Appendix E

Existing Ground Investigation Data

JPA

JOYNES PIKE & ASSOCIATES LTD.
CONSULTING ENGINEERS

7 South Parade
Doncaster
South Yorkshire DN1 2DY

Telephone: (01302) 322295
Fax: (01302) 322296

Your Ref:

Our Ref: TH//KEW/G880.B27

1 August 1996

(63m x 25m.

J T Lister (Electrical) Ltd
81 Pontefract Road
Barnsley
S71 1HF

FOR THE ATTENTION OF MR J T LISTER

Dear Sir,

RE: LAND AT PONTEFRACT ROAD, BARNSLEY

Further to your instructions received on 17th July 1996 we have carried out a desktop study and trial pit investigation of the above land and are pleased to report as follows:

INTRODUCTION

This report is produced on behalf of our Client; J T Lister (Electrical) Ltd and no responsibility is accepted to any Third Party for any part of this report.

The objectives of the study and investigation were to:

i) Determine ground conditions for the development of the site with light industrial units by historical and geological searches and trial pitting.

ii) Carry out suitable field and laboratory tests to enable the ground to be assessed for its bearing and settlement characteristics.

iii) Make recommendations for the foundations of houses and associated roads.

The assessment made in this report is based on ground conditions encountered in the trial pits together with the results of field and laboratory testing. There may be special conditions appertaining to the site which have not been revealed by the excavations and which, therefore, have not been taken into account in this report.

Whilst this report may express an opinion on the possible presence of features based on either visual, verbal or published evidence, this is for guidance only and no liability can be accepted for its accuracy.

The comments on groundwater are based on observations made at the time of the investigation unless stated otherwise. It should be noted, however, that groundwater levels may vary due to seasonal or other effects.

SITE DESCRIPTION

The site is located approximately 1km to the east of the centre of Barnsley. It may be located at National Grid Reference SE 359 063 as shown on the Site Location Plan (Drawing No. G880/01).

The site comprises approximately 0.8 acres of land which is presently disused and covered by scrub vegetation. The site is generally level, with steep slopes up to 4m high down to Pontefract Road to the north and Elm Row to the east.

The site is bounded to the south by a Glass and Cullett Works and to the west by an existing industrial development. The southern boundary is a retaining wall, retaining material off site to a height of up to 3.0m, this appears to be in need of some repair.

A number of young trees of various species are present along the northern and eastern slopes of the site.

Ordnance survey maps of 1892, 1906, 1931, 1962 and 1978 were inspected to determine changes in land use, which are summarised as follows:

The maps show that the major part of the site was occupied by the Borough Flint Glassworks in the west and Mill Street (two rows of terraced houses) in the east since before 1892. The Glassworks was extended to cover more of the site up to 1931. After 1962 the Glassworks is shown to be a 'Works'. The map of 1978 shows the site to be largely clear, the houses on Mill Street having been demolished as has the Glassworks. A single building, possibly the remains of the 'Works', is shown within the northern boundary.

The surrounding area is initially shown to be sparsely developed, with malthouses and a brewery to the north. The Dearne and Dove Canal is shown to the south and a number of disused quarries to the east. The 1906 map shows developments along Beevor Street to the north. The 1962 map shows the canal to be partially infilled and some development present to its south. The 1978 map shows the canal to be completely infilled.

GEOLOGY

The 1: 10,560 scale Geological Plan No. 274 and the 1:50,000 scale Geological Survey Map Sheet 87 shows the site to lie on undifferentiated mudstones/shales of the Middle Coal Measures. The Newhill Coal is shown to outcrop on the eastern part of the site. The Woolley Edge Rock, a coarse sandstone is shown to outcrop to the west of the site. The Newhill Coal is likely to lie at shallow depth below the eastern part of the site. The Geological Memoir describes the Newhill Coal as being up to 600mm of slaty coal at Monk Bretton but also indicates that crop workings have taken place to the south of the site where the coal was up to 1.1m thick,

Strata appear to be dipping gently to the east. Drift deposits of alluvium are shown to the north, but do not encroach onto the site. A Geological fault is present to the west of the site, but should not encroach onto the site.

We are awaiting a Coal Authority Mining Report for the site.

GROUND CONDITIONS

Ten trial pits were excavated to a maximum depth of 3.20m below ground level (bgl) on 23rd July 1996 using a Caterpillar backhoe wheeled excavator. Trial pit locations are indicated on the Site Plan (Drawing No. G880/02). Trial pit logs are attached in Appendix A.

The trial pits were logged by an experienced Geotechnical Engineer in accordance with BS 5930. The unconfined compressive strength of cohesive soils was measured using a hand penetrometer, and the relative density of made ground and granular soils was assessed in-situ by visual inspection and ease of excavation.

Representative disturbed samples were taken for subsequent testing and classification. Two samples have been sent to an approved laboratory to determine their sulphate concentration.

MADE GROUND was encountered over the whole of the site, to a maximum depth of 2.40m bgl in trial pit TP3. However, it is likely to be significantly deeper than this on the northern edge. The made ground was not bottomed in this locality due to instability of the trial pit sides and concrete obstructions. The depth of made ground reduced southwards to a depth of 0.2m and 1.0m in trial pits TP6 and TP7 respectively.

The MADE GROUND generally comprised a compact, locally loose hardcore of brick and concrete in a sandy matrix; locally small amounts of ash were encountered. Buried concrete hardstanding areas with a thickness of between 150mm and 300mm were encountered in trial pits TP2, TP5 and TP9, at depths of between 0.55m bgl and 1.40m bgl; these were broken out using a hydraulic breaker attachment. Large concrete obstructions were found elsewhere. Trial pit TP4 was not able to be advanced beyond 2.10m. Fragments of asbestos sheets within the made ground were encountered in trial pit TP10.

The natural ground on the site was found to be a firm to stiff sandy silty CLAY with sandstone fragments and was encountered at depths of between 0.2m bgl in TP6 and 2.40m bgl in TP3. In trial pits TP5, TP6 and TP9 the natural ground was a clayey SAND. A weathered SANDSTONE was encountered in trial pit TP7 at 2.30m bgl.

Groundwater was not encountered during the investigation.

GEOTECHNICAL ASSESSMENT

1. MADE GROUND is present over the whole site. This was found to a maximum depth of 2.40m bgl in trial pit TP3 although it is likely to be deeper in the vicinity of trial pits TP1 and TP4, where its base was not proven. The material was generally hardcore of brick and concrete in a sandy matrix. Concrete obstructions were encountered. This material has not been placed in an engineered manner and is unsuitable for the support of foundations.

2. The matrix of the made ground is locally ashy and may be slightly chemically contaminated. However, as the end use is industrial/commercial with hardstandings this should not present a hazard to users. Asbestos was encountered in trial pit TP10. This may present a hazard to construction workers and the general environs of the site if it becomes airborne. Care should be taken in removing this material from site. If it proves to be widespread it may be prudent to obtain advice from a specialist asbestos removal contractor.

3. The natural ground beneath the made ground comprises firm to stiff sandy silty CLAY, or medium dense clayey SAND. Weathered SANDSTONE was encountered in trial pit TP7. A safe bearing capacity of 100kN/m² may be assumed.

4. The Newhill Coal is shown to outcrop on the site and may be present at shallow depth beneath the eastern part of the site. The coal has been worked several hundred metres to the south and it is possible there may be shallow mineworkings beneath the eastern part of the site. The coal should be investigated by boreholes. If the site is found to be affected by shallow mining, drilling and grouting may be required. Foundations in the area affected may need to be strengthened.

5 On the basis of the present layout a number of foundation solutions can be considered.

5.1 The most suitable foundations for the southern most building, which comprises 4 No. 1500ft² units, are likely to be unreinforced strip or pad type foundations designed for a safe bearing capacity of 100kN/m². The foundations should be taken through the fill to the underlying natural ground.

5.2 The most suitable foundation for the northern 8000ft² building is likely to be a pile and ground beam solution. Localised concrete obstructions may present difficulties in driving piles and attendance by breaking equipment will probably be required. The piles are likely to be end bearing in sandstone. Cable percussive boreholes would be required to determine ground conditions at greater depth and for the design of piles.

5.3 As an alternative solution the northern building could be repositioned further south on the site. This may enable the use of deep trench fill or pad type foundations. The foundations would need to be taken through the fill to found on the underlying natural ground.

5.4 If the larger warehouse is to take significant floor loads, e.g from stacking systems, it may be necessary to support floor slab loads by intermediate piles, or a suspended slab transferring floor loads to the foundations.

6. There were formerly buildings on the whole of the site. Excavations may experience hard dig conditions due to concrete obstructions. They are also likely to be unstable in made ground.

7. Due to presence of made ground on this site, it would be prudent to use concrete and concrete products buried in the ground suitable for Class 2 conditions according to BRE Digest 363. Tests are being carried out to confirm more onerous precautions are not required.

8. A CBR value of less than 2% for the made ground can be assumed based on visual inspection. In situ tests would be required to confirm greater values. Road construction details will need to be approved by the Local Highways Authority.

9. Soakaways will not be suitable for the disposal of surface water on this site.

10. There is a drain crossing the site. This will need to be diverted to accommodate the present site layout.

11. The former Dearne and Dove Canal is present adjacent to the southern boundary. This is now infilled and may present a landfill gas hazard. Enquiries regarding the type of fill and gas generation potential should be made of the Local Authority/Environment Agency.

12. The retaining wall on the southern boundary of the site appears to be in a poor condition, repairs are likely to be necessary prior to positioning a building close to it.

FURTHER INVESTIGATION

Rotary percussive boreholes should be carried out to determine the presence or otherwise and condition of the Newhill Coal in the east.

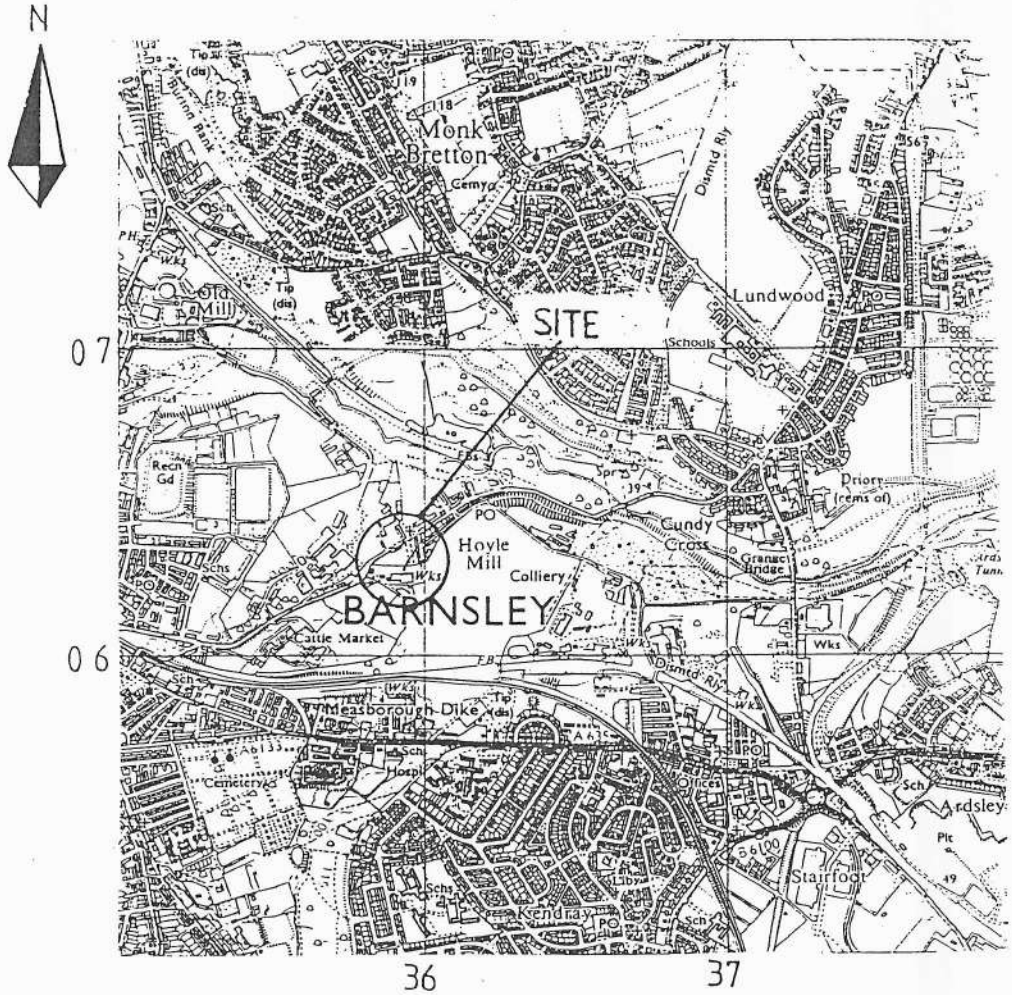
Cable percussive boreholes will be required to determine ground conditions for the design of piles.

The possibility of landfill gas migration onto the site should be investigated initially by enquiries to the Local Authority/Environment Agency. Gas monitoring points may need to be installed.

If you have any queries with regard to the above, please do not hesitate to contact either of the undersigned.

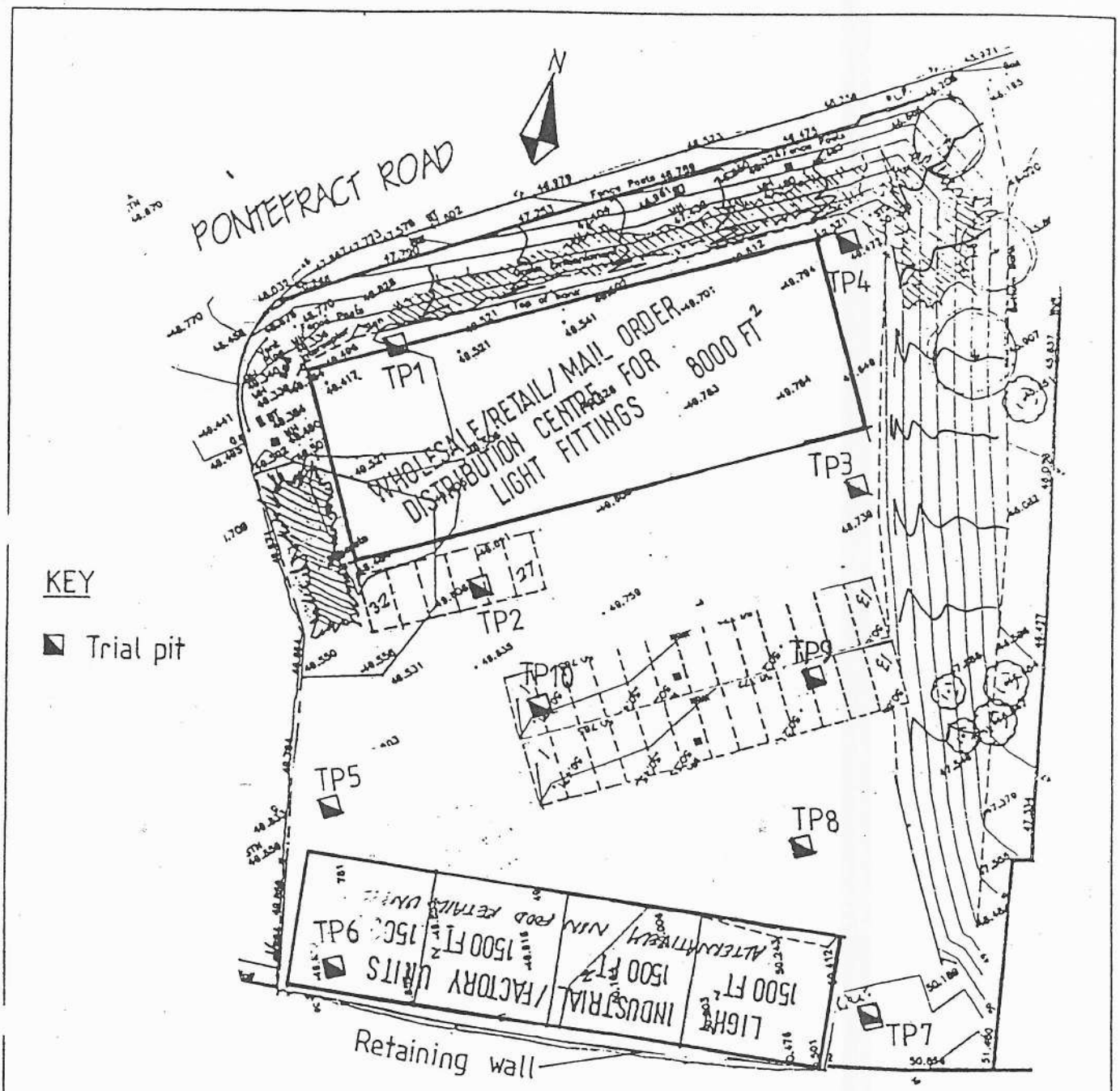
For and on Behalf of Joynes Pike & Associates Limited

FIGURES



CLIENT: J T LISTER (Electrical) LTD			PROJECT TITLE: LAND OFF PONTEFRACT ROAD, BARNSLEY	
DRAWING DETAIL: SITE LOCATION PLAN				DRAWN: TH
DRAWING No. G880/01	REVISION:	DATE: 29/7/96	SCALE: 1:25000	CHECKED:
				APPROVED:

JPA Civil, Structural & Geotechnical Engineering Consultants
7 South Parade
Doncaster
DN1 2DY
Telephone : 01302 322295
Fax : 01302 322296



CLIENT: J T LISTER (Electrical) LTD		PROJECT TITLE: LAND OFF PONTEFRACT ROAD, BARNSLEY		
DRAWING DETAIL: SITE PLAN				DRAWN: TH
DRAWING No. G880/02	REVISION:	DATE: 29/7/96	SCALE: NTS	CHECKED: TH
				APPROVED: AH

JPA Civil, Structural & Geotechnical Engineering Consultants
7 South Parade Doncaster DN1 2DY
Telephone : 01302 322295
Fax : 01302 322296

APPENDIX A

Trial Pit Logs

Client: J T LISTER (Electrical) LTD	7 SOUTH PARADE DONCASTER SOUTH YORKSHIRE DN1 2DY TEL: 01302 322295 FAX: 01302 322296 CIVIL, STRUCTURAL & GEOTECHNICAL ENGINEERING CONSULTANTS
Job Number: G880	
Trial Pit Number TP 1 Approximate Dimensions: 600 x 2000	
Location: LAND OFF PONTEFRACT ROAD BARNSLEY	Approx Ground Level:
	Dated: 23/7/96

JPA JOYNES & ASSOCIATES PIKE LTD

Drawn: TH

Chkd: TH Appr: SH

Strata Description	Depth (m)	Legend	Samples & Tests No.	Type	Depth (m)	Test	Field Records
MADE GROUND: compact locally loose hardcore of brick and concrete in a brown sandy locally ashy matrix, with some to much reinforced concrete, and occasional metal, pipe and rag							
Base of pit	1.30						

Ground Water Record: Dry

Support: Very unstable

Notes: Trial pit abandoned due to collapse

P - indicates value of unconfined compressive strength in kN/m2 as measured using a hand penetrometer

V - indicates value of undrained shear strength in kN/m2 as measured using a shear vane

Client: J T LISTER (Electrical) LTD	7 SOUTH PARADE DONCASTER SOUTH YORKSHIRE DN1 2DY TEL: 01302 322295 FAX: 01302 322296 JPA JOYNES & ASSOCIATES PIKE LTD CIVIL, STRUCTURAL & GEOTECHNICAL ENGINEERING CONSULTANTS
Job Number: G880	
Trial Pit Number TP 2 Approximate Dimensions: 600 x 2000	
Location: LAND OFF PONTEFRACT ROAD BARNSLEY	Approx Ground Level:
	Drawn: TH
	Dated: 23/7/96
	Chkd: TH Appr: JM

Strata Description	Depth (m)	Legend	Samples & Tests No.	Type	Depth (m)	Test	Field Records
MADE GROUND: compact locally loose hardcore of brick and concrete in a brown sandy locally ashy matrix, with some to much reinforced concrete							
MADE GROUND: concrete	1.00						
	1.30						
MADE GROUND: compact hardcore in a sandy slightly ashy matrix				01	D	1.50	
	1.85						
Base of pit							

Ground Water Record: Dry

Support: Slightly unstable

Notes: Concrete broken out, very difficult digging

P - indicates value of unconfined compressive strength in kN/m2 as measured using a hand penetrometer

V - indicates value of undrained shear strength in kN/m2 as measured using a shear vane

Client: J T LISTER (Electrical) LTD	7 SOUTH PARADE DONCASTER SOUTH YORKSHIRE DN1 2DY TEL: 01302 322295 FAX: 01302 322296 JPA JOYNES & ASSOCIATES PIKE LTD CIVIL, STRUCTURAL & GEOTECHNICAL ENGINEERING CONSULTANTS
Job Number: G880	
Trial Pit Number TP 3 Approximate Dimensions: 600 x 2000	
Location: LAND OFF PONTEFRACT ROAD BARNSLEY	Approx Ground Level: — Drawn: TH Dated: 23/7/96 — Chkd: TH — Appr: JH

Strata Description	Depth (m)	Legend	Samples & Tests: No.	Type	Depth (m)	Test	Field Records
MADE GROUND: compact locally loose hardcore of brick and concrete in a brown sandy matrix, with some to much reinforced concrete, and occasional metal, pipe and rag							
slightly ashy	(2.00)						
	2.40						
Firm to stiff medium grey brown silty CLAY with lithorelicts of fine grained sandstone and occasional angular cobbles of sandstone							
Base of pit	3.20						

Ground Water Record: Dry

Support: Slightly unstable in made ground

Notes: Difficult digging in made ground

P - indicates value of unconfined compressive strength in kN/m2 as measured using a hand penetrometer

V - indicates value of undrained shear strength in kN/m2 as measured using a shear vane

Client: J T LISTER (Electrical) LTD	7 SOUTH PARADE DONCASTER SOUTH YORKSHIRE DN1 2DY TEL: 01302 322295 FAX: 01302 322296 JPA JOYNES & ASSOCIATES PIKE LTD CIVIL, STRUCTURAL & GEOTECHNICAL ENGINEERING CONSULTANTS
Job Number: G880	
Trial Pit Number TP 4 Approximate Dimensions: 600 x 2000	
Location: LAND OFF PONTEFRACT ROAD BARNSLEY	Approx Ground Level: — Drawn: TH Dated: 23/7/96 — Chkd: TH — Appr: MH

Strata Description	Depth (m)	Legend	Samples & Tests: No.	Type	Depth (m)	Test	Field Records
MADE GROUND: grey brown desiccated clay with occasional hardcore							
	0.70						
MADE GROUND: compact locally loose hardcore of brick and concrete in a brown sandy matrix, with some to much reinforced concrete				02	D	1.00	
	1.90						
MADE GROUND: concrete							
	2.10						
Base of pit							

Ground Water Record: Dry

Support: Slightly unstable

Notes: Concrete obstruction unable too dig out

P - indicates value of unconfined compressive strength in kN/m2 as measured using a hand penetrometer

V - indicates value of undrained shear strength in kN/m2 as measured using a shear vane

Client: J T LISTER (Electrical) LTD	7 SOUTH PARADE DONCASTER SOUTH YORKSHIRE DN1 2DY TEL: 01302 322295 FAX: 01302 322296
Job Number: G880	JPA JOYNES & ASSOCIATES PIKE LTD
Trial Pit Number TP 5 Approximate Dimensions: 600 x 2000	CIVIL, STRUCTURAL & GEOTECHNICAL ENGINEERING CONSULTANTS
Location: LAND OFF PONTEFRACT ROAD BARNSLEY	Approx Ground Level:
	Drawn: TH
	Dated: 23/7/96
	Chkd: JA Appr: JH

Strata Description	Depth (m)	Legend	Samples & Tests: No.	Type	Depth (m)	Test	Field Records
MADE GROUND: ash and clinker	0.10						
MADE GROUND: compact locally loose hardcore of brick and concrete in a brown sandy matrix, with some reinforced concrete	0.40						
MADE GROUND: concrete	0.55						
MADE GROUND: compact locally loose hardcore of brick in a brown sandy matrix with some concrete and occasional metal	0.70						
Medium dense medium brown slightly clayey SAND with some sandstone cobbles							
Base of pit	1.30						

Ground Water Record: Dry

Support: Unstable in made ground

Notes: Concrete broken out using hydraulic breaker

P - indicates value of unconfined compressive strength in kN/m2 as measured using a hand penetrometer

V - indicates value of undrained shear strength in kN/m2 as measured using a shear vane

Client: J T LISTER (Electrical) LTD	7 SOUTH PARADE DONCASTER SOUTH YORKSHIRE DN1 2DY TEL: 01302 322295 FAX: 01302 322296 JPA JOYNES & ASSOCIATES PIKE LTD CIVIL, STRUCTURAL & GEOTECHNICAL ENGINEERING CONSULTANTS
Job Number: G880	
Trial Pit Number TP 6 Approximate Dimensions: 600 x 2000	
Location: LAND OFF PONTEFRACT ROAD BARNSLEY	Approx Ground Level: — Drawn: TH Dated: 23/7/96 — Chkd: TA — Appr: JH

Strata Description	Depth (m)	Legend	Samples & Tests: No.	Type	Depth (m)	Test	Field Records
MADE GROUND: ash and clinker							
Firm to stiff and very stiff medium brown very sandy CLAY	0.20						
Medium dense medium brown clayey SAND with gravel to cobble size sandstone locally very clayey	0.50				0.90	P	150 300 420 440
Base of pit	2.00						

Ground Water Record: Dry

Support: Side stable

Notes: Moderately difficult digging

P - indicates value of unconfined compressive strength in kN/m2 as measured using a hand penetrometer

V - indicates value of undrained shear strength in kN/m2 as measured using a shear vane

Client: J T LISTER (Electrical) LTD	7 SOUTH PARADE DONCASTER SOUTH YORKSHIRE DN1 2DY TEL: 01302 322295 FAX: 01302 322296 JPA JOYNES & ASSOCIATES PIKE LTD CIVIL, STRUCTURAL & GEOTECHNICAL ENGINEERING CONSULTANTS
Job Number: G880	
Trial Pit Number TP 7 Approximate Dimensions: 600 x 2000	
Location: LAND OFF PONTEFRACT ROAD BARNSLEY	Approx Ground Level: — Drawn: TH Dated: 23/7/96 — Chkd: TH — Appr: JH

Strata Description	Depth (m)	Legend	Samples & Tests: No.	Type	Depth (m)	Test	Field Records
MADE GROUND: compact locally loose hardcore of brick with ash and clinker in a brown clayey matrix			03	D	0.60		
Firm to stiff and very stiff medium brown silty sandy CLAY friable with sandstone lithorelicts, locally mottled grey with sandstone cobbles	1.00				1.20	P	140 140 150 200 320
Medium to light brown thinly bedded moderately weathered SANDSTONE weak	2.20 2.30						
Base of pit							

Ground Water Record: Dry

Support: Unstable in made ground

Notes: Moderately difficult digging, becoming very difficult at base

P - indicates value of unconfined compressive strength in kN/m2 as measured using a hand penetrometer

V - indicates value of undrained shear strength in kN/m2 as measured using a shear vane

Client: J T LISTER (Electrical) LTD	7 SOUTH PARADE DONCASTER SOUTH YORKSHIRE DN1 2DY TEL: 01302 322295 FAX: 01302 322296 CIVIL, STRUCTURAL & GEOTECHNICAL ENGINEERING CONSULTANTS
Job Number: G880	
Trial Pit Number TP 8 Approximate Dimensions: 600 x 2000	

JPA JOYNES & ASSOCIATES PIKE LTD

Location: LAND OFF PONTEFRACT ROAD BARNSLEY

Approx Ground Level:

Drawn: TH

Dated: 23/7/96

Chkd: JA

Appr: JH

Strata Description	Depth (m)	Legend	Samples & Tests No.	Type	Depth (m)	Test	Field Records
MADE GROUND: compact locally loose hardcore of brick and concrete in a brown sandy locally ashy matrix, with some to much reinforced concrete, and occasional timber							
	1.10						
Firm to stiff medium brown sandy friable CLAY with lithorelicts of sandstone			04	D	1.30		
becoming with sandstone cobbles	(1.70)						
	2.40						

Ground Water Record: Dry

Support: Unstable in made ground

Notes: Difficult digging becoming moderately difficult in clay

P - indicates value of unconfined compressive strength in kN/m2 as measured using a hand penetrometer

V - indicates value of undrained shear strength in kN/m2 as measured using a shear vane

Client: J T LISTER (Electrical) LTD	7 SOUTH PARADE DONCASTER SOUTH YORKSHIRE DN1 2DY TEL: 01302 322295 FAX: 01302 322296 CIVIL, STRUCTURAL & GEOTECHNICAL ENGINEERING CONSULTANTS
Job Number: G880	
Trial Pit Number TP 9 Approximate Dimensions: 600 x 2000	
Location: LAND OFF PONTEFRACT ROAD BARNSLEY	Approx Ground Level:
	Dated: 23/7/96
	Drawn: TH
	Chkd: TH Appr: JH

JPA JOYNES & ASSOCIATES PIKE LTD

Strata Description	Depth (m)	Legend	Samples & Tests: No.	Type	Depth (m)	Test	Field Records
MADE GROUND: compact locally loose hardcore of brick and concrete in a brown sandy locally ashy matrix, with some to much reinforced concrete							
MADE GROUND: concrete	1.40						
MADE GROUND: compact hardcore in a sandy slighly ashy matrix with many sandstone cobbles	1.60						
Medium dense, medium brown very clayey SAND with sandstone gravel and cobbles	1.80						
Base of pit	2.60						

Ground Water Record: Dry

Support: Unstable in made ground

Notes: Concrete broken out using hydraulic breaker, difficult digging

P - indicates value of unconfined compressive strength in kN/m2 as measured using a hand penetrometer

V - indicates value of undrained shear strength in kN/m2 as measured using a shear vane

Client: J T LISTER (Electrical) LTD	7 SOUTH PARADE DONCASTER SOUTH YORKSHIRE DN1 2DY TEL: 01302 322295 FAX: 01302 322296 JPA JOYNES & ASSOCIATES PIKE LTD CIVIL, STRUCTURAL & GEOTECHNICAL ENGINEERING CONSULTANTS
Job Number: G880	
Trial Pit Number TP 10 Approximate Dimensions: 600 x 2000	
Location: LAND OFF PONTEFRACT ROAD BARNSLEY	Approx Ground Level: — Drawn: TH Dated: 23/7/96 — Chkd: — Appd:

Strata Description	Depth (m)	Legend	Samples & Tests: No.	Type	Depth (m)	Test	Field Records
MADE GROUND: compact locally loose hardcore of brick and concrete in a brown sandy matrix, with much asbestos sheet fragments and pipe							
Base of pit	1.10						

Ground Water Record: Dry

Support: Unstable

Notes: Wall exposed in end of excavation. Trial pit terminated to avoid further disturbance of asbestos

P - indicates value of unconfined compressive strength in kN/m2 as measured using a hand penetrometer

V - indicates value of undrained shear strength in kN/m2 as measured using a shear vane

JPA

JOYNES PIKE & ASSOCIATES LTD.
CONSULTING ENGINEERS

7 South Parade
Doncaster
South Yorkshire DN1 2DY

Telephone: (01302) 322295
Fax: (01302) 322296

Your Ref:

Our Ref: TH/KEW/G880.B79

13 August 1996

J T Lister (Electrical) Ltd
81 Pontefract Road
Barnsley
South Yorkshire
S71 1HF

FOR THE ATTENTION OF MR J T LISTER

Dear Mr Lister

RE : LAND OFF PONTEFRACT ROAD, BARNSLEY

We have now received the coal mining report for the above site, a copy of which is enclosed.

The report states that ten seams of coal have been worked at depths between 80m to 520m. The last date of working was 1978, ground movement will, by now, have ceased. The report also indicates that shallow coal is present in the vicinity which may have been subject to unrecorded working. The site is clear of recorded shafts and adits.

The Coal Authority report confirms the advice given in our Geotechnical Report, that part of the site may have been subject to shallow mining and should be investigated by rotary percussive boreholes.

We are presently awaiting the approved laboratory test results and will supply them when available.

If you have any queries with regard to the above, please do not hesitate to contact the undersigned.

For and on behalf of Joynes Pike & Associates Limited

[redacted]

Enc.

The Coal Authority
Mining Reports Office
Ashby Road, Burton on Trent.
Staffordshire, DE15 0QD
Telephone: 01283-550606
DX 29281 BRETBY

The COAL AUTHORITY

The Coal Authority
Cost: £20.00
Plus V.A.T. £ 3.50
Total Received: £23.50
V.A.T. Reg. Number 589 585 068

Joynes Pike & Associates
7 South Parade
Doncaster
DN1 2DY

This matter is being dealt with
by B.Lye
Survey Dept. (Tel. 01283-550606 Extn. 31199)

Our Ref: 44/3506 SR149088-96

Your Ref: TH/G880

Date: 8th August 1996

Dear Sir,

Coal Mining Report
Land off Pontefract Road, Barnsley, South Yorkshire.

I refer to your enquiry dated 23rd July 1996 in connection with the above.

Past Underground Coal Mining

The property is within the likely zone of influence on the surface from ten seams of coal at approximately 80m to 520m depth, the last date of working being 1978.

Ground movement from these past workings should by now have ceased.

In addition you may wish to know that the property is in an area where coal seams are believed to exist at or close to the surface that may have been worked at some time in the past.

Present Underground Coal Mining

The property is not within the likely zone of influence on the surface from any present workings.

Future Underground Coal Mining

The property is not within an area for which a licence to extract coal by underground methods is awaiting determination by the Coal Authority.

The property is not within an area for which a licence to extract coal by underground methods has been granted.

The property is not within the likely zone of influence at the surface from currently planned future workings.

However, reserves of coal exist in the locality which could be worked at some time in the future subject to feasibility, licences, and planning consents.

We have no record of any notice of the risk of the land being affected by subsidence being given under S.46 of the Coal Mining Subsidence Act of 1991.

Shafts and Adits

We have no knowledge of any mine entries within or within 20 metres of the boundary of the property.

The records held by the Coal Authority may be incomplete. Consequently, there may exist in this locality mine entries of which we have no knowledge.

JPA - Doncaster
Number: G880
PO
1 0 AUG 1996

08-Aug-1996 09:44:08 3.2

Continued....

Surface Geology

We are not aware of any fault or other line of weakness at the surface which is known to us to affect the stability of the property.

Past Opencast Coal Mining

The property is not located within an opencast site boundary from which coal has been extracted by opencast methods.

Present Opencast Coal Mining

The property does not lie within 200 metres of an opencast site boundary within which coal is being extracted by opencast methods.

Future Opencast Coal Mining

The property is not within 800 metres of an opencast site for which a licence to extract coal by opencast methods is awaiting determination.

The property is not within 800 metres of an opencast site for which a licence to extract coal by opencast methods has been granted.

Subsidence

We have no record of any damage notice or claim having been given, made or pursued in respect of this property since 1 January 1984.

We have no record of any request having been made to execute preventive works under S.33 of the Coal Mining Subsidence Act 1991.

Additional Remarks

In view of the mining circumstances a prudent developer would seek appropriate technical advice before any works are undertaken on site. All proposals should have regard to good engineering practice in mining areas as identified in authoritative publications on mining stability problems. In any event, no activities should be undertaken that intersect, disturb, or interfere with any coal or mines of coal without the permission of the owner.

This response relates to the enquiries made under the Law Society Scheme for Coal Mining Searches 1994.

There is no time protection afforded by replies to coal mining searches. Licensed operators' plans for mining may change as may the other relevant information available to the Coal Authority. If there is any doubt as to whether previous replies remain valid, a new search should be made.

We acknowledge receipt of your remittance in payment of our fee.

Yours faithfully

[redacted]

JPA

JOYNES PIKE & ASSOCIATES LTD.
CONSULTING ENGINEERS

7 South Parade
Doncaster
South Yorkshire DN1 2DY

Telephone: (01302) 322295
Fax: (01302) 322296

Your Ref:

Our Ref: TH/DB/G880.B72

20 August 1996

J T Lister (Electrical) Ltd
81 Pontefract Road
Barnsely
South Yorkshire
S71 1HF

FOR THE ATTENTION MR J T LISTER

Dear Mr Lister,

RE: LAND OFF PONTEFRACT ROAD, BARNSLEY

We have now received the results of sulphate testing at the above site, a copy of which is enclosed. Two samples were tested to determine levels of soluble sulphate, the levels were 0.07g/l and 0.04g/l. This indicates Class 1 ground conditions to BRE Digest 363.

However given the variable nature of made ground and the occurrence on this site of demolition arisings, which may include material locally high in sulphates, Class 2 conditions for concrete and cementitious products in the ground should be adopted.

It you have any queries please do not hesitate to contact the undersigned.

For and on behalf of Joynes Pike & Associates Limited

[redacted]

SUMMARY OF CHEMICAL ANALYSES

(B.S. 1377 : PART 3 : 1990 AND BRE CP2/79)

Trial Pit Number	Sample Number	Depth m	Sulphate (SO4)			Chloride Content		pH Value @ 25oC	Organic Matter Content %	Remarks
			Acid Soluble Sulphate as % SO4	Aqueous Extract Sulphate as g/l SO4	Ground-water g/l	Soluble Chloride as % equiv. NaCl	Ground-water g/l			
2		1.50		0.07				9.4		BRE. Digest 363, July 1991, Class 1.
7		0.50		0.04				8.5		Class 1.

Sheet 1 of 1.

THYSSEN GEOTECHNICAL	Compiled by	Date	Checked by	Date	Approved by	Date
		12/8/96		16/8/96		16/8/96
	Land off Pontefract Road, Barnsley.				Contract No M63317	
					Figure.	

Bryce Llanelli SA14 9SU

JPA

JOYNES PIKE & ASSOCIATES LTD.
CONSULTING ENGINEERS

7 South Parade
Doncaster
South Yorkshire DN1 2DY

Telephone: (01302) 322295
Fax: (01302) 322296

Your Ref:

Our Ref:
TH/KEW/G880.B39

1 August 1996

J T Lister (Electrical) Ltd
81 Pontefract Road
Barnsley
S71 1HF

FOR THE ATTENTION OF MR J T LISTER

Dear Mr Lister

RE : LAND OFF PONTEFRACT ROAD, BARNSLEY

Please find enclosed a copy of our geotechnical investigation of the above site. As indicated in our previous discussions deep fill is present along the boundary to Pontefract Road, which if the main building is to remain in its present position will require a piled solution. A more economic solution might be to move the building towards the centre of the site.

I would like to take this opportunity to point out that Joynes Pike & Associates Limited provides a full range of Structural as well as Geotechnical services. We would be more than happy to design the foundations and carry out any structural design work you may require. I enclose copies of our company brochures for your information.

If you would like to discuss further any aspects of the report, or your structural design requirements, I would be pleased to arrange a meeting at your convenience.

For and on behalf of Joynes Pike & Associates Limited

[redacted]

Enc.

Transmit report

28/05/2002 15:08
26NF13726
TC:49479

REMOTE STATION	START	TIME	Pages	RESULT	REMARKS
901226381497	28-05 15:07	00:01 08	002/002	OK	

REMARKS TMR:Timer,POL:Poll,TRN:Turn around,2IN:2in1 Tx,ORG:Original size set,DPG:Book Tx,FME:Frame erase Tx
MIX:Mixed original,CALL:Manual-Com,KRDS:KRDS,FWD:FORWARD,FLP:Flip Side 2,SP:Special Original
FCODE:Fcode,MBX:Confidential,BUL:Bulletin,RLY:Relay,RTX:Re-Tx
S-OK:Stop communication, Busy:Busy, Cont.:Continue, No ans:No answer
M-full:Memory full