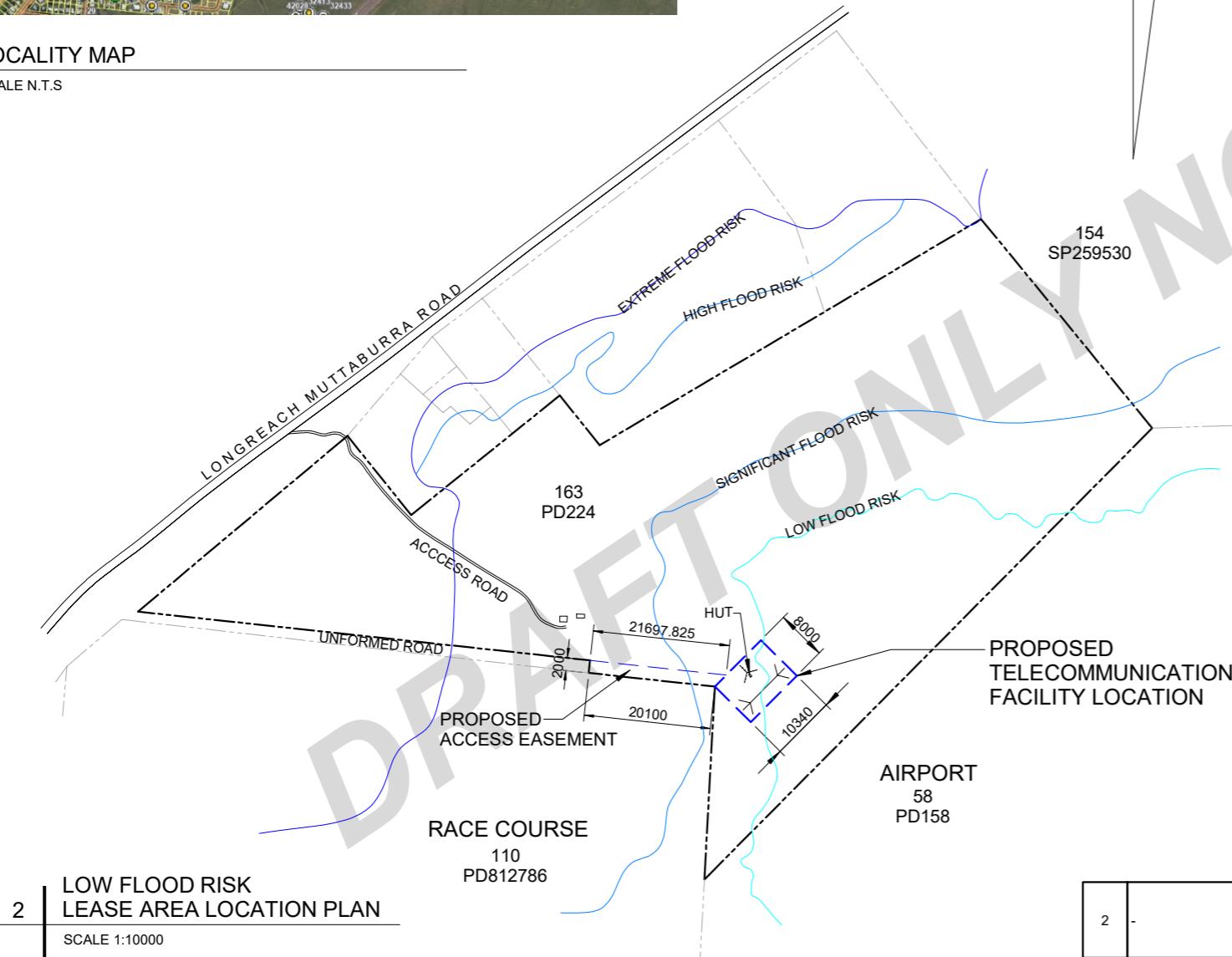




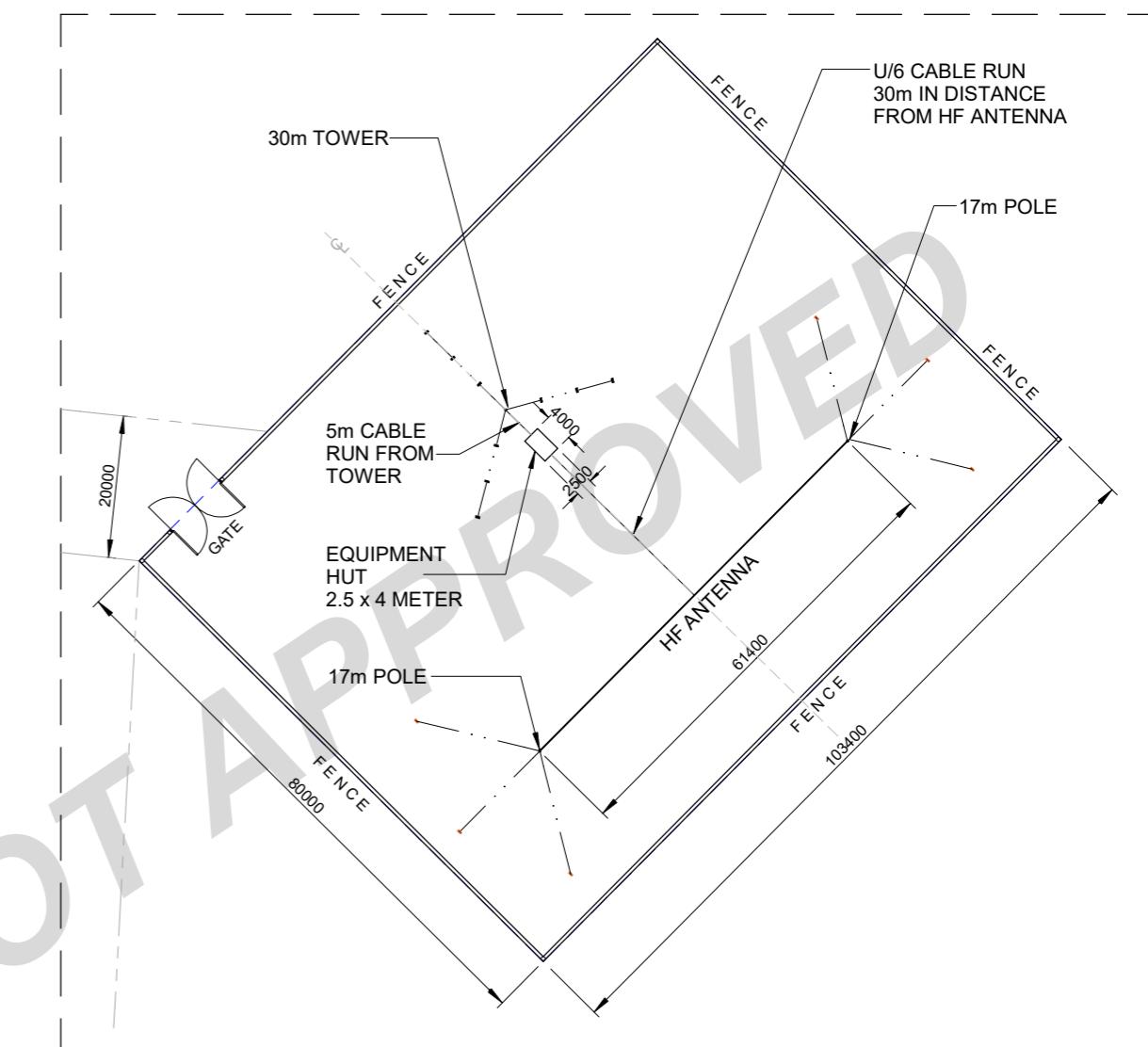
1 | LOCALITY MAP

SCALE N.T.S



2 | LOW FLOOD RISK  
LEASE AREA LOCATION PLAN

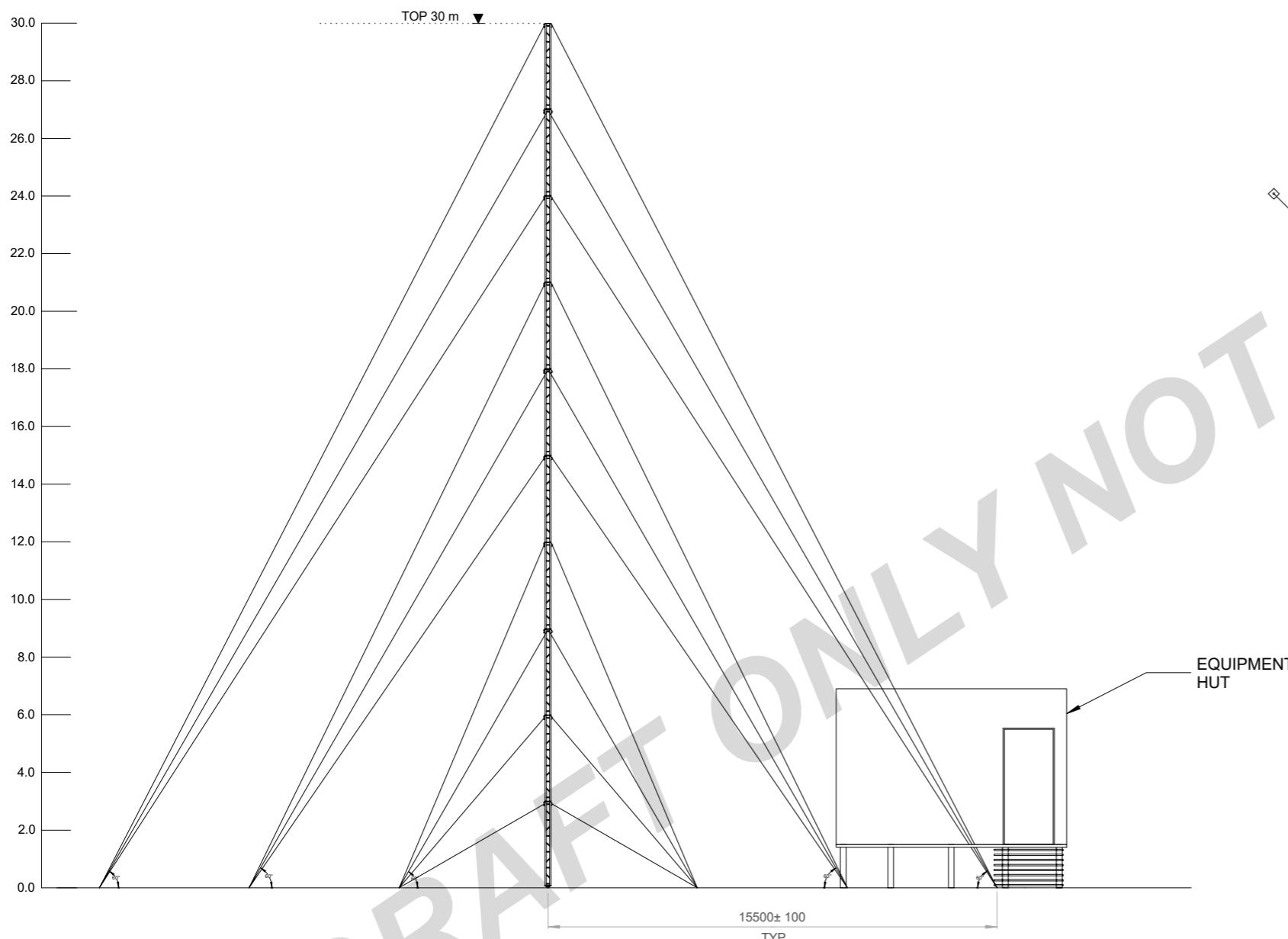
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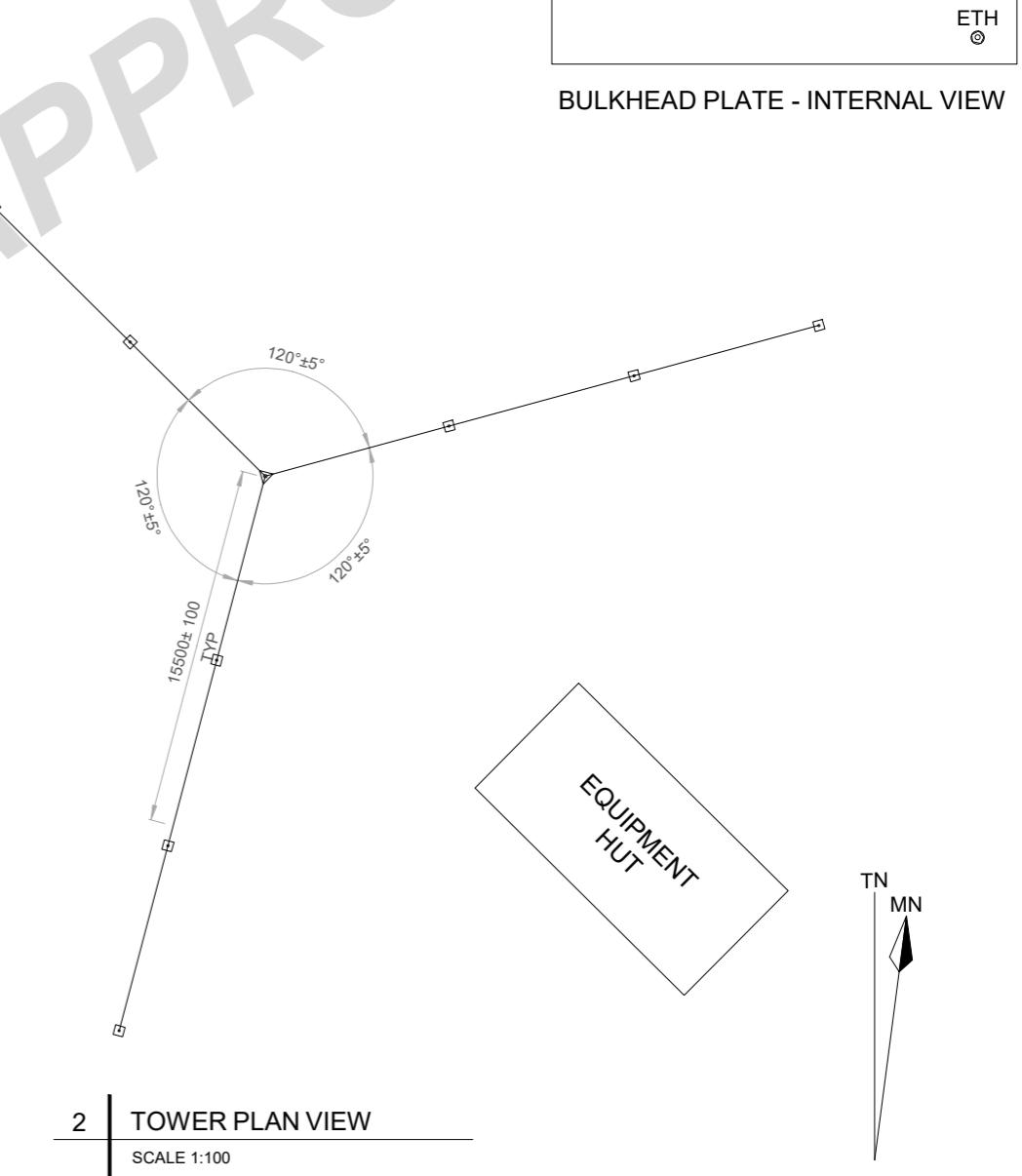
3 | SITE PLAN

SCALE 1:1000

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QPS LONGREACH MUTTABURRA ROAD SITE PLAN - LOW FLOOD RISK							
DRAWING No.		00000-AFPS0-SIT-001.00-01					
SCALE	AS SHOWN	DRAWN EE					
ISSUE	ALTERATION	ORIG	DATE	CHKD	DATE	APPD	DATE
SIZE	A3	FRONTLINE & DIGITAL DIVISION SHARED SERVICES PLANNING AND DESIGN UNIT					
2	-	1	ORIGINAL	GS	01/AUG/25	-	-



1 | SOUTH ELEVATION PLAN



## NOTES:

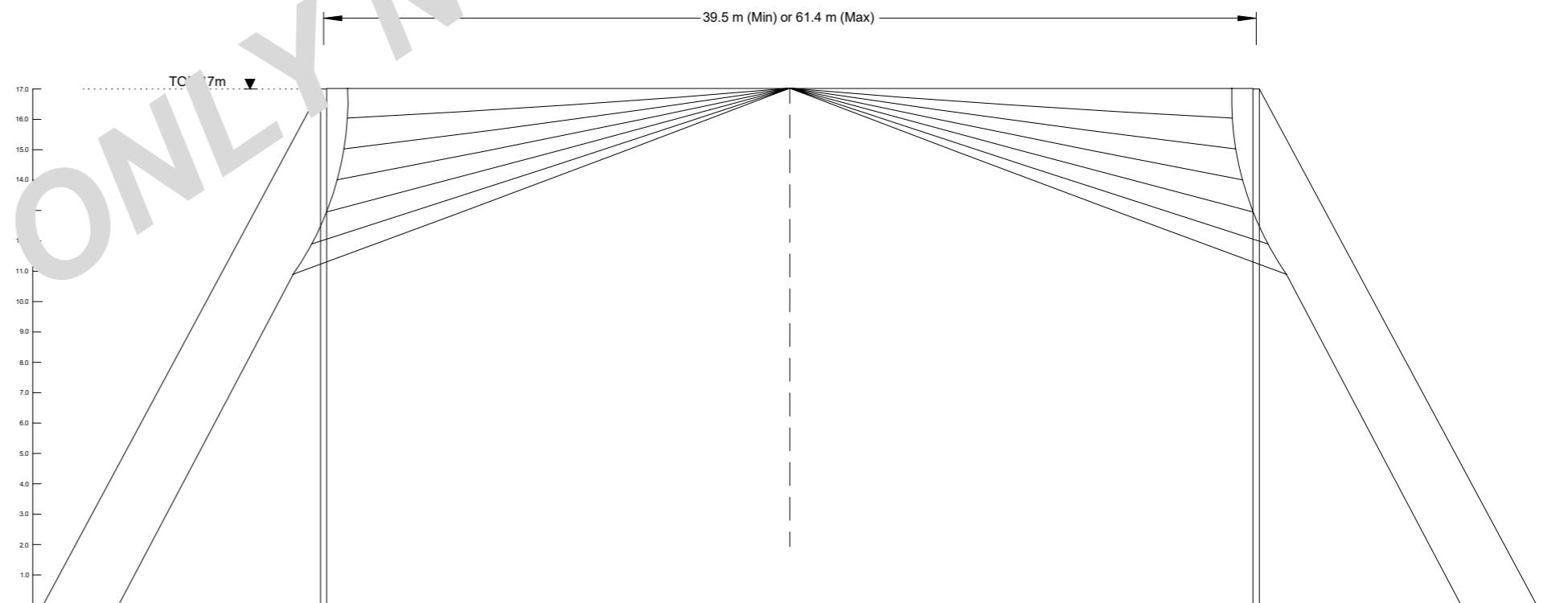
- \* REFER TO SITE DETAILS DRAWING FOR FURTHER INFO.
- \* MAGNETIC DECLINATION +11°1' 24-JUL-25

MAGNETIC DECLINATION +11° 24-JUL-25

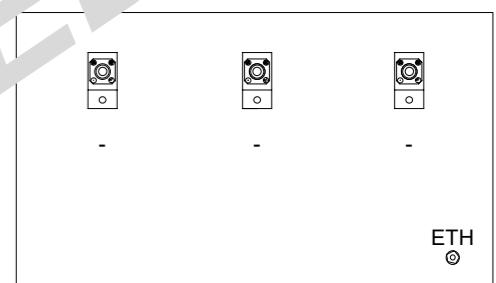
2	-	-	-	-	-	-	-	TITLE QPS RADIO SITE PROPOSAL LOT 163, LONGREACH MUTTABURRA ROAD 30 m ANTENNA TOWER ANTENNA DETAILS		0924	
1	ORIGINAL	XX	XX-XXX-XX	-	-	-	-	DRAWING No. 00000-AFPSM-ANT.001.00-00			
ISSUE	ALTERATION	ORIG	DATE	CHKD	DATE	APPD	DATE	SIZE	A3	OFFICIAL	FRONTLINE & DIGITAL DIVISION SHARED SERVICES PLANNING AND DESIGN UNIT



2 | VIEW PLAN  
SCALE 1:100

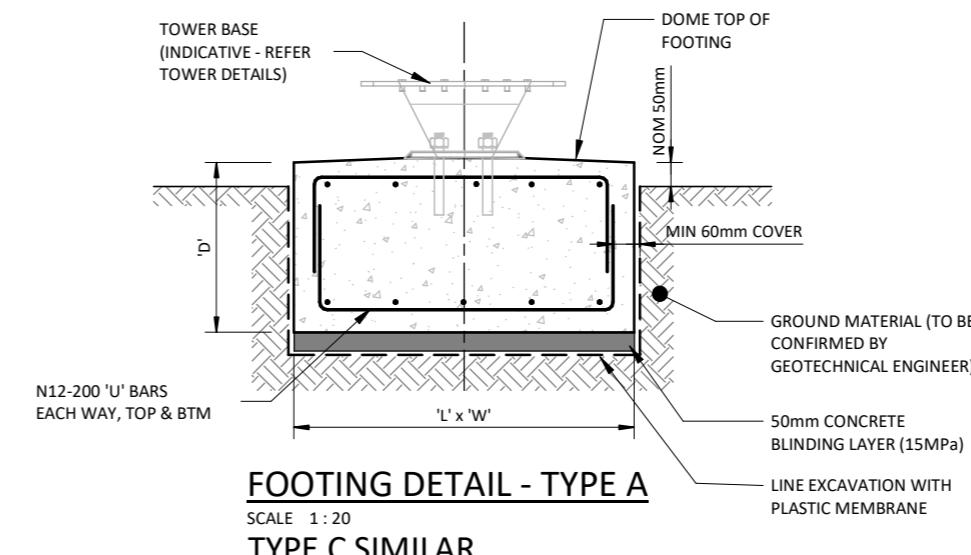
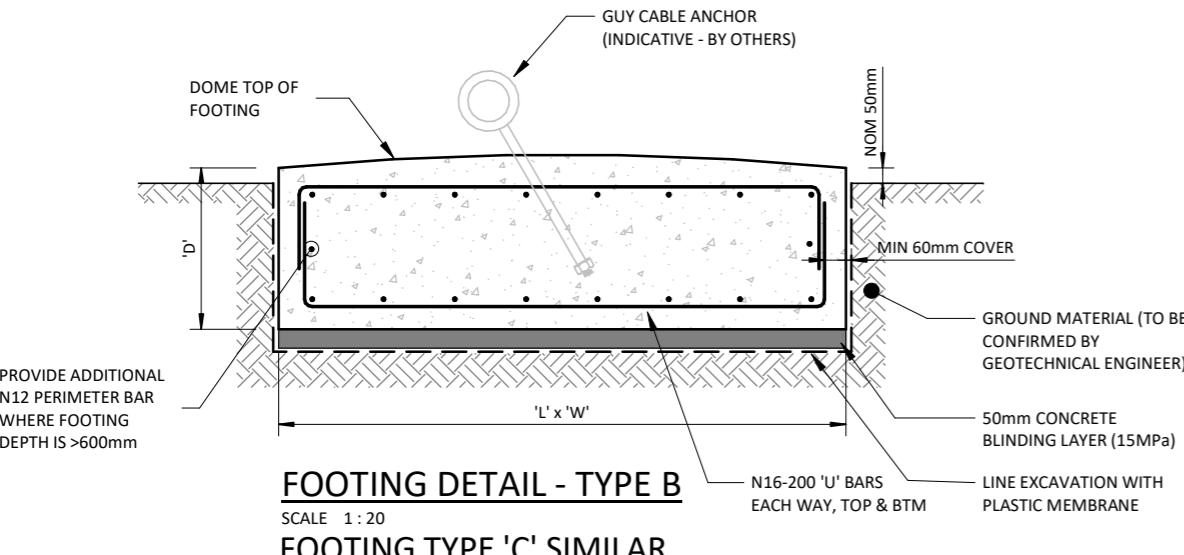
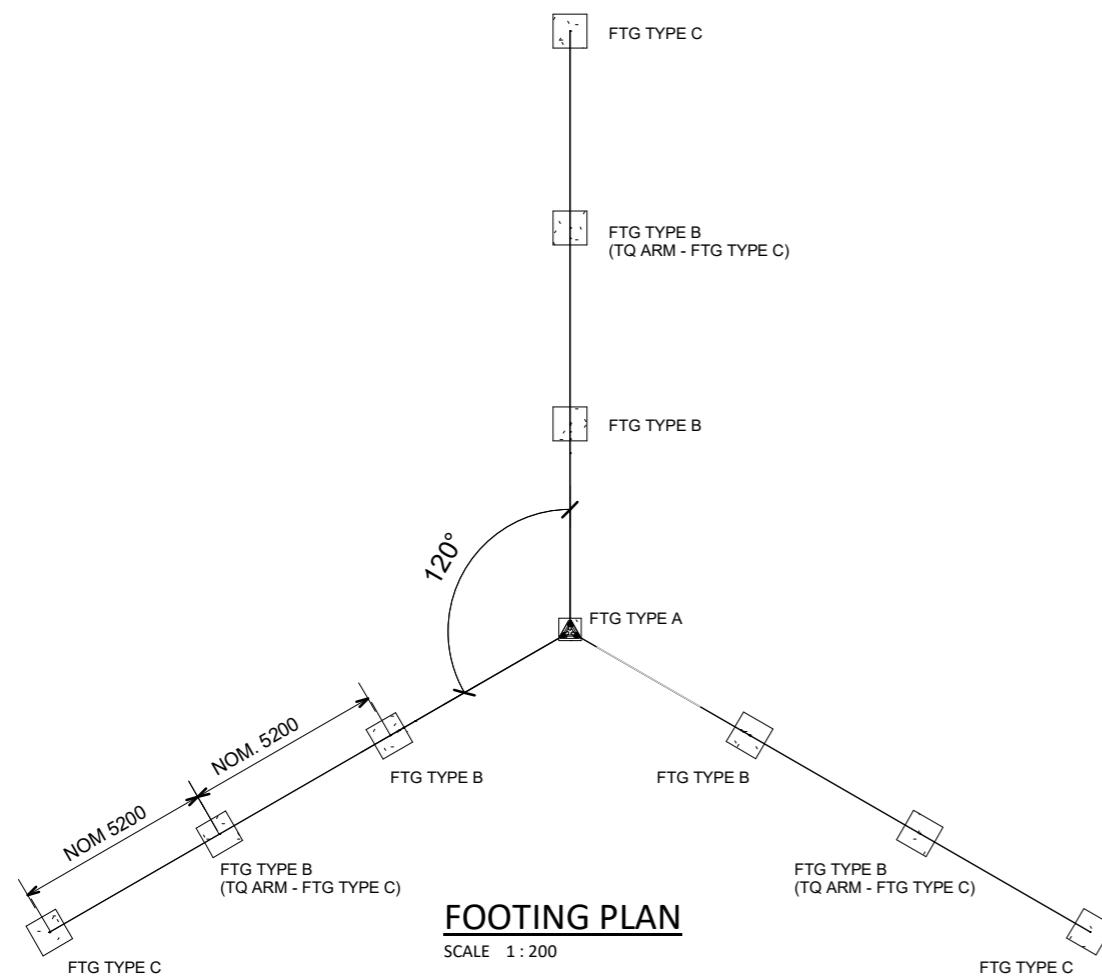


ANTENNA DETAILS								
ANT No	FEED No	ANTENNA DESCRIPTION			FEED TYPE	MOUNTING HEIGHT (m)	ANTENNA HEIGHT (m)	POL



BULKHEAD PLATE - INTERNAL VIEW

0924								TITLE QPS RADIO SITE PROPOSAL			
								LOT 163, LONGREACH MUTTABURRA ROAD			
								17m HF ANTENNA			
								ANTENNA DETAILS			
								DRAWING No.	00000-AFPSM-ANT-002.00-00		
								SCALE	NTS	DRAWN	GS
2	-										
1	ORIGINAL		XX	XX-XXX-XX	-	-	-				
ISSUE	ALTERATION	ORIG	DATE	CHKD	DATE	APPD	DATE	SIZE	A3	OFFICIAL	FRONTLINE & DIGITAL DIVISION SHARED SERVICES PLANNING AND DESIGN UNIT



## CONCRETE

C1 ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS3600.

C2 REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY AND NOT NECESSARILY SHOWN IN THE TRUE PROJECTION.

C3 SPLICES IN REINFORCEMENT SHALL BE MADE ONLY IN POSITIONS SHOWN ON THE STRUCTURAL DRAWINGS OR AS OTHERWISE APPROVED BY THE ENGINEER.

C4 REINFORCING BAR AND FABRIC LAPS SHALL BE IN ACCORDANCE WITH THE FOLLOWING TABLE AND DETAIL SHOWN, U.N.O.

BAR	ALL LAPS U.N.O.
N10	500
N12	650
N16	950
N20	1300
N24	1600

C5 ALL REINFORCEMENT SHALL BE SUPPORTED IN ITS CORRECT POSITION SO AS NOT TO BE DISPLACED DURING CONCRETE PLACEMENT.

C6 CONCRETE STRENGTH GRADE SHALL BE AS FOLLOWS, U.N.O. ON DRAWINGS:

EXPOSURE CLASSIFICATION	CONCRETE STRENGTH	CONCRETE GRADE
NON-AGGRESSIVE SOILS	25 MPa	N25
NEAR COASTAL (1-50Km FROM COASTLINE)	32MPa	N32

C7 HIGHER CONCRETE STRENGTH MAY BE REQUIRED FOR ACID SULPHATE SOILS

C8 ALL CONCRETE SHALL BE PROPERLY COMPAKTED IN PLACE. ALL EXPOSED SURFACES CURED IN AN APPROVED METHOD.

C10 PIPES, CONDUITS AND OTHER CAST-IN ELEMENTS SHALL BE POSITIONED TO ALLOW WET CONCRETE TO FLOW AROUND ALL REINFORCEMENT. DO NOT TIE CONDUITS ALONGSIDE REINFORCEMENT.

## FOUNDATION NOTES

F1 WHERE THE CONTRACTOR / INSTALLER HAS UNCERTAINTY OF THE SOIL TYPE AND STRENGTH, IT IS RECOMMENDED TO ENGAGE A QUALIFIED ENGINEER OR UNDERTAKE A GEOTECHNICAL INVESTIGATION TO CONFIRM THE SOIL PARAMETERS.

F2 THE RESPONSIBILITY RESTS WITH THE CONTRACTOR / INSTALLER TO ENSURE THE SOIL CONDITIONS ARE SUITABLE FOR THE FOOTING DESIGN BASED ON THE CRITERIA BELOW UNLESS THIS RESPONSIBILITY HAS BEEN ASSIGNED TO A QUALIFIED STRUCTURAL/CIVIL ENGINEER

F3 REMOVE ALL TOPSOIL FROM THE PROPOSED FOUNDATION AREA AND ENSURE NO RESIDUAL VEGETATION EXISTS BELOW THE FOUNDATION SOIL

F4 REMOVE SOFT GROUND MATERIAL THROUGHOUT THE PROPOSED FOUNDATION AREA. SOFT SPOTS/AREAS SHOULD BE EXCAVATED AND REPLACED WITH ROAD BASE (MIN CBR 15), COMPAKTED IN LAYERS MAX 300mm THICK OR 15MPa CONCRETE

MAINTAIN THE EXCAVATION IN A DRY CONDITION. WHERE THE FOUNDATION IS WITHIN A WATER TABLE THEN SEEK ADVISE FROM A QUALIFIED STRUCTURAL / CIVIL ENGINEER.

## FOOTING SIZE

### FOOTING - TYPE A

SOIL TYPE	LENGTH	WIDTH	DEPTH
POOR	1300	1300	450
AVERAGE	950	950	400
GOOD	750	750	350

### FOOTING - TYPE B

SOIL TYPE	LENGTH	WIDTH	DEPTH
POOR	1500	1500	600
AVERAGE	1500	1500	600
GOOD	1500	1500	600

### FOOTING - TYPE C

SOIL TYPE	LENGTH	WIDTH	DEPTH
POOR	1700	1700	600
AVERAGE	1700	1700	600
GOOD	1700	1700	600

## SOIL CLASSIFICATION (AS/NZS 4676, APPENDIX I)

TYPE	POOR	AVERAGE	GOOD
CLASS	VERY SOFT/SOFT	FIRM	VERY FIRM/HARD
SOIL DESCRIPTION	SILTY CLAYS & SANDS; LOOSE DRY SANDS; WET CLAYS, SILTY LOAMS; WET OR LOOSE SANDS	DAMP CLAYS; SANDY CLAYS; DAMP SANDS	DRY CLAYS; CLAYEY SANDS; COURSE SANDS; COMPACT SANDS; GRAVELS; DRY CLAYS
STRENGTH (fb) kPa	fb > 60	fb > 100	fb > 150

## FOUNDATION NOTES:

- FOUNDATION DESIGNS SHALL NOT BE USED FOR SITES BUILT ON FILL
- FOUNDATION DESIGNS ARE NOT SUITABLE FOR SITES WITH SLOPES GREATER THAN 10°
- FOUNDATION DESIGNS SHALL NOT BE USED FOR AREAS ABOVE OR ADJACENT TO UNDERGROUND SERVICES
- THESE FOUNDATIONS ARE LIMITED FOR THE USE OF THE TOWER STRUCTURE IN DRAWING 718-S02
- FURTHER ENGINEERING WILL BE REQUIRED WHERE CONDITIONS OR LOADS ARE OUTSIDE THE DESIGN SCOPE

REV	DATE	ISSUE / AMMENDMENT	BY	PROJECT	CLIENT	DRAWING NAME
				30m TOWER & FOOTING	TELCO ANTENNAS	FOUNDATION PLAN & DETAILS
				AUSTRALIAN WIND REGIONS A, B & C	JAN 2018	718
					AS SHOWN	SHEET A3
					DRAWN ZY	CHECKED LS
					DRAWING NO	ISSUE S01
					5/02/2018 10:24:19 AM	

30000  
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15000  
E  
12000  
D  
8900  
C  
6000  
B  
3000  
A

### TYPICAL ELEVATION

SCALE 1:150



**MODCO GROUP**  
Engineering Services | Building Projects  
QBCC Lic: 15042734  
Registered Professional Engineers  
Member of Master Builders

USE FIGURED DIMENSIONS IN PREFERENCE TO  
SCALE. REPORT DISCREPANCIES PRIOR TO  
FABRICATION OR CONSTRUCTION.

IT REMAINS THE CONTRACTOR'S RESPONSIBILITY  
TO ENSURE COMPLIANCE WITH RELEVANT CODES  
AND REGULATIONS IS MAINTAINED AT ALL TIMES.

### ALUMINIUM WORK NOTES

A1 ALL ALUMINIUM WORK TO BE IN ACCORDANCE WITH AS1664 - ALUMINIUM STRUCTURES

A2 UNLESS NOTED OTHERWISE, ALL ALUMINIUM SHALL BE IN ACCORDANCE WITH

- AS1734 ALUMINIUM AND ALUMINIUM ALLOYS - FLAT SHEET, COILED SHEET AND PLATE
- AS1865 ALUMINIUM AND ALUMINIUM ALLOYS - DRAWN WIRE, ROD BAR AND STRIP
- AS1866 ALUMINIUM AND ALUMINIUM ALLOYS - EXTRUDED ROD, BAR, SOILD AND HOLLOW SHAPES

A3 ALL WELDING TO BE IN ACCORDANCE WITH AS1665  
WELDING CONSUMABLES TO BE IN ACCORDANE WITH TABLE 7.2 OF AS 1664.

A4 ALL WELDS SHALL BE 6mm STRUCTURAL PURPOSE ALL ROUND FILLET WELDS UNLESS NOTED OTHERWISE.

A5 ALL BOLTS TO BE STAINLESS STEEL COMPLYING WITH ISO 3506.

A6 ALL BOLTS TO BE Ø10mm STAINLESS STEEL U.N.O.

### ERCTION NOTES

E1 THE CONTRACOR / INSTALLER IS TO ENSURE THE TOWER IS MAINTAINED IN A STABLE CONDITION AND THAT NO PART OF THE STRUCTURE IS OVERSTRESSED DURING CONSTRUCTION.

E2 INSTALLATION OF TOWER TO BE ERECTED IN ACCORDANCE WITH AS3995

E3 ENSURE ALL BOLT HEADS & NUTS SIT FLAT ON FLANGES

E4 ALL FLANGES MUST MAKE FULL CONTACT AT EACH BOLT PRIOR TO 'SNUGT-TIGHT' BOLTS. ADVISE DESIGNER IF THIS IS NOT ACHIEVED.

E5 ERECTION TOLERANCES SHALL BE LIMITED TO:  
VERTICALITY - LESS THAN H/360  
TWIST - LESS THAN 2° PER MODULE

E6 TOWER EARTHING DESIGNED & SPECIFIED BY OTHERS

### GUY CABLE NOTES

G1 ALL GUY CABLES TO BE IN ACCORDANCE WITH AS3569 - STEEL WIRE ROPES - PRODUCT SPECIFICATION

G2 GUY CABLES TO BE CLASS 6x7, GRADE 1570

G3 MINIMUM BREAKING STRENGTH

ROPE DIAM	MIN BREAKING FORCE (kN)
4	8.4
6	18.8
8	33.4

G4 ALL CABLE JOINS AND ATTACHMENTS TO BE IN ACCORDANE WITH AS2759 - STEEL WIRE ROPE - USE, OPERATION AND MAINTENANCE

### MEMBER SCHEDULE

MODULE	MEMBER	DESCRIPTION	GRADE
MODULES A TO C	COLUMN	82.55 x 5.2 CHS	ALUMINIUM 6063-T5
MODULES A TO C	HOR. & DIAG. WEB	40 x 4 CHS	ALUMINIUM 6063-T5
MODULES D TO G	COLUMN	63.5 x 3.9 CHS	ALUMINIUM 6063-T5
MODULES D TO G	HOR. & DIAG. WEB	40 x 3 CHS	ALUMINIUM 6063-T5
MODULES H TO J	COLUMN	60 x 3 CHS	ALUMINIUM 6063-T5
MODULES H TO J	HOR. & DIAG. WEB	40 x 3 CHS	ALUMINIUM 6063-T5
	STEP MEMBER	32 x 2.3 CHS	ALUMINIUM 6063-T5

### ANTENNA LIMIT

ANTENNA	QTY	EFF. AREA	HEIGHT
300Ø DISH	3	0.08m <sup>2</sup>	28,29,30m
600Ø DISH	2	0.29m <sup>2</sup>	29, 30m
900Ø DISH	1	0.64m <sup>2</sup>	30m
YAGI OR SIMILAR	< 5	VARIABLE	25-30m

CONTACT DESIGNER FOR INSTALLATION OF OTHER ANTENNAS OR CONFIGURATION

### TOWER DESIGN CRITERIA - AS3995 & AS1170.2

WIND REGION	WIND SPEED (Vu)
A	50 m/s
B	60 m/s
C	70 m/s

TOPOGRAPHIC (Mt) = 1.0

TERRAIN CATEGORY = 2.0

STRUCTURE CLASSIFICATION PER AS3995 IS TYPE II

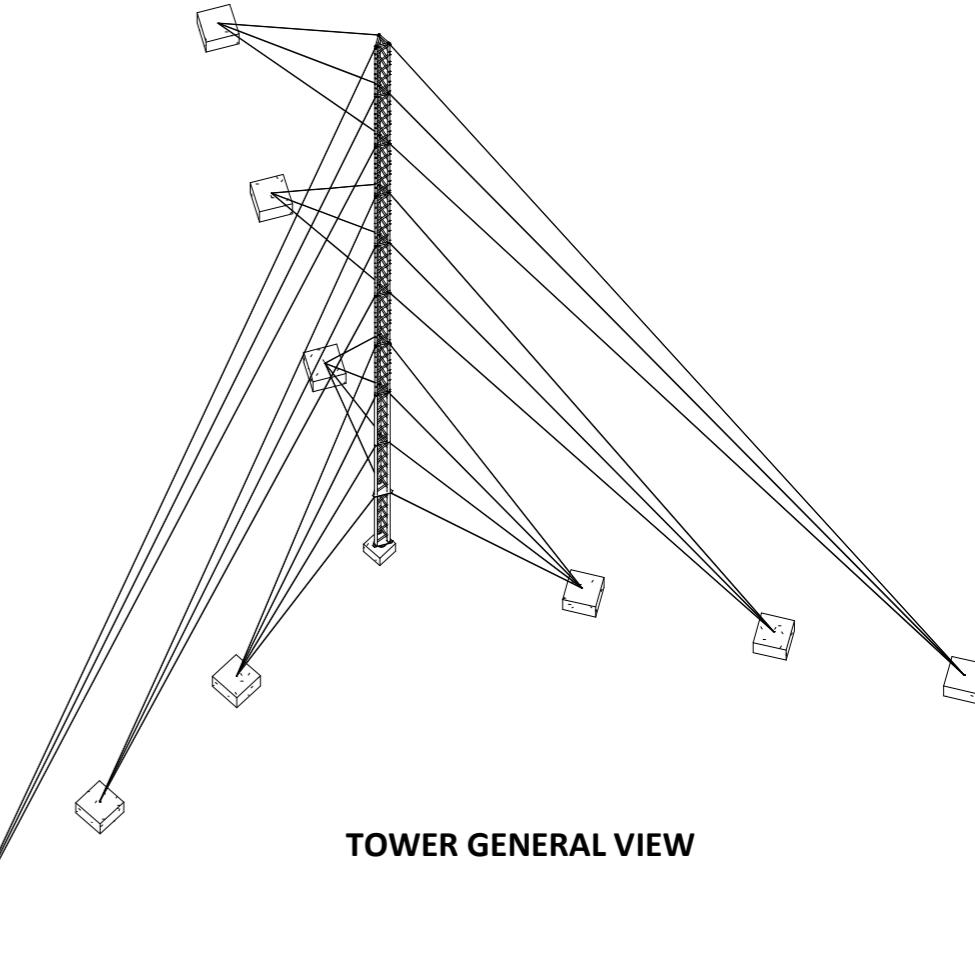
- a. *the danger to life in case of collapse may be negligible and adequate warning arrangements are incorporated to ensure the general public is not unduly endangered; and*
- b. *the loss of the services provided is not critical, e.g. where alternative means of communication can be provided.*

NOTE:

TOWER DESIGN CRITERIA EXCLUDES LOCATIONS SUCH AS:  
AT OR NEAR TOP OF HILL, RIDGE OR ESCARPMENT AND WITHIN 150M FROM HILL EDGE AND SLOPES GREATER THAN 5%.

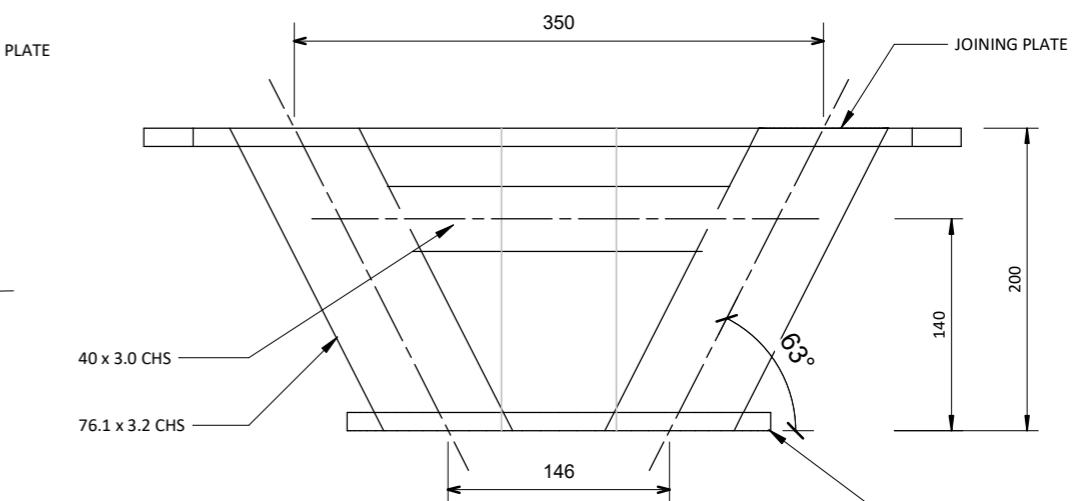
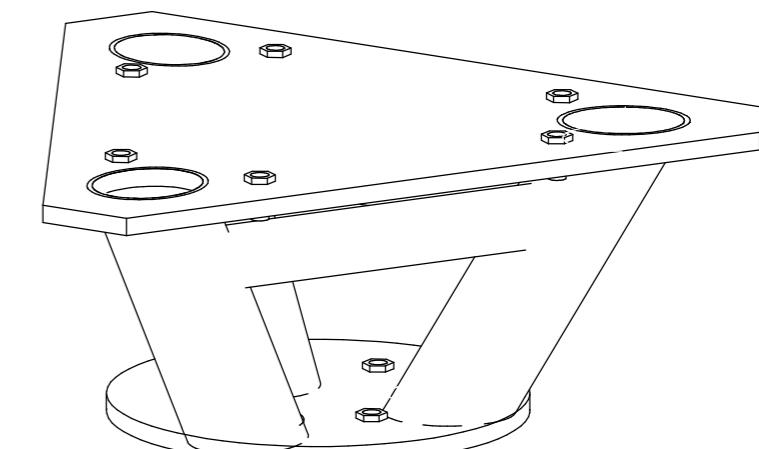
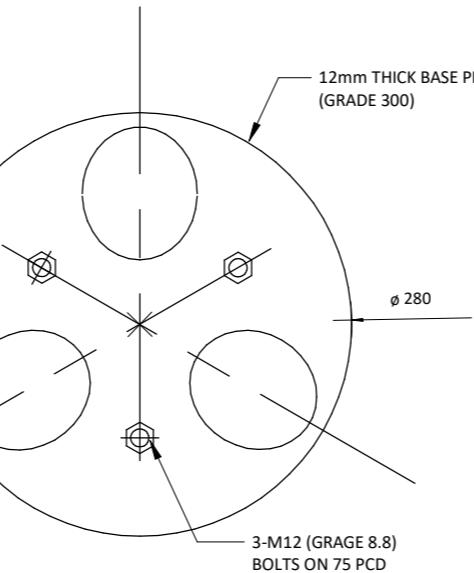
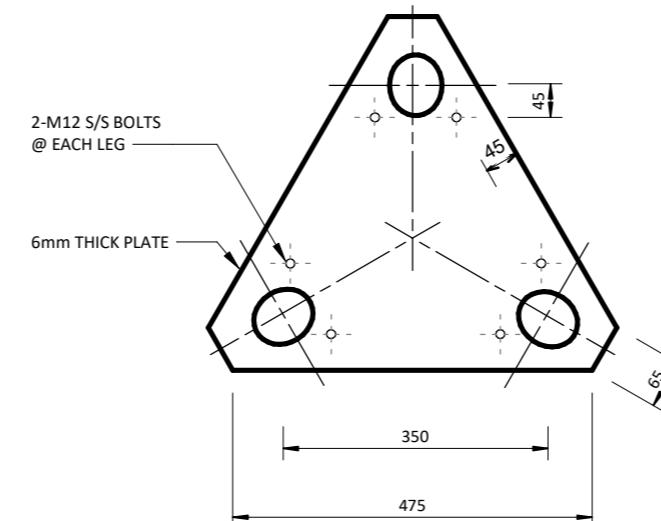
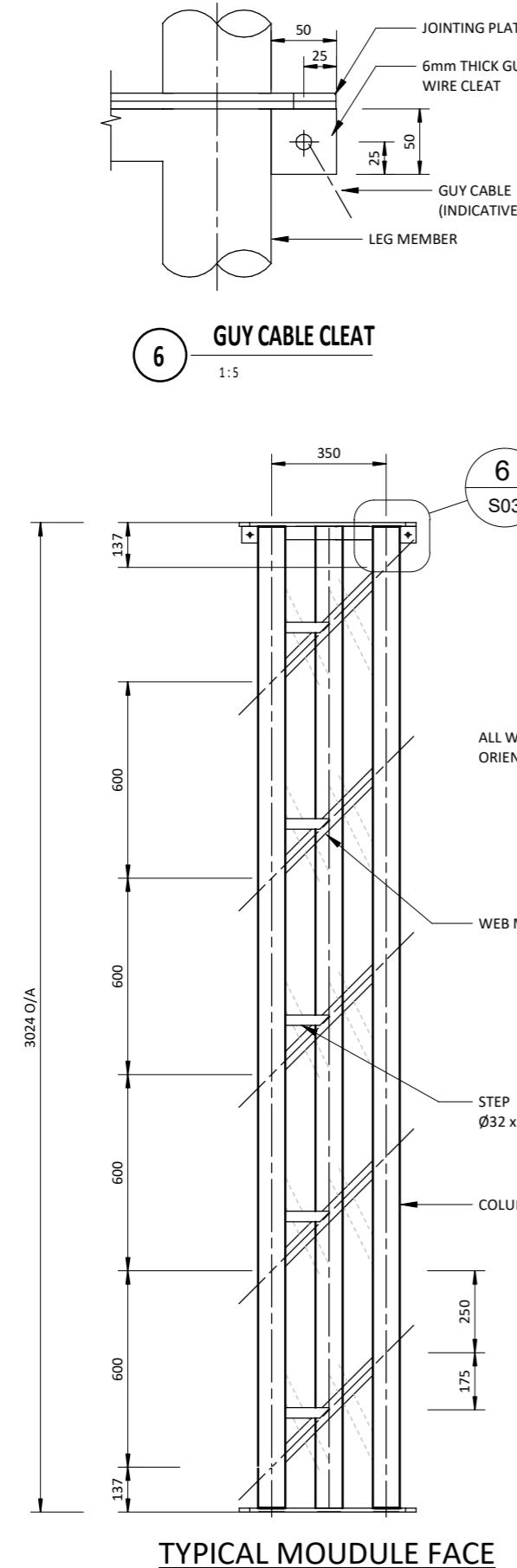
TOWER DESIGN WORKING LIFE: 25 YEARS

THE TOWER STRUCTURE HAS NOT BEEN DESIGNED FOR SNOW LOAD OR ICE CONDITIONS



### TOWER GENERAL VIEW

REV	DATE	ISSUE / AMMENDMENT	BY	PROJECT	CLIENT	DRAWING NAME
				30m TOWER & FOOTING TOWER	TELCO ANTENNAS	TOWER ELEVATION AND DETAILS
				SCALE	JAN 2018	PROJECT NO
				AUSTRALIAN WIND REGIONS A, B & C		718
				SCALE	AS SHOWN	DRAWING NO
					A3	
				DRAWN	ZL	ISSUE
				CHECKED	LS	
						S02



USE FIGURED DIMENSIONS IN PREFERENCE TO SCALE. REPORT DISCRENCIES PRIOR TO FABRICATION OR CONSTRUCTION.

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**MODCO GROUP**  
Engineering Services | Building Projects  
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REV	DATE	ISSUE / AMMENDMENT	BY	PROJECT	CLIENT	DRAWING NAME
				30m TOWER & FOOTING	TELCO ANTENNAS	TOWER DETAILS
	JAN 2018					718
	AS SHOWN	SHEET	A3			DRAWING NO
DRAWN	Author	CHECKED	LS			ISSUE

AUSTRALIAN WIND REGIONS A, B & C

5/02/2018 10:24:00 AM