

DESIGNERS RISK ASSESSMENT

BY: J.HALLET	DATE: 30/09/2020
RED	UNCOMMON HAZARDS & RISKS CATEGORIZED AS HIGH OR EXTREME: OK TO PROCEED PROVIDING SPECIFIC HAZARDS AND RISKS ON THIS DRAWING HAVE BEEN RECOGNISED, ACKNOWLEDGED AND UNDERSTOOD. SITE OPERATIVES MAY REQUIRE ADDITIONAL INSTRUCTION AND/OR TRAINING.
YELLOW	UNCOMMON HAZARDS & RISKS CATEGORIZED AS LOW OR MODERATE: OK TO PROCEED PROVIDING SPECIFIC HAZARDS AND RISKS ON THIS DRAWING HAVE BEEN RECOGNISED, ACKNOWLEDGED AND UNDERSTOOD. SITE OPERATIVES MAY REQUIRE ADDITIONAL INSTRUCTION AND/OR TRAINING.
GREEN	COMMON HAZARDS & RISKS FAMILIAR TO A COMPETENT STAKEHOLDER: OK TO PROCEED. STANDARD CONTROL MEASURES APPLY.
WHITE	NO CONSTRUCTION WORKS ASSOCIATED WITH THIS DRAWING.

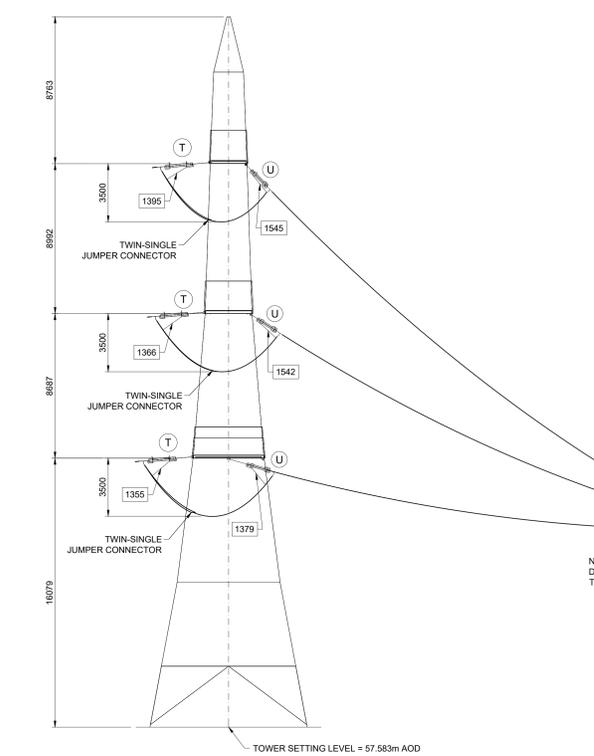
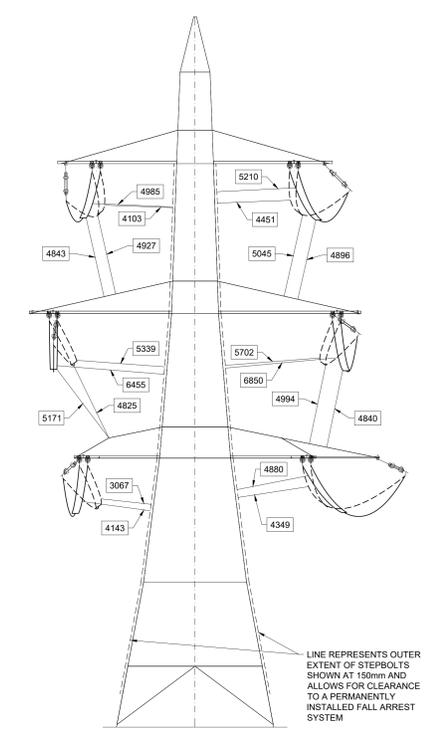
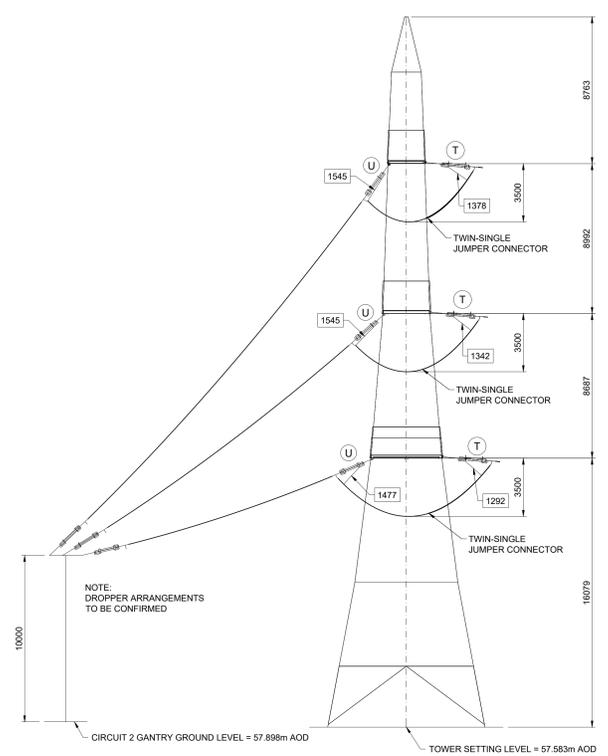
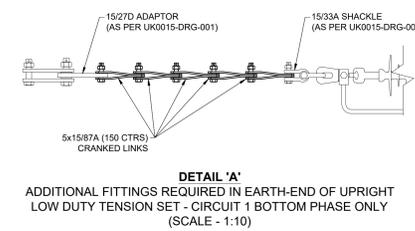
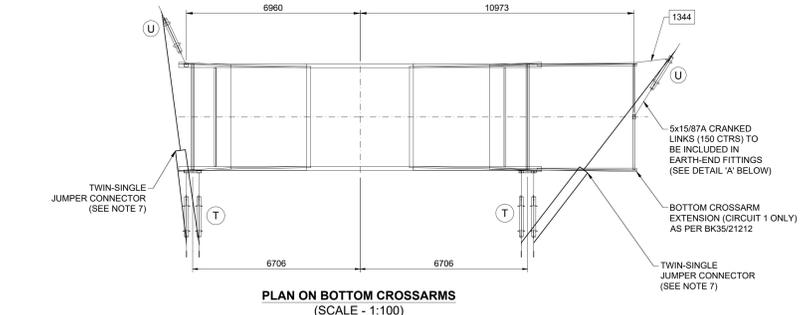
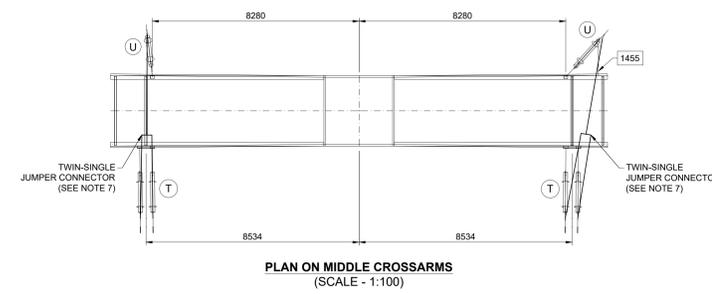
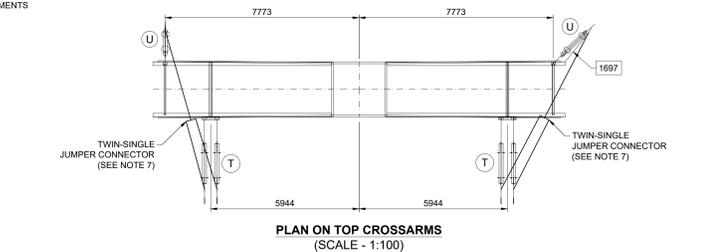
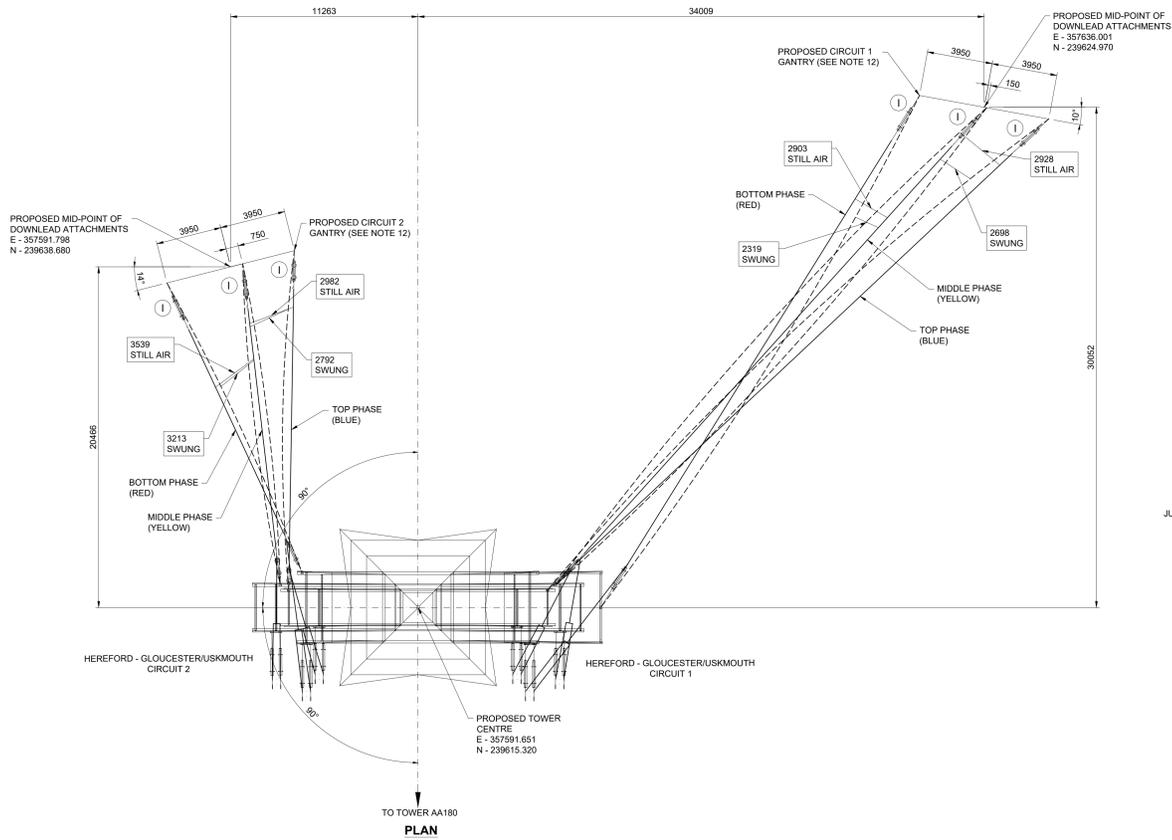
LEGEND

—	STILL AIR CONDUCTOR AT MAXIMUM OPERATING TEMPERATURE (75°C)
---	3 YEAR WIND SWUNG CONDUCTOR

REFERENCE DRAWINGS

BK35/21211 (MXM866-59)	GA & ED OF TOWER TYPE L8(c) DT
BK35/21212 (MXM866-60)	GA & ED OF BOTTOM CROSSARM FOR L8(c) DT
BK35/21213 (MXM866-61)	GA & ED OF MIDDLE CROSSARM FOR L8(c) DT
BK35/21214 (MXM866-62)	GA & ED OF TOP CROSSARM FOR L8(c) DT
SH41-103-026-REV 1	WPD LAYOUT PLAN
UK0015-DRG-003	132kV TENSION SET
UK0015-DRG-001	132kV UPRIGHT LOW DUTY TENSION SET
UK0015-DRG-002	132kV INVERTED LOW DUTY TENSION SET

- GENERAL NOTES**
- MINIMUM CLEARANCE FROM LIVE METAL TO TOWER OR EARTHED FITTINGS SHALL BE (PHASE TO EARTH):
1220mm - STILL AIR AT MAXIMUM RATED TEMPERATURE
750mm - 3 YEAR WIND SWUNG CONDUCTOR AT 34° FROM VERTICAL
280mm - 50 YEAR WIND SWUNG CONDUCTOR AT 46° FROM VERTICAL
 - DOWNLEAD CLEARANCES CHECKED IN ACCORDANCE WITH ENATS 43-125. MINIMUM PHASE TO PHASE (BETWEEN DOWNLEADS):
2500mm - IN STILL AIR
1500mm - ON CONSIDERATION OF SWUNG CONDITIONS
 - 50-YEAR WIND SWUNG CLEARANCES HAVE BEEN CHECKED FOR ALL CONDITIONS AND FOUND NOT TO BE CRITICAL. THESE CLEARANCES HAVE BEEN OMITTED FOR CLARITY.
 - THIS WIRE CLEARANCE DIAGRAM HAS BEEN MODELLED AT MAXIMUM OPERATING TEMPERATURE OF 75°C AS PER WPD REQUEST TO CONFIRM CLEARANCE AT FUTURE LINE RATING.
 - ALL CLEARANCES EXCEED THE MINIMUM REQUIREMENTS IN ACCORDANCE WITH ENATS 43-125.
 - NEW DOWNLEAD PHASE CONDUCTOR IS 1 x 400mm² ACSR ZEBRA. EXISTING MAINLINE PHASE CONDUCTOR IS 2 x 400mm² ACSR ZEBRA.
 - TWIN-SINGLE JUMPER CONNECTOR DETAILS TO BE CONFIRMED FOLLOWING MATERIAL PROCUREMENT. CONNECTORS MUST BE LOCATED NO FURTHER THAN 5m FROM MAINLINE TENSION SET JUMPER PALMS.
 - ALL CLEARANCES CONFIRMED WITH 3D MODELLING. CLEARANCES DENOTED WITH A DISTANCE CANNOT BE SCALED OFF THE DRAWING. MINIMUM CLEARANCES MUST BE CONFIRMED AT THE POINT OF INSTALLATION BY THE APPOINTED CONTRACTOR.
 - CONDUCTOR DEPARTURE ANGLES BASED UPON GROUNDLINE PLS-CADD MODEL 'AA-Line_Section_AA178-AA181.xyz'.
 - DOWNLEAD SAGS AS MODELLED ARE BASED ON STRINGING BASIS OF 3.0kN @ 15°C (INCLUDING ALLOWANCE FOR INSULATOR SET WEIGHTS) AND SHOWN AT MAXIMUM OPERATING TEMPERATURE OF 75°C. REFER TO GROUNDLINE DESIGN DOCUMENT UK0015-CHT-001.
- NOMINAL MID-POINT SAG VALUES AS FOLLOWS:
CIRCUIT 2:
TOP PHASE - 1.1m
MIDDLE PHASE - 0.7m
BOTTOM PHASE - 0.5m
CIRCUIT 1:
TOP PHASE - 2.0m
MIDDLE PHASE - 1.5m
BOTTOM PHASE - 1.2m
- PROPOSED GANTRY LOCATIONS, ORIENTATIONS AND LEVELS BASED UPON WPD SITE LAYOUT DRAWING SH41-103-026. CIRCUIT 1 GANTRY RE-ORIENTATED ON REQUEST OF WPD.
 - GANTRIES HAVE BEEN MODELLED AS STICK FIGURES AS GANTRY DESIGNS ARE TBC.
 - CIRCUIT NAMES AND SUBSTATION PHASE COLOURS TAKEN FROM WPD SITE LAYOUT DRAWING SH41-103-026.
 - TOWER PHASE COLOURS TAKEN FROM WPD LINE SCHEMATIC SH41-209-001.
 - ALL DIMENSIONS IN MILLIMETRES UNLESS NOTED OTHERWISE.



2	CCT1 BOTTOM XARM EXT ADDED	BC	RTM/JH	RMJB	16/10/20
1	FIRST ISSUE	BC	RTM/JH	RMJB	30/9/20
REV	REVISION DESCRIPTION	DRN	CHKD	APP	DATE

CLIENT

WESTERN POWER DISTRIBUTION
Serving the Midlands, South West and Wales

ROUTE/CIRCUIT: AA-ROUTE

CLIENTS PROJECT & DRAWING NUMBER: -

GLE PROJECT REF: UK0015

TITLE: 132kV WIRE CLEARANCE DIAGRAM AND DOWNLEAD ARRANGEMENT TO NEW GANTRIES AT TOWER AA181R (L8(c) DT M3.7)

SCALE: 1:150 UNO | SHT SIZE: A0

SHT NO: 1 | NO. OF SHTS: 1

DRAWING NUMBER: UK0015-DRG-007-V2 | REV: 2

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