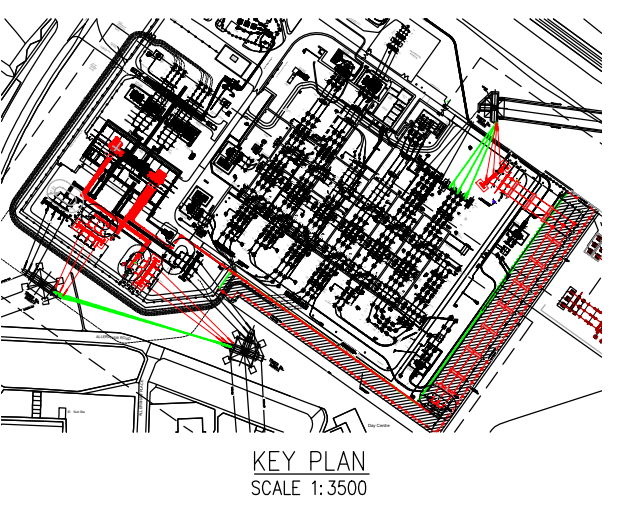
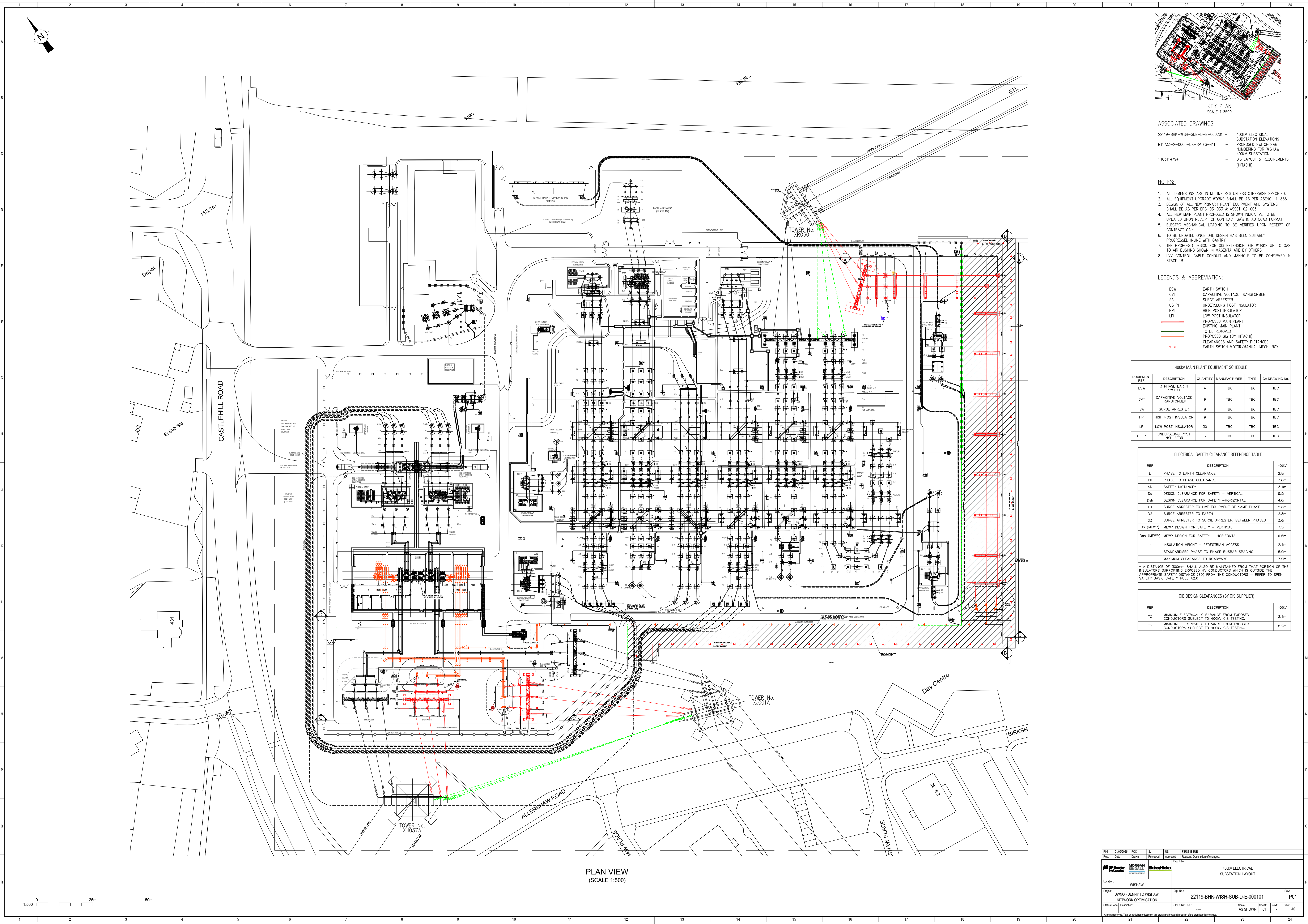




- ASSOCIATED DRAWINGS:**
- 22119-BHK-WSH-SUB-D-E-000201 - 400V ELECTRICAL SUBSTATION ELEVATIONS
 - B11733-2-0000-DK-SPTES-4118 - PROPOSED SWITCHGEAR NUMBERING FOR WISHAW 400V SUBSTATION
 - 1HC5114794 - GIS LAYOUT & REQUIREMENTS (HITACH)

- NOTES:**
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SPECIFIED.
 2. ALL EQUIPMENT UPGRADE WORKS SHALL BE AS PER ASEN-11-855.
 3. DESIGN OF ALL NEW PRIMARY PLANT EQUIPMENT AND SYSTEMS SHALL BE AS PER EPS-03-033 & ASSET-02-005.
 4. ALL NEW MAIN PLANT PROPOSED IS SHOWN INDICATIVE TO BE UPDATED UPON RECEIPT OF CONTRACT GA'S IN AUTOCAD FORMAT.
 5. ELECTRO-MECHANICAL LOADING TO BE VERIFIED UPON RECEIPT OF CONTRACT GA'S.
 6. TO BE UPDATED ONCE OIL DESIGN HAS BEEN SUITABLY PROGRESSSED ALONG WITH GANTTRY.
 7. THE PROPOSED DESIGN FOR GIS EXTENSION, GIB WORKS UP TO GAS TO AIR BUSHING SHOWN IN MAGENTA ARE BY OTHERS.
 8. LV/ CONTROL CABLE CONDUIT AND MANHOLE TO BE CONFIRMED IN STAGE 1B.

- LEGENDS & ABBREVIATION:**
- ESW EARTH SWITCH
 - CVT CAPACITIVE VOLTAGE TRANSFORMER
 - SA SURGE ARRESTER
 - US PI UNDERSLING POST INSULATOR
 - HPI HIGH POST INSULATOR
 - LPI LOW POST INSULATOR
 - PROPOSED MAIN PLANT
 - EXISTING MAIN PLANT
 - TO BE REMOVED
 - PROPOSED GIS (BY HITACH)
 - CLEARANCES AND SAFETY DISTANCES
 - EARTH SWITCH MOTOR/MANUAL MECH. BOX

400V MAIN PLANT EQUIPMENT SCHEDULE					
EQUIPMENT REF.	DESCRIPTION	QUANTITY	MANUFACTURER	TYPE	GA DRAWING No.
ESW	3 PHASE EARTH SWITCH	4	TBC	TBC	TBC
CVT	CAPACITIVE VOLTAGE TRANSFORMER	9	TBC	TBC	TBC
SA	SURGE ARRESTER	9	TBC	TBC	TBC
HPI	HIGH POST INSULATOR	9	TBC	TBC	TBC
LPI	LOW POST INSULATOR	30	TBC	TBC	TBC
US PI	UNDERSLING POST INSULATOR	3	TBC	TBC	TBC

ELECTRICAL SAFETY CLEARANCE REFERENCE TABLE		
REF	DESCRIPTION	400V
E	PHASE TO EARTH CLEARANCE	2.8m
Ph	PHASE TO PHASE CLEARANCE	3.6m
SD	SAFETY DISTANCE*	3.1m
Ds	DESIGN CLEARANCE FOR SAFETY - VERTICAL	5.5m
Dsh	DESIGN CLEARANCE FOR SAFETY - HORIZONTAL	4.6m
D1	SURGE ARRESTER TO LIVE EQUIPMENT OF SAME PHASE	2.8m
D2	SURGE ARRESTER TO EARTH	2.8m
D3	SURGE ARRESTER TO SURGE ARRESTER, BETWEEN PHASES	3.6m
Ds (MEWP)	MEWP DESIGN FOR SAFETY - VERTICAL	7.5m
Dsh (MEWP)	MEWP DESIGN FOR SAFETY - HORIZONTAL	6.6m
Ih	INSULATION HEIGHT - PEDESTRIAN ACCESS	2.4m
	STANDARDISED PHASE TO PHASE BUSBAR SPACING	5.0m
	MAXIMUM CLEARANCE TO ROADWAYS	7.9m

* A DISTANCE OF 300mm SHALL ALSO BE MAINTAINED FROM THAT PORTION OF THE INSULATORS SUPPORTING EXPOSED HV CONDUCTORS WHICH IS OUTSIDE THE APPROPRIATE SAFETY DISTANCE (SD) FROM THE CONDUCTORS - REFER TO SPEN SAFETY BASIC SAFETY RULE A2.6

GIB DESIGN CLEARANCES (BY GIS SUPPLIER)		
REF	DESCRIPTION	400V
TC	MINIMUM ELECTRICAL CLEARANCE FROM EXPOSED CONDUCTORS SUBJECT TO 400V GIS TESTING	3.4m
TP	MINIMUM ELECTRICAL CLEARANCE FROM EXPOSED CONDUCTORS SUBJECT TO 400V GIS TESTING	8.2m

PLAN VIEW
(SCALE 1:500)

Rev	01/09/2025	PCG	SJ	US	FIRST ISSUE
Date	Drawn	Reviewed	Approved	Reason / Description of changes	
Location: WISHAW					
Project: DWNO - DENNY TO WISHAW NETWORK OPTIMISATION		Dwg No: 22119-BHK-WISH-SUB-D-E-000101		Rev: P01	
Status Code	Description: SPEN Ref No:		Scale: AS SHOWN	Sheet: 01	Size: A0
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