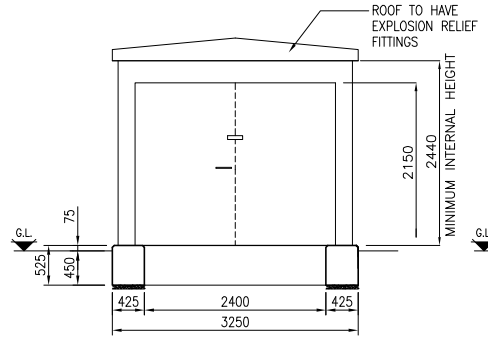
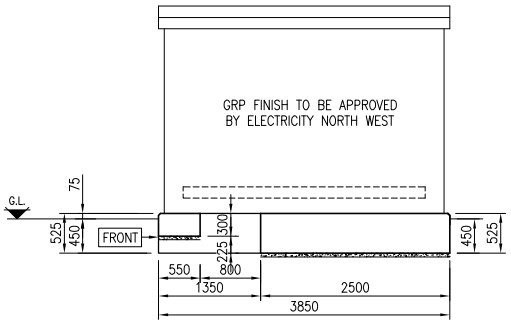


SECTION A–A

(SCALE 1:50)



SECTION B–B

(SCALE 1:50)

NOTE
THE EARTHING TAPE IS ATTACHED TO THE MAIN REINFORCEMENT AND ROUTED TO EMERGE FROM THE INTERNAL FACE OF THE FORMWORK FOR THE FUTURE CONNECTION TO THE SWITCH HOUSE EARTHING SYSTEM.

T10 OR T12 REINFORCING BAR, FIXED WITHIN STRUCTURE, TIED TO A 150mm LONG T16 REINFORCING BAR AND TOGETHER CLAMPED WITHIN UBOLT.

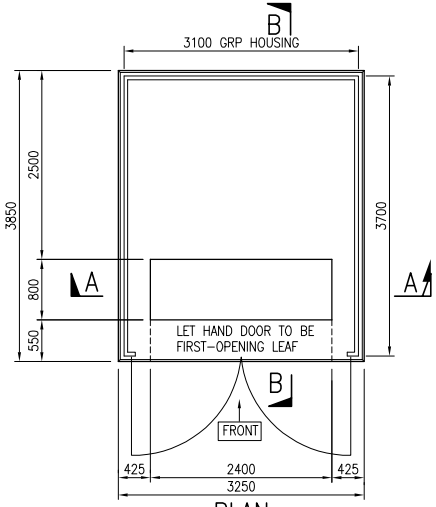


'U' BOLT CLAMP, 25mm ROD DIA. TWIN PLATE, 25x3, BY OMEGA (TEL. No 0115 8767689) TO ACCOMODATE A 25x4mm EARTH TAPE.

CLAMPED CONNECTION WRAPPED WITH DUCK TAPE PRIOR TO POURING CONCRETE

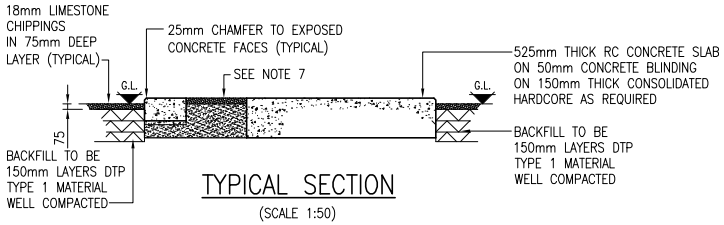
DETAIL OF REINFORCEMENT/EARTHING CLAMP

(SCALE 1:5)



PLAN

(SCALE 1:50)



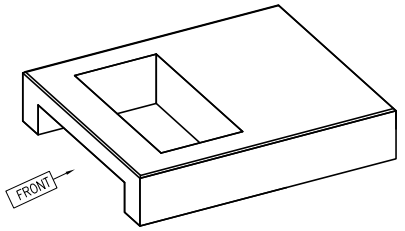
TYPICAL SECTION

(SCALE 1:50)

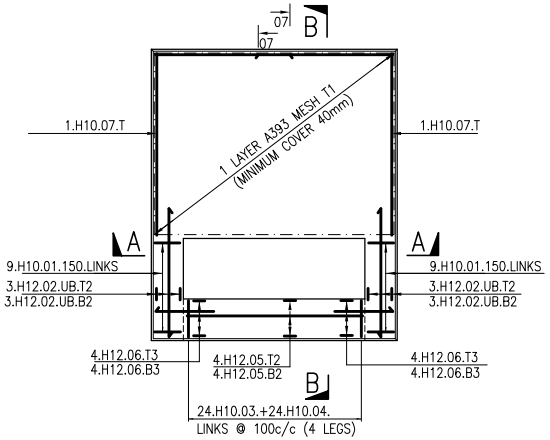
CONCRETE GENERAL ARRANGEMENT

GENERAL SPECIFICATION FOR GRP HOUSING ENCLOSURE

1. SUPPLIED/PURCHASED FROM NOMINATED SUPPLIER, UNDER FRAMEWORK AGREEMENT.
2. DETAILS INCLUDING DOOR LOCKING SPECIFICATION ALL AS IN ES 301.
3. LOWER LEVEL VENTILATION MUST BE APPROVED BY ELECTRICITY NORTH WEST LIMITED & EQUIVALENT TO TOTAL AIR FLOW OF 0.75Metres² (FOR DETAILED SPECIFICATION SEE ENGINEERING SPECIFICATION 301)

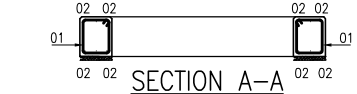


ISOMETRIC VIEW



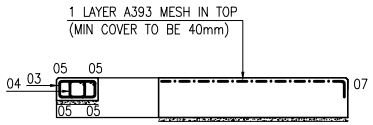
PLAN

(SCALE 1:50)



SECTION A–A

(SCALE 1:50)



SECTION B–B

(SCALE 1:50)

REINFORCEMENT DETAILS

BENDING SCHEDULE TO BS 8666:2005

Bar mark	Type & size	No. of mbrs	No. of bars in each	Total no.	Length of each bar † mm	Shape code	A * mm	B * mm	C * mm
1	H10	1	18	18	1725	51	340	440	
2	H12	1	12	12	2500	21	430	1685	430
3	H10	1	24	24	1525	51	465	215	
4	H10	1	24	24	900	51	155	215	
5	H12	1	8	8	2350	00	2350		
6	H12	1	16	16	1275	11	850	430	
7	H10	1	2	2	3150	11	1760	1900	
A393 MESH FABRIC = 7.5m2									

† Specified in multiples 0f 25mm

* Specified in multiples 0f 5mm

GENERAL NOTES

1. DO NOT SCALE.
2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ELECTRICITY NORTH WEST CODE OF PRACTICE ES352
4. ALL WORK TO CARRIED OUT IN ACCORDANCE WITH CURRENT BUILDING REGULATIONS AND RELEVANT BRITISH STANDARDS AND CODES OF PRACTICE.
5. CONTRACTOR TO OBTAIN UNDERGROUND CABLE & SERVICE RECORDS PRIOR TO COMMENCEMENT OF ANY WORKS.
6. THE CONTRACTOR MUST ASSUME THAT ANY EXISTING CABLES LOCATED WITHIN THE WORKS ARE LIVE AND LIAISE WITH THE ELECTRICITY NORTH WEST ENGINEER FOR ADVICE.
7. SITE SPECIFIC RISK ASSESSMENT TO BE UNDERTAKEN PRIOR TO COMMENCEMENT OF ANY WORKS.
8. FOUNDATION DESIGN HAS BEEN BASED ON A SUITABLE BEARING PRESSURE FOR MOST GROUND CONDITIONS INCLUDING CLAYS. FORMATION LEVEL FOR FOUNDATIONS TO BE TAKEN DOWN TO GROUND THAT IS SUFFICIENTLY FIRM TO PROVIDE PHYSICAL SUPPORT TO THE STRUCTURE.
9. FOUNDATION FORMATION LEVELS TO BE INSPECTED AND APPROVED PRIOR TO FOUNDATION CONSTRUCTION.

CABLE TRENCH

10. CABLE AREA TO BE BACK–FILLED AFTER INSTALLATION OF ALL CABLES, WITH WELL CONSOLIDATED SAND, WITH A 75mm TOP LAYER OF SINGLE SIZE 14–20mm LIMESTONE CHIPPINGS.

GRP HOUSING

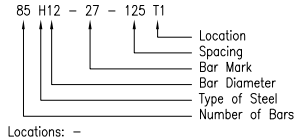
11. TO BE FROM ELECTRICITY NORTH WEST APPROVED SUPPLIER, DOORS TO HAVE HASP & STAPLE TO ACCEPT ELECTRICITY NORTH WEST PADLOCKS. LEFT HAND DOOR TO BE FIRST OPENING LEAF AND COMPLY WITH ES 301

THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ELECTRICITY NORTH WEST ELECTRICAL SPECIFICATION REF. 400 D 5 AND ALL ASSOCIATED WORKS MUST COMPLY WITH THIS INFORMATION AND DETAIL IN FULL.

THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ELECTRICITY NORTH WEST ES 301 & ES 352 AND ALL ASSOCIATED WORKS MUST COMPLY WITH THIS INFORMATION AND DETAIL IN FULL

REINFORCEMENT NOTES

1. Concrete to be strength class C32/40 to BS 8500.
2. Loose bar reinforcement to have the following minimum laps UNO: –
   - H10 = 350mm
   - H12 = 420mm
3. Standard A393 fabric mesh to have a minimum lap of 270mm.
4. 40mm cover to all reinforcement UNO.
5. Bar references shall be interpreted thus: –



6. Locations: –
   - T1 Denotes Top face, top layer
   - T2 Denotes Top face, second layer
   - B2 Denotes Bottom face, second layer
   - B1 Denotes Bottom face, bottom layer
7. "H" Denotes deformed Type 2 high yield steel bars to BS 4449:2005 – characteristic yield strength 500MPa.

electricity north west

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CIVIL DISTRIBUTION SUBSTATION

CONSTRUCTION DETAILS FOR SCHNEIDER GRP UNIT SUBSTATION

DRAWN	GK	SCALE	1:50	SITE NAME	–		
APPROVED	WD	DATE	SEPT 2013	P.F.R. NO.	–	DWG STATUS	APPROVAL
OLD DWG NO	–	SHEET SIZE	A2	DWG NO	900350–002	REV	3