

EXEMPTION CERTIFICATE—DA240010

GIVEN UNDER S46 PLANNING ACT 2016

THE EFFECT OF THIS EXEMPTION CERTIFICATE GIVEN UNDER SECTION 46 OF THE *PLANNING ACT 2016* IS THAT THE DEVELOPMENT IDENTIFIED BELOW DOES NOT REQUIRE A DEVELOPMENT PERMIT.

DETAILS OF PREMISES

Street address Marchioness Road, Mount Perry
 Real property description Lot 1 on MPH25741

DETAILS OF LANDOWNER

Name Neville Thomas Wallace
 Postal address 109 Sauers Road,
 BUNDABERG Q 4670

The Planning Act 2016 requires the Council to give the certificate to each owner of the premises and each referral agency.

REQUESTER

Name Umwelt
 Postal address Level 20, 145 Ann Street, BRISBANE Q 4000
 Email address jfrias@umwelt.com.au

DEVELOPMENT TO WHICH THIS EXEMPTION CERTIFICATE APPLIES

This certificate applies to the following proposed development, which as a result, no longer requires a development permit.

Meteorological Monitoring Mast over part of Lot 1 on MPH25741, as described in Umwelt letter dated 26 February 2024 to the North Burnett Regional Council, including statements regarding the location, height, and duration. ***(Refer to additional supporting information over page)***

ASSESSABLE DEVELOPMENT TRIGGERS

The planning scheme makes the proposed development assessable.

- Tables 5.5.1 to 5.5.8—categories of assessment for making a material change of use in various zones
- N/A Table 5.6.1—categories of assessment for reconfiguring a lot
- N/A Table 5.7.1—categories of assessment for building work
- N/A Table 5.8.1—categories of assessment for operational work
- N/A Table 5.10.1—categories of assessment for overlays
- N/A Other—categories of assessment in relation to prescribed categories in Tables 5.4.1 and 5.4.2

REFERRAL AGENCIES

- There are no referral agencies for the development.
- N/A There are one or more referral agencies for the development.
- N/A All referral agencies have agreed in writing to the exemption certificate being given.

REASONS FOR GIVING THE EXEMPTION CERTIFICATE

The Council gives this exemption certificate because—

- the effects of the development would be minor or inconsequential, considering the circumstances under which the development was categorised as assessable development;
- 1) The site is in a relatively remote and inaccessible location.
 - 2) Land sharing a common boundary is either owned by the same owner or is State land.
 - 3) The proposed development would coexist and not replace the current use of the site as animal husbandry (grazing).
 - 4) The proposed development would be unobtrusive and have no significant impact on landscape character.
 - 5) The proposed development would avoid or minimize vegetation clearing and have not measurable impact on waterways.
 - 6) The effects of the development would therefore be minor or inconsequential, considering the circumstances under which it was categorised as assessable development, including the existing lawful use of the premises.
- N/A the development was categorised as assessable development only because of particular circumstances that no longer apply;
- N/A the development was categorised as assessable development because of an error.

ADDITIONAL SUPPORTING DOCUMENTATION

The following attachments form part of this certificate—

- N/A A written description of the proposed development
- Plans or other drawings showing the proposed development—refer to Appendix 1
- N/A Further supporting or explanatory documentation
- N/A Other (please describe)—

FURTHER PROVISIONS

- This exemption certificate attaches to the premises and benefits each of the owners, the owners' successors in title and any occupiers of the premises.
- This exemption certificate has effect for 3 years after the day the certificate was given.
- The development stated in this exemption certificate must be complete within 3 years after the day the certificate was given.
- A use that is the natural and ordinary consequence of the development must start within 3 years after the day the certificate was given.
- To the extent development does not comply with a requirement stated in this section, the exemption certificate has no effect.
- Other provisions of the *Planning Act 2016* may apply to this exemption certificate.

ENDORSEMENT BY CHIEF EXECUTIVE OFFICER

Exemption Certificate given today,

9th	April	2024
Day	Month	Year



Michael Lisle
Planning and Environment Manager

EXEMPTION CERTIFICATE—DA240010

APPENDIX 1

The following pages form part of this exemption certificate
Submission by Umwelt dated 26 February 2024—17 pages

Our Ref: 240226_30716 - Mount Perry Met Mast - Exemption certificate application_Final

26 February 2024

The Chief Executive Officer
North Burnett Regional Council
PO Box 390
Gayndah QLD 4625

via Lyn.McLeod@northburnett.qld.gov.au

Attention: Lyn McLeod

Dear Lyn



Lot 1 on MPH25741 – Temporary meteorological mast – Application for exemption certificate

On behalf of Central Queensland Power Development Co Pty Ltd (CQP), Umwelt Australia Pty Ltd (Umwelt) seeks an exemption certificate from North Burnett Regional Council (Council) under the provisions of section 46 of the *Planning Act 2016* (Planning Act). The exemption certificate will facilitate the construction and operation of a temporary meteorological mast (met mast) on Lot 1 on MPH25741.

1.0 Proposed development

CQP are progressing investigative works for a potential wind farm located in the locality of Mount Perry and proximate to Bania National Park and Wonbah State Forest. To ascertain the viability of the wind farm and to assist with ongoing planning and design activities, the construction of a met mast is necessary to understand the wind and weather characteristics of the potential wind farm site.

As further detailed in the provided design drawings (see **Attachment 1**) and figures (see **Attachment 2**), the proposed met mast will include the following components:

- Steel lattice mast structure up to 80 metres (m) height above ground level painted in alternative bands of white and orange. The width of the mast structure is approximately 0.74m.
- Supporting guy wires attached to the mast structure at various heights and anchored to the ground. The location of the guy wires as shown in **Attachment 2** are indicative. The guy wire and met mast location is indicative at this stage. The final footprint will be located within the defined circle shown in **Attachment 2**.

Umwelt (Australia)
Pty Limited

ABN 18 059 519 041

T | 1300 793 267
E | info@umwelt.com.au

www.umwelt.com.au

- Various instrumentation attached directly to mast or via booms that include anemometers (measuring wind speed), wind vanes, data logger, communications systems and other wind condition sensors.

Potential vegetation clearing may also be required to accommodate construction of the met mast. An existing access track will be used to access the mast site but no clearing will be required along the access track to facilitate construction.

Construction of the met mast is proposed to commence in April 2024 and will take approximately 15 days. Construction duration may be impacted by procurement delays and uncontrollable factors such as inclement weather. Once constructed, the met mast structure will be operational for approximately three (3) years.

2.0 Project site

The met mast will be located on Lot 1 on MPH25741 as shown in **Attachment 2, Figure 1**. Key Project site information is provided in **Table 1**. Site photos are included as **Attachment 3**.

Table 1 Project site details

Address / Road Frontage	Marchioness Road, Mount Perry
Real Property Description	Lot 1 on MPH25741
Tenure	Freehold
Easements	Nil
Site Area	32.4062 hectares (ha)
Local Government Area	North Burnett Regional Council
Existing Site Use	Animal husbandry (grazing)
Surrounding Use	Animal husbandry (grazing)
Site Characteristics	As shown in Attachment 2, Figure 1 , the northwestern corner of the site is partially vegetated (mostly non-remnant) with the remainder of site largely consisting of cleared open fields. The land falls in a north-west (440 m AHD) to southeast direction (400 m AHD). The met mast is on land ~430 m AHD.

3.0 Legislative context

In accordance with schedule 2 of the Planning Act, the construction and operation of the met mast is defined as ‘building work’ and a ‘material change of use’.

A met mast is an undefined use under the North Burnett Regional Planning Scheme 2014 (version 1.4, 17 August 2020) (Planning Scheme). A material change of use for an undefined use is impact assessable in the Rural zone in accordance with Table 5.5.7 of the Planning Scheme.

Section 46 of the Planning Act permits the assessment manager to grant an exemption certificate that precludes assessable development from requiring a development approval. Section 46(3) of the Planning Act outlines the criteria where the assessment manager may be able to give an exemption certificate. **Table 2** demonstrates the proposed met mast’s compliance with the criteria.

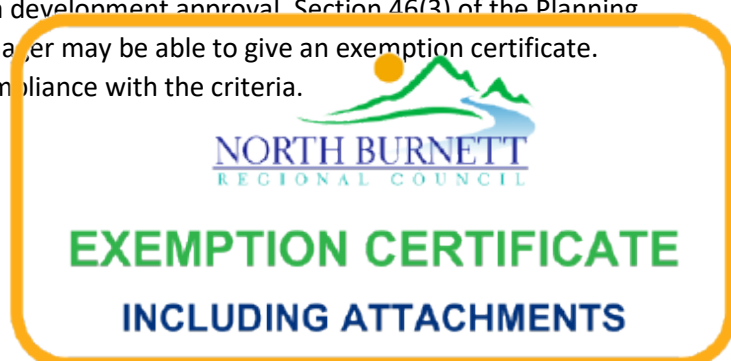


Table 2 Planning Act, section 46(3) assessment

Planning Act, section 46(3) criteria	Assessment
<i>(3) The person may give an exemption certificate if –</i>	
(a) for development for which there is a referral agency—each referral agency has agreed in writing to the exemption certificate being given; and	Not applicable - A review of the Planning Regulation 2017 (Planning Regulation) has determined that there are no referral agencies for the development. Therefore, no response from a referral agency is required under section 46(3)(a) of the Planning Act.
(b) any of the following apply – (i) the effects of the development would be minor or inconsequential, considering the circumstances under which the development was categorised as assessable development;	Given that the development was categorised as impact assessable due to being an undefined use, it is considered that the effect of the development is minor and inconsequential for the following reasons: <ul style="list-style-type: none"> - The construction and operation of the met mast will co-exist with the current animal husbandry use on site. - The use is temporary and does not involve any operational impacts aside from occasional maintenance. - The existing landscape character values of the Rural zone will not be significantly impacted. The met mast is unobtrusive and commensurate to existing similarly scaled infrastructure in the rural areas of the NBRC LGA (e.g. transmission line towers and other met masts). The lattice design of the met mast reduces of the visual prominence of the structure and enables the structure to blend with the surrounding landscape when viewed from certain angles. - The siting and design of the met mast has sought to minimise and avoid vegetation clearing to the greatest possible extent. Where unavoidable, vegetation that requires clearing will be limited to Category X, non-remnant vegetation. - Impacts to waterways will be minimised. Waterway crossings to the met mast site will be avoided where possible and, where required, erosion and sediment control measures will be implemented to minimise impacts to receiving waters.
(ii) the development was categorised as assessable development only because of circumstances that no longer apply;	Not relevant. See response to (b)(i) above.
(iii) the development was categorised as assessable development because of an error.	Not relevant. See response to (b)(i) above.



The met mast structure is a Class 10b structure under the *Building Act 1975* (Building Act). Separate to this application, a private building certifier will be engaged for the provision of a building approval under the Building Act.

As shown in **Attachment 2, Figure 2**, vegetation clearing for the met mast will be limited to Category X, non-remnant vegetation on freehold land. Therefore, in accordance with schedule 21, part 2, section 2(d) of the Planning Regulation no approval is required for the proposed vegetation clearing.

It should be noted that the met mast will not precede the immediate and subsequent construction of a wind farm. The data obtained from the met mast will be used to further inform the time intensive process

associated with planning and designing a wind farm. Should the development of a wind farm progress, it will be subject to a separate approvals processes.

4.0 Fees

In accordance with Council's '2023-24 Fees & Charges', the assessment fee for an exemption certificate is \$380.00 (ex. GST). Please forward payment instructions to JFrias@umwelt.com.au.

5.0 Close

The planning scheme requires an impact assessable development application for a met mast on the basis that it is an undefined use. The proposed met mast is a temporary use involving no significant impacts and is considered to be minor and inconsequential development. On this basis, an exemption certificate is requested.

The met mast is a necessary component that will precede the potential development of a wind farm that will greatly contribute towards Queensland's renewable energy target and to the State and regional economy.

We trust this information meets with your current requirements. Please do not hesitate to contact me should you require clarification or further information.

Yours sincerely



Julius Frias

Senior Environmental Planner

E | JFrias@umwelt.com.au

M | 0487 726 136

Umwelt | Brisbane



Attachment 1 – Met mast design drawings

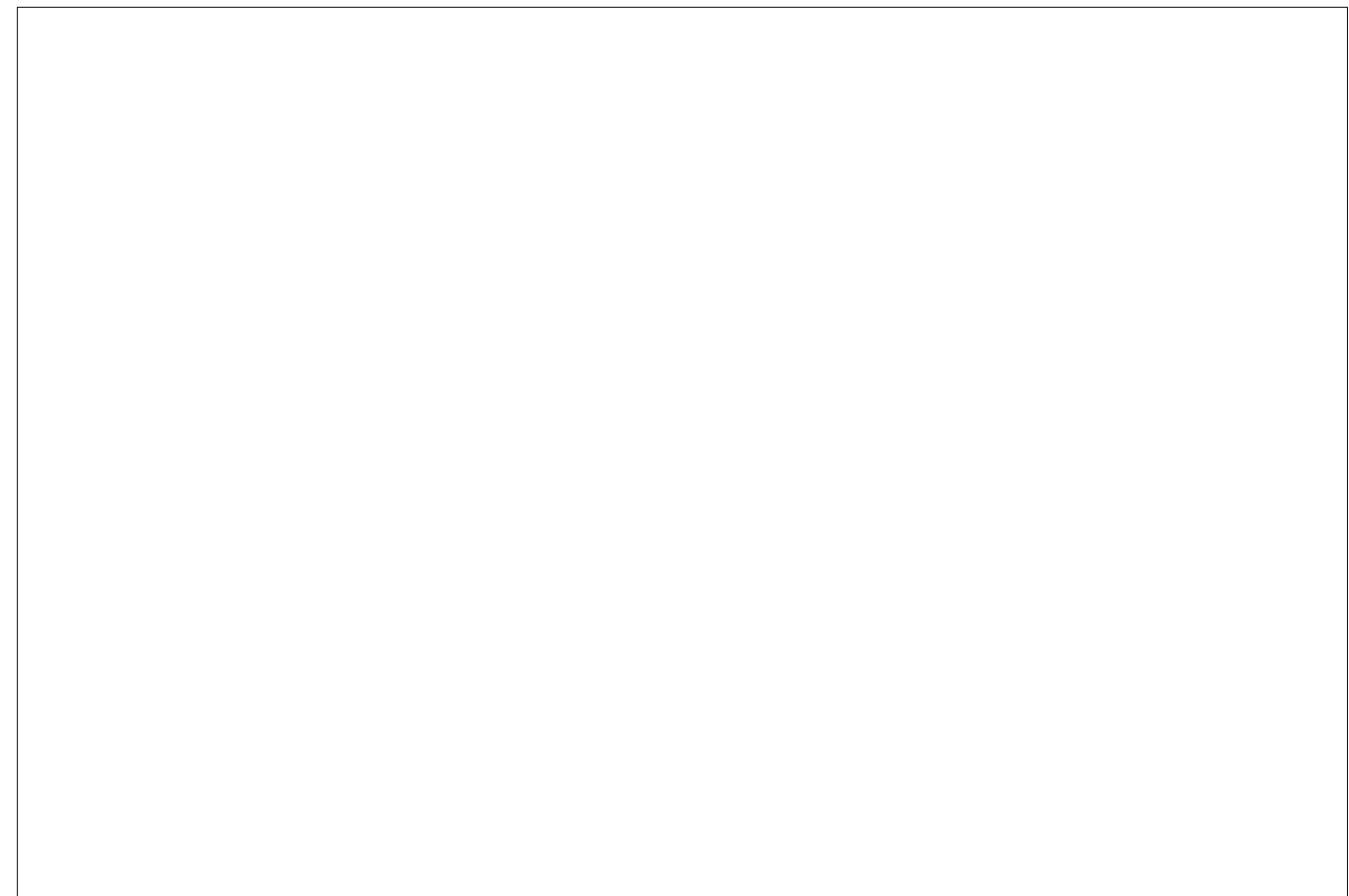


**76m (nom.) TEMPORARY
GUYED LATTICE MAST**
(80m HUB HEIGHT)
TERRAIN CATEGORY XX - REGION
'XX' AT: TBA

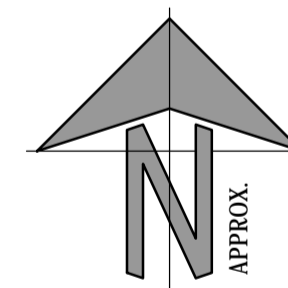


DRAWING REGISTER		
DRAWING No.	SHEET	DESCRIPTION
10XXX-15-DR	1 of 7	TITLE SHEET AND DRAWING REGISTER
10XXX-15-N1	2 of 7	GENERAL NOTES
10XXX-15-S1	3 of 7	GENERAL MAST ELEVATION
10XXX-15-S2	4 of 7	MAST ASSEMBLY LAYOUT
10XXX-15-S3	5 of 7	FOUNDATION DETAILS
10XXX-15-S4	6 of 7	MAST SECTION DETAILS
10XXX-15-S5	7 of 7	TOP MAST ASSEMBLY DETAILS

**COORDINATES:
MAST:**



FOR: AUSTRALIAN WIND CONSTRUCTIONS



LOCALITY MAP

DENOTES APPROXIMATE LOCATION OF MAST
(EXACT LOCATION TO BE CONFIRMED BY CLIENT)

<table border="1"> <tr> <td>Issue</td> <td>Date</td> <td>Description</td> <td>App'd</td> </tr> <tr> <td>A</td> <td></td> <td>FOR INFORMATION ONLY</td> <td></td> </tr> </table>		Issue	Date	Description	App'd	A		FOR INFORMATION ONLY		Client: AUSTRALIAN WIND CONSTRUCTIONS	Project: 76m (nom.) TEMP. GUYED LATTICE MAST	Title: TITLE SHEET AND DRAWING REGISTER	ARDILL PAYNE & P a r t n e r s ENGINEERS PLANNERS SURVEYORS ENVIRONMENTAL PROJECT MANAGEMENT BALLINA 45 River Street Ph. 02 6686 3280 GUNNEDAH 285 Conadilly Street Ph. 02 6742 9955 A.B.N. 51 808 558 977 e-mail: info@ardillpayne.com.au	<table border="1"> <tr> <td>Designed</td> <td>Scale</td> <td>NOT TO SCALE</td> </tr> <tr> <td>Drawn</td> <td colspan="2">File Name</td> </tr> <tr> <td>Checked</td> <td>Date</td> <td>RPEQ</td> </tr> <tr> <td>Approved</td> <td>Dwg No.</td> <td>Issue</td> </tr> <tr> <td>Job No.</td> <td></td> <td>A</td> </tr> </table>	Designed	Scale	NOT TO SCALE	Drawn	File Name		Checked	Date	RPEQ	Approved	Dwg No.	Issue	Job No.		A
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Do not scale drawing. Use written dimensions only
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GENERAL NOTES

- ALL DIMENSIONS ARE TO BE CHECKED ON SITE BEFORE WORK COMMENCES.
- DIMENSIONS SHALL NOT BE OBTAINED BY SCALING THE STRUCTURAL DRAWINGS.
- DURING CONSTRUCTION THE STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION AND NO PART SHALL BE OVERSTRESSED.
- ALL WORKMANSHIP AND MATERIALS TO BE IN ACCORDANCE WITH THE CURRENT AUSTRALIAN STANDARDS AND THE BY-LAWS AND ORDINANCES OF THE RELEVANT BUILDING AUTHORITY.
- THE CONTRACTOR IS RESPONSIBLE FOR ENSURING ALL CONSTRUCTION AND TEMPORARY WORKS ARE STABLE AT ALL TIMES.

DESIGN LOADS

1. WIND LOAD:
- | | |
|---------------------------------|------------|
| WIND REGION | B2 |
| TERRAIN CATEGORY | 2.5 |
| DIRECTION MULTIPLIER Md | 1.0 |
| TOPOGRAPHIC MULTIPLIER Mt | 1.24 |
| DESIGN LIFE | 5 YEARS |
| IMPORTANCE LEVEL | 1 |
| (AS 3995 STRUCTURE TYPE) | III |
| SERVICE WIND SPEED VS | 27m/s |
| REGIONAL WIND SPEED VR | 39m/s |

FOUNDATIONS

- REQUIRED MINIMUM SAFE BEARING CAPACITY OF FOUNDATION MATERIAL SHALL BE 100 kPa (NO GEOTECHNICAL REPORT AVAILABLE).
- THE FOLLOWING DESIGN ASSUMPTIONS HAVE BEEN MADE UNO. IN THE GEOTECHNICAL REPORT:
 - SOLID ROCK, LOOSE FILL AND SOFT CLAYS ARE NOT ENCOUNTERED.
 - WATER TABLE IS NOT ENCOUNTERED.
 - FINAL SOIL DENSITY IS 16kN/m³ OR HIGHER.
 - CLAYS HAVE A MINIMUM 5kPa SHORT TERM COHESION WITH FRICTION ANGLE 25° OR HIGHER.
 - SANDS ARE COHESIONLESS WITH FRICTION ANGLE 32° OR HIGHER.
 - NON-AGGRESSIVE SOILS ASSUMED. CONTRACTOR TO VERIFY ONSITE WITH INSITU TESTING. IF AGGRESSIVE SOILS ARE FOUND NOTIFY DESIGN ENGINEER FOR FURTHER ADVICE ON PROTECTIVE TREATMENTS.
- WHERE NO GEOTECHNICAL REPORT IS AVAILABLE IT IS RECOMMENDED THAT GROUND CONDITIONS, DEPTH OF ROCK AND SUITABILITY OF FOUNDATION SYSTEM AND ASSUMPTIONS ABOVE ARE CONFIRMED PRIOR TO WORKS BY A QUALIFIED GEOTECHNICAL ENGINEER.
- ALL TOPSOIL AND UPPER STRATA CONTAINING ORGANIC MATTER TO BE REMOVED.
- WHERE LOOSE GROUND OR WATER INGRESS REQUIRES A WORKING SLAB THE CONTRACTOR MAY PROVIDE A BLINDING LAYER OF 15 MPa CONCRETE, 50mm THICK MINIMUM BENEATH ALL PAD FOOTINGS PRIOR TO INSTALLING MOISTURE BARRIER AND REINFORCEMENT.
- WHERE FILL OR BACKFILL IS REQUIRED, BECAUSE MATERIAL ON SITE IS UNSUITABLE FOR STANDARD COMPACTION SPECIFICATION, THEN IMPORTED FILL SHALL CONSIST OF APPROVED MATERIAL SUCH AS CRUSHED ROCK AND BE INSTALLED IN ACCORDANCE WITH COMPACTION SPECIFICATION.

CONCRETE

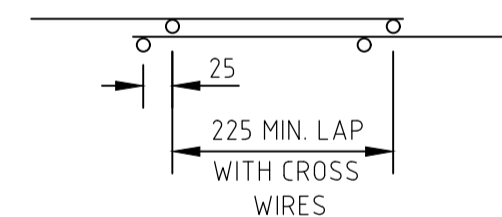
- ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH A.S. 3600.
- CONCRETE QUALITY:
PLACE CONCRETE OF THE FOLLOWING CHARACTERISTIC COMPRESSIVE STRENGTH f'c AS DEFINED IN AS. 1379.

LOCATION	AS 1379 f'c MPa AT 28 DAYS	SPECIFIED SLUMP	NOMINAL AGG. SIZE
MAST BASE FTG.	N32	80mm	20mm

- PROVIDE BAR SUPPORTS OR SPACERS TO GIVE THE FOLLOWING CONCRETE COVER TO ALL REINFORCEMENT UNLESS NOTED OTHERWISE ON DRAWINGS.

FOOTINGS:
50mm TOP & BTM. & SIDES

- ALL CONCRETE IS TO BE VIBRATED.
- NO HOLES OR CHASES OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE MADE IN CONCRETE MEMBERS WITHOUT THE PRIOR APPROVAL OF THE ENGINEER.
- ALL CHAIRS SHALL BE LOCATED AT 800 MAX. CTRS. (BOTH TO SUPPORT REINFORCEMENT AND GIVE THE CORRECT CONCRETE COVER.
- REINFORCEMENT SYMBOLS:
N - DENOTES GRADE 500 NORMAL DUCTILITY DEFORMED BAR.
R - DENOTES GRADE 250 R HOT ROLLED PLAIN BAR.
W - DENOTES HARD-DRAWN PLAIN WIRE.
RF - DENOTES GRADE 500 RIBBED WIRE REINFORCING FABRIC.
SL/RL - DENOTES GRADE 500 LOW DUCTILITY RIBBED FABRIC.
THE NUMBER IMMEDIATELY FOLLOWING THESE SYMBOLS IS THE NUMBER OF MILLIMETRES IN BAR DIAMETER.
REINFORCEMENT SHALL COMPLY WITH AS. 4671.
- WHERE HAND MIX CONCRETE IS REQUIRED USE 'BORAL' BLUE CIRCLE CONCRETE MIX WITH THE ADDITION OF 1kg OF NEAT CEMENT ADDED TO EACH BAG OF PREMIX. CONCRETE TO BE MIXED AND INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
- LAPS AND SPLICES TO REINFORCEMENT SHALL BE MADE ONLY IN THE POSITIONS AND TO THE DIMENSIONS SHOWN. TYPICAL FABRIC LAP, UNLESS NOTED OTHERWISE:



- UNLESS NOTED OTHERWISE ALL CAST-IN STEELWORK SHALL BE HOT DIPPED GALVANIZED.

GUY ANCHOR COMPACTION SPECIFICATION:

REPLACEMENT SOIL FOR MASTS:

- EXCAVATE ANCHOR PIT AND INSTALL STEEL/CONCRETE ANCHOR AND ATTACHMENTS.
- STEEL ANCHOR BEAM ENCASED IN CONCRETE TO AS.3600. PROVIDE MINIMUM BEAM COVERAGE OF 50mm (UNO.).
- FILL REMAINDER OF ANCHOR EXCAVATION WITH SELECT MATERIAL WON FROM EXCAVATION OF FROM SURROUNDING SOURCES AND COMPACT THE FILLING TO A MINIMUM DENSITY OF $\gamma=16\text{KN/m}^3$. SELECT FILL IS TO BE FREE FROM ANY ORGANIC MATERIAL SUCH AS ROOTS AND TOPSOIL AND BE EITHER:
× CLAYS AND SILTS (BASED ON $\phi=25^\circ$ AND $cU=20\text{KPa}$), OR
× SANDS (BASED ON $\phi=32^\circ$)
NOTE: MINIMUM SOIL PROPERTIES ARE AS STATED ABOVE, UNLESS NOTED DIFFERENTLY IN GEOTECHNICAL REPORT. SELECT FILL PARTICLES SIZE AND SHAPE IS TO SUIT COMPACTED LAYER THICKNESS.
- ADEQUATE COMPACTION IS ACHIEVED BY PROVIDING A COMPACTED DENSITY EQUAL TO A CONTROLLED FILL CLASSIFICATION. CONTROLLED FILL IS DEFINED IN AS. 2870. SANDY FILL IS TO BE PLACED IN LAYERS NOT GREATER THAN 300mm LOOSE. NON-SANDY SOILS AND CLAY SOILS REQUIRE LAYER DEPTHS NOT GREATER THAN 150mm WHEN COMPACTED. COMPACTION IS TO BE ACHIEVED BY MECHANICAL TAMPING. THIS WILL REQUIRE COMPACTION BY RODDING, BY A VIBRATING PLATE OR SMOOTH DRUM ROLLER ATTACHED TO A BACKHOE/EXCAVATOR OR WALK BEHIND WACKER PACKER.
- COMPLIANCE WITH CONTROLLED FILL IS DEEMED TO BE ACHIEVED IN SANDY SOILS IF A DYNAMIC CONE PENETROMETER TEST (AS DEFINED BY AS. 1289.6.3.3) PRODUCES A BLOW COUNT OF 7 OR MORE FOR 300mm. FOR NON SANDY AND CLAY SOILS CONTROLLED FILL IS DEEMED TO BE ACHIEVED IF SOIL IS MOIST AND COMPACTED IN LAYER DEPTHS NOT MORE THAN 150mm WHEN COMPACTED.
- WHERE SOILS DEPART FROM THE MINIMUM REQUIREMENTS IN THE COMPACTION SPECIFICATION, OR WHERE A HIGH WATER TABLE IS ENCOUNTERED, OR WHERE THE SOILS DEPART FROM THE GEOTECHNICAL REPORT, THEN THE DESIGN ENGINEER IS TO BE NOTIFIED FOR DESIGN REVIEW.

STEELWORK

- ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS. 4100 AND AS. 1554 EXCEPT WHERE VARIED BY CONTRACT DOCUMENTS.
- WELDED CONNECTIONS BETWEEN STRUCTURAL MEMBERS SHALL BE MIN. 6mm CONTINUOUS FILLET WELDS (OR SIZE EQUIVALENT TO THE MINIMUM THICKNESS OF CONNECTING MEMBERS WHERE LESS THAN 6mm) UNLESS NOTED OTHERWISE.
- BOLT TYPES (AND DESIGNATIONS, WHERE USED) SHALL BE AS FOLLOWS:
4.6/S - COMMERCIAL BOLTS TO AS 1111, SNUG TIGHTENED.
8.8/S - HIGH STRENGTH STRUCTURAL BOLTS, WITH BOLTS, NUTS AND HARDENED WASHERS TO AS. 1252, SNUG TIGHTENED ONLY.
- M16 HIGH STRENGTH (8.8/S) BOLTS SHALL BE USED IN ALL CONNECTIONS UNLESS NOTED OTHERWISE. NOTWITHSTANDING THIS, NO STEEL TO STEEL CONNECTION SHALL BE MADE WITH LESS THAN 2-M16 (8.8/S) BOLTS, UNLESS NOTED OTHERWISE.
- BOLT HOLES IN STEEL TO STEEL, AND STEEL TO CONCRETE CONNECTIONS SHALL BE BOLT DIAMETER + 2mm AND + 3mm RESPECTIVELY. FOR BASE PLATES ALLOW BOLT DIAMETER + 6mm.
- UNLESS NOTED OTHERWISE ALL NUTS, BOLTS & WASHERS SHALL BE HOT DIP GALVANIZED.
- WELD MATERIAL SHALL HAVE A NOMINAL TENSILE STRENGTH OF 490 MPa AS PER AS. 4100, AMENDMENT 1, 2012, TABLE 9.7.3.10 (1).
- ALL WELDS SHALL BE CATEGORY SP TO AS. 1554 PART 1 UNLESS NOTED OTHERWISE.
- STEEL FABRICATOR SHALL PROVIDE ALL BOLTS, HOLES AND CLEATS NECESSARY FOR THE ERECTION OF STEELWORK AS SHOWN, NOTED OR IMPLIED.
- PROTECTIVE SURFACE TREATMENT TO STRUCTURAL STEELWORK SHALL BE AS FOLLOWS, UNLESS NOTED OTHERWISE.

PROTECTIVE SURFACE TREATMENT NOTE:

GENERAL MAST ASSEMBLY:
HOT DIP GALVANIZE "HDG600" (AS. 2312)



Issue	Date	Description	App'd
A		FOR INFORMATION ONLY	

Client:
AUSTRALIAN WIND CONSTRUCTIONS

Project:
76m (nom.) TEMP. GUYED LATTICE MAST

Title:
GENERAL NOTES

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ARDILL PAYNE
& P a r t n e r s
ENGINEERS PLANNERS SURVEYORS
ENVIRONMENTAL PROJECT MANAGEMENT
BALLINA 45 River Street Ph. 02 6686 3280
GUNNEDAH 285 Conadilly Street Ph. 02 6742 9955
A.B.N. 51 808 558 977 e-mail: info@ardillpayne.com.au



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Checked	Date	RPEQ	
Approved	Dwg No.	N1	Issue
Job No.			A

Issue	A
Date	
Description	FOR INFORMATION ONLY
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Client:
AUSTRALIAN WIND CONSTRUCTIONS

Project:
76m (nom.) TEMP. GUYED LATTICE MAST

Title:
GENERAL MAST ELEVATION

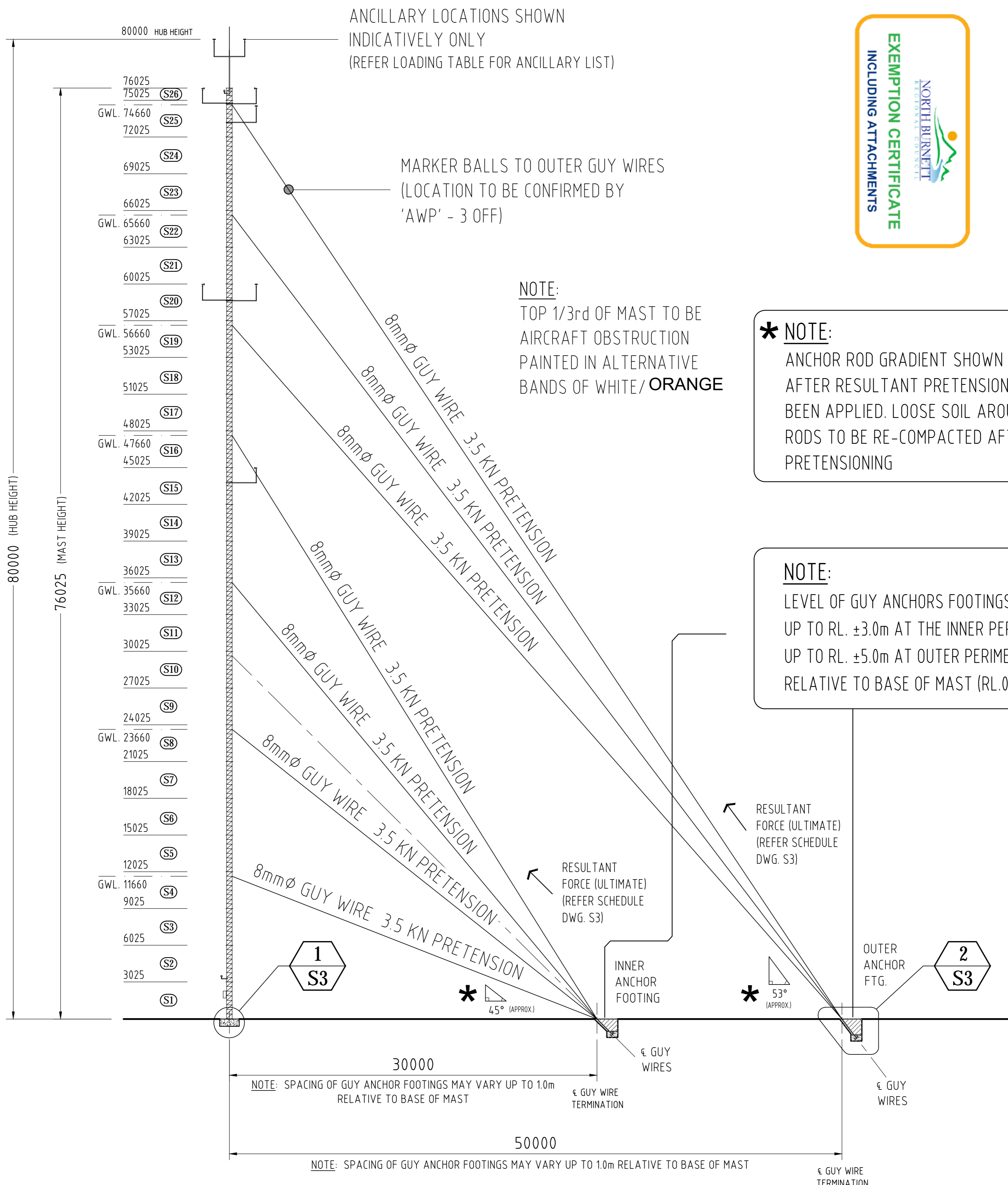
ARDILL PAYNE
ENGINEERS PLANNERS SURVEYORS
ENVIRONMENTAL PROJECT MANAGEMENT
BALLINA
45 River Street
Ballina NSW 2460
Ph: 02 6686 3280
Ph: 02 6742 9955
e-mail: info@ardillpayne.com.au

Designed	
Checked	
Approved	
Job No.	
Dwg No.	S1
Issue	A

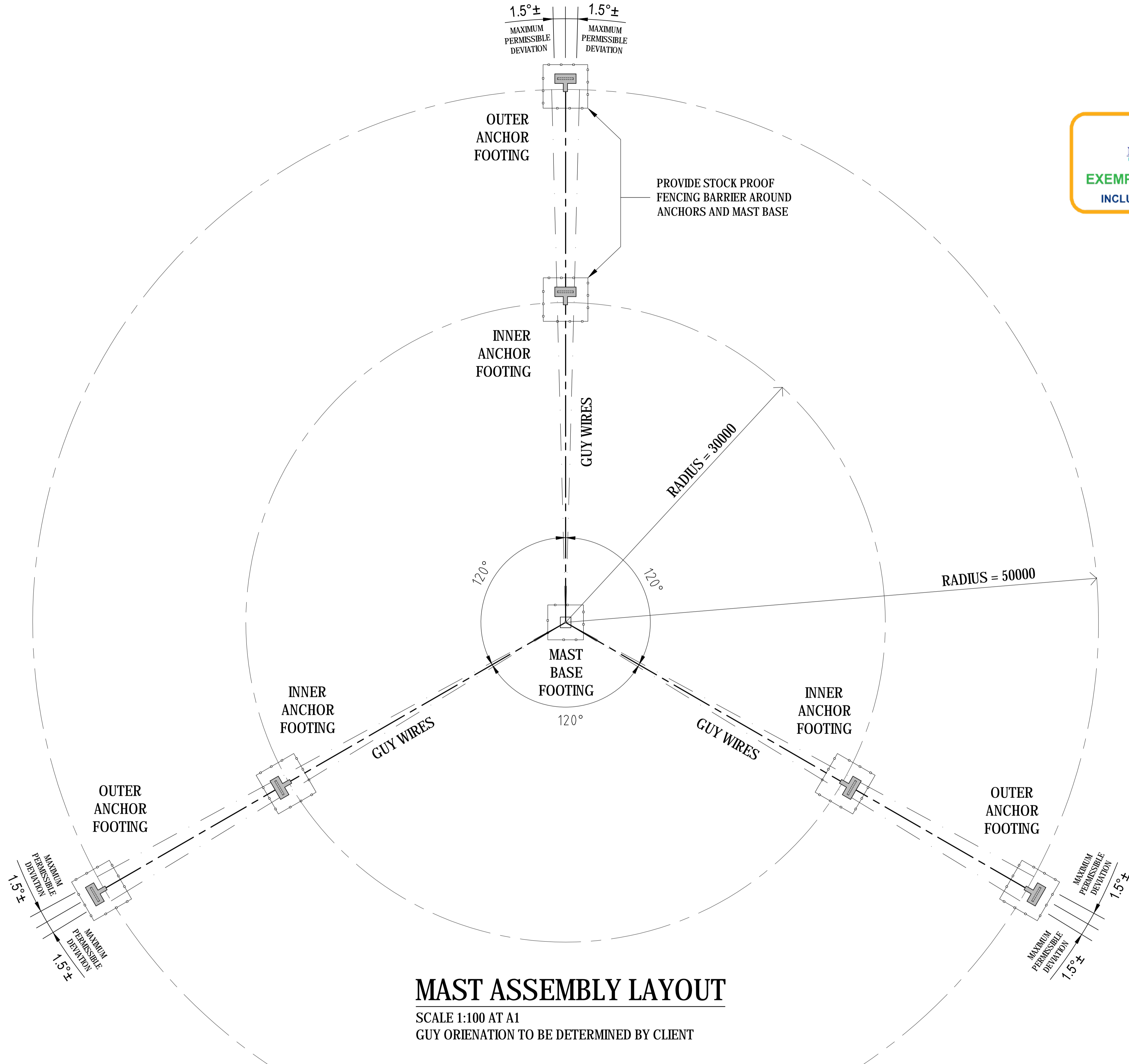
ANCILLARY LOADING TABLE - TEMPORARY MAST			
ANCILLARY DESCRIPTION	MODEL	HEIGHT (m)	ESA (m ²) THRUST
LIGHTNING FINIAL	13mm GALV. ROD	TOP	0.29
2 x ANEMOMETER (INCLUDES EXTENSION)	THIES FIRST CLASS + VECTOR A100	80	0.54
TEMPERATURE & REL.HUMIDITY SENSOR	TBA	75.8	0.20
2 x WIND VANE (INCLUDES BOOM ARM)	THIES OR VECTOR W200P	76	0.54
1 x ANEMOMETER (INCLUDES BOOM ARM)	THIES FIRST CLASS	74.8	0.27
1 x ANEMOMETER (INCLUDES BOOM ARM)	THIES FIRST CLASS	60	0.27
1 x WIND VANE (INCLUDES BOOM ARM)	THIES OR VECTOR W200P	60	0.27
1 x ANEMOMETER (INCLUDES BOOM ARM)	THIES FIRST CLASS	45	0.27
TEMPERATUR SENSOR	TBA	3-4	0.20
ANTI-CLIMB BARRIER	SECURITY MESH PANELS	to 2.7	1.20
PRESSURE SENSOR	VAISALA PTB110 (WITHIN DATA BOX)	2.0	-
DATA LOGGER	CR1000X	2.0	-
LADSAFE FALL ARREST SYSTEM	TBA	FULL HEIGHT	-

NOTES:

1. AN ALLOWANCE HAS BEEN MADE FOR CABLES TO BE BUNDLED DOWN MAST LEG.
2. MAST ANCILLARIES TO BE CONFIRMED WITH CLIENT & CHECKED WITH ENGINEER PRIOR TO INSTALLATION.
3. ANCILLARY LOADING TABLE BASED ON 'AWC' INSTRUMENT SCHEDULE.
4. GUYS 8mm (7x7 STRANDS) G2070.
- TENSILE STRENGTH = 2070 MPa.
- BREAKING FORCE = 47.4 KN.
- PRE-TENSION TO 3.5 KN.
5. EYE NUTS TO EXCEED TOTAL SUMMED CAPACITY OF RESPECTIVE GUY WIRES.
6. CAPACITY OF BOW & 'D' SHACKLES, TURNBUCKLES, ETC. TO EXCEED CAPACITY OF RESPECTIVE GUY WIRES.
7. ALL BOLTS TO BE SUPPLIED WITH NUT & SNUG TIGHTENED.
8. ALL BOLTS TO BE SUPPLIED G8.8 WITH STRUCTURAL WASHERS - U.N.O.
9. ONE FACE OF MAST TO BE FITTED WITH FALL ARREST DEVICE INSTALLED AS PER MANUFACTURER'S INSTRUCTIONS.
10. PRE-TENSION GUY WIRES AND PROVIDE 'BULLDOG' CLIPS OR EQUIVALENT AT TERMINATION OF GUY WIRES WITH CAPACITY NO LESS THAN GUY BREAKING FORCE.
11. RIGGING COMPONENTS SHOULD UNDERGO PERIODIC MAINTENANCE AND INSPECTION AS PER SUPPLIER RECOMMENDATIONS.
12. REFER DWG. N1 FOR STEELWORK NOTES.



GENERAL MAST ELEVATION
SCALE 1:200 AT A1
GWL. ___ DENOTES GUY WIRE FIXING LEVEL



MAST ASSEMBLY LAYOUT
 SCALE 1:100 AT A1
 GUY ORIENTATION TO BE DETERMINED BY CLIENT

Issue	Date	Description	App'd
A		FOR INFORMATION ONLY	

Client:
AUSTRALIAN WIND CONSTRUCTIONS

Project:
76m (nom.) TEMP. GUYED LATTICE MAST

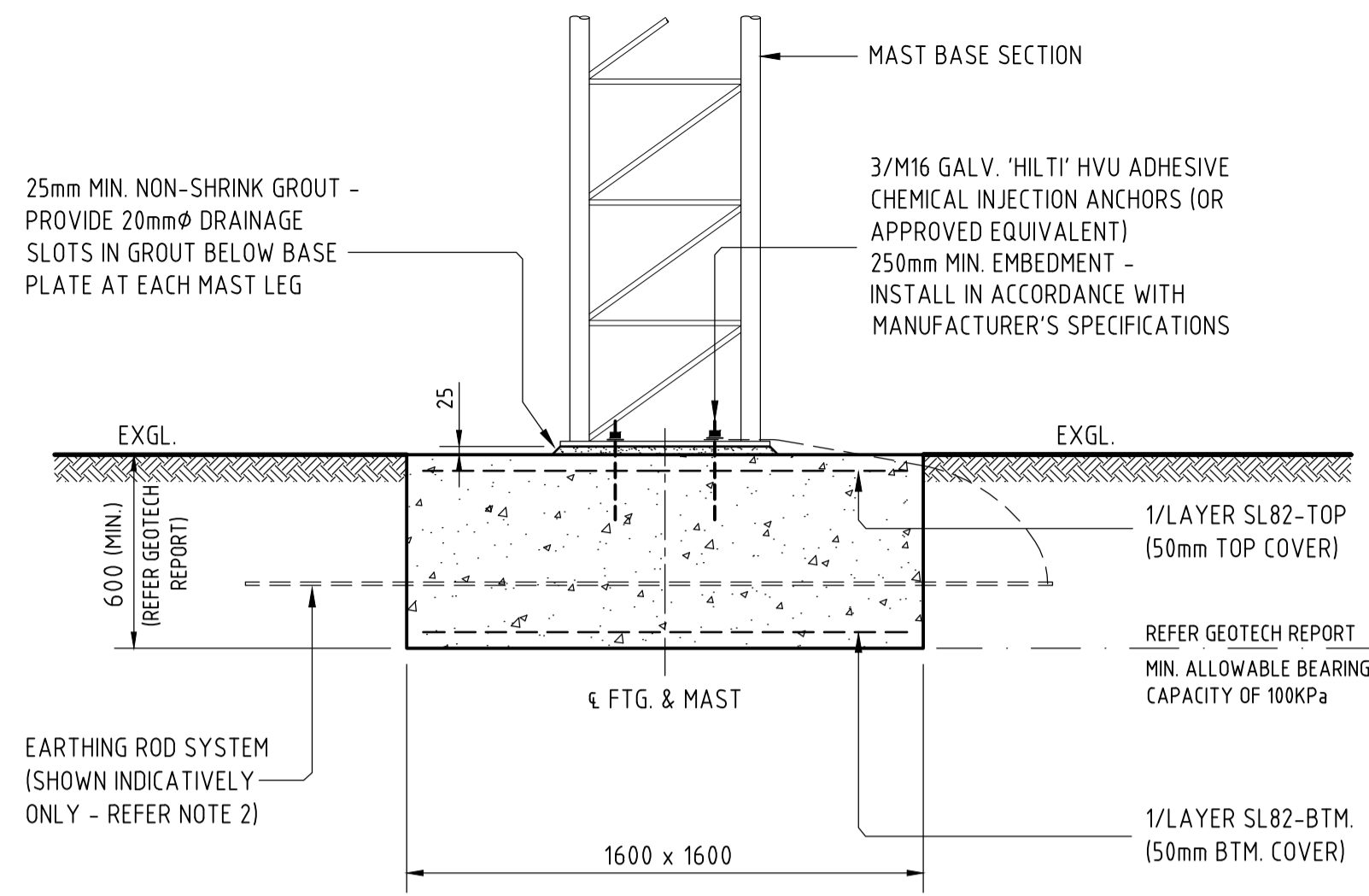
Title:
MAST ASSEMBLY LAYOUT

ARDILL PAYNE
 & PARTNERS
 ENGINEERS PLANNERS SURVEYORS
 ENVIRONMENTAL PROJECT MANAGEMENT
 BALLINA 45 River Street Ph. 02 6686 3280
 GUNNEDAH 285 Conadilly Street Ph. 02 6742 9955
 A.B.N. 51 808 558 977 e-mail: info@ardillpayne.com.au



Designed	Scale	1:200 @ A1, 1:400 @ A3
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Approved	Date	RPEQ
Job No.	Dwg No.	S2
	Issue	A

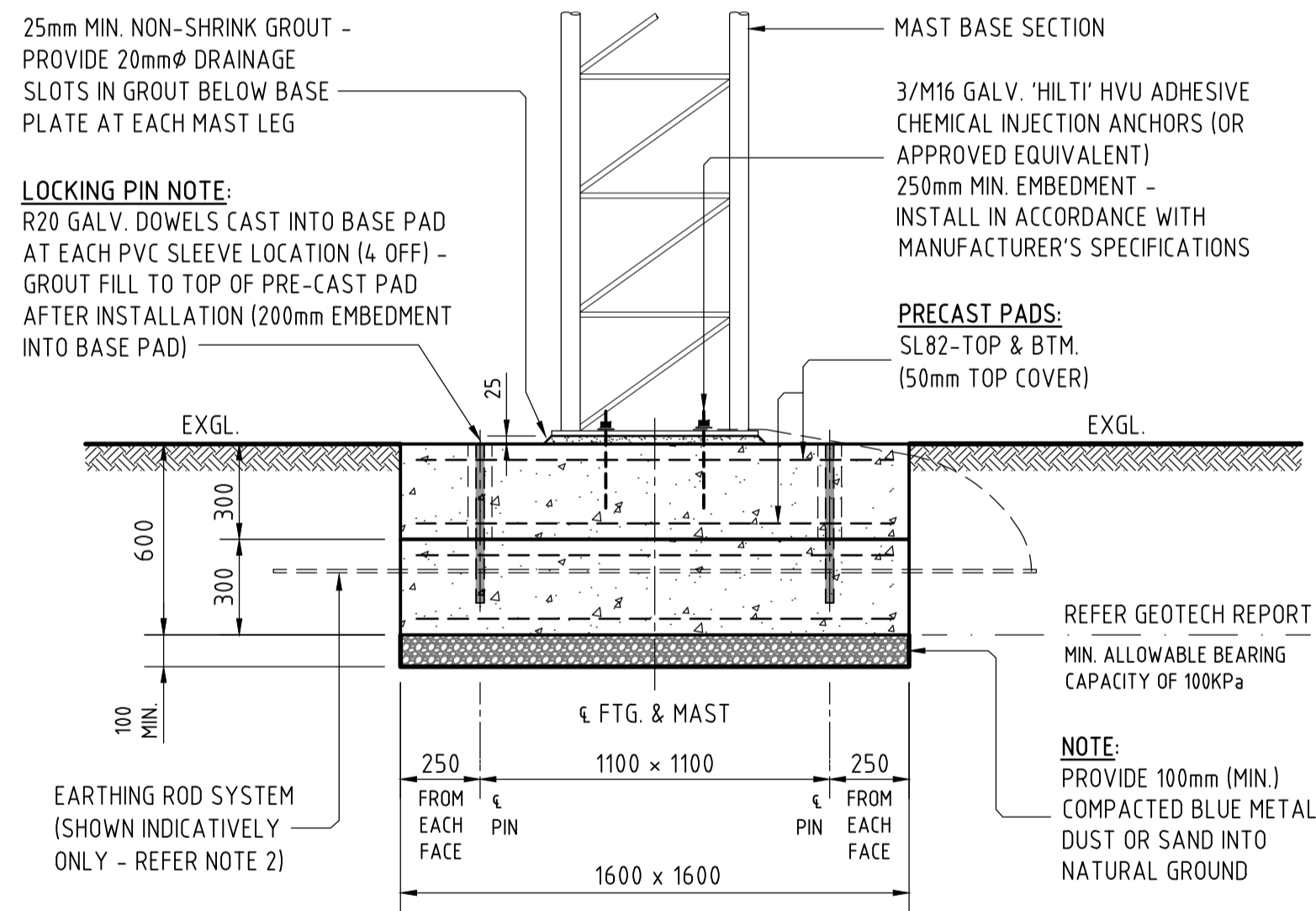
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MAST BASE FOOTING DETAIL 1
SCALE: 1:20 AT A1
S1

CAST-INSITU OPTION

- N32 GRADE CONCRETE
- LIGHTNING PROTECTION SYSTEM AND EARTHING REQUIREMENTS REFER TO 'AUSTRALIAN WIND CONSTRUCTIONS' SPECIFICATION.
- FOR MAST BASE, IF SURFACE ROCK IS ENCOUNTERED AND PROHIBITS INSTALLATION OF FOOTING BELOW, FIXING AND GROUTING DIRECTLY ONTO ROCK MAY BE ACHIEVABLE IF ROCK CAN BE PROVEN TO BE CONTINUOUS FOR AT LEAST 750mm DEPTH AT THE MAST BASE LOCATION (I.E. PILOT HOLE TO DEPTH WITH NO DROPS IN RESISTANCE).



MAST BASE FOOTING DETAIL 1
SCALE: 1:20 AT A1
S1

PRECAST OPTION

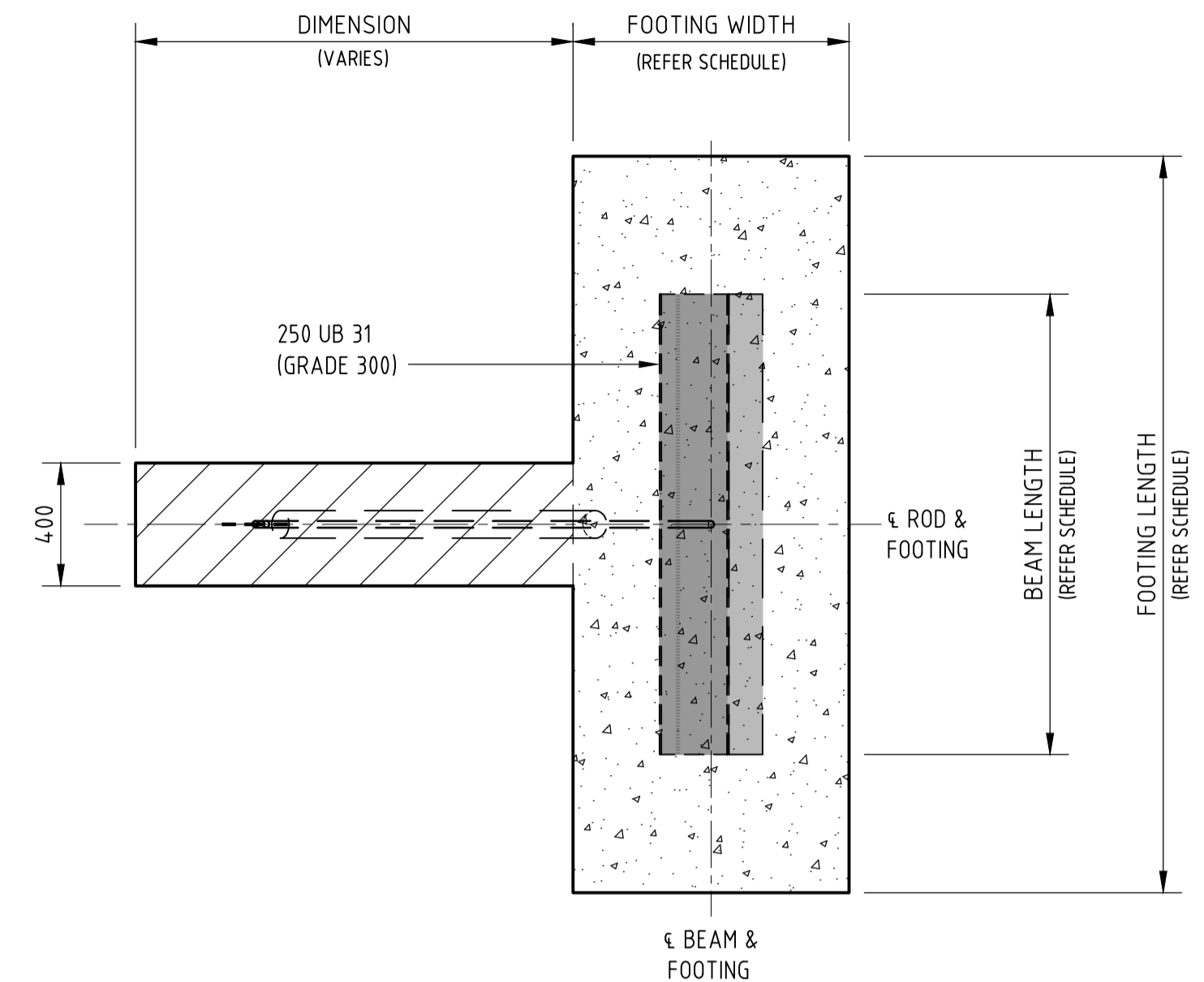
- N32 GRADE CONCRETE
- LIGHTNING PROTECTION SYSTEM AND EARTHING REQUIREMENTS REFER TO 'AUSTRALIAN WIND CONSTRUCTIONS' SPECIFICATION.

ROCK ANCHOR TABLE

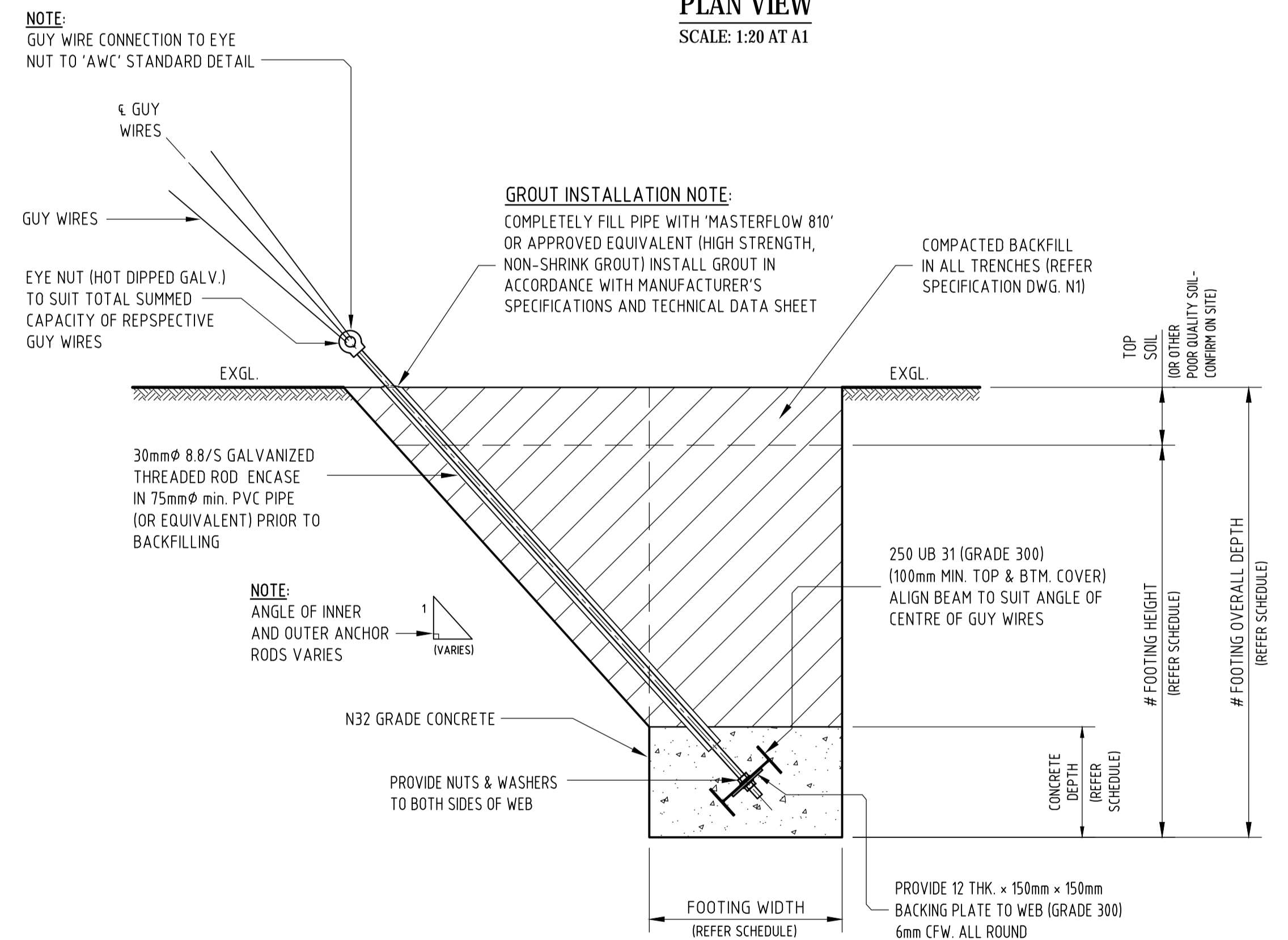
IF ROCK ENCOUNTERED AND BELOW FOOTINGS NOT ACHIEVABLE, THE FOLLOWING PROOF LOADS ARE REQUIRED IF ANCHORS ARE ADOPTED:

GUY ANCHOR RESULTANT FORCE SCHEDULE		
GUY ANCHOR	INNER GUY ANCHOR	OUTER GUY ANCHOR
RESULTANT FORCE & ANGLE (ULTIMATE)	50 KN AT 45°	61 KN AT 53°
TEST LOAD (KN)	65 KN	80 KN

NOTE: ROCK ANCHORS TO BE DESIGNED AND INSTALLED BY QUALIFIED AND CERTIFIED CONTRACTOR.



PLAN VIEW
SCALE: 1:20 AT A1



TYPICAL GUY ANCHOR FOOTING DETAIL 2
SCALE: 1:20 AT A1
S1

- OUTER GUY EARTHING REQUIREMENTS REFER TO 'AUSTRALIAN WIND CONSTRUCTION' SPECIFICATION.

GUY ANCHOR FOOTING SCHEDULE - CAST INSITU OPTION				
INNER GUY FOOTING				
FOOTING WIDTH	FOOTING LENGTH	BEAM LENGTH	# FOOTING HEIGHT	# CONCRETE DEPTH
900	2100	1500	1500	500 MIN.
OUTER GUY FOOTING				
FOOTING WIDTH	FOOTING LENGTH	BEAM LENGTH	# FOOTING HEIGHT	# CONCRETE DEPTH
900	2400	1500	1800	500 MIN.

OVERALL FOOTING DEPTH IS DETERMINED BY THE FOOTING HEIGHT PLUS THE DEPTH OF ANY UNSUITABLE FOUNDING MATERIALS AT THE SURFACE, INCLUDING TOPSOIL AND ANY OTHER POOR QUALITY SOILS.



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Project: 76m (nom.) TEMP. GUYED LATTICE MAST

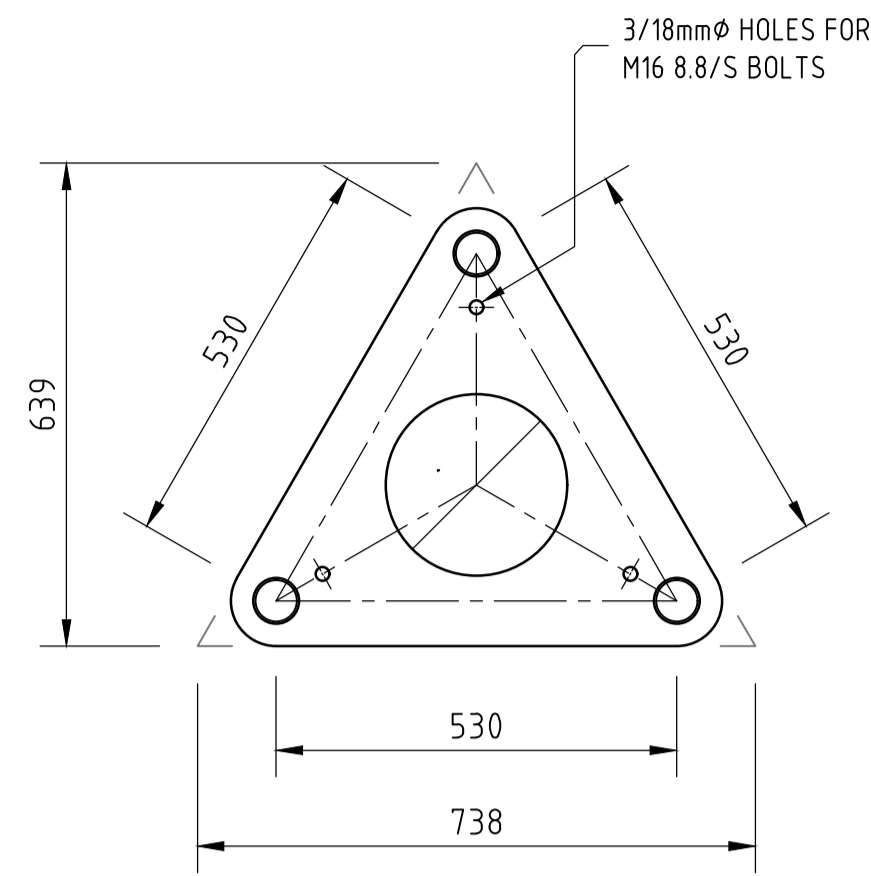
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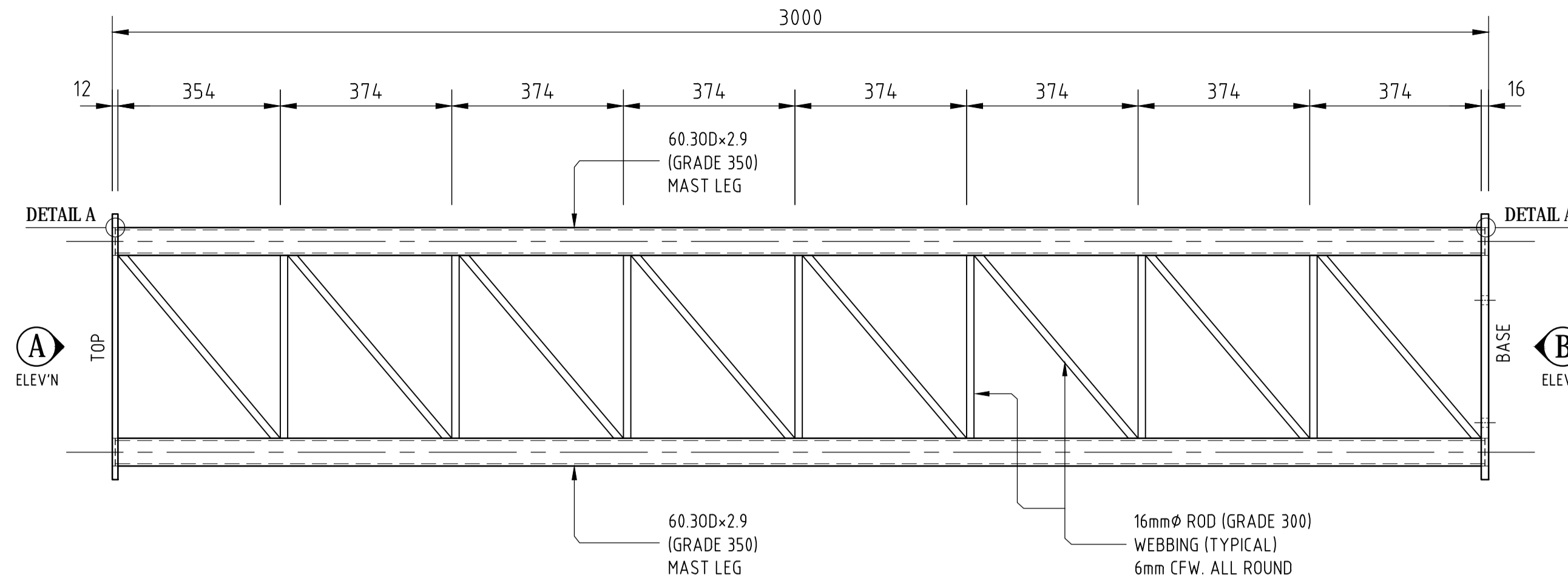
ARDILL PAYNE
& PARTNERS
ENGINEERS PLANNERS SURVEYORS
ENVIRONMENTAL PROJECT MANAGEMENT

BALLINA 45 River Street Ph. 02 6686 3280
GUNNEDAH 285 Conadilly Street Ph. 02 6742 9955
A.B.N. 51 808 558 977 e-mail: info@ardillpayne.com.au

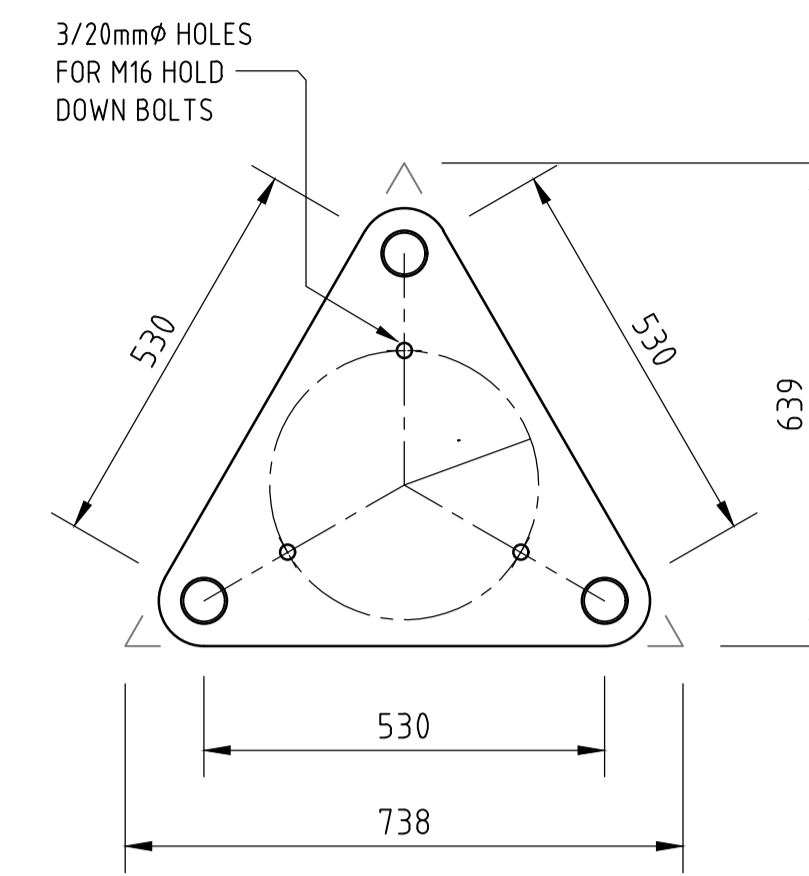
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Job No.	Dwg No.	S3
	Issue	A



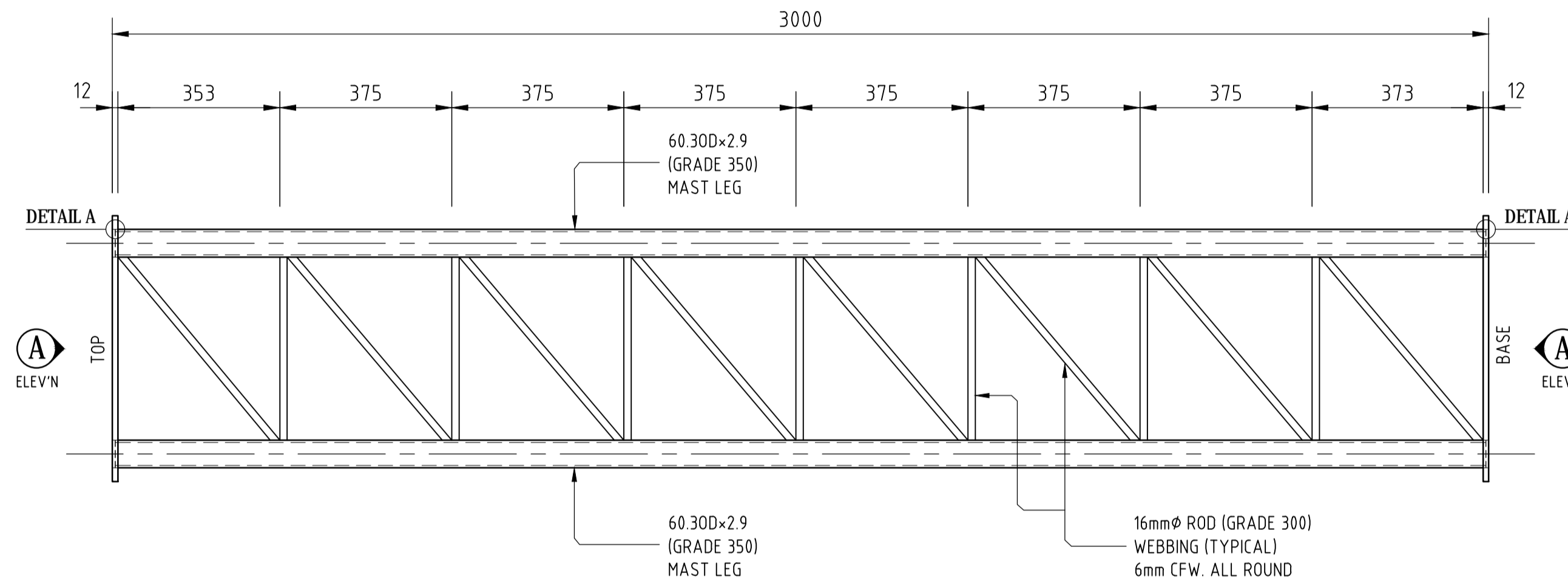
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SCALE: 1:10 AT A1
12 THK. CONNECTOR PLATE



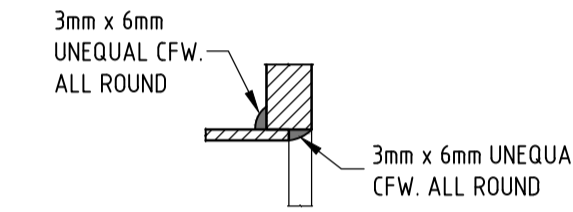
BASE MAST SECTION (S1)
SCALE: 1:10 AT A1



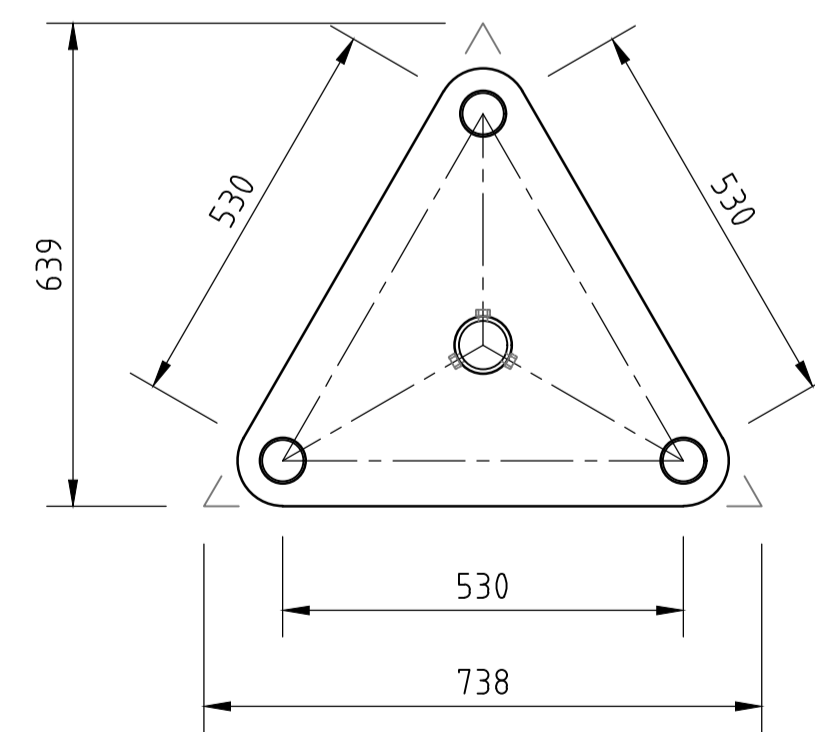
ELEVATION B
SCALE: 1:10 AT A1
16 THK. BASE PLATE



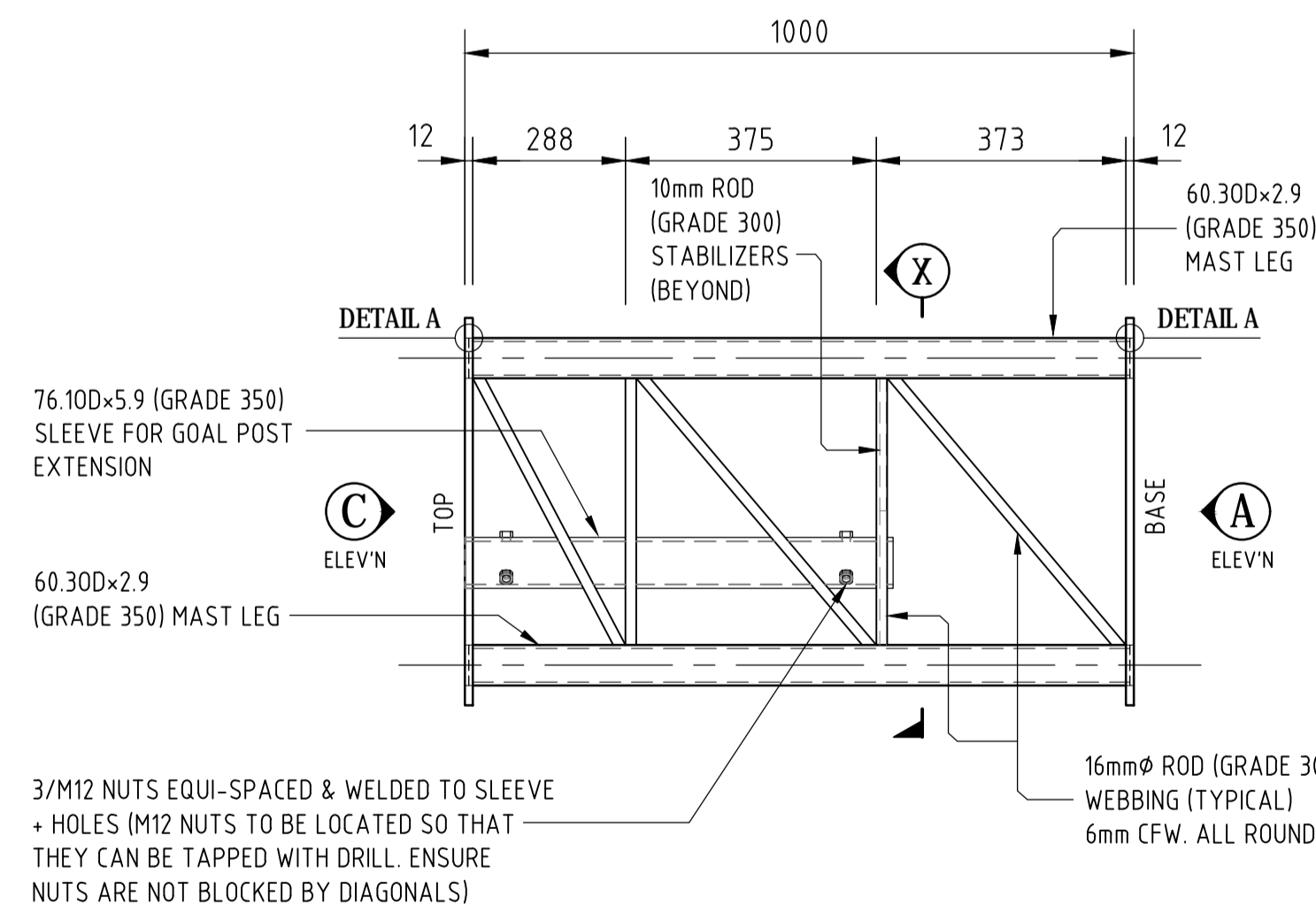
TYPICAL MAST SECTION (S2) to (S25)
SCALE: 1:10 AT A1



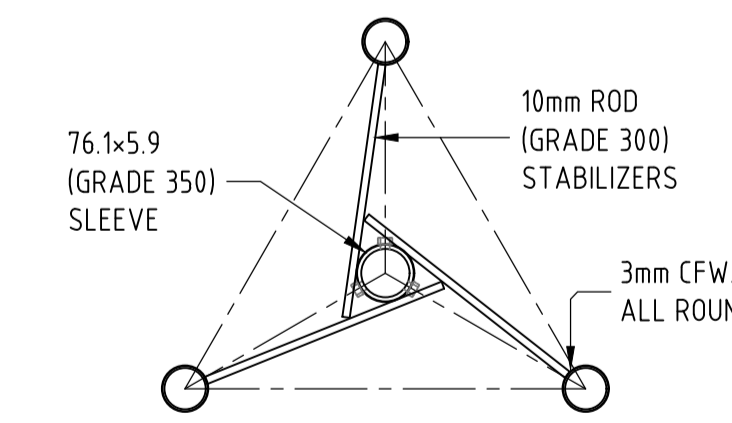
DETAIL A
SCALE: 1:5 AT A1
TYPICAL WELD DETAIL



ELEVATION C
SCALE: 1:10 AT A1
12 THK. TOP PLATE



TOP MAST SECTION (S26)
SCALE: 1:10 AT A1



SECTION-X
SCALE: 1:10 AT A1
SLEEVE STABILIZER

ANTI-CLIMB BARRIER NOTE:

1. ANTI-CLIMBING DEVICE TO BE FIXED TO ALL SIDES OF BASE MAST SECTION 1. 2400mm HIGH x 500mm WIDE EXCEPT WHERE DATA LOGGER BOX IS INSTALLED ON THE MAST SECTION.
2. 358 HIGH SECURITY FENCING WELD MESH TO BE USED WITH STAINLESS STEEL ZIP TIES TO SECURE MESH TO MAST. PROVIDE 3x TIES EQUI-SPACED TO EACH HORIZONTAL WEBBING MEMBER. TOP OF SECURITY MESH TO BE 2700mm FROM MAST BASE LEVEL.
3. TWO SIDES OF THE MAST TO BE SEALED WITH FULL LENGTH 2400mm x 500mm MESH. ONE SIDE TO BE SEALED WITH TWO SHEETS 1/1500mm x 500mm (LOWER SECTION) AND 1/900mm x 500mm (UPPER SECTION) FOR EASE OF FIXING AND ACCESSIBILITY TO MAST BY QUALIFIED PERSONNEL WHEN REQUIRED BY USING A CUTTING TOOL.



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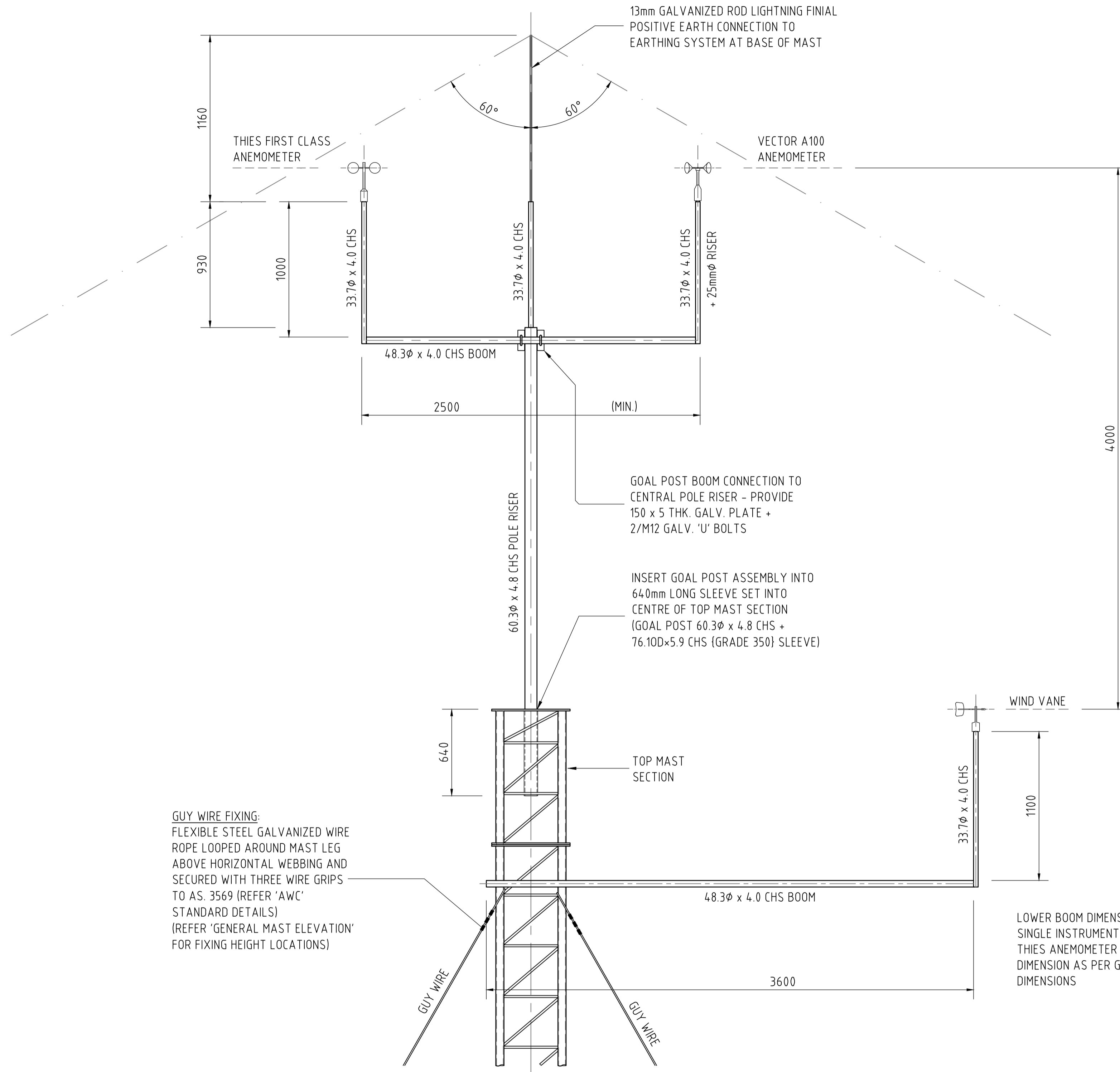
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MAST SECTION DETAILS

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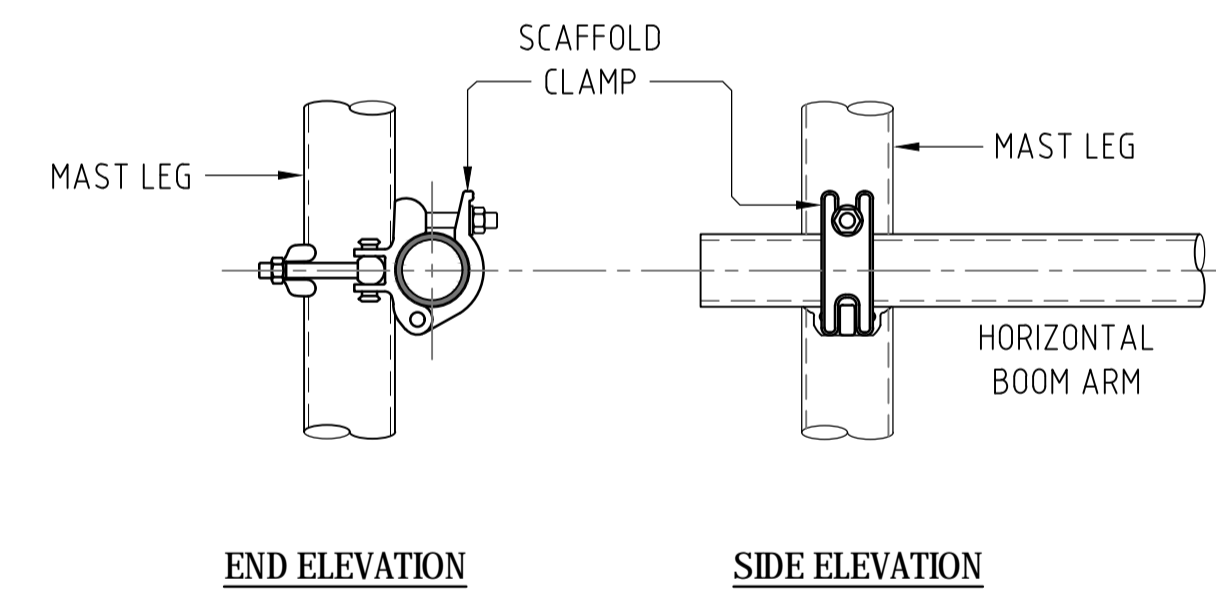
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Approved	Date	RPEQ
Job No.	Dwg No.	S4
	Issue	A



GUY WIRE FIXING:
FLEXIBLE STEEL GALVANIZED WIRE ROPE LOOPED AROUND MAST LEG ABOVE HORIZONTAL WEBBING AND SECURED WITH THREE WIRE GRIPS TO AS. 3569 (REFER 'AWC' STANDARD DETAILS) (REFER 'GENERAL MAST ELEVATION' FOR FIXING HEIGHT LOCATIONS)

TOP MAST ASSEMBLY

SCALE: 1:20 AT A1
REFER 'AWC' STANDARD DETAILS FOR GOAL POST, & TYPICAL BOOM ARM AND CLAMPING ASSEMBLY



BOOM ARM CONNECTION DETAIL

SCALE: 1:5 AT A1
1. CLAMPS AND BOOM ARMS TO 'AWC' STANDARD DETAILS.



Issue	Date	Description	App'd
A		FOR INFORMATION ONLY	

Client:
AUSTRALIAN WIND CONSTRUCTIONS

Project:
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Title:
TOP MAST ASSEMBLY DETAILS

ARDILL PAYNE
& PARTNERS
ENGINEERS PLANNERS SURVEYORS
ENVIRONMENTAL PROJECT MANAGEMENT
BALLINA 45 River Street Ph. 02 6686 3280
GUNNEDAH 285 Conadilly Street Ph. 02 6742 9955
A.B.N. 51 808 558 977 e-mail: info@ardillpayne.com.au



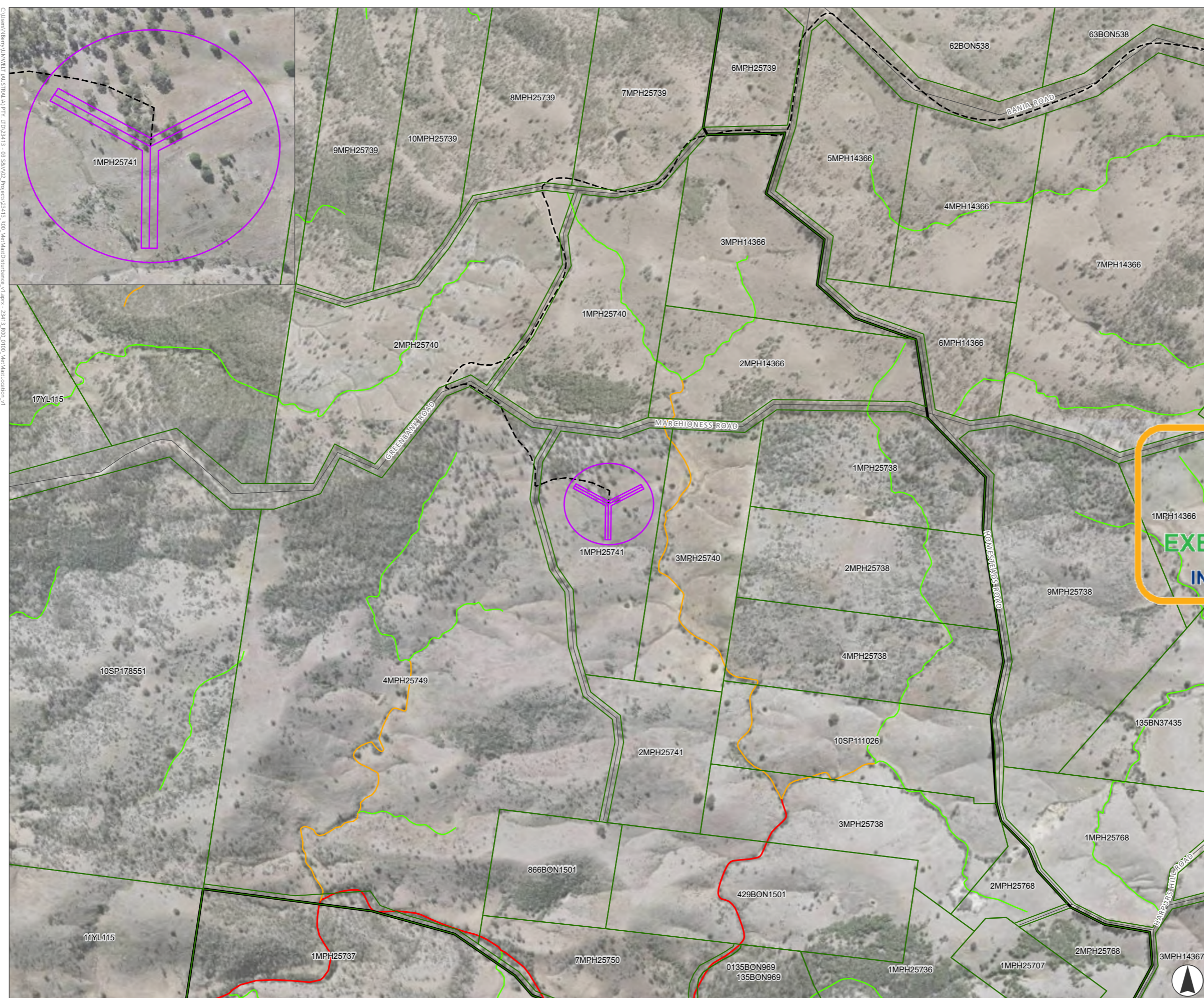
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Attachment 2 – Figures



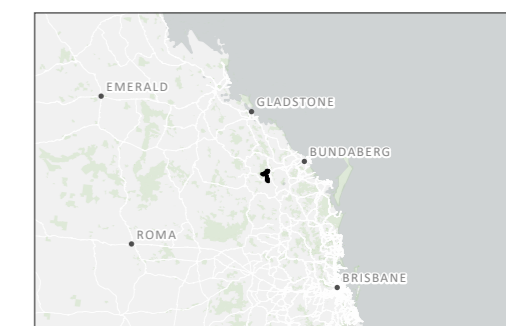
FIGURE 1.0
Met Mast Location



Legend

- Project Boundary
- Lot boundary
- Met Mast Location
- Met Mast Access Track
- Local Road
- Queensland waterways for waterway barrier works
 - High
 - Moderate
 - Low

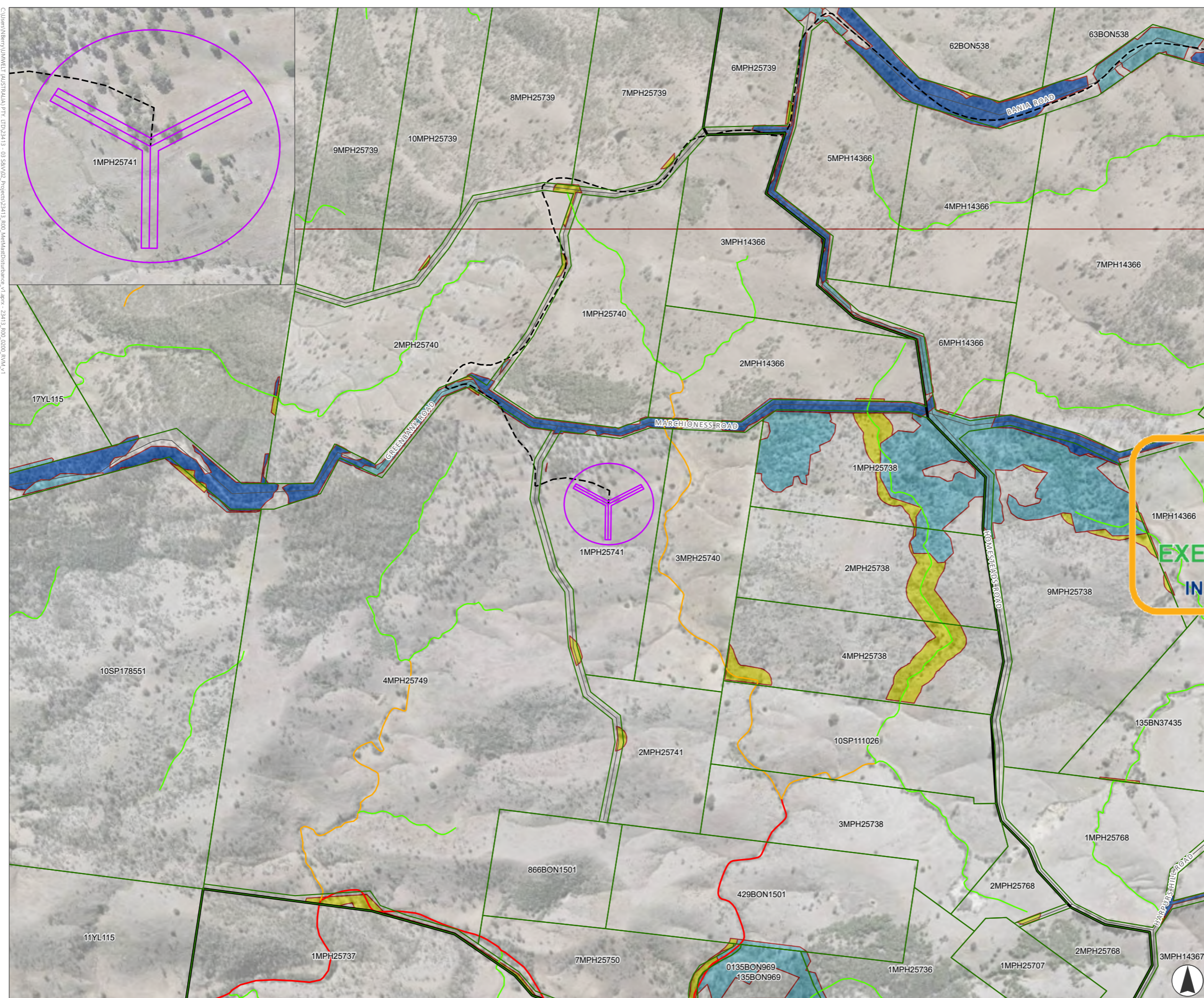
EXEMPTION CERTIFICATE
INCLUDING ATTACHMENTS



Scale 1:15,000 at A3
GDA2020

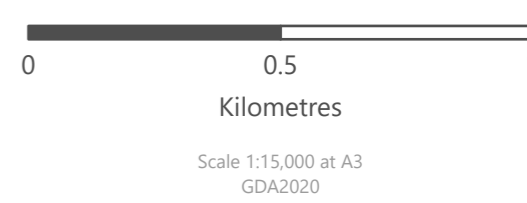
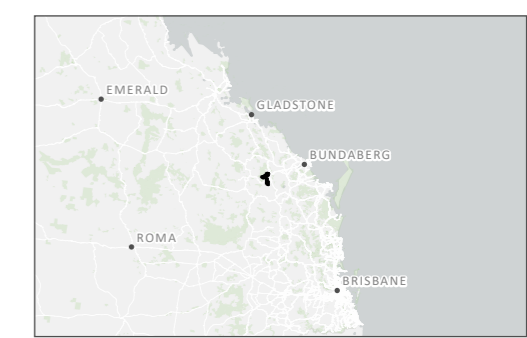
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FIGURE 2.0
Regulated vegetation mapping



- Legend**
- Project Boundary
 - Lot boundary
 - Met Mast Location
 - Met Mast Access Track
 - Local Road
- Queensland waterways for waterway barrier works
- High
 - Moderate
 - Low
- RVM
- Category B
 - Category C
 - Category R
 - Category X

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Attachment 3 – Site photos

Looking north-northwest from met mast structure centre. Note sparse distribution of vegetation.



Looking north from the met mast structure centre.

