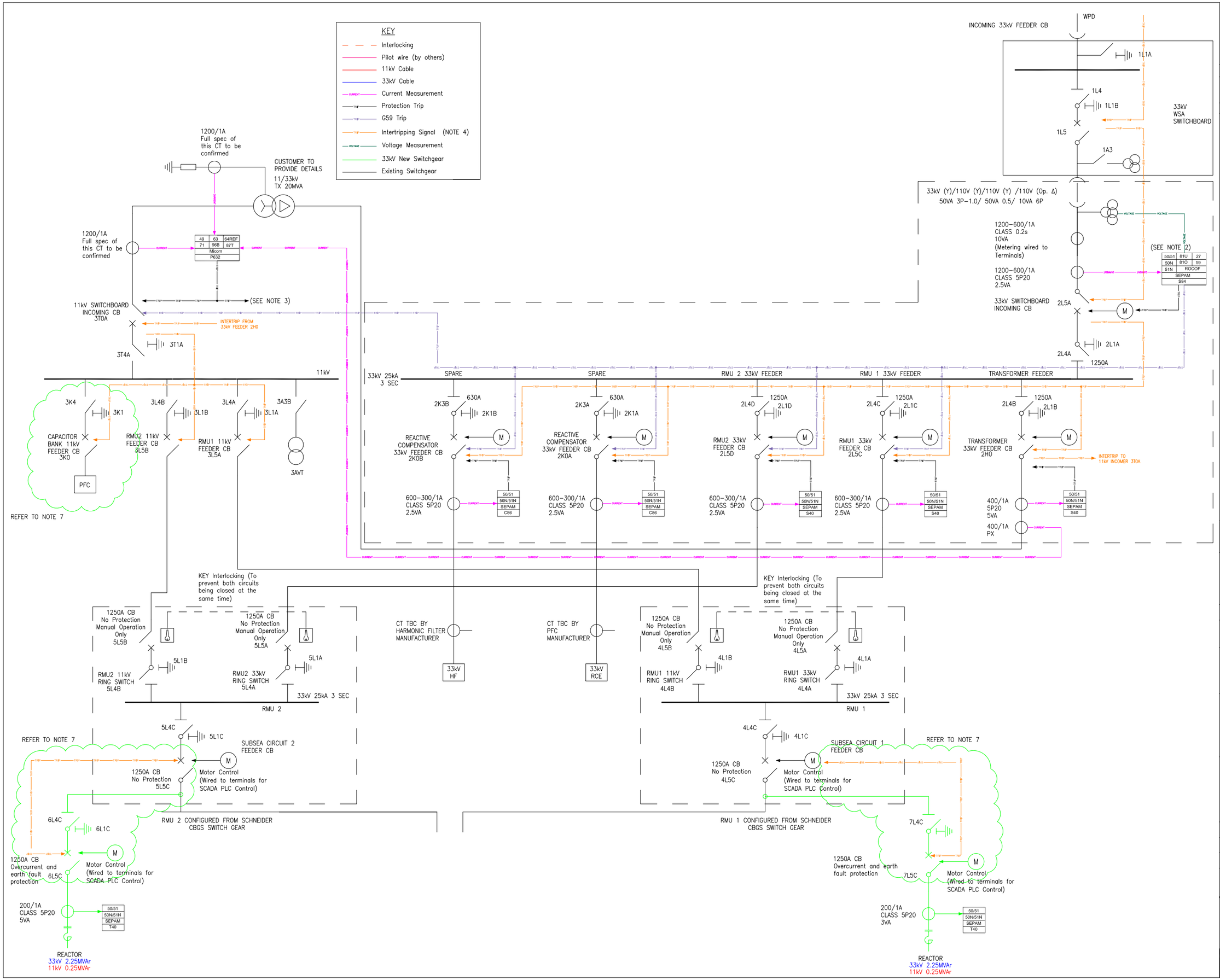

CONSTRUCTION RISKS	MAINTENANCE / CLEANING RISK	DEMOLITION RISKS

In addition to the hazard/risks normally associated with the types of work detailed on this drawing take note of above. It is assumed that all works on this drawing will be carried out by a competent contractor working, where appropriate, to an appropriate method statement.

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION BOX

NOTES

1. PLEASE NOTE THAT FOR WAVE HUB 33kV WSA SWITCHBOARD THE INITIAL NAMING HAS BEEN MAINTAINED

2. G59/2 COMPLIANCE WILL BE IMPLEMENTED IN SEPAM S84 AT 33kV SWITCHBOARD INCOMING CB AND WILL INITIATE TRIPPING SIGNALS TO:

- 11kV SWITHCBOARD INCOMING CB
- RMU1 33kV FEEDER CB
- RMU2 33kV FEEDER CB
- REACTIVE COMPENSATOR 33kV FEEDER CB
- HARMONIC FILTER 33kV FEEDER CB

3. TRANSFORMER DIFFERENTIAL SHALL TRIP BOTH:
- 11kV SWITCHBOARD INCOMING CB (3T0A)
- TRANSFORMER 33kV FEEDER CB (2H0)

4. PROTECTION LEGEND

50: INSTANTANEOUS OVERCURRENT
51: TIME OVERCURRENT
50N: NEUTRAL INSTANTANEOUS OVERCURRENT
51N: NEUTRAL TIME OVERCURRENT
81U: UNDER FREQUENCY
81O: OVER FREQUENCY
27: UNDER VOLTAGE
59: OVER VOLTAGE
87T: TRANSFORMER DIFFERENTIAL
96B: BUCHOLZ TRIP
63: OVER PRESSURE
71: TRANSFORMER OIL TRIP
49: WINDING TEMPERATURE TRIP
64REF: RESTRICTED EARTH FAULT
ROCOF: RATE OF CHANGE OF FREQUENCY

5. INTERTRIPPING SCHEME

The intertripping scheme has been designed so that the opening of a circuit breaker will trip its immediate downstream circuit breaker or breakers and thus the trip signal is cascaded down the system until all circuit breakers are open. NOTE: CIRCUIT BREAKER OPENING SHOULD NOT SIGNAL THE UPSTREAM BREAKER TO OPEN.Thus:

WPD TRIPS 1L5
1L5 TRIPS 2L5A
2L5A TRIPS 2H0, 25LC, 2L5D, 2K0A AND 2K0B
2H0 TRIPS 3T0A
3T0A TRIPS 3L5A, 3L5B AND 3K0

6. SUB-SEA CIRCUIT 1, 2 WILL BE OPERATED AT 11kV OR 33kV DEPENDING ON DEVICE CONNECTED

7. DETAILS OF INTERTRIPPING TO BE CONFIRMED FROM CONTROL STUDIES

This drawing is for preliminary purposes only and is subject to amendment during design development. UNDER NO CIRCUMSTANCES MUST THIS DRAWING BE USED FOR CONSTRUCTION PURPOSES

Revision Details	By / Check	Date	Suffix

Purpose of Issue
PRELIMINARY

Client
WAVEHUB

Project Title
REACTIVE COMPENSATION EQUIPMENT (RCE) UPGRADE

Drawing Title
SINGLE LINE PROTECTION SCHEMATIC

Designed	Drawn	Checked	Approved	Date
SF	MB	GC	GC	Feb 14

URS Internal Project No.	Suitability
47061746	Suitability
Scale @ A1	Zone / Mileage
NTS	Zone / Mileage

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