

Structural Adequacy Statement

Project	Upgrade 5G (OO MOCN)	Client	Optus
Site Name	THREDBO	Site Number	S0200
Site Address	TOP OF KOSCIUSZKO CHAIRLIFT EAGLE NEST LOT 863 DP1128686 FRIDAY DRIVE THREDBO, NSW 2625	Date	03/04/2025
		Revision	01

Reference Documentation:

- For Construction Optus Drawing Package Version 8 by Service Stream, Dated 03/04/2025
- For Construction STRUCTEL Drawings STD-40010 (Sheet 1), Issue 1, Dated 04/02/2022 & Existing Structel Drawings STD-21622 (Sheets 1 & 2), Issue 3.
- Structural Analysis and Mount Certificate by Structel, Document No. 87840/P-021049/2, Dated 02/04/2025

Brief:

The requirement is to review the validity of the existing structural certificates issued by Structel dated 02/04/2025 (attached) for following change of loading/equipment as per SSMC For Construction drawings. This adequacy review has been undertaken by Service Stream utilizing the design and for construction documentation, Structel certificate and drawings, as referenced within this report.

Optus Equipment Installation as per Structel Certification

EL (m)	Description	Size (H x W x D) (mm)	Mass (Kg) per Unit	Qty
8.90	CommScope RRV4-65A-R6 Passive antenna	1499 x 498 x 197	45.5 approx.	3
8.90	CommScope E14V00P2100 850 Rej Filter	260 x 185 x 122	6.6	6
8.90	CommScope D08C99P0304 Combiner COM2c	340 x 168 x 81	6.5	1
7.34	ERICSSON AIR3278 Active antenna	621 x 371 x 185	25	3
8.90	CommScope E115R02P15 MHA3	260 x 170 x 140	8	1
8.90	ERICSSON Radio 4480	588 x 398 x 195	38.1	3
8.90	ERICSSON Radio 4480	588 x 398 x 154	32.5	3
8.90	ERICSSON Radio 4415	420 x 342 x 169	20.2	3
8.90	CommScope E14F10P71 COM19D	398 x 167 x 94	8.45	1
8.90	CommScope E78210147 MHA5	260 x 170 x 140	8	1
8.90	ANDREW RF TAILS	½"	-	64

Optus Equipment Installation in SSMC FC Package (Equipment Change)

EL (m)	Description	Size (H x W x D) (mm)	Mass (Kg) per Unit	Qty
8.90	CommScope RRV4-65A-R6 Passive antenna	1499 x 498 x 197	45.5 approx.	3
8.90	CommScope E14V00P79 850 Rej Filter	292 x 219 x 124	9.2	3
8.90	ERICSSON Radio 6626	786 x 397 x 192	48.8	2
8.90	ERICSSON Radio 4490	552 x 397 x 146	24.5	3
8.90	ANDREW RF TAILS	½"	-	36

Assumptions

- This statement is conditional upon acceptance that all information stated in referenced are accurate and current at the time of being issued.
- Data supplied in this statement is in support of the recommendations only and is not suitable for any other use whatsoever.
- Original structural assessment and certification (by Structel) carried out based on relevant Australian standards and accepted engineering practice.

Exclusions

- This statement does not include any other supporting structure that is not mentioned in this report.

Compliance

We have reviewed the loading of the proposed Optus equipment change and can confirm that the proposed Optus equipment total effective sail area/weight is equal or less than total ESA/weight of the equipment mentioned in Structel certificate, hence the Structel design and certificate is deemed to be still valid for this equipment change and it has been concluded that the relevant structures are still structurally adequate for the relevant loads.

This statement shall not be construed as relieving any other party of their responsibilities.

Signature



Arash Mozhgani – Principal Structural Engineer

B.E., M.Sc. (Structure), MIEAust CPEng NER 3937552, VIC PE0005753 (On behalf of Service Stream)

MOUNT ASSESSMENT SUMMARY

The existing mounting steelwork is as per Structel drawing STD-21622 Sheets 1 & 2, Issue 3. The proposed mounting steelwork is as per Structel drawing STD-40010 Sheet 1, Issue 1.

All mount steelwork is presumed to be in good condition, with all connections intact, effectively allowing consideration of full theoretical member capacity.

Structel certifies that the existing and proposed mounting steelwork and the connection to the structure as depicted on the above-mentioned drawings can safely accommodate the proposed loading arrangement specified, when assessed in accordance with above Australian Standards.

Note this certificate is limited to the adequacy of the support steelwork as detailed on the nominated drawings only. Structural capacity consideration of the structure is not covered in this certificate.

DESIGN CRITERIA

Site Address	:	Top of Kosciuszko Chairlift Eagle's Nest, Lot 863 DP1128686 Friday Dr, Thredbo, NSW 2625
Geographic Co-ordinates	:	-36.49350° 148.28775°
Structure Height	:	7.4m (nominal – AGL)
Basic Wind Speed	:	45.0m/s (V_{500})
Topographic Multiplier	:	1.0-1.32 (varies)
Wind Direction Multiplier	:	1.0 (varies)
Terrain Category	:	2.0 (varies)
Region	:	A3
Structure Importance	:	Level 2
Design Loads	:	Dead Loads and Wind Loads on antennas, ancillaries, mounting steelwork and feeders.
Design Standards	:	AS/NZS 1170.2-2021, AS/NZS 1170.0-2002, AS 4100-2020

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ANTENNA & ANCILLARIES

Equipment Description	Quantity	Azimuth (°)	Elevation (m)
Ericsson AIR3278 Panel Antenna	3	70, 230, 340	7.34
Commscope RRV4-65A-R6 Panel Antenna	3	70, 230, 340	8.9
Ericsson Radio 4480	3	-	8.9
Ericsson Radio 4480	3	-	8.9
Ericsson Radio 4415	3	-	8.9
Commscope E14V00P21 850 Rej Filter	3	-	8.9
Commscope D08C99P03 Combiner	1	-	8.9
Commscope E14F10P71 Combiner	1	-	8.9
Commscope E14V00P21 850 Rej Filter	3	-	8.9
Kathrein 782 10147 MHA	1	-	8.9
Commscope E15R02P15 MHA5	1	-	8.9
Andrew 1/2" Tail	64	-	8.9

Should you have any questions regarding the above information, please do not hesitate to contact me on (03) 9633-1317.

Regards,



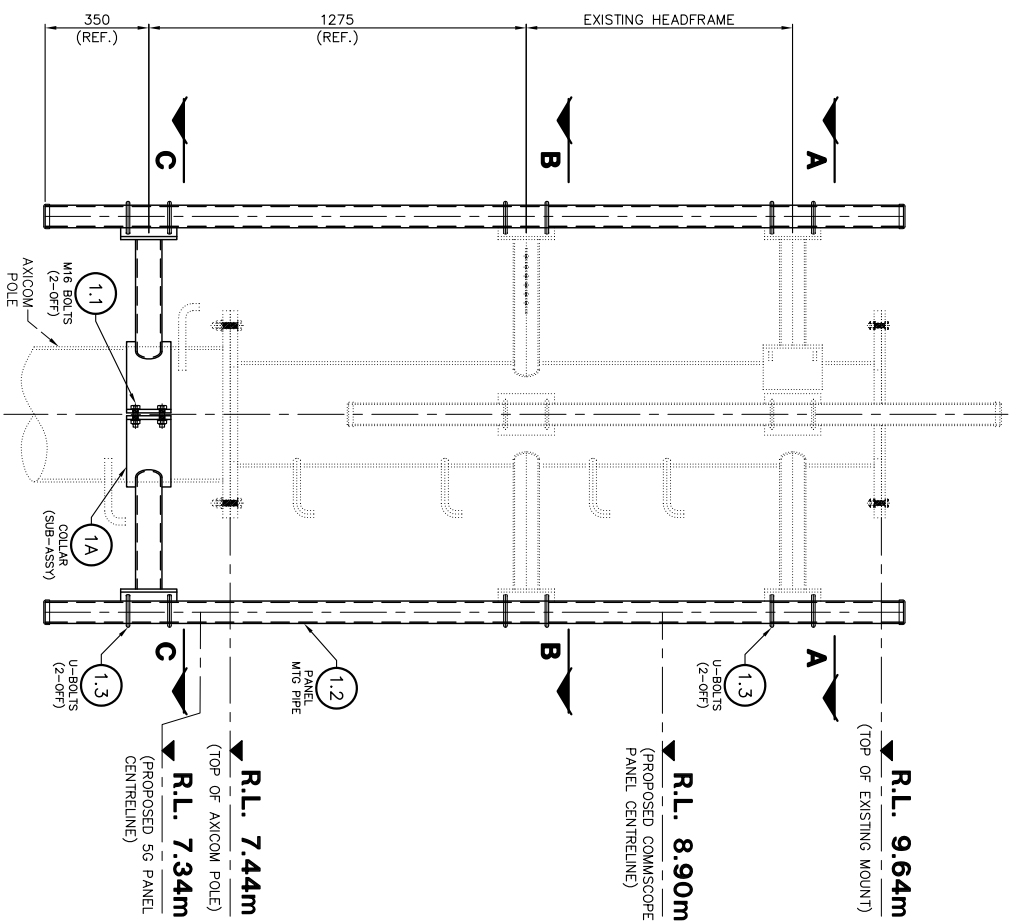
Tony Tang

BE, MEngProjMgmt, MIEAust, CPEng, NER 2594850

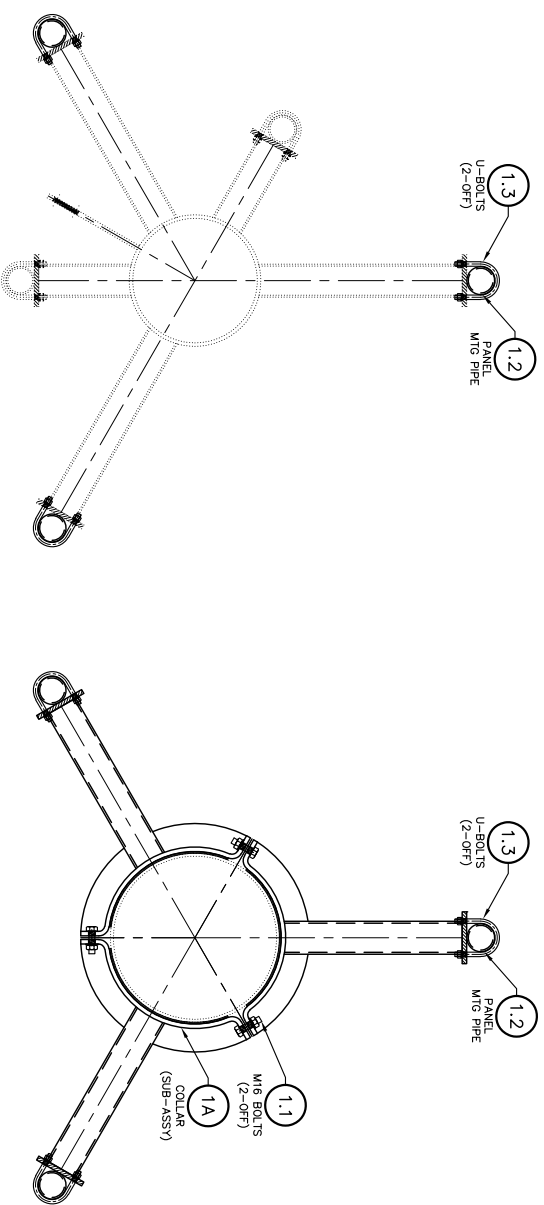
Attach

Drawing – STD-40010, Issue 1

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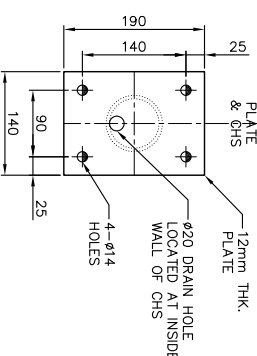
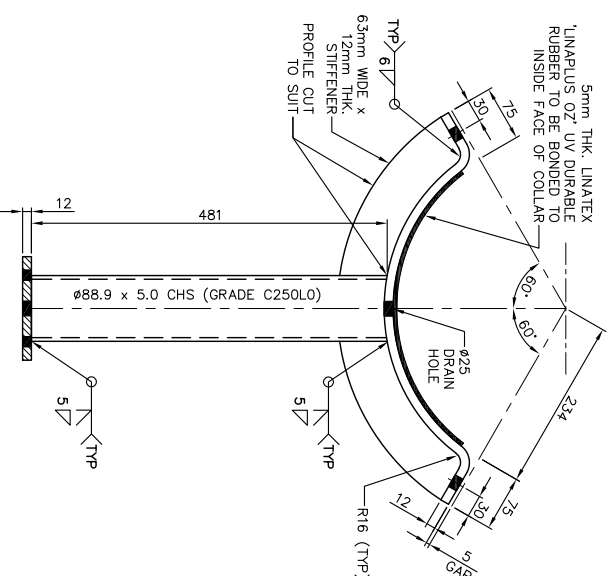
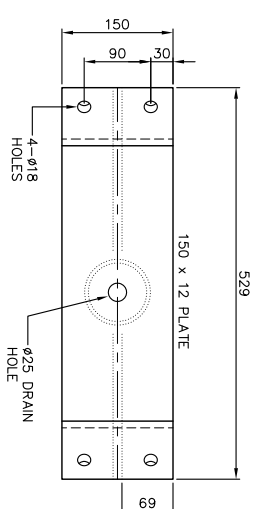
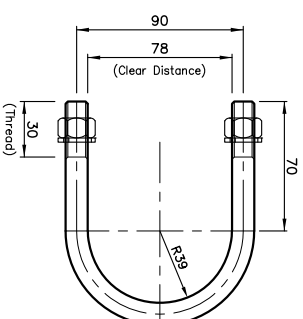


ANTENNA MOUNT ELEVATION @ R.L. 8.90m



SECTION A - A (AS DRAWN)
SECTION B - B (SIMILAR)

SECTION C - C

COLLAR
(SUB-ASSEMBLY)

- NOTES:
1. ALL U-BOLTS SUPPLIED COMPLETE WITH CORRESPONDING NUTS & SPRING WASHERS
 2. HOT BEND AT 900°C. ALLOW TO AIR COOL AFTER BENDING AND GALVANISING.
 3. HOT DIP GALVANISE ALL PARTS TO AISI214

1.3
Ø12 U-BOLT
TO FIT Ø76.1 PIPE

GENERAL NOTES:		
1.	ALL STEEL TO BE HOT DIP GALVANIZED TO A54680 (2006). BOLTS GALVANIZED TO A57184 (2016).	
2.	ALL WELDING TO BE CATEGORY GP TO A51554 (2014).	
3.	ALL WELDING TO BE CATEGORY UR TO A51554 (2014).	
4.	ALL HOLLOW SECTIONS TO A51613 (2016).	
5.	ALL SPRING WASHERS TO A51968 (2016) & A53079.1 (2016). (Grade 300).	
6.	HIGH STRENGTH BOLTS TO A19252.1 (2016) & A19252.2 (2016) – (Grade 8.8/S).	
7.	REMOVE ALL SWAGE, BURRS & SHARP EDGES TO ALL FRESHLY CUT, WELDED OR DRILLED STEEL ON SITE. APPLY TWO COATS OF ZINC RICH PAINT.	
8.	REFER TO MOP AND SOW FOR ADDITIONAL SITE-SPECIFIC COATING SCHEDULE.	
9.	REFER TO MOP AND SOW FOR ADDITIONAL SITE-SPECIFIC NOTES AND INSTRUCTIONS, AS APPLICABLE.	
10.	CONTACT STRUCTEL AND REFER REPORT NO. 87340/P-021049/1 FOR FURTHER INFORMATION IF REQUIRED.	

PARTS LIST		
PART NO.	DESCRIPTION	No. OFF
1A	SEE DETAIL – TOP COLLAR (SUB-ASSEMBLY)	3
1.1	M6 (x 65 Long) HEX HEAD BOLT. (Grade 8.8/S) c/w NUT & SPRING WASHER	6
1.2	#7/8" x 4.5 CHS (x 2800 Long) PANEL MOUNTING PIPE (Grade G250L0) (Provide galvanneal pressed metal end caps after galvanizing)	3
1.3	SEE DETAIL – #12 U-BOLT (TO FIT #7/8" PIPE)	18

NOTE FOR MANUFACTURER & INSTALLER
TRIAL ASSEMBLY PRIOR TO GALVANISING
AND DELIVERY TO SITE TO ENSURE CORRECT
FIT AND NUMBER OF PARTS

GENERAL NOTES:

1. ALL STEEL TO BE HOT DIP GALVANISED TO A54680 (2006). BOLTS GALVANISED TO A51214 (2016).
2. ALL WELDING TO BE CATEGORY SP TO A51554 (2014).
3. ALL WELDS TO BE 5mm CFW, U.N.O.
4. ALL HOLLOW SECTIONS TO A51163 (2016).
5. ALL HOT ROLLED STEEL TO A53678 (2016) & A53679.1 (2016) (Grade 300).
6. ALL SPRING WASHERS TO A51968 (1976).
7. HIGH STRENGTH BOLTS TO A51252.1 (2016) & A51252.2 (2016) – (Grade 8.8/5).
8. REMOVE ALL SWAG, BURRS & SHARP EDGES TO ALL FRESHLY CUT, WELDED OR GRINDED STEEL SURFACES TO REPORT ON THE END OF EACH CONSTRUCTION SCHEDULE.
9. REFER TO MOP AND SOW FOR ADDITIONAL SITE-SPECIFIC NOTES AND INSTRUCTIONS, AS APPLICABLE.
10. CONTACT STRUCTEL AND REFER REPORT No. 87840/P-021049.1 FOR FURTHER INFORMATION IF REQUIRED.

STRUCTURE		DATE		ISS	
THREADBO (NSW)		14.02.22		1	
STEELWORK @ R.L. 8.90m					
GENERAL ARRANGEMENT					
STD-40010					
SHEET 1					
OF 1					
P.L.Y. L.T. A.C.N. 064 274 835					

PLAN @ R.L. 8.90m

