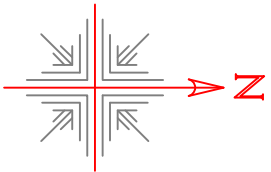


LEGEND 1:1000

- EXISTING O/H MAINS
- EXISTING POLE
- NEW POLE
- EXISTING SP SUB
- GROUND / AERIAL STAY
- DEFECT IDENTIFIED
- WARNING SIGN. ARROW SHOWS DIRECTION OF BI-DIRECTIONAL SIGN



INSTALL NEW AERIAL STAY (A1) ON POLE 7
IN ACCORDANCE WITH MD10031

CORNELIA SKI PARK
(ACCESS VIA RIVER RD)

SP SUB
23856

EASEMENT

INTEGRAL ENERGY CONTACT

NAME	CONTACT NUMBER
DESIGN	
CONSTRUCTION	

NEW BI-DIRECTIONAL
SIGNS INSTALLED AT
4.5 DEGREE ANGLE TO
RIVER BANK (REFER NOTE 4)

DESIGN COMPLIANCE

This design complies with Integral Energy's relevant standards as current at this time and as listed on the Integral Energy Accredited Service Providers Internet site. These standards include, but are not limited to:

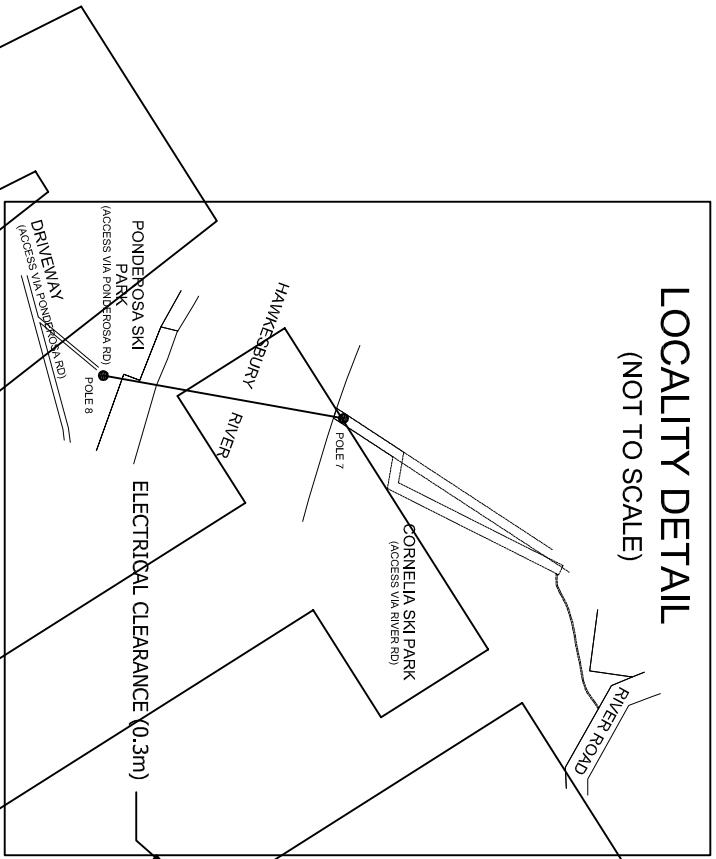
GT&C: General Terms and Conditions
SDI: Substation Design Instruction
EMS: Environmental Management Standard
SAD0001: Design Drawing Standard
MCI: Mains Construction Instruction
MMI: Mains Maintenance Instruction
MDI: Mains Design Instruction
SMI: Substation Maintenance Instruction
PDI: Protection Design Instruction

Additionally, where relevant, the design complies with C(b) - 1 "Guideline for Design and Maintenance of Overhead Distribution and Transmission Lines" published by ESAA and other relevant Australian Standards.

Signed: _____
Name: _____
Service No: _____
Date: _____

PONDEROSA SKI PARK
(ACCESS VIA PONDEROSA RD)

LOCALITY DETAIL
(NOT TO SCALE)



ABBREVIATIONS LIST:

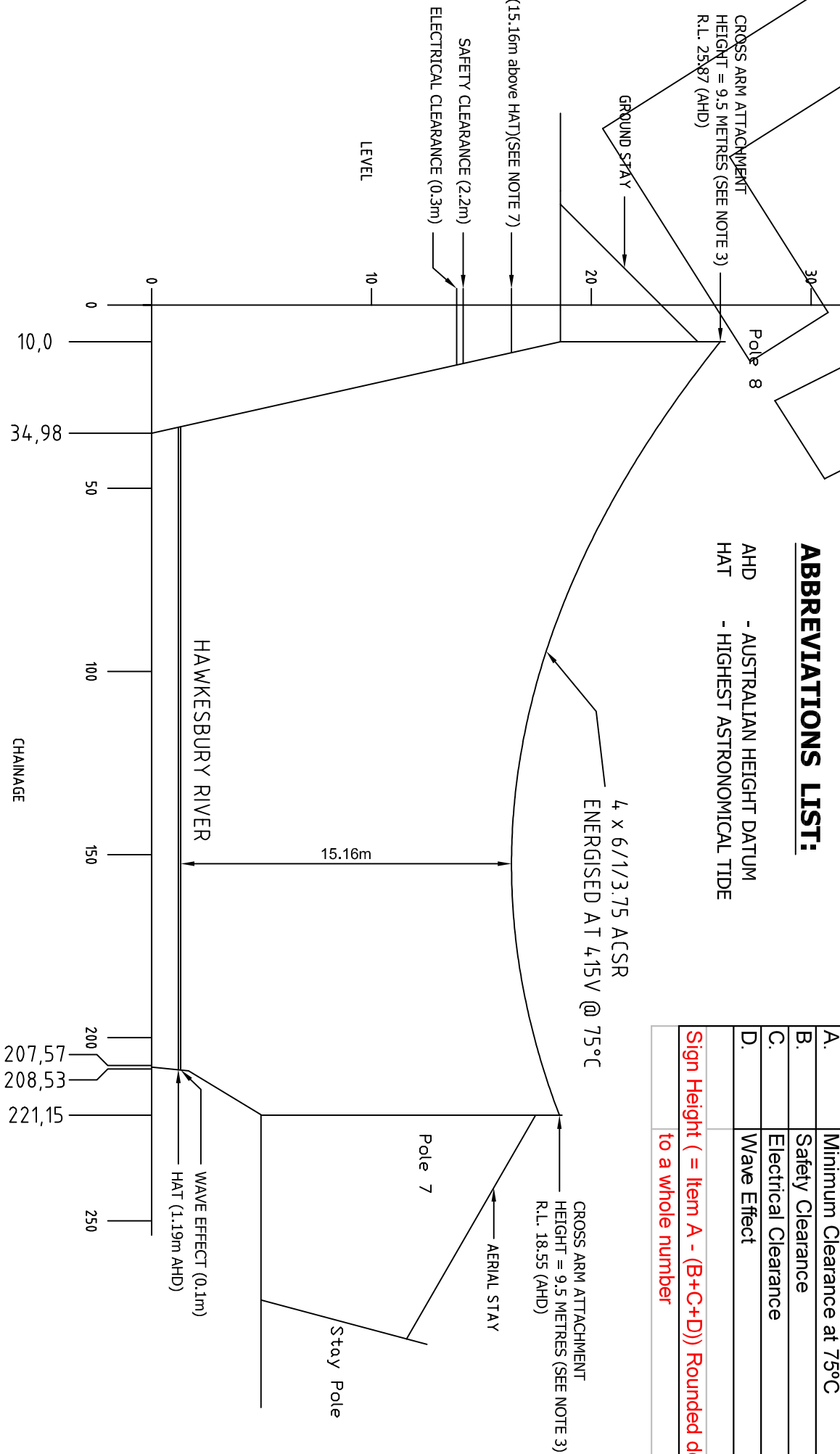
AHD - AUSTRALIAN HEIGHT DATUM
HAT - HIGHEST ASTRONOMICAL TIDE

Item No.	Clearance Item	In Metres
A.	Minimum Clearance at 75°C	15.16
B.	Safety Clearance	2.2
C.	Electrical Clearance	0.3
D.	Wave Effect	0.1
Sign Height (= Item A - (B+C+D) Rounded down to a whole number		12

- SPAN - POLE 7 TO POLE 8 IS 211m.
- POLE 7 IS TO REMAIN EXISTING & A NEW AERIAL STAY IS REQUIRED TO BE INSTALLED AS PER MD10031. POLE 8 IS TO REMAIN EXISTING WITH EXISTING GROUND STAY AS PER MD10031.
- CROSSARMS ON POLE 7 & POLE 8 TO BE TWIN X-ARMS (1500mm x 125mm x 3.3m LONG - STOCK No. SC14.738).
- WARNING SIGNS TO BE INSTALLED IN ACCORDANCE WITH MARITIME CODE (INTEGRAL DRAWING XXXXXX). NEW SIGNAGE TO INDICATE A MAXIMUM VESSEL HEIGHT OF 12m. SIGNAGE LOCATION CONFIRMED WITH DISTRIBUTION ENGINEERING (REFER TO RISK ASSESSMENT DOCUMENT: XXXXXX)
- IT HAS BEEN ESTABLISHED THROUGH CONSULTATION WITH NSW MARITIME AND LOCAL BOATING GROUPS THAT THE MAXIMUM HEIGHT OF VESSELS TRAVERSING THIS AREA IS 11 METRES.
- TENSION TO EQUAL 21% CBL @ 5°C AND NO WIND REFER TO STRINGING TABLE BELOW.
- CONDUCTOR SAG AND TENSION HAVE BEEN VERIFIED BY SURVEY, ONE (1) MONTH AFTER INITIAL TENSIONING.

Resultant Sign Height Calculations

Item No.	Clearance Item	In Metres
A.	Minimum Clearance at 75°C	15.16
B.	Safety Clearance	2.2
C.	Electrical Clearance	0.3
D.	Wave Effect	0.1
Sign Height (= Item A - (B+C+D) Rounded down to a whole number		12



Stringing Table for 6/1/3.75 ACSR BA (BANANA) (MES/RS equal to Span Length). CBL: 21%

Construction Stringing Tension (No Wind) (kN)									
Span Length 211m	Temp °C	Tension (kN)	5	10	15	20	25	30	35
			4.34	4.14	3.96	3.80	3.65	3.52	3.39
									3.28

WORK ORDER NUMBERS

CAP / SAMP No.	
AM PROJ. No.	
HV SWITCHING	
UBD/PENGUIN REF	42 L13
GIS MAP No	8290-31
HV OP DIAGRAM	CATTAI 2
LGA	BAULKHAM HILLS - HAWKESBURY

ORIGINAL SCALE 1:1000

DO NOT SCALE IN METRES	DESIGN	DG
DATE	8-11-2010	
CHD	MAS	

RIVER CROSSING XX TEMPLATE



A2 355405 B

SHEET No 1 OF 2 SHEETS