

22874/DC

8<sup>th</sup> November 2010

Mr. Simon Hudspith  
Panter Hudspith Architects  
4-8 Emerson Street,  
London,  
SE1 9DU



ENGINEERS AND TECHNICAL DESIGNERS

Dear Simon,

**Ref. New House, Briardale Gardens**

Further to our recent meeting I am writing to confirm that we would be very pleased to act as structural engineers for the above project.

As you know, we have a lot of experience in this type of work and have acted as engineers for a number of residential projects in the recent past. I enclose a brochure illustrating some of our work in this area.

As a result of our discussions, we would expect to provide the following input:

1. Prepare a specification for a suitable site investigation and get quotations for the client
2. Attend meetings with your office/design team to consider alternative structural solutions and consider their merits in light of the proposed architectural arrangement. We note that a concrete scheme is the current preferred option.
3. Help with the design of the staircase, provide input and consider alternative proposals
4. We note that it is intended to try and achieve code level 4/5 of the Code for Sustainable Homes. We feel we can help in terms of supporting energy strategies using materials with thermal mass etc.
5. Prepare structural drawings and specification so that the works can be tendered and constructed
6. Prepare calculations for Building Control approval
7. Attend site during construction and answer technical queries from the contractor (we have allowed for 5 visits)

**FLUID.STRUCTURES**

ENGINEERS AND TECHNICAL DESIGNERS



21 St George's Road London SE1 6ES Telephone: 020 78207766 Facsimile: 020 75827848  
Email: [[firstname]@fluidstructures.com Web: www.fluidstructures.com

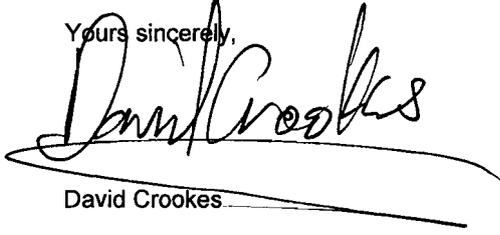
Company Reg N° 3865913

Based on this schedule of services we propose a fee of 2.30% of the final contract cost.

As is usual with this type of project our appointment would be direct with the client and based on the Association of Consulting Engineers Agreement 1 (Design) 2009 and the attached Terms and Conditions. In addition we would require a confirmation of our appointment prior to commencing work. A signed and dated copy of this letter would suffice.

I trust that this proposal will be acceptable but if you have any queries please do not hesitate to contact me directly.

Yours sincerely,

A handwritten signature in black ink that reads "David Crookes". The signature is written in a cursive style and is underlined with a single horizontal line.

David Crookes

**FLUID.STRUCTURES**  
ENGINEERS AND TECHNICAL DESIGNERS

21 St George's Road London SE1 6ES Telephone: 020 78207766 Facsimile: 020 75827848  
Email: [firstname]@fluidstructures.com Web: www.fluidstructures.com

Company Reg N° 3865913



## Terms and Conditions of Fluid Structural Engineers Offer

Ref: 22874

Project: New House, Briardale Gardens

### 1 Project Definition

The extent of our appointment shall be defined in a separate letter of offer to Panter Hudspith Architects dated 9<sup>th</sup> November 2010.

### 2 Form of Agreement

Our services will be in accordance with the Association of Consulting Engineers Agreement 1 2009. This is an agreement for consulting engineers appointed directly by the client but not as lead consultant. A copy is available on request. Our work elements shall comprise the following work elements unless agreed otherwise;

- o Earthwork and Excavation.
- o Foundations including forms of piling, but not the design of piling.
- o Earth retaining structures but not the specification of below ground waterproofing.
- o Structures in in-situ or precast concrete.
- o Structures in glass.
- o Structures in masonry.
- o Structures in metalwork.
- o Structures in timber but not non load-bearing carcassing.

### 3 Services Provided

We will provide the Normal Services as defined in Schedule G(a) of the ACE Agreement. Any Additional Services required by the Client will be deemed to be additional to the fee and will be charged on a time basis in accordance with our standard time charge rates. Any material changes to the brief leading to additional design work will be charged on a time basis. As part of our normal service our fees are deemed to include general structural advice on;

- o Wind load for glazing systems.
- o Member sizes for handrails, balustrades and staircases.

Where general advice is given we anticipate the architect will produce all necessary drawings and specifications for these elements. For designs in metal we will specify member construction forces for the fabricator's design as part of our Normal Service

### 4 Professional Indemnity

We shall not be liable for any losses, costs, action, proceeding or claims arising out of or in connection with asbestos or pollution and contamination. The liability of Fluid Structural Engineers Ltd for any claim or series of claims arising out of the same

occurrence or series of occurrences shall not exceed the sum of £1 million. The period for liability is six years from the date of the accompanying letter instructing us as Structural Engineers. Details of our insurance can be provided on request.

### 5 Collateral Warranty

Charges for entering in to a Collateral Warranty Agreement are as follows:

- a) There is no additional charge if the standard form of Construction Industry Council (CIC) Standard Warranties, CIC/ConsWa/F and CIC/ConsWa/P&T for Funders and Purchasers/Tenants respectively, are used together with current amendments as required by our Insurers.
- b) There is a single payment of £1,200.00 plus VAT for each Warranty that is not a standard CIC Warranty.

### 6 Intellectual rights

All intellectual property rights arising in all or any of our work created by Fluid Structural Engineers shall remain the property of Fluid Structural Engineers unless assigned in writing and after payment of all fees and expenses.

### 7 CDM Coordinator

This project may come under the Construction (Design and Management) Regulations 2007. It is the responsibility of the client to appoint a CDM Coordinator for any project that has a construction period over 30 days or utilising more than 500 person days or involving any demolition works.

### 8 Design Phase (Outline Proposals (G1 to G2.6)

We will provide the normal service as defined in Schedule G(a). The principal work anticipated comprises

- o Inspection of the existing property.
- o Liaison with the Architect to explore the structural options and assist the architect in developing his drawings.
- o Arrange on behalf of the client, trial pits and or geo-technical investigation to determine the ground conditions on site. The cost of the investigation works should be budgeted for separately.
- o Production of tender drawings for the structural works. In accordance with the ACE Conditions, fabrication drawings for steelwork and reinforcement drawings for concrete works are assumed to be produced by the works contractor.
- o Production of a specification for the structural works.
- o Production of calculations for submission to the relevant statutory authority.

### 9 Site Phase (G2.7 to G2.8)



- Attendance at a pre-contract meeting with the contractor at the start of the works on site.
- Review Contractor's fabrication drawings for steelwork elements and reinforcement details and bar bending schedules for reinforced concrete elements. Where the selected contractor cannot provide reinforcement details, Fluid can provide this as an additional service.
- Comment on the Contractor's proposals for the necessary temporary works required to construct the permanent works. As usual the Contractor will be solely responsible for the design of temporary works
- Visit site during the construction of the works to assist the architect to monitor that the works are being executed generally in accordance with the contract documents and with good engineering practice.
- These may be combined with site meetings with the architect and contractor. The number of site visits shall be as stipulated in the letter of offer. If the site visits are not specified then they shall be on a fortnightly basis for the duration of the structural works.
- If in the opinion of the Consulting Engineer the execution of the works warrants full time or part time site staff to be deployed at any stage the Client shall not unreasonably withhold consent to the employment and or deployment of such reasonably qualified technical and clerical site staff as the Consultant thinks necessary. The Client and Consultant shall discuss agree and confirm in writing in advance of such deployment the numbers and levels of staff to be deployed to site.
- The depth of all footings will need to be agreed on site with the District Surveyor/ Building Control Officer. Occasionally it is necessary to go to a greater depth than anticipated on the drawings and this may be required because of local soil conditions or to obtain Building Control approval. The Client is advised to always allow a contingency sum of money for variations in the substructure/foundations.

#### **10 Contamination and the Building Regulations**

The Building Regulations (2000) require that proper consideration is given to the risks to Health & Safety, or damage to building fabric, arising from contamination or naturally occurring hazards such as radon gas. Issues include presence of organic matter and associated gases, or chemical or biological contamination as solids, liquids or gases. Regulation C1 of the Building Regulations and Approved Document C (2004) describe the legal requirements and practical guidance. It should normally be assumed that a specialist site investigation is required. Approved Document C indicates typical requirements for this investigation (Planning, Desk top study, Site walkover and finally physical intrusive investigations such as trial pits and boreholes, sample

testing and reporting). Investigation costs and duration vary considerably, but typically an allowance of 0.5% to 1.5% of construction cost would not be unreasonable. The requirements apply in almost all cases where a building is constructed, extended, or modified to provide habitable space.

#### **11 Invoicing**

We will invoice monthly on the basis of progress through the work stages as defined in the ACE Conditions of Engagement.

#### **12 Terms**

Our payment terms are 14 days. Should there be any issues with a fee account when presented please notify us in writing at least five days before the fee becomes due so that the necessary steps can be taken. If notification is not received within this period then the invoice will be deemed as accepted.

#### **13 Definition of Final Project Costs**

The final project cost defined as the final contract sum raised by the main contractor who has been engaged to carry out the works. The percentage fee is based on all the works (including all the specialist sub contractor elements) but excludes items of free-standing furniture.

#### **14 Post-Tender Omissions of Work Elements**

Fee invoicing at tender stage will be 75% to 85% of total fee (unless agreed otherwise) based on the value of the contractor's original complete tender. Should the final project costs be lower due to post-tender omission of work elements then only the remaining 25% to 15% of fees will be based on the final project costs.

#### **15 Aborted Projects**

The following shall apply in the event that the project is not completed;

- If the project is aborted prior to tender, the fees due will be based on the estimated value of the project at that time as set out in the cost plan.
- If the project is aborted following receipt of tenders then the fees due will be based on the lowest viable, examinable and legitimate tender received.
- If the project stops for a period in excess of 4 months (80 working days) then an additional re-start fee of 10% of the total fee will be charged.

#### **16 Duration of Offer**

The fee proposal is offered to the named client only and is valid for a period of twelve weeks from the date of writing. If our offer is accepted and agreed after a twelve week period then the terms will need to be re-negotiated.



### 17 Redesign Work

Should we be required to carry out redesigning work as a result changes in the Brief or other design issues beyond our control we reserve the right to charge additional fees, which would be on time, charge basis. No work will be carried out on this basis prior to written notification and approval.

### 18 Target Completion Date

Where the project programme defines a target completion date, this date has been used in the calculation of the fee. Should the completion date be extended beyond this completion date we reserve the right to negotiate an additional fee to cover our prolongation costs.

### 19 Adjudication

Part II of the Housing Grants, Construction and Regeneration Act (1996) provides for disputes to be referred to an Adjudicator. We bring to your attention that the following terms will apply.

- o We reserve the right to refer disputes to a formal adjudication process as defined by the Act.
- o Seven days Notice will be given of our intention to refer to the Adjudicator.
- o An Adjudicator shall be appointed by an Adjudicator Nomination Body (ANB) from the published DoE list.
- o The adjudication procedure used shall be that of the Construction Industry Council current at the date of the engagement of the adjudicator.

The Adjudicator shall determine the dispute within 28 days and his/her decision shall be binding on both parties, and where applicable shall create an enforceable debt not subject to offset or counter claim.

- o Subsequent arbitration proceedings may be followed in accordance with the ACE Conditions of Engagement.

### 20 Notice of Suspension of Services.

In the event of payments significantly overdue we reserve the right to suspend the performance of our terms of appointment with 7 days notice. Fluid Structures reserves the right to withhold issue of calculations to Building Control, for works other than substructure elements, where either less than 75% of the project fee has been paid or one or more invoices has become greater than one month overdue.

### 21 Contractor Design Elements

The execution of our responsibilities for the Structural Engineering Design will be in accordance with the ACE Conditions. The detailed design of the following elements will be delegated to the Contractor.

- o Metal work connections.
- o All temporary works.

- o All drainage works.
- o All proprietary products /elements.
- o Reinforced concrete scheduling and detailing

### 22 Third Party Rights

Nothing in this contract confers or purports to confer on any third party any benefit or any right to enforce any term of this contract.

### 23 Schedule of Time Charges

Work will be carried out at an hourly rate of £85.00/hour.

If further site visits are required other than those stipulated in the letter of offer then these will be charged at hourly rates.

Rates are exclusive of VAT (when applicable) and disbursements (travel, printing, copying etc.) are inclusive of office overheads (typing, secretarial and telephone expenses). Please note that for all projects travelling time for site visits will be charged from and to our office at the normal rate up to a maximum of 7.5 hours/ day.

### 24 Disbursements

The following charges shall be made:

#### Photocopying / Printing

Black & White	Size	
	A1	£2.50 + VAT
	A2	£1.50 + VAT
	A3	£0.30 + VAT
	A4	£0.15 + VAT
Colour	Size	
	A3	£2.50 + VAT
	A4	£1.50 + VAT

A4 scanning at £1.00 per sheet

A3 scanning at £2.00 per sheet

CD Burns at £20.00 per CD

Other print requirements	-	At cost to Fluid
Courier's	-	At cost to Fluid
Travel	-	At cost to Fluid
Car mileage	-	£0.40 per mile
Motorcycle mileage	-	£0.24 per mile
Cycle mileage	-	£0.20 per mile

If disbursements are deemed included in the fee proposed the following conditions shall apply.

- o Overseas travel and accommodation associated with the project is excluded from the offer.
- o We will provide a maximum of 10 sets of documents at tender (including Design Team copies) within the fee. Further copies will be charged.