-49
10	1	SERVICE FUSE BASE	241109	S01-1-4-49
9	1	FIBRE PIT	-	-
8	1	RF ISOLATION / TILT SWITCH BOX MOUNTS	-	-
7	1	RF ISOLATION / TILT SWITCH BOX	-	-
6	1	ENCLOSURE MOUNTS	-	-
5	1	FIBRE INTERFACE BOX IN FIDO POLE ENCLOSURE	-	-
4	1	ANTI - CLIMBING PLATE	-	-
3	1	CONTROL GEAR	-	-
2	1	ANTENNA MOUNTS	-	-
1	1	ANTENNA (TELSTRA OR OPTUS)	-	-

**MATERIAL SCHEDULE**

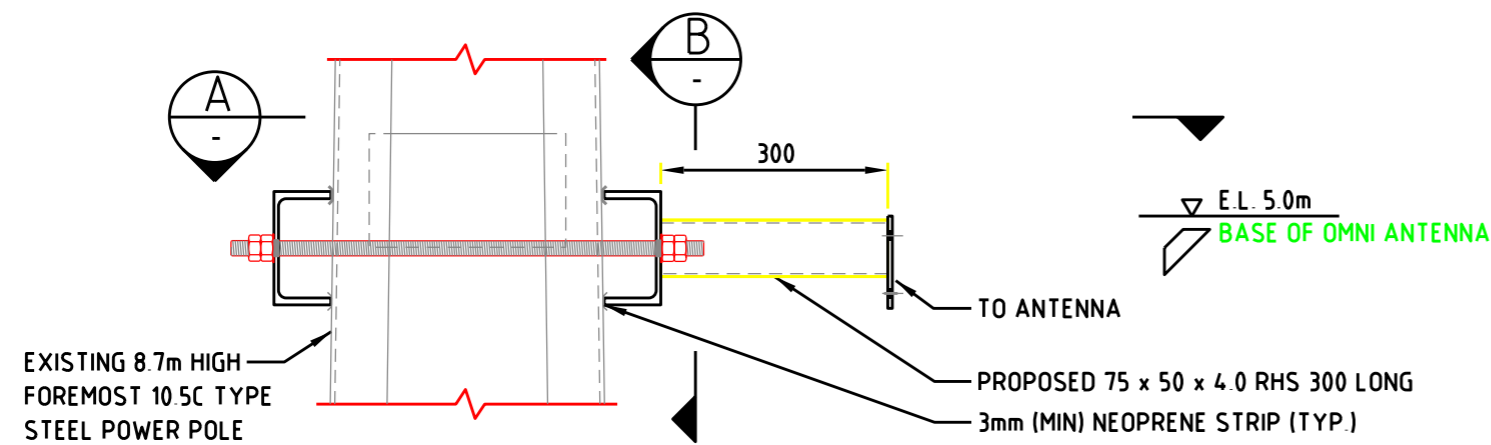
NO	DESCRIPTION	DRN	DATE	CKD	APPD
1	REMOVED ALL TELSTRA CONATATIONS ISSUED FOR CONSTRUCTION	CWM	MAY'20	BC	BC
0		P.H.	SEP'19	B.C.	B.C.

AMENDMENTS



DES	POWER STANDARD DRAWING		
DRN	P.HINDE	TELECOMMUNICATION MOBILE ANTENNA INSTALLATION TO POWER POLE STRUCTURES GENERAL ARRANGEMENT DRAWING	
CKD	I.BASHIR		
APPD	B.CHEUNG		
SCALE	AS SHOWN		
ISSUED	SEPTEMBER 2019	A3	DRAWING NUMBER S01-02-01-72_2
ALL DIM.	IN mm		
DRAFTING STANDARD TO A.S.1100		CAD PRODUCT - DO NOT AMEND MANUALLY	





**ANTENNA MOUNTING DETAILS**

SCALE 1:10

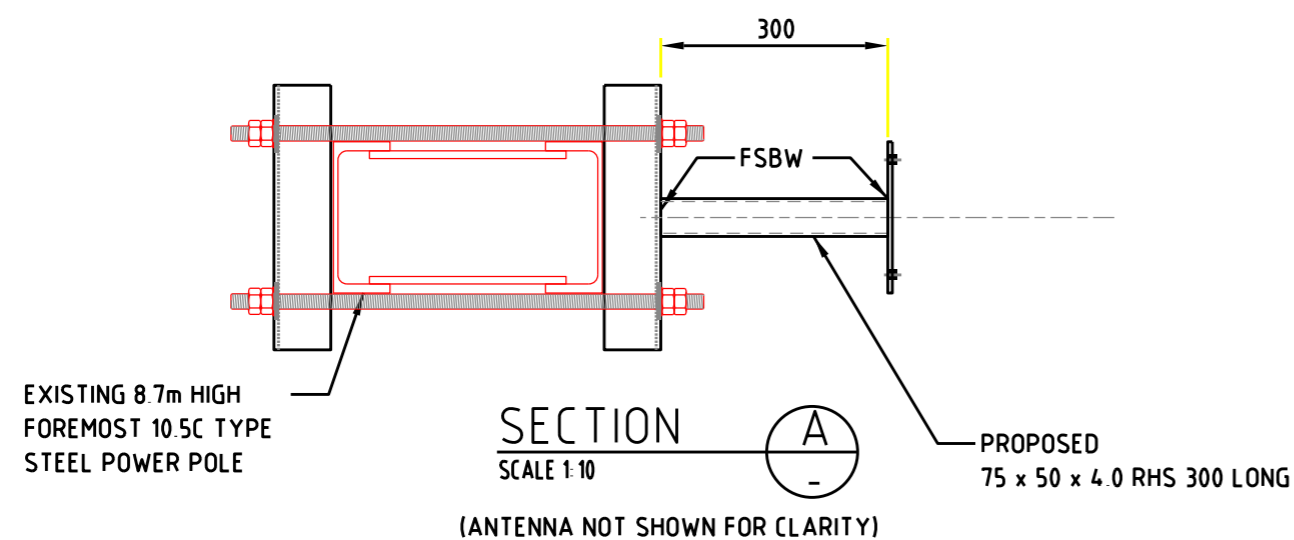
EXISTING 8.7m HIGH FOREMOST 10.5C TYPE STEEL POWER POLE

PROPOSED 75 x 50 x 4.0 RHS 300 LONG  
3mm (MIN) NEOPRENE STRIP (TYP.)

E.L. 5.0m  
BASE OF OMNI ANTENNA

**NOTES:**

1. REFER TO DRAWING S01-02-01-72\_1 FOR STANDARD DRAWING NOTES
2. REFER TO DRAWING S01-02-01-72\_2 FOR MOBILE ANTENNA GENERAL ARRANGEMENT.
3. REFER TO DRAWING S01-02-01-72\_4 FOR RRU & ISOLATION SWITCH MOUNTING DETAILS.



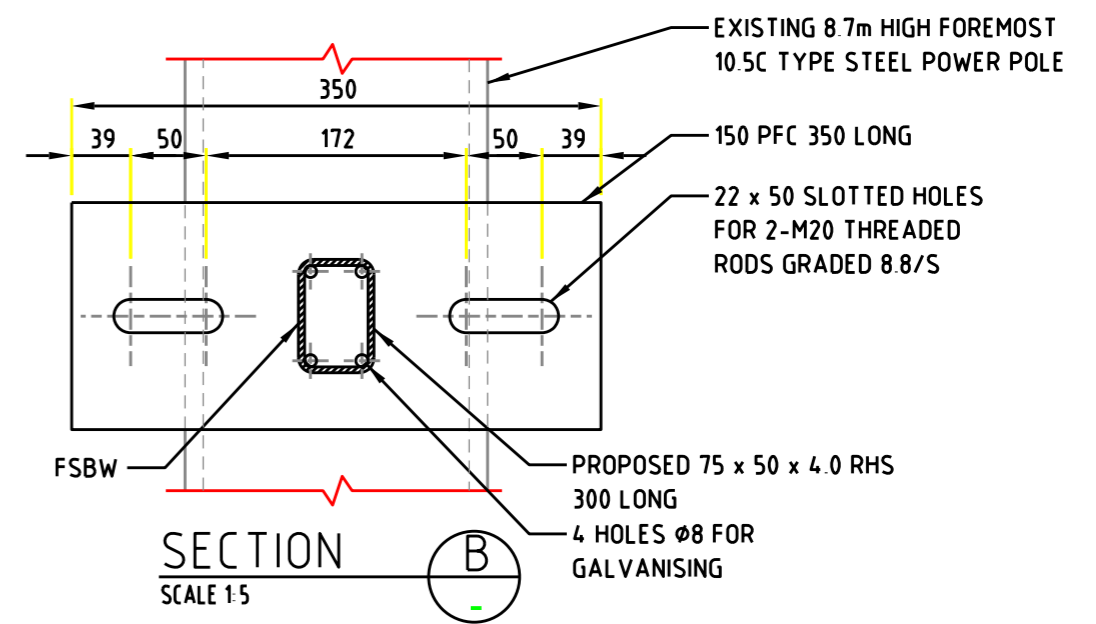
**SECTION A**

SCALE 1:10

PROPOSED 75 x 50 x 4.0 RHS 300 LONG

(ANTENNA NOT SHOWN FOR CLARITY)

EXISTING 8.7m HIGH FOREMOST 10.5C TYPE STEEL POWER POLE



**SECTION B**

SCALE 1:5

EXISTING 8.7m HIGH FOREMOST 10.5C TYPE STEEL POWER POLE

150 PFC 350 LONG

22 x 50 SLOTTED HOLES FOR 2-M20 THREADED RODS GRADED 8.8/S

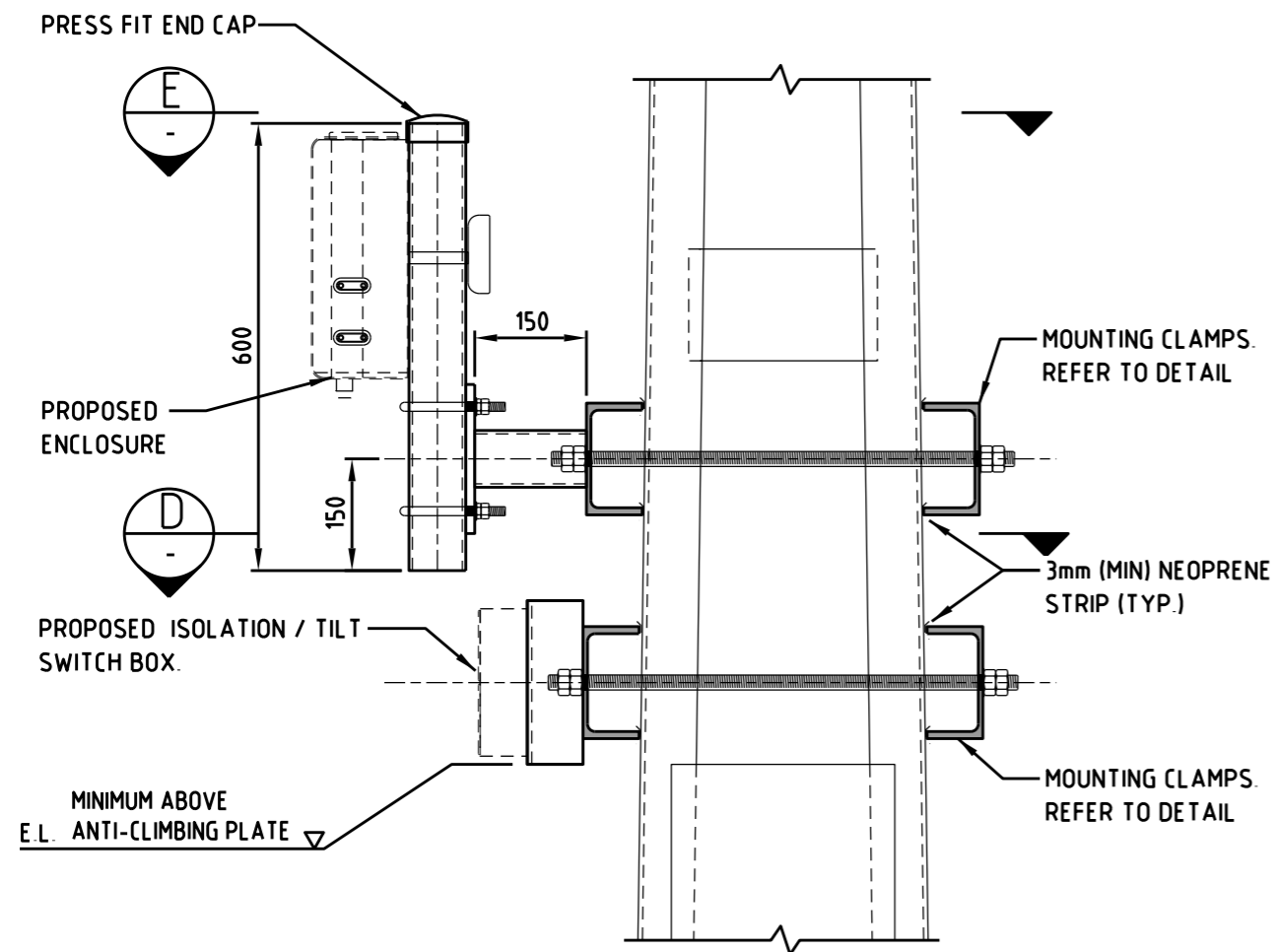
PROPOSED 75 x 50 x 4.0 RHS 300 LONG

4 HOLES Ø8 FOR GALVANISING

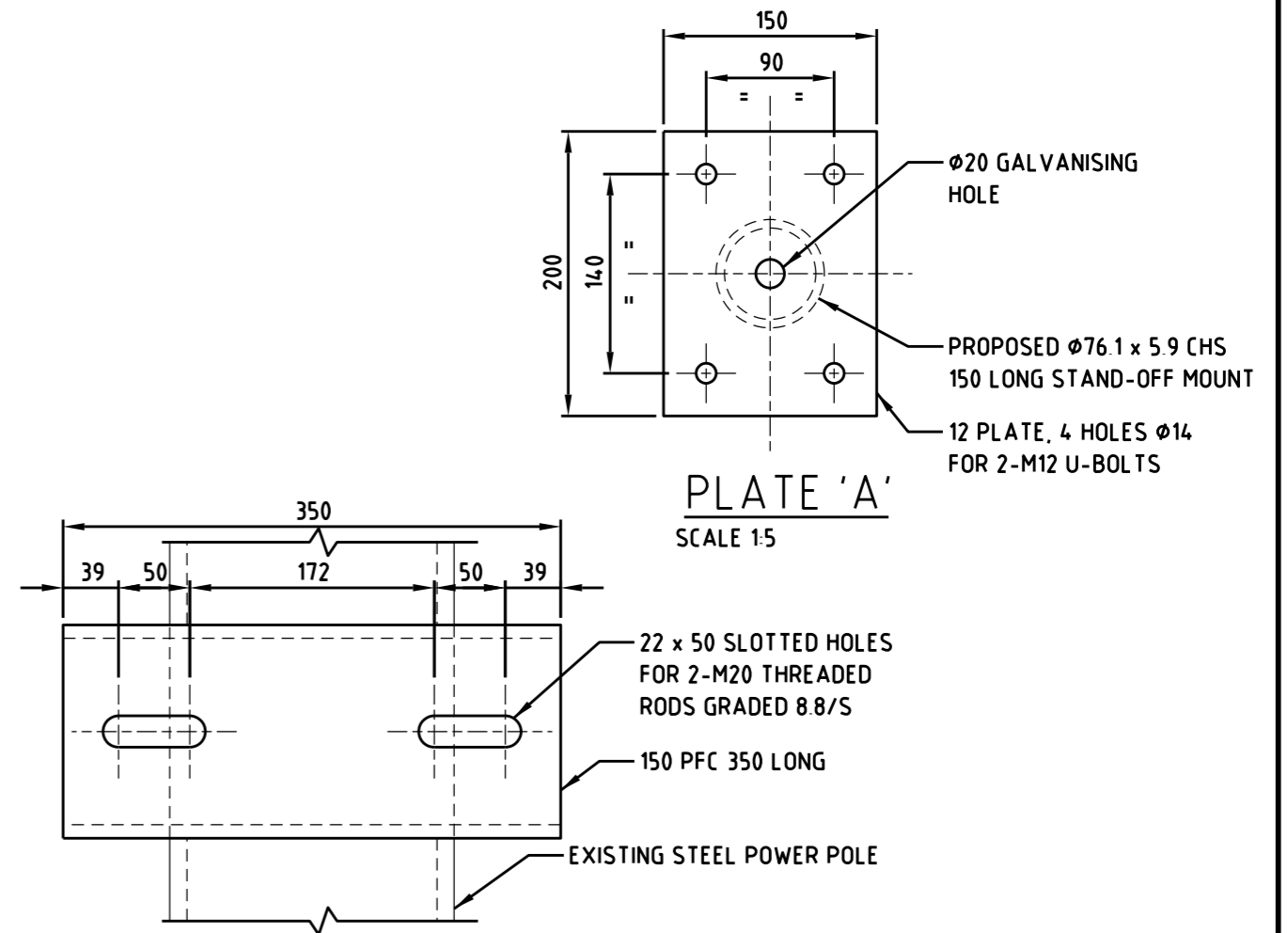
NO	DESCRIPTION	DRN	DATE	CKD	APPD
1	REMOVED REFERENCE TO ANTENNA BASE	CWM	MAY'20	BC	BC
0	ISSUED FOR CONSTRUCTION	P.H.	SEP'19	BC	BC
AMENDMENTS					



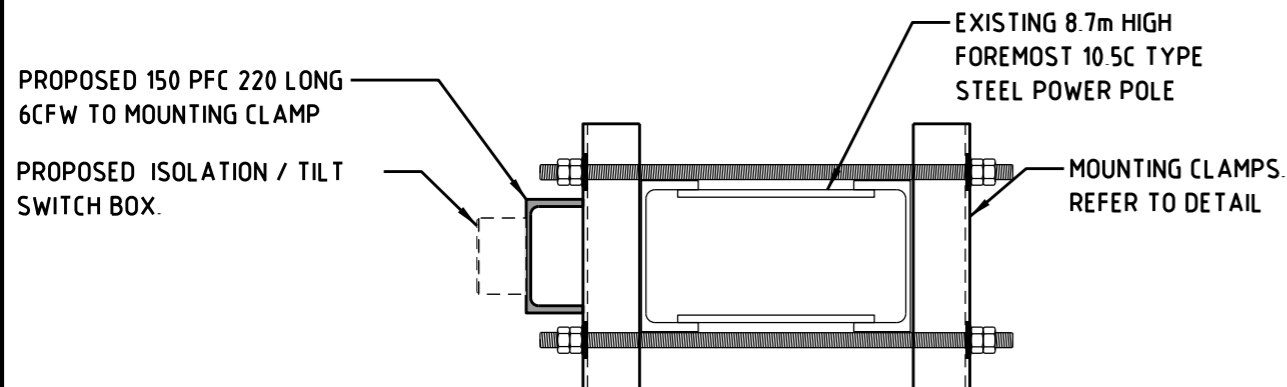
DES	POWER STANDARD DRAWING				
DRN	P.HINDE	TELECOMMUNICATION MOBILE ANTENNA INSTALLATION TO POWER POLE STRUCTURES			
CKD	I.BASHIR	ANTENNA MOUNTING DETAILS			
APPD	B.CHEUNG				
SCALE	AS SHOWN				
ISSUED	SEPTEMBER 2019	A3	DRAWING NUMBER	S01-02-01-72_3	1 AMDT
ALL DIM.	IN mm				
DRAFTING STANDARD TO A.S.1100			CAD PRODUCT - DO NOT AMEND MANUALLY		



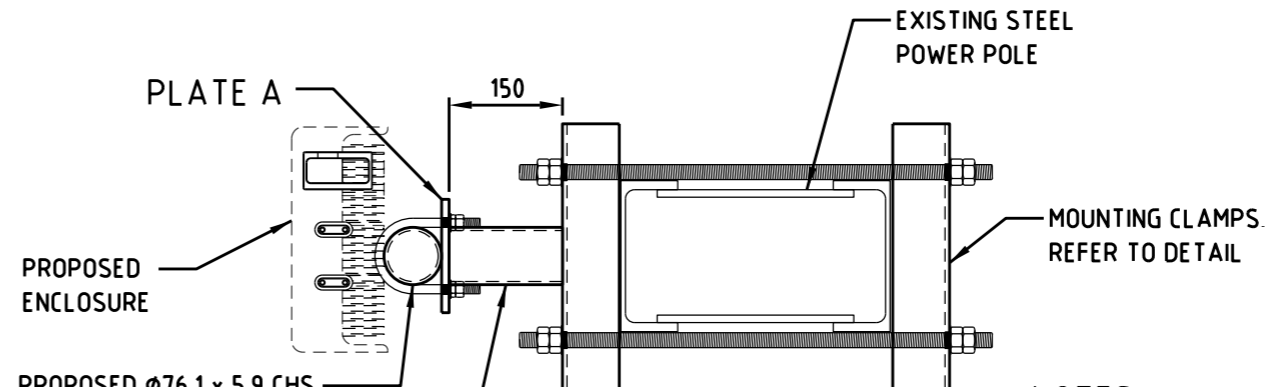
**RRU & ISOLATION SWITCH MOUNTING DETAILS**  
SCALE 1:10



**MOUNTING CLAMP**  
SCALE 1:5



**SECTION D**  
SCALE 1:10



**SECTION E**  
SCALE 1:10

- NOTES:**
- REFER TO DRAWING S01-02-01-72\_1 FOR STANDARD DRAWING NOTES.
  - REFER TO DRAWING S01-02-01-72\_2 FOR MOBILES ANTENNA GENERAL ARRANGEMENT.
  - REFER TO DRAWING S01-02-01-72\_3 FOR MOBILES ANTENNA MOUNTING DETAILS.

NO	DESCRIPTION	DRN	DATE	CKD	APPD
1	REMOVED ANY TELSTRA CONNOTATIONS	CWM	APR'20	BV	BC
0	ISSUED FOR CONSTRUCTION	P.H.	SEP'19	B.C.	B.C.
AMENDMENTS					

**PowerWater**  
NORTHERN TERRITORY

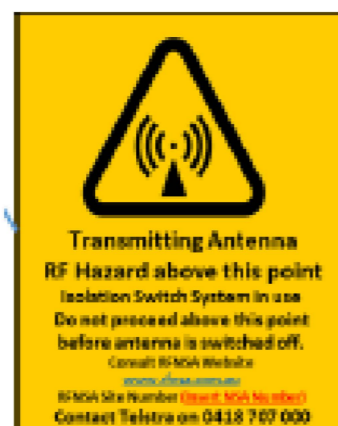
DES	POWER STANDARD DRAWING		
DRN	P.HINDE	TELECOMMUNICATION MOBILE ANTENNA INSTALLATION TO POWER POLE STRUCTURES RRU & ISOLATION SWITCH MOUNTING DETAILS	
CKD	I.BASHIR		
APPD	B.CHEUNG		
SCALE	AS SHOWN		
ISSUED	SEPTEMBER 2019	A3	DRAWING NUMBER S01-02-01-72_4
ALL DIM.	IN mm		
DRAFTING STANDARD TO A.S.1100		CAD PRODUCT - DO NOT AMEND MANUALLY	





**SIGN #1 - RF HAZARD AREA SIGN**

Base of antenna/s



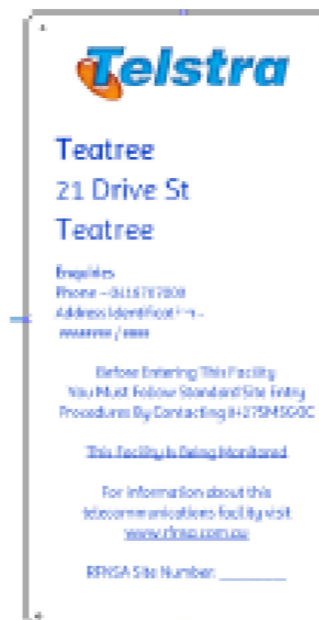
**SIGN #2 - MICROCELL RF HAZARD SIGN**

TYPICALLY AFFIXED  
1.0M BELOW LOWEST  
ANTENNA



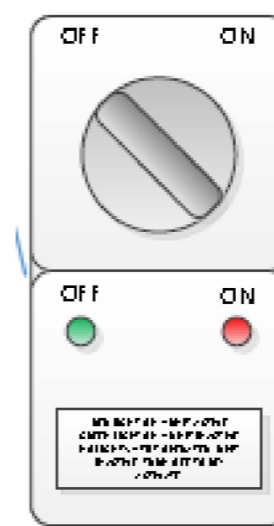
**SIGN #3 - MICROCELL RF SHUTDOWN SIGN**

ON SIDE OF ISOLATION/TILT SWITCH  
RF SAFETY COMPLIANCE DOCUMENTS: MCF 7.1.01  
NO HIGHER THAN 4.0M AGL  
(TO BE USED NATIONALLY)



**SIGN #4 - MCF INFORMATION SIGN**

ID Plate  
120x60mm  
On side of isolation/tilt switch



**Tilt/isolation switch**

Outside of point of  
access restriction

Typically affixed 2.0m  
below lowest antenna  
and 3.5m AGL, or out of  
reach of vandalism

1  
0 SIGN NAMES AMENDED  
ISSUED FOR CONSTRUCTION

CWM  
C.C. APR'20  
SEP'19 BV  
B.V. BC  
B.C.

NO	DESCRIPTION	DRN	DATE	CKD	APPD
AMENDMENTS					



DES		POWER STANDARD DRAWING	
DRN	C. COPPINS	TELECOMMUNICATION MOBILE ANTENNA INSTALLATION TO POWER POLE STRUCTURES SIGNAGE EXAMPLES	
CKD	B. VANDERSTELT		
APPD	B. CHEUNG		
SCALE	AS SHOWN		
ISSUED	SEPTEMBER 2019	A3	DRAWING NUMBER S01-02-01-72_5
ALL DIM. IN mm			
DRAFTING STANDARD TO A.S.1100		CAD PRODUCT - DO NOT AMEND MANUALLY	

