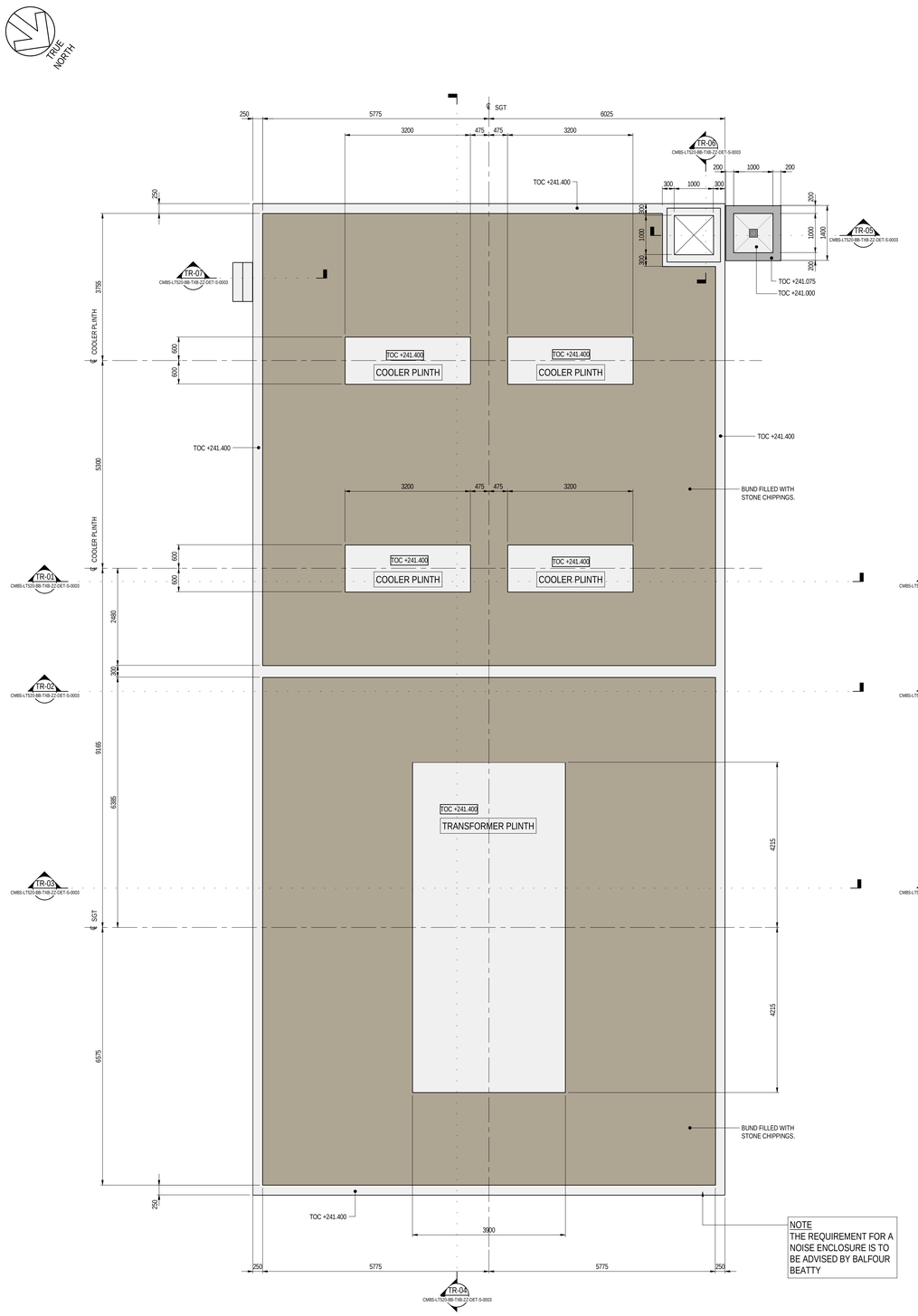
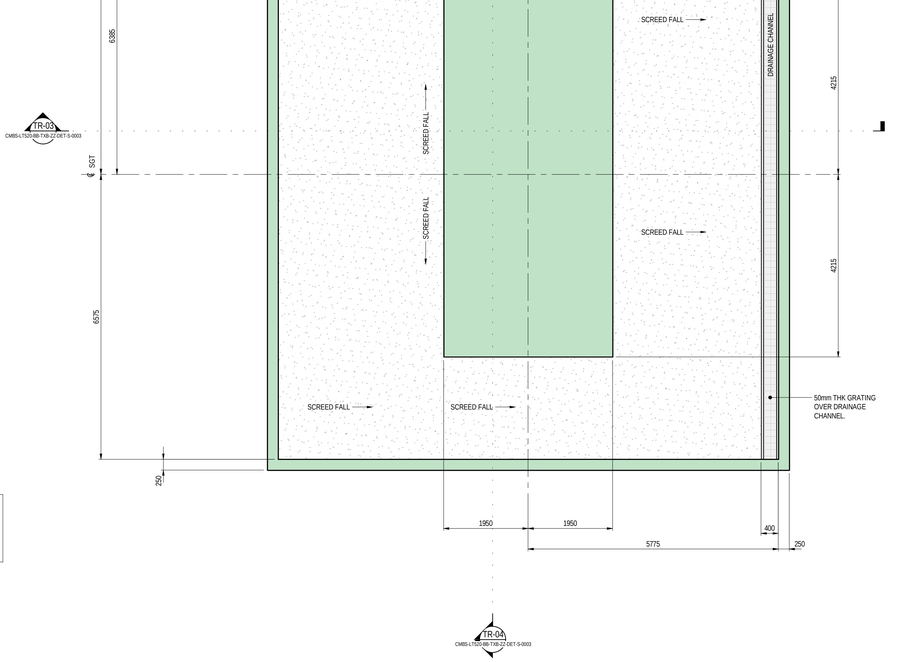


TRANSFORMER BUND FFL

1 : 50



TRANSFORMER BUND BASE

1 : 50

0m 1m 2m 3m 4m 5m

VISUAL SCALE 1:50 @ A0

NOTE
THE REQUIREMENT FOR A NOISE ENCLOSURE IS TO BE ADVISED BY BALFOUR BEATTY

NOTE: THERE IS A REQUIREMENT FOR TWO OF THESE BUNDS. SGT2 BUND IS IDENTICAL TO SGT1 BUND.

REFERENCE DRAWINGS			
DRAWING No.	DRAWING TITLE		
	TITLE 1	TITLE 2	TITLE 3
CMBS-LT520-BB-TXB-ZZ-DET-S-0003	CAMBUSHINNIE 400kV S/S	SGT1 TRANSFORMER BUND	SECTIONS & DETAILS
CMBS-LT520-BB-TXB-ZZ-GA-S-0001	CAMBUSHINNIE 400kV S/S	SGT1 TRANSFORMER BUND	GENERAL ARRANGEMENT
CMBS-LT520-BB-TXB-ZZ-M-S-0004	CAMBUSHINNIE 400kV S/S	SGT1 TRANSFORMER BUND	3D VIEWS

DESIGNED CONCRETE WATER RESISTANT BUNDS / TANKS - TRANSFORMER BUNDS
EMBEDDED METAL : CARBON STEEL REINFORCEMENT.
COMPRESSIVE STRENGTH CLASS (CYLINDER / CUBE MINIMUM) : C32/40.
TARGET DENSITY (OVEN-DRY) : NORMAL.
FIBRES : NOT REQUIRED.
AGGREGATES:
- SIZE (MAXIMUM) : 20mm
- TYPE / DENSITY : NORMAL WEIGHT
- COARSE RECYCLED AGGREGATES : NOT PERMITTED.
- ADDITIONAL AGGREGATE REQUIREMENTS : LIMESTONE WITH A LOW COEFFICIENT OF THERMAL EXPANSION.
FREEZE THAW RESISTANT AGGREGATE.
DESIGN CHEMICAL CLASS : DC-1, XC4, XF2.
LIMITING VALUES FOR COMPOSITION:
- WATER : CEMENT RATION (MAXIMUM) : 0.40
- CEMENT / COMBINATION CONTENT (MINIMUM): 380kg/m³
- CEMENT / COMBINATION CONTENT (MAXIMUM): TO BS8500 AND CIRIA C766, TABLE 4.2.
- AIR CONTENT IN SITU (MINIMUM): NO REQUIREMENT.
CONSISTENCE CLASS : S3.
PERMITTED CEMENT / COMBINATIONS : IIIB, IIIB+SR, IVB-V.
CHLORIDE CLASS : Cl 0.40
ADMIXTURES : SUBMIT PROPOSALS TO CA.
COLOUR : NOT APPLICABLE.
ADDITIONAL MIX REQUIREMENTS : NONE.

DESIGNED CONCRETE STRUCTURAL SCREED
EMBEDDED METAL : A393 MESH WITH 50mm COVER.
COMPRESSIVE STRENGTH CLASS (CYLINDER / CUBE MINIMUM) : C32/40.
LOCATIONS : AS SHOWN ON STRUCTURAL DRAWINGS.
TARGET DENSITY (OVEN-DRY) : NORMAL.
FIBRES : NOT REQUIRED.
AGGREGATES:
- SIZE (MAXIMUM) : 4/10mm mm SINGLE SIZE CONFORMING TO BS EN 12620.
- TYPE / DENSITY : NORMAL WEIGHT
- COARSE RECYCLED AGGREGATES : NOT PERMITTED.
- ADDITIONAL AGGREGATE REQUIREMENTS : FREEZE THAW RESISTANT AGGREGATE - CONTRACTOR TO CONFIRM COEFFICIENT OF THERMAL EXPANSION FOR REVIEW AND COMMENT.
DESIGN CHEMICAL CLASS : DC-1, XC4, XF2.
LIMITING VALUES FOR COMPOSITION:
- WATER : CEMENT RATION (MAXIMUM) : 0.40
- CEMENT / COMBINATION CONTENT (MINIMUM): 380kg/m³
- CEMENT / COMBINATION CONTENT (MAXIMUM): TO BS8500 AND CIRIA C766, TABLE 4.2.
- AIR CONTENT IN SITU (MINIMUM): NO REQUIREMENT.
CONSISTENCE CLASS : S3.
PERMITTED CEMENT / COMBINATIONS : SUBMIT PROPOSAL TO SUIT REQUIREMENT LISTED ABOVE.
CHLORIDE CLASS : Cl 0.40
ADMIXTURES : SUBMIT PROPOSALS TO CA.
COLOUR : NOT APPLICABLE.
ADDITIONAL MIX REQUIREMENTS : NONE.

BASIC DESIGNATED CONCRETE ALL BLINDING CONCRETE
DESIGNATION : GEN3
COARSE RECYCLED AGGREGATES : NOT PERMITTED.
CONSISTENCE CLASS : CONTRACTORS CHOICE.
ADDITIONAL REQUIREMENTS : SUBMIT PROPOSALS.

RISK ITEMS - COSTS TO BE ALLOWED FOR BY BALFOUR BEATTY:-
- DEPTH OF FOUNDATIONS BELOW GROUND LEVEL.
- CONTAMINATION & GROUND GAS.
- BURIED OBSTRUCTIONS.
- EXISTING DRAINAGE SERVICES/SEWERS.
- DEEP EXCAVATIONS.
- GROUND WATER.
- UNEXPLODED ORDNANCE.
- CONCRETE MIXES.
- SLAB DESIGN. A BESPOKE SI REPORT IDENTIFYING GROUND CONDITIONS IS REQUIRED & PROVISION OF CONSTRUCTION STAGE DESIGN LOADING AND FIXINGS APPLIED TO FLOORS.
- TANKING & WATERPROOFING.
- ELECTROMAGNETIC INTERFACE (CLOSED METALLIC LOOPS), EPOXY COATED REINFORCEMENT
- POSSIBLE DRAINAGE CHANNELS TO BE ALLOWED FOR, TO BE CONFIRMED.
- EARTHING REQUIREMENTS

EXCLUSIONS - TO BE ALLOWED FOR BY BALFOUR BEATTY :-
- ALL FACES TO BE SHUTTERED FINISH
- MAKE ALLOWANCE FOR VARIED LEVEL SCREED (MIN THICKNESS 75mm, APPROX 300mm MAX), ALLOW FOR A393 MESH IN TOP OF SCREED.

REINFORCEMENT LAPS AND DESIGN DEVELOPMENT:-
- ALLOW ADDITIONAL 20% OF REBAR FOR EC2 LAPS
- ALLOW ADDITIONAL 20% REBAR FOR DESIGN DEVELOPMENT.

RC REQUIREMENTS
TRANSFORMER / COOLER PLINTHS = B25-150 (EF,EW)
BUND WALLS = B16-150 (EF, EW)
BUND BASE SLAB = B25-150 (EF, EW)
WALL THICKENING FOR SURGE ARRESTOR = B20-150 (EF, EW)

NOTES:-
- ALL REINFORCEMENT TO BE GRADE B500B IN ACCORDANCE WITH BS4449.
- MAKE ALLOWANCE FOR 75mm (MIN) GEN3 BLINDING CONCRETE TO FOUNDATIONS & SLABS.
- ALL FOUNDATIONS TO HAVE SHUTTERED SIDES.
- ALL STEELWORK GRADE S355.

NOTES:-
- BUND DETAILS PRELIMINARY - SIZE AND DEPTH TO BE FINALISED ONCE FINAL TRANSFORMER EQUIPMENT DETAILS ARE SUPPLIED.

ALL SUBJECT TO SITE INVESTIGATION RESULTS FOR CONCRETE CLASSIFICATION.

NOTE
FOUNDATION SIZES & REINFORCEMENT ARE PRELIMINARY AND WILL BE FINALISED IN THE DESIGN STAGE.

CONCRETE WORKS ARE TO BE IN ACCORDANCE WITH SP-NET-CIV-506.

NOTE
THIS DRAWING TO BE READ IN CONJUNCTION WITH THE T446 DESIGN RISK MANAGEMENT SCHEDULE AND THE T447 SIGNIFICANT RESIDUAL H&S RISK SCHEDULE.

THIS DRAWING IS BASED ON BALFOUR BEATTY SITE PLAN CMBS-BB-MCB-ZZ-LAY-E-0007 AND OIL QUANTITY ADVISED BY JL VIA EMAIL ON 02-01-2024.
FINAL BUND LAYOUT TO BE DETERMINED TO SUIT TRANSFORMER ARRANGEMENT ONCE AVAILABLE.

NOTE:-
THIS DRAWING SHOWS STRICTLY PROVISIONAL CIVIL PRICING DESIGN DETAILS ONLY. NO BESPOKE ELECTRICAL LOADINGS OR SWITCHGEAR INFORMATION IS AVAILABLE SO ALL CIVIL WORK SHOWN IS SUBJECT TO CONFIRMATION IN THE DETAILED DESIGN STAGE.
BALFOUR BEATTY TO MAKE ALLOWANCE IN THE CIVIL PRELIMINARY STAGE RISK REGISTERS AND QUALIFICATIONS TO COVER THE RELATED COMMERCIAL AND PROGRAMME RISKS.

NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, SERVICES AND ENGINEERS DRAWINGS TOGETHER WITH RELEVANT SPECIFICATIONS.
2. DIMENSIONS ARE NOT TO BE SCALED FROM THIS DRAWING.
3. FOR GENERAL NOTES, ABBREVIATIONS AND SYMBOL LEGEND REFER TO DRAWING CMBS-LT520-BB-ZZ-ZZ-D-S-0001.

KEY TO HEALTH & SAFETY SYMBOLS

WARNING RISK
INDICATES A RESIDUAL RISK AS A WARNING.

COMPULSORY RISK
INDICATES A RESIDUAL RISK REQUIRING A COMPULSORY ACTION.

PROHIBITIVE RISK
INDICATES A RESIDUAL RISK REQUIRING A PROHIBITIVE ACTION.

INFORMATION RISK
INDICATES A RESIDUAL RISK FOR INFORMATION.

DRAWN	PB	REMARKS: SCALE BAR ADDED			
CHKD	RF				
DESIGN	N/A	STATUS	SS	DATE	06/05/25
APPD	GV	FOR ACCEPTANCE		REV	P05
DRAWN	PB	REMARKS: 2C FINAL ECE			
CHKD	RM				
DESIGN	RM	STATUS	SS	DATE	19/07/24
APPD	GV	FOR ACCEPTANCE		REV	P04
DRAWN	PB	REMARKS: 2C ISSUE			
CHKD	RM				
DESIGN	RM	STATUS	SS	DATE	03/05/24
APPD	GV	FOR ACCEPTANCE		REV	P03
DRAWN	PB	REMARKS: 2B ISSUE			
CHKD	RM				
DESIGN	RM	STATUS	SS	DATE	22/03/24
APPD	GV	FOR ACCEPTANCE		REV	P02
DRAWN	JD	REMARKS: FIRST ISSUE			
CHKD	RM				
DESIGN	HA	STATUS	SS	DATE	19/01/24
APPD	GV	FOR ACCEPTANCE		REV	P01

Scottish & Southern Electricity Networks

Balfour Beatty

PROJECT NAME:
ASTI - ECE

LOCATION: CAMBUSHINNIE 400kV S/S
SITE: CMBS

TITLE:
CAMBUSHINNIE 400kV S/S
SGT1 TRANSFORMER BUND
GENERAL ARRANGEMENT

SIZE	SCALE	FORMAT	SHEET No.
A0	1:100	RVT	01 OF 01

DRAWING No.
CMBS-LT520-BB-TXB-ZZ-GA-S-0001