

BRIDGE IRONWORKS

Water Supply Contractors

**BRIDGE IRONWORKS
(Engineering) LTD**
FARRELL COURT,
ELEPHANT ROAD,
LONDON SE17 1LB
TEL: 071-703 0054
FAX: 071-708 1827

15th August 1990

Mrs MacDonagh,
Montpelier Square Garden Committee,
2 Montpelier Square,
London
SW7 1JT

Dear Mrs MacDonagh,

MONTPELIER SQUARE, SW7

The pump in the gardens is an old suction lift, hand operated type and it suggests the presence of a shallow water table. This agrees with the geological maps and borehole logs which give about 4m of sand and gravel over clay deposits. The pump, which is now in a state of poor repair would have drawn water from these sand and gravels.

You have 3 possible courses of action depending upon the quality and quantity of water you require; the risk you wish to take and the investment you are prepared to make. All work of this nature is speculative although the following suggestions are soundly based on the available hydrogeological data for this area.

- 1) We can attempt to lift the existing pump mechanism and if successful proceed to check the borehole for water level and structural condition. We can then test for yield and quality and ultimately instal a permanent pump for the sprinkler system.

Approximate cost £2750. plus VAT

This price assumes an electricity supply and connections to the sprinkler system are provided by others.

- 2) Abandon the existing pump and drill a new borehole of similar depth on a new site (more conveniently placed) to the base of the gravels. We can then test and instal a permanent pump as above.

Approximate cost £3500. plus VAT

Access for a drilling rig is required, electricity and connections to sprinkler system by others.

Continued

Bridge Ironworks (Engineering) Ltd.

The success of the above two options depends on the quality and quantity of water available in the sands and gravels. Some sort of water supply is clearly available and in other parts of London, the sands and gravels do yield quite well. Quality is uncertain but should be adequate for sprinklers. There will be a fluctuation in water level but this will lag behind the seasons; water will still be available as a summer drought proceeds but ultimately if the drought persists, the supply will fail. Gravel water is a mixture of natural drainage, leaky mains water and it must be said, leaky sewers.

- 3) Drill a borehole through the Clay to the Chalk aquifer, total depth about 110m and install a pump. Here the quantity is guaranteed and the quality, most certainly good enough for sprinklers. However, this surety is reflected in the cost and the disruption drilling such a deep borehole will cause.

Approximate cost £14,500. plus VAT

Access for a drilling rig is required, electricity and connections to sprinkler systems by others.

I would be pleased to discuss the various schemes with you, but my recommendation at this stage would be for option 2, a new sand/gravel borehole and pump.

Yours sincerely,
BRIDGE IRONWORKS (ENGINEERING) LTD



Chris Payne, M.Sc., F.G.S., Dip.H.Delft

Montpelier Square Garden Committee

2 Montpelier Square
London SW7 1JT

4th March, 1991

C. Payne Esq
Bridge Ironworks (Engineering) Ltd
Farrell Court
Elephant Road
London SE17 1LB

COPY

Dear Mr. Payne,

I enclose a copy of your estimate of 15th August and we are minded to now accept estimate no. 2 at a cost of £3,500 plus VAT, on the basis that it covers removal of the existing pump down to ground level; drilling the new borehole on a site close to the existing tank; testing and installing a permanent pump, and making any necessary connections to the existing tank. Your reference to electricity by others is agreed, but connections to the sprinkler system, simply consists of connecting the supply to the tank.

While appreciating that the supply cannot be guaranteed, can you give me some sort of idea as to the flows that can be expected, compared with the existing supplies to the tank. I believe that the existing supply is somewhat too slow to cope with the present sprinklers and after an hour or so the tank is empty and the system takes time then to re-fill. We will probably be installing a larger tank.

I assume that before the work is carried out we need to be sure that the appropriate Abstraction Licence will be available - is this something you will deal with?

I would be grateful if you would let me know when you could start on site, and how long the contract would take.

Because we raise all money for the Gardens by virtue of a precept on the houses around the Square, which precept is collected through the poll tax, I have worked on the basis of £3,500 plus VAT in calculating this year's precept and it is very important that the costs are kept to this level.

Kind regards.

Yours sincerely,


LESLEY MACDONAGH (MRS)

c.c. Lady Marshall

4027w

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15th March 1991

Mrs Lesley Macdonagh
Montpelier Square Garden Committee
2, Montpelier Square
London SW7 1JT

Dear Mrs Macdonagh

Thank you for your letter of 4th march regarding a borehole water supply

I can say that our price of £3,500 would include the removal of the existing pump down to ground level (I suspect that part of it below ground level may be impossible to move now), I also accept your point about pipe connections, these will be included with no extra charge

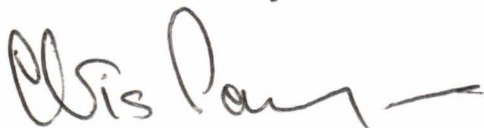
Flow rate is very difficult to estimate as it varies according to the saturated thickness, lithology and season, however I would hope for not less than $2\frac{1}{2}m^3$ /hour possibly more. I am sure a larger storage tank would be essential

If the water was not there in sufficient quantity then the job could be aborted with an outlay of less than £1,000.

I would be happy to deal with the abstraction licence, the work could be started within 2 weeks of receipt of instructions and last a further 3 weeks

I look forward to hearing from you

Yours sincerely



C J Payne M.Sc., F.G.S., Dip.H.Delft.
BRIDGE IRONWORKS (ENGINEERING) LTD

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TEL: 071-703 0054
FAX: 071-708 1827

FACSIMILE MESSAGE

DATE: 22nd April 1991

TIME: PM

TO: Lovell White Durrant

FAX No: 071 248 7273

ATTENTION: Mr Macdonagh

No. OF SHEETS: 2

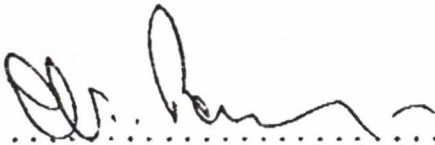
REFERENCE: Montpelier Square

We need the cars excluded from the lamppost outside No 21, down to No. 2. This is in case we cannot use the area where we have arranged for 3 meters to be bagged on the south side of the square

There are two options for the borehole site, at A or B on the plan.

We cannot be held liable for any damage to trees as a result of the crane and/or drilling operation. Also we do not guarantee to find water and all costs incurred up to the point at which the project may be aborted will be chargeable to you

We have arranged for a start on site at 8.00am Wednesday this week, your confirmation of the above arrangements and conditions would be appreciated

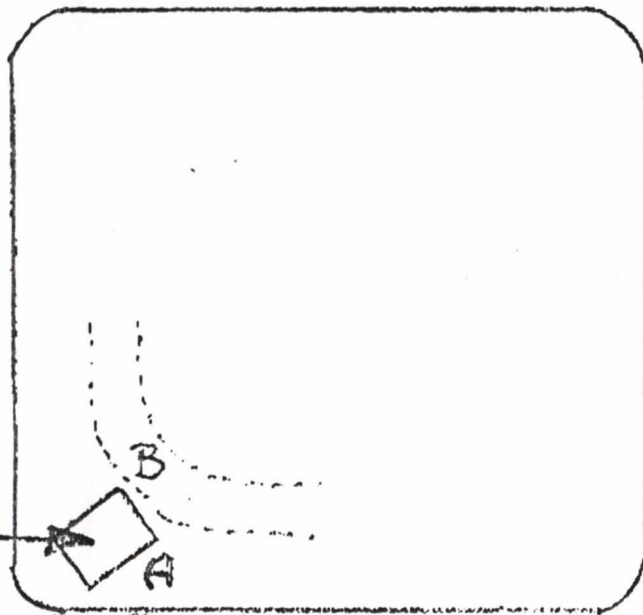
Signed.....

Chris Payne, M. Sc., F. G. S., Dip. H. Delft.

Handwritten notes:
06/04/91
5:50

CARS CLEARED
FROM LAMPOST
OUTSIDE 21
DOWN TO 18

GARDEN
SHED



3 PARKING BAYS BAGGED

DROP IS AT
A by SHED
or
B on PATH.

FROM BROMPTON ROAD



Signed.....

Chris Payne, M. Sc., F. G. S., Dip. H. Delft.

VAT Registration No. 235 6708 53

Registered as above in England No. 835745

BH536

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FARRELL COURT,
ELEPHANT ROAD,
LONDON SE17 1LB

TEL: 071-703 0054

FAX: 071-708 1827

FACSIMILE MESSAGE

DATE: 2nd May 1991

TIME: AM

TO: Lovell White Durrant

FAX No: 071 248 7273

ATTENTION: Mr Macdonagh

No. OF SHEETS: 1

REFERENCE: Montpelier Square

I am sorry to have presented you with 2 'dry' boreholes last week but there is always an element of risk with the gravel strata because it was deposited on an undulating clay surface, some places it is 15m thick others such as at Montpelier Square only 1 or 2m

Total costs for the aborted operation will be about £850

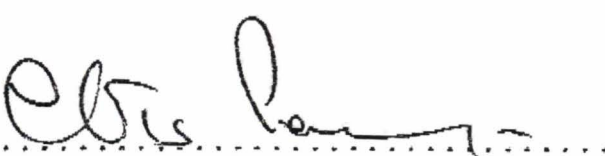
The Chalk as you know is a much more reliable formation and is used extensively across London. Princes Court and Harrods are the nearest working boreholes to you

Your existing pump is a CP3/50 which does about 6m³/hour and this is a modest abstraction for the Chalk

You will need a licence from NRA but as the Chalk water table is rising at the moment I think you will get one. Application for a full licence should be made as soon as possible although one can start drilling on a test pump licence

In August last year I estimated the cost of a Chalk borehole at £14,500 and on consideration of more recent water level data I am sure it will not exceed this. For a modest flow of 6m³/hour the borehole need not be as deep as say the Harrods boreholes (150m)

I will let you have a firm quotation shortly

Signed.....


Chris Payne, M. Sc., F. G. S., Dip. H. Delft.

BH536 . ~~2164~~
2586

file (gunders)

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FACSIMILE MESSAGE

DATE: 3rd May 1991 TIME: PM
TO: Lovell White Durrant
FAX No: 071 248 7273
ATTENTION: Mr Macdonagh No. OF SHEETS: 1
REFERENCE: Montpelier Square

Thank you for your FAX this morning


I have looked at the scheme very carefully but do not feel able to refine the costs very much

Chalk borehole 120m deep, 150mm diameter, 6m³/hour

| | |
|-------------------------|-------------------------|
| Mobilisation | £ 900 |
| Drilling and lining | £ 8,000 |
| Testing | £ 2,000 |
| Pump, pipe and controls | £ 2,500 |
| Licence | £ 450 |
| Total | <u>£13,850</u> plus VAT |

NRA charge 1.3p per m³ for borehole water used for irrigation

It is possible that 10m could be trimmed off the depth but I would like to reserve a contingency for chemical treatment of the borehole if the yield needs to be developed. Also I have made no provision for removal of spoil (clay, sand and chalk) on the assumption you will arrange this, perhaps the sand and chalk can be spread on the gardens

Regards


Chris Payne, M.Sc., F.G.S., Dip.H.Delft.

Montpelier Square Garden Committee

2 Montpelier Square
London SW7 1JT

13th May 1991

C. Payne Esq
Bridge Ironworks (Engineering) Ltd
Farrell Court
Elephant Road
London SE17 1LB

COPY

Dear Mr. Payne,

MONTPELIER SQUARE

Thank you for getting the details through on the deep borehole. The Committee discussed the proposal at some length along with a number of other proposals for the Garden this financial year. Reluctantly we concluded that we did not have enough money to carry out the operation this year but we will almost certainly go ahead with it next financial year at about this time.

We are spending some £5,000 this year extending and improving the irrigation system and a further £10,000 on the paths.

I would like to use the delay to deal with the licensing side - is this something you would be prepared to do for me, or would you prefer me to deal directly with the NRA?

I look forward to receiving your invoice for the aborted operation.

Yours sincerely,

L.A. MACDONAGH

4258w

BRIDGE IRONWORKS (ENGINEERING) LTD.

(Established over 150 years)

Consultants and Contractors for Water Supply

Incorporating

THE BRIDGE IRONWORKS CO.
BERNARD PAYNE
JAMES J. ELAM
ALFRED WILLIAMS & CO.

Registered Office

2 FARRELL COURT,
ELEPHANT ROAD,
LONDON SE17 1LB
TEL: 071-703 0054
FAX: 071-708 1827

Montpelier Square Garden Committee,
2 Montpelier Square,
London
SW7 1JT

Invoice Date: 16th May 1991
Invoice No: 5315

MONTPELIER SQUARE, SW7

TO: Drilling 2 No. Boreholes.

For the sum of:-

| | | | | | |
|---|-----|----|------|-----|----|
| £ | 754 | 85 | 17½% | 132 | 09 |
|---|-----|----|------|-----|----|

| | | |
|---|-----|----|
| £ | 754 | 85 |
|---|-----|----|

Total VAT:

| | | |
|---|-----|----|
| £ | 132 | 09 |
|---|-----|----|

Invoice Total:

| | | |
|---|-----|----|
| £ | 886 | 94 |
|---|-----|----|

Terms: Nett Cash Monthly.
E & O.E.

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16th May 1991

Mrs L.A. MacDonagh,
Montpelier Square Garden Committee,
2 Montpelier Square,
London
SW7 1JT

Dear Mrs MacDonagh,

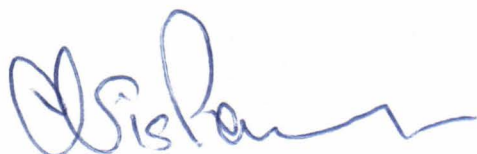
Thank you for your letter of 13th May, I am pleased to hear that the scheme is likely to go ahead next year. There are two stages to a full licence.

1. A test pump licence which allows you to drill and test the borehole.
2. An abstraction licence which is granted on the completion of a successful test; which includes the measuring of water levels in adjacent boreholes to see the effect of the new abstraction.

There is no guarantee that an abstraction licence will be granted but we usually get reasonable assurances from the NRA that it will be forthcoming so long as no serious derogation of an existing licenced abstraction shows up.

I can obtain a test pump licence on your behalf, but will check what sort of validity period there is first. I will be pleased to do this at no cost to your committee now as this is included in the £13,850. for the main scheme.

Yours sincerely,
BRIDGE IRONWORKS (ENGINEERING) LTD



Chris Payne, M.Sc., F.G.S., Dip.H.Delft
Technical Director

Enc....

2 Montpelier Square,
London SW7 1JT

071-581 5384

5th June 1991

D. Eckhardt Esq
26 Montpelier Square
London SW7

Dear David,

I understand that you felt it would be desirable to obtain a further estimate of the cost of digging the deep borehole, which I quite understand. I have spent a fair amount of time trying to set up the borehole contract, and much of it was spent in trying to identify a reliable contractor. From the information I obtained it appeared that there was really only one man who was recommended by the three or four people I spoke to who had had experience of boreholes (including the National Rivers Authority).

There are two other boreholes in the area, one at Princes Court and one at Harrods, both of which are maintained by Bridge Ironworks.

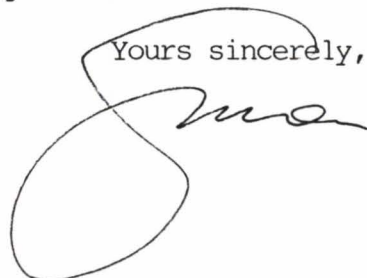
Bridge Ironworks came in at 20% below their estimate for the abortive boreholes.

As I have drawn a blank on finding an alternative contractor who comes with ^{any} sort of personal recommendation, can I leave it to you to see if you have any more luck than me. My gut feel is that Bridge Ironworks are the right people for the job, but I would be the first to admit that I have no experience in pricing borehole contracts!

I do think the borehole is a good idea and something for which future generations will thank us! I hope it will find favour with the Committee when they fix next year's "garden rate".

With kind regards.

Yours sincerely,



c.c. Lady Marshall
Lesley MacDonagh