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Electric Sub Station
Clitheroe Road/Beresford Road
Longsight
Manchester

Design and Access Statement

Ref; 06-319-RA

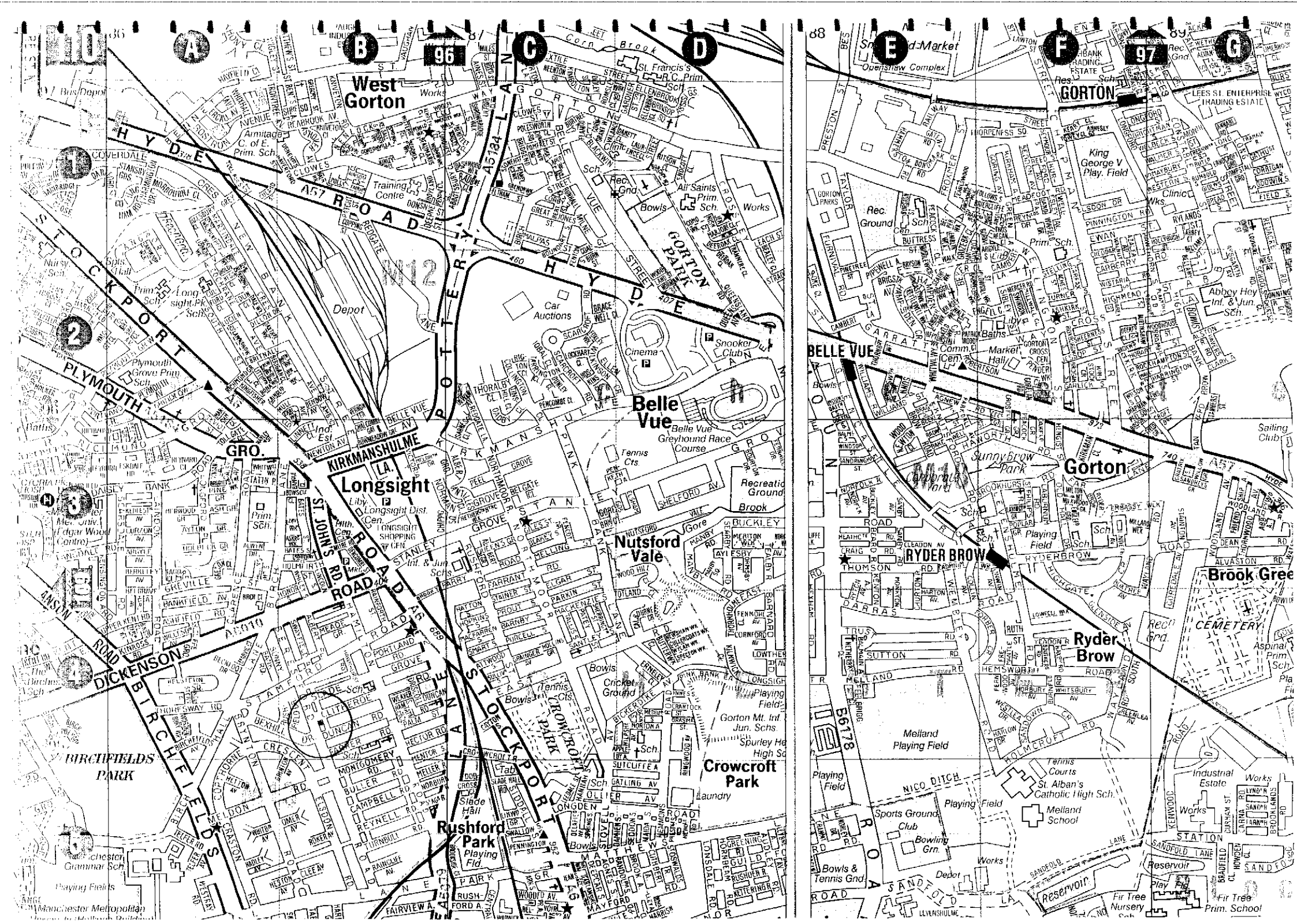
robinson architects

ELECTRIC SUB STATION
CLITHEROE ROAD/BERESFORD ROAD
LONGSIGHT
MANCHESTER
DESIGN AND ACCESS STATEMENT

1.0 Background

1.1 The construction of the new St Agnes Primary School has begun on the site of the existing school buildings (bounded by Clitheroe Road, Hamilton Road and Slade Grove). It is to serve 50% more pupils than at present (240 increasing to 360) and there is inadequate electrical supply for the new building. Therefore a new Electric Sub-Station is required.

1.2 It should be noted that Planning Approvals have been granted for the Primary School with the Electric Sub-Station on the same site. But with the increased number of pupils, it is felt that this valuable area of land is required for play space and that the sub-station should be located off the site.


West Gorton
Armitage C. of E. Prim. Sch.
St. Francis's R.C. Prim. Sch.
Corn Brook
HYDE ROAD
A57
A6104 LANGWORTHY ROAD
Training Centre
All Saints Prim. Sch.
Bowls
Rec. Grd.
Works
GORTON PARK STREET
Depot
Car Auctions
Cinema
Snooker Club
Belle Vue
Belle Vue Greyhound Race Course
Tennis Cts.
Recreation Ground
Brook
Nutsford Vale
Playing Fields
Gorton Mt. Inf. Jun. Schs.
Crowcroft Park
Laundry
Cricket Ground
Rushford Park
Playing Fld.
Slade Hall
Sch.
Tennis Cts.
Bowls
Crowcroft Park
STOCKPORT ROAD
PLYMOUTH GROVE
KIRKMANSHULME LA.
Longsight
Liby.
Longsight Dist. Cen.
LONGSIGHT SHOPPING CTR.
ST. JOHN'S RD.
STANLEY GROVE
Ind. Est.
Prim. Sch.
Plymouth Grove Prim. Sch.
Nursy. Sch.
Spts. Hall
Long sight Pk.
Baths
Liby.
Ath. Cen.
Manchester Grammar Sch.
Playing Fields
Manchester Metropolitan
BIRCHFIELDS PARK
BIRCHFIELDS ROAD
DICKENSON ROAD
ANSON ROAD
COVERDALE
MARROWNA CL.
Stansby Grns.
Nursy. Sch.
Spts. Hall
Prim. Sch.
Long sight Pk.
Plymouth Grove Prim. Sch.
Baths
Ind. Est.
Prim. Sch.
Meml. Univ. (Edgar Wood Centre)
Manchester Grammar Sch.
Playing Fields
Manchester Metropolitan
Sch.
Tennis Courts
Playing Field
Sports Ground
Club
Bowling Grn.
Bowls & Tennis Gnd.
Depot
Works
Industrial Estate
Reservoir
Play Fld.
Fir Tree Nursery
Fir Tree Prim. School
Melland Playing Field
Tennis Courts
St. Alban's Catholic High Sch.
Melland School
Playing Field
Sports Ground
Club
Bowling Grn.
Bowls & Tennis Gnd.
Depot
Works
Reservoir
Play Fld.
Fir Tree Nursery
Fir Tree Prim. School
Industrial Estate
Works
Reservoir
Sailing Club
Gorton
RYDER BROW
Ryder Brow
Playing Field
Sch.
Rec. Grd.
CEMETERY
Brook Gree
Aspinal Prim. Sch.
Abbey Hey Inf. & Jun. Sch.
King George V Play. Field
Rec. Ground
Sch.
Prim. Sch.
Clinic
Wks.
Baths
Liby.
Comm. Ctr.
Market Hall
Bowls
Sch.
Playing Field
Sch.
Rec. Grd.
Sch.
Sch.
Sch

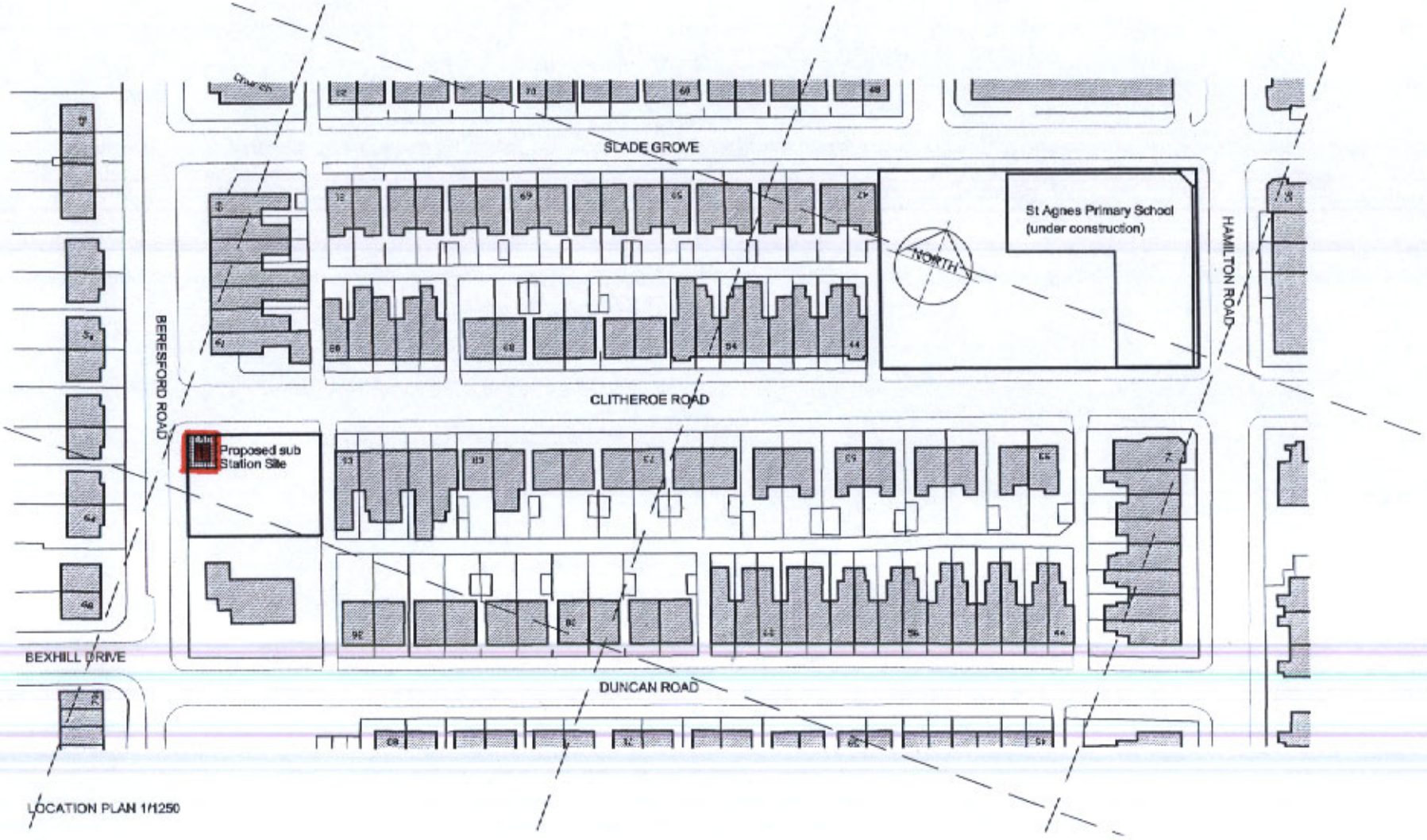


Approaching the site from the south along Beresford Road.

2.0 Location

2.1 It is now proposed to locate the new Electric Sub-station on the old School Kitchen site.

2.2 The site as a whole is bounded to the north by Clitheroe Road, to the west by Beresford Road, to the south by an apartment building and to the east by an 'entry' that leads to the back passage to the houses on Clitheroe Road (see Site Plan.)



LOCATION PLAN 1/1250



Looking along Beresford Road with the site on the right – the Electric Sub-Station is to be positioned at the corner.



The site for the Electric Sub-Station is to the left – seen from across Beresford Road.

3.0 Description

3.1 There is a palasade-type fence of approximately 1.5 metres in height which is to remain, except around the Electric Sub-Station.

3.2 The area of the site as a whole is 603 squ. metres but the Sub-Station compound will only occupy 40.5 squ. metres, leaving an area of 562.5 squ. metres for a future development.



Approaching the site from the north along Beresford Road.



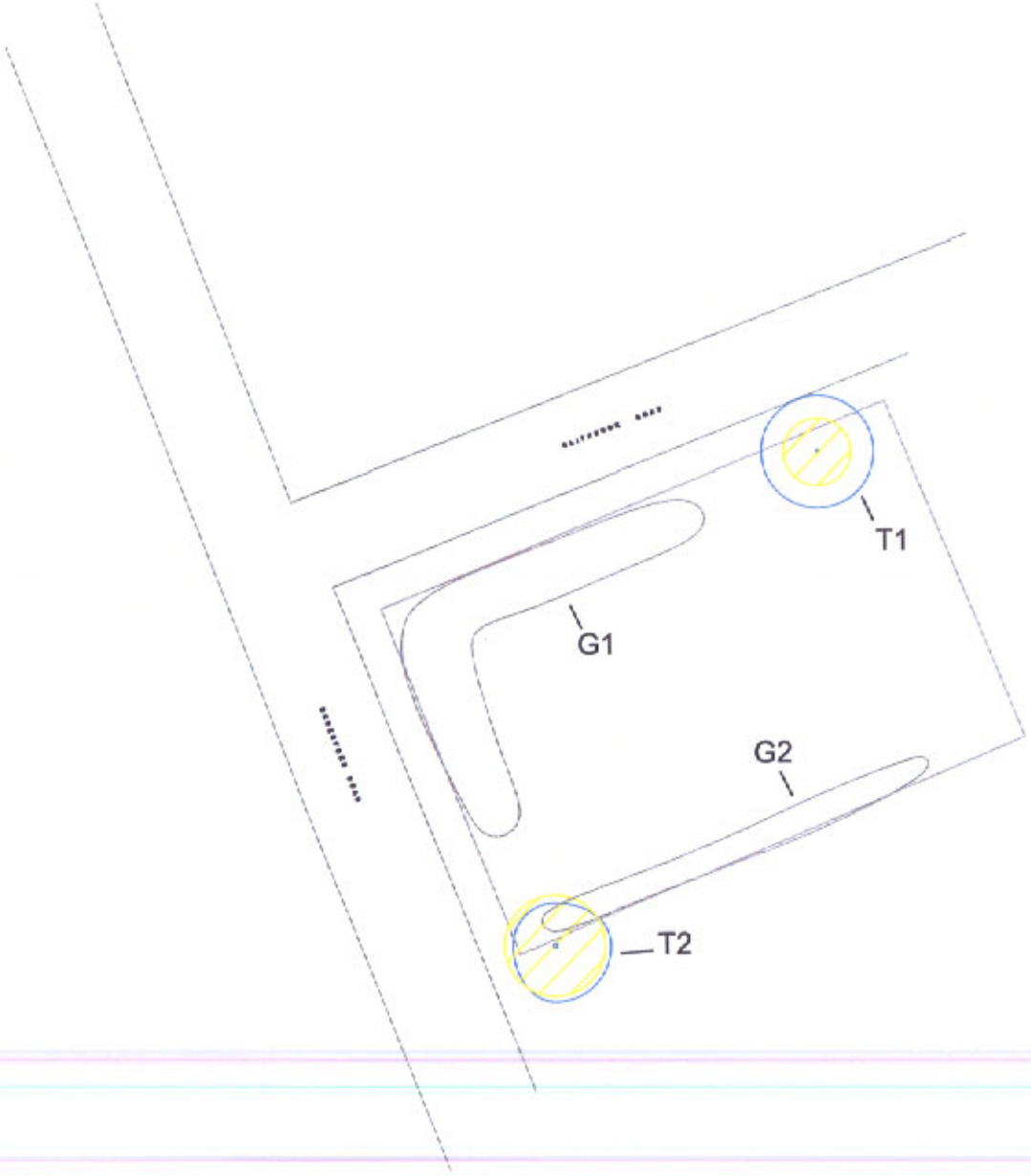
The location for the Electric Sub-Station is on the corner – seen from across Clitheroe Road.

3.3 There is a good example of a Silver Birch towards the north-east corner of the site near to the boundary fence to Clitheroe Road. A Norway Maple overhangs the site from the Apartments site at the southwest corner. The siting of the Sub-Station should not be to the detriment of these trees.

Four small Sycamores of poor quality, growing against the fence to Beresford Road and Clitheroe Road are of little merit. One will be removed in order for the Sub-Station to be built.

3.4 It is proposed to locate the new Electric Sub-station on the north-east corner of the old Kitchen Site, at the junction of Beresford Road and Clitheroe Road.

This will enable the remaining site to be divided up into two plots each providing a viable site for a house.



KEY

Trees/Groups Retention Category

- Category A Trees/Groups
- Category B Trees/Groups
- Category C Trees/Groups
- Category R Trees/Groups

Root Protection Area (RPA)

A hash denotes that the tree is located on adjacent 3rd party land and is to be retained and protected.

Retention Category and RPA based on BS5837 (2005): Recommendations for Trees in Relation to Construction

Refer to Appendix One for details

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Rev	Description	Drawn	Approved	Date

TEP
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Birchwood Science Park Warrington
WA3 7BH
Tel 01925 844004
Fax 01925 844002
e-mail tep@tep.uk.com

Project

St Agnes, Manchester
Disused Land

Title

Tree Constraints Plan

Dwg No: D1514.003

Scale	Date
1:500 @ A4	25/09/07

Drawn	Checked	Approved
SB	AM	PM

APPENDIX ONE:
Disused Land at Beresford Road and Clitheroe Road Tree Survey and Constraints
Survey Data Sheets

Surveyor SB
Date 21.09.07
Town Manchester
Site Beresford/Clitheroe Road
Dwg Ref D 1514.003

Ref	Species	Height	Stem Dia.	No. of stems/individuals	Crown Spread North	Crown Spread South	Crown Spread East	Crown Spread West	Height of Lowest Branch	Maturity	Condition	Comments on form, condition, health and significant defects	BS5837 Tree Quality Assess.	Radius of RPA guide circle	BS5837 RPA	Management Recommendations	Estimated Remaining Contribution
		(m)	(mm)	arising below 1.5m	(m)	(m)	(m)	(m)	(m)	Young, Middle Age, Mature, Veteran	Good, Fair, Poor		A,B,C,R (1,2,3)	(m)	(m2)		Long, Medium, Short
Trees																	
T1	Silver Birch	10.0	200.0	1.0	4.0	4.0	4.0	4.0	2.0	Middle Age	Good	Stem growing against fence, excavation activity 4m from stem, reasonable form	B,1	2.4	18.1		Long
T2	Norway Maple	9.0	300.0	1.0	3.0	4.0	4.0	3.0	1.0	Middle Age	Good	Reasonable form, 3rd party land, some damage to crown from vehicles accessing site	B,1	3.6	40.7		Long
Groups																	
G1	Sycamore	6.0	130-170							Young	Poor	Small poor quality regen growing against fencing	C,2				Short
G2	Sycamore	5.0	50-200							Young	Fair	Multi-stemmed regen growing against palisade	C,2				Medium



Approaching the site from the east along Clitheroe Road – the Silver Birch tree is in the centre of the picture with the 'entry' to the left. The Sub-Station will be beyond the lamp post.

3.5 Other locations were considered but the need to avoid trees (see 2..3) and the fact that the Sub-station would have to be positioned 7m from the gable end of the house to Clitheroe Road and 7m from the apartment building would have effectively taken up a greater site area, and the remaining site would have been more difficult to use.



A view from within the site from the south-east corner with the 'entry' to the right of the fence and the Silver Birch tree immediately in front. The Sycamores to the left are to be removed – the Sub-Station will be to the left in the picture.

4.0 Accommodation

4.1 This compact building is purely to accommodate electrical plant and equipment. The only attendance by personnel after installation will be for maintenance purposes.



Looking from within the site towards the corner where the Sub-Station is to be located

5.0 Access to Site

5.1 The compound for the Electric Sub-station is 6m x 7m, - (42 sq.m.) in size surrounded by a 3m high fence.

5.2 The pair of gates in the fence on the back edge of footpath to Clitheroe Road will open inwards. The double doors to the enclosure will then open outwards over the gates.

5.3 Installation (and removal) of equipment will be by a suitable fork lift truck taking equipment off the back of a lorry and driving straight through the gates and doors to position the equipment in the precise location on the concrete foundation pads.

6.0 Appearance

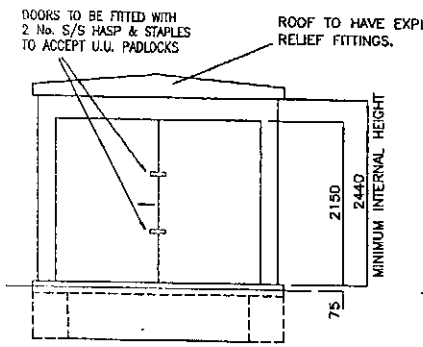
6.1 The proposed Electric Sub Station enclosure is 3.850m x 3.250m in plan with double doors to the narrower side facing onto Clitheroe Road, for the installation and removal of the equipment. The building is 2.600m to the eaves and 2.750 m to the ridge of the low pitched roof.

6.2 The building is a standard simple green GRP enclosure to contain the electrical switchgear and equipment.

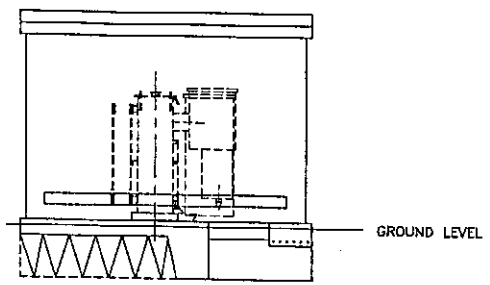
6.3 A 3m high paladin-type fence will surround the sub station to prevent youngsters climbing onto the roof, and potentially from there onto the fence to the boundary in order to gain access to the remainder of the site. A pair of gates at the back of the footpath will open inwards (so as not to cross the footpath).

GENERAL SPECIFICATION FOR GRP HOUSING ENCLOSURE

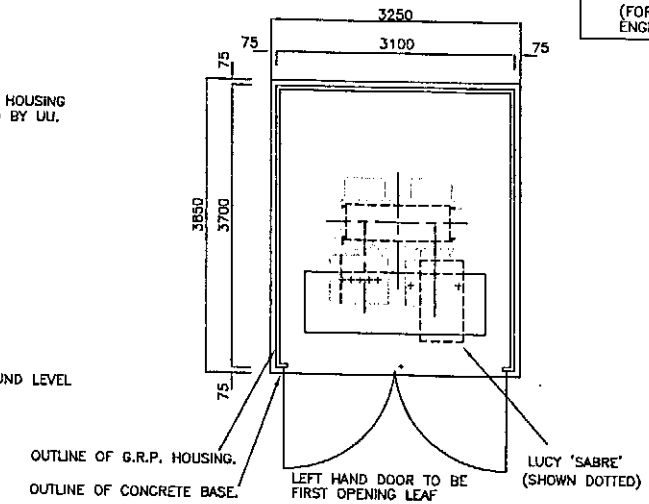
(FOR DETAILED SPECIFICATION SEE ENGINEERING SPECIFICATION 3D1)



FRONT ELEVATION



SIDE ELEVATION



PLAN

NOTES:

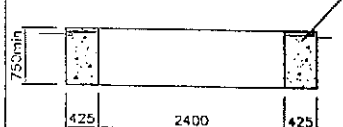
CONCRETE FOR PLINTH TO BE 1:2:4 MIX OF ORDINARY PORTLAND CEMENT
CONCRETE 35N/mm² (28 DAY STRENGTH).
20mm AGGREGATE SHALL BE PLACED & COMPACTED WITHIN ADEQUATE FORMWORK TO ENSURE THAT THE TOP SURFACES ARE TRUE TO PLANE WITH FLOOR TO HAVE STEEL FLOAT FINISH TO CLOSE TOLERANCE OF +/-3mm IN 3m.
NO DRILLING TO TAKE PLACE WITHIN 28 DAYS OF CASTING.
NO PERCUSSION DRILLS TO BE USED ONLY ROTARY DRILLS.
DO NOT OVER-TIGHTEN BOLTS.
TYPICAL MAX WEIGHT OF PLANT = 6000Kg.
PLINTH SHALL HAVE TYPICAL MIN DEPTH OF 750mm. HOWEVER, THE PLINTH MUST BE SUITABLE WITH RESPECT TO GROUND CONDITIONS AND LOADING, AND MUST BE APPROVED BY ON-SITE STRUCTURAL ENGINEER.

CABLE TRENCH TO BE 800mm WIDE AND TO BE BACK-FILLED BY UNITED UTILITIES AFTER INSTALLATION OF CABLES WITH SAND AND 75mm TOP LAYER OF 14-20mm LIMESTONE CHIPPINGS.

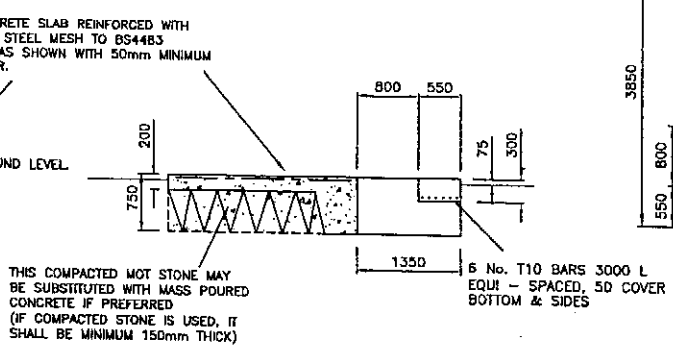
GRP HOUSING TO BE FROM U.U.-APPROVED SUPPLIER. DOORS TO HAVE DOUBLE HASP & STAPLE TO ACCEPT U.U. PADLOCKS. LEFT HAND DOOR TO BE FIRST OPENING LEAF.

revisions

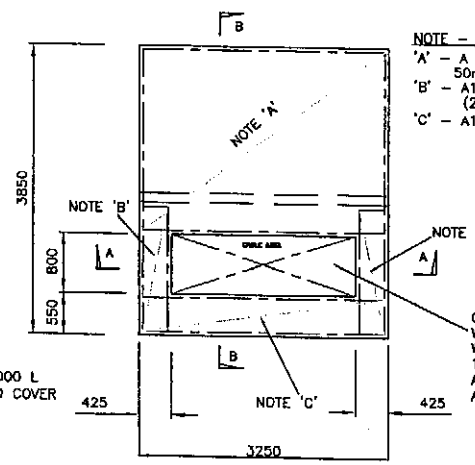
A) MINOR MODS
B) MINOR MODS
C) LUCY 'SABRE' OUTLINE SHOWN- OVERALL DIMENSIONS INCREASED TO SUIT ABOVE.
D) DRAWING APPD 23/09/03
E) TITLE MODIFIED
F) ISSUED FOR CIRCULATION
G) CONCETE SPEC ADDED, TRENCH WIDENED COMPACTED STONE REPLACED WITH MASS CONCRETE 16-01-06
H) REVISED 28/12/06



SECTION A-A



SECTION B-B



FOUNDATION PLAN

NOTE - MESH REINFORCEMENT

'A' - A 193 1T 1B - 40mm COVER TOP EDGES, 50mm COVER BOTTOM EDGES.
'B' - A193 MESH - 40mm COVER TO TOP EDGES (2 SHEETS)
'C' - A193 MESH - 40mm COVER TO TOP EDGES

CABLE AREA TO BE BACKFILLED WITH SAND, WELL CONSOLIDATED WITH 75mm LAYER OF SINGLE SIZE 14-20mm LIMESTONE CHIPPINGS. ALL TO BE COMPLETED BY UU AFTER INSTALLATION OF ALL CABLES.

United Utilities

approved G.H.SMITH date 23/09/03

CONSTRUCTION DETAILS FOR STANDARD G.R.P. UNIT SUBSTATION WITH SCHNEIDER RN2 SW/CR (Will also accommodate Lucy Sabre sw/gr)

site

scale DO NOT SCALE

scheme number

drawing number UU-A2-016/02H

sheet

7.0 Personnel Access

7.1 Given that the only attendance at the building following completion will be for maintenance, it is most unlikely that a wheelchair bound or severely disabled maintenance personnel would be instructed to attend the premises.
Each of the double gates will be 1.5m wide and each of the double doors will be 1.4m. A 75mm threshold is however required at the door by United Utilities to prevent water ingress.