



FAO: Amy Guy
London Property Ventures

SD Structures
60 Gray's Inn Road,
London,
WC1X 8AQ

www.sd-structures.com
020 8144 8900

Date: 27 April 2022
Ref: FL-3418 A

*SD Structures is a personable and vibrant structural design studio based in the heart of London.
We are experienced chartered engineers, who add value to projects by designing well detailed and efficient structures.
This saves our client's money and helps create great architecture.*

Design Proposal - Gondar Gardens - Construction

Dear Amy Guy,

Many thanks for approaching us to provide services on this project. We are delighted to provide you with our proposal. We are experience working on similar projects, and are pleased to provide our quote below.

Structural Works Required

Having reviewed the drawings/ information provided to us we understand the structural works will comprise:

Construction of 2 new houses and 2 flats set of three stories above ground and one new basement level.

The substructure design has been progressed to stage 2+ as part of the BIA and planning applications. The design includes contiguous piled walls to form the basement, along with suspended concrete basement slabs. Mini piles are required to support the ground floor slab at the front of the building due to the RPZ. The ground floor slab has also been designed as a concrete transfer structure. The original design assumed a lightweight SIPs panel would be used above ground for the superstructure.

We can explore other options for the superstructure include traditional brick and block and steel frame. We have allowed for assessing these options for costs and buildability with your supply chain and for the detailed design of one of these framing options.

The below ground drainage strategy included a pumped system with an attenuation tank before connecting into the main public sewer.

We have allowed for virtual design team meetings as required and 1 further site visit prior to construction. During construction we have allowed for up to 5 site visits during construction to help ensure works are progressing inline with our proposals.

Party wall issues are key on this project and we have allowed for a reasonable involvement in agreeing the awards (up to 8 hours work).

About SD Structures

Our clients like working with us because we don't simply find an engineering solution to a problem, we are proactive and work hard to find the optimum solution for the project. We set ourselves apart from most firms by using 3D modelling for our detailed design packages to design structures efficiently and coordinate with architects and builders.

During construction projects are infamous for running over time and budget. We believe that investing in detailed structural design, and clear construction drawings that everyone can understand goes a long way to overcoming these issues. This small investment in our expertise presents excellent value for money by delivering real savings during construction, but most importantly peace of mind for our clients.



SD Structures Ltd is a Limited Liability Company registered in England and Wales No.10705382
Registered Office: 60 Grays Inn Road London WC1X 8AQ
Directors: Michael Davies CEng MStructE, Andrew Simpson CEng MICE



We have allowed for all the normal things that a good structural engineer should include to ensure a sufficiently detailed package of information is produced. A full break down of the services and exclusions are included in the appendix at the back of the proposal. If for any reason you require any more or less input, then we have assumed then please let us know and we would be happy to discuss/adjust our proposal accordingly. We would also be more than happy to talk our proposal through with you in person or on the phone.

Fees

Based on the above, our fee for structural design services will be **£20,400.00+VAT**. A full break down of services that have been allowed for are included the attached schedule of proposed services.

Other Details

We have quoted to develop the permanent works structural design of the project in accordance with the Association for Consultancy and Engineering Conditions of Engagement, Agreement 1:2009 Schedule of Services, for services as listed in part G2 (where it is assumed that we are not the lead consultant) for the stages listed in this proposal. Further clarification of our scope of normal design services and terms and conditions are included in document Ref: SDS-SONS-REV0 appended to this document.

Other standard forms of contract such as RIBA, JCT, may be acceptable subject to agreement. Additional fees may be passed on for the legal review of bespoke contracts. Collateral warranties in the standard CIC form may be provided up to a maximum of three.

The above fee has been prepared on the basis of the information made available at the time of quotation. Any addition work or changes to the design can be undertaken on a time charge basis of £150/hr+VAT for Directors and £35-100/hr+VAT for Engineers and CAD technicians. Any travel and printing expenses incurred may be invoiced in addition to our stated fee, at face value. Invoices are sent at the end of each month for the value of works completed in that period.

We confirm that the practice provides Professional Indemnity Insurance on an each and every basis for a minimum of £250,000 or 20 times the structural fee per claim whichever is the greater, and with an absolute cap of £5 million on each claim. Cover excludes any claims for pollution, asbestos, terrorism or contamination.

Please also note that this project may be notifiable under the current CDM regulations in which case a CDMC/Principle designer should be appointed.

If you have any queries, or would simply like us to talk you through the proposal, please call us on 020 8144 8900.

If you would like to proceed with our services, please complete the attached client agreement form and send it back to us to confirm our appointment.

We look forward to hearing from you.

Kind Regards

For and on behalf of SD Structures,



Andrew Simpson
CEng MICE MEng Hons.



Mike Davies
CEng MStructE MEng Hons.

SCHEDULE OF PROPOSED SERVICES & OPTIONS

Design Services	Quantity	Rate	Amount
Structural Engineering - Stage 3	1.00	6,000.00	£6,000.00
Structural Engineering - Stage 4	1.00	8,200.00	£8,200.00
Structural Engineering - Stage 5	1.00	4,000.00	£4,000.00
Civil Engineering - Below Ground Drainage (stage 3-5)	1.00	2,200.00	£2,200.00

Total	£20,400.00
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Note. The above quote is exclusive of VAT.

Additional Services (Optional)	Quantity	Rate	Amount
RC Detailing Drawings and Bar Bending Schedules	5.00	650.00	£3,250.00

This quote is valid To: 25 May 2022

If you would like to proceed with our services, please complete the attached client agreement form, striking through any services you do not require, and send it back to us to confirm our appointment.

Invoice are to be paid within 28 days of issue.

All prices quoted are exclusive of VAT

CLIENT AGREEMENT FORM



Contact Information		
Project Name - Gondar Gardens - Construction		Quote Number - FL-3418
Contact Name		Company Name (If applicable)
Address		
Town / City	Postcode	Country
Phone	E-mail	
Invoice Information – required where this is different to the contact information above		
Company Name (If applicable)		
Addressee		
Address		
Town / City	Postcode	Country
All invoices will be emailed direct to the client. Hardcopies may be issued on request. Refer to invoice for payment details.		
Standard Conditions Payment is due within 28 days. Interest will be charged at 8% above NatWest Bank base rate on accounts outstanding after 28 days. SD Structures Ltd is a Limited Liability Company registered in England and Wales No.10705382		
Queries Please notify us of any queries on invoices within 3 days of receipt.		
<u>Please note the quantity of additional services required (if applicable) and strike through any services not required:</u> <ul style="list-style-type: none">• RC Detailing Drawings and Bar Bending Schedules		
I confirm my acceptance of the proposed agreement as outlined in SD Structures Fee Letter Ref: FL-3418 for the services noted above, with the scope of work as defined within the proposal letter dated: 27 April 2022 Our appointment will be in accordance with the Association for Consultancy and Engineering Conditions of Engagement, Agreement 1:2009.		
For Execution of this Agreement under hand: Signed	Position (If applicable)	Date

Scope of Services & T&Cs

Structural and Civil



Scope of Standard Structural Services

Our proposal has been prepared on the basis of the drawings and information made available at the time of quotation and is limited to undertaking the services listed above. SD Structures pride ourselves on offering a comprehensive structural design service.

We have allowed for all the normal things that a good structural engineer should include to ensure a sufficiently detailed package of information is produced. A full break down of the services and exclusions are included in the scope of standard services below. If for any reason you require any more or less input then we have assumed then please let us know and we would be happy to discuss/adjust our proposal accordingly.

<u>Work Element</u>	<u>Our actions, and those of others where relevant to the project</u>
• Setting Out	The Architect should be responsible for defining the position of the building, the grid of the building, levels, headroom and clearances, and the dimensions to the edges of structure.
• Demolition of Structures	We will assist the Architect with this process where appropriate. The Contractor will be responsible for taking all site dimensions and any surveys required during the site works.
• Shoring and Temporary Works	The Architect should produce drawings and a specification to define the extent of demolitions. We will assist in defining the structural form of the building or elements of the building to be demolished, floor and wall types.
• Excavation and Filling	Temporary Works are the responsibility of the Contractor. Where appropriate and specifically agreed prior to appointment we will produce outline designs for more complex works, which will be subject to detail design by the Contractor's Temporary Works Co-ordinator.
• Roads, Hardstanding	Monitoring and reporting on the movement of adjacent structures and buildings during the works will be the responsibility of the Contractor. Earthworks specification and drawings are by others. We will aid in the production of indicative excavation levels to aid costing of the scheme. Soil classification for disposal and handling purposes shall be carried out by the Contractor.
• Areas and Paving	The detailed design of all roads, hard-standing areas, patios and paving will be by others.
• Underground Drainage Works	Refer to Civils Scope
• New Piling	We will prepare the specifications and drawings indicating pile types, numbers, positions and loadings. The Specialist Piling Contractor will use this information plus geotechnical data to design and detail the piles. The selection of factors of safety and testing regimes will be those deemed most suitable by the contractor. Piling platforms are part of Temporary Works and should be specified by the Contractor.
• Waterproofing	<p>Waterproofing solutions require co-ordination with structural elements and must respond to structural movements. The selection of which solution to adopt is a collaborative team effort but it is the Architect who must take the lead.</p> <p>Membrane, tanking or drained cavity solutions should be specified and detailed by the Architect or a Specialist Supplier. Where appropriate we may illustrate them on our drawings for structural co-ordination purposes.</p>

Scope of Standard Structural Services (cont.)

<u>Work Element</u>	<u>Our actions, and those of others where relevant to the project</u>
<ul style="list-style-type: none">• Waterproofing (cont.)	Waterproof concrete additive solutions should be specified and detailed by a specialist Contractor/Supplier who must provide a guarantee. The Architect is responsible for the above-ground waterproofing and its overlap with the basement waterproofing.
<ul style="list-style-type: none">• In-situ Concrete Works	<p>We will produce the specification and drawings of mass and reinforced concrete slabs, columns, foundations, walls, pits and manholes; including any special finishes, in collaboration with the Architect. We will define the position and detail of movement joints, and provide reinforcement estimates in the form of basic elemental rates. If novated or commissioned to take the design to construction detail, we would prepare reinforcement intent mark-ups for the contractor to prepare reinforcement schedules.</p> <p>Post-tensioned reinforcement (if required) is to be designed and detailed by a Specialist Contractor, including any loose bar reinforcement within post-tensioned slabs. We will review drawings and calculations for compliance with our design intent.</p>
<ul style="list-style-type: none">• Pre-cast Concrete Works	We will produce scheme drawings and performance specifications for staircases, landings, slabs, panels and beams, which will be subject to detailed design by others. We will check fabrication drawings and calculations for compliance with our design intent.
<ul style="list-style-type: none">• Primary Structural Steelwork Framing	We will produce drawings and specifications for primary structural steelwork framing (if required), steelwork essential to the integrity and robustness of the structural frame, including; positions (when gridlines are set out by the architect), sizing, levels (when provided by the architect), typical connections or connection loadings, bolt types and movement joint locations, and corrosion protection paint finishes. The Fabricator should prepare the detailed connection design (unless explicitly agreed as an additional service) and fabrication drawings. We will check fabrication drawings and calculations for compliance with the design intent. Where steelwork connects to masonry or concrete elements of existing structure we will take the lead in designing such connections to co-ordinate with the Fabricator's details.
<ul style="list-style-type: none">• Structural Metal Framing systems by Specialist Contractors	Specialist Contractors/Suppliers should design these systems including studs, rails and purlins for framed buildings; and produce fabrication drawings and detailed connection designs. We will provide requirements in terms of design loadings and acceptable support positions. We will comment on fabrication drawings and calculations for compliance with design intent. The Specialist should redefine design loadings for us to finish the design of the supporting structure.
<ul style="list-style-type: none">• Architectural Metalwork and Secondary Steelwork systems, e.g. Brise-soleil, Steel Stairs, lift shaft steelwork	The Architect, Contractor or Specialist Supplier as appropriate should be responsible for designing and specifying architectural metalwork and secondary steelwork; such as stringers, stair treads, handrails and balustrades, lift guides, plant supports, partitions, secondary steelwork support to cladding, cladding systems in general, safety barriers etc. (Unless explicitly agreed prior to appointment)

Scope of Standard Structural Services (cont.)

<u>Work Element</u>	<u>Our actions, and those of others where relevant to the project</u>
<ul style="list-style-type: none">• Brick/Block Walling	For steel and concrete framed building, the Architect should produce the drawings and specification for all brickwork and blockwork walling. Design of brick and block walling including lintels, wind posts, ties, and movement joints will be by others. For domestic timber and masonry construction, we will advise on the structural requirements for lintels and masonry walls.
<ul style="list-style-type: none">• Stone and Precast Concrete Cladding and Support Works	We will design the primary structure for the support of stone and precast concrete cladding systems (with the loads provided by the manufacturer prior to stage G2.6). Specialists working directly for the Stonework or Pre-Casting Sub-Contractor should design support brackets and produce all construction drawings/setting out.
<ul style="list-style-type: none">• Structural Carpentry, Timber and CLT Framing	We will produce drawings and specifications for structural timber framing including positions (when gridlines are set out by the architect), sizing, levels (when provided by the architect), typical connection or connection loadings. Specialists should prepare the detailed connection design and fabrication drawings. For specialist timber elements such as glulam beams, CLT panels and prefabricated trusses our drawings and specifications will be taken to design intent level only.
<ul style="list-style-type: none">• Structural Glass Assemblies	Design of these will be by a specialist unless specifically agreed prior to works. The Specialist will prepare the detailed design and SD will review fabrication drawings and calculations for compliance with the design intent.
<ul style="list-style-type: none">• Staircases	Timber, steelwork and precast concrete staircases are to be designed and detailed by Specialist Subcontractors.
<ul style="list-style-type: none">• Builderswork in connection with services	Either the Services Engineer or M&E Sub-Contractor should prepare scheme drawings highlighting the likely location of major builderswork openings and exceptional loading. We will review and comment on the scheme drawings with regard to potential structural implications. When scheme information is received in a timely manner prior to completion of Stage G2.4, we will propose strengthening if required. The Contractor will be responsible for the design of any necessary support structure, loadbearing or fire rated infill to openings, fixings for services, and any requirements for plant bases / plinths other than structural adequacy.
<ul style="list-style-type: none">• Lifts	We will check the primary structure of the shaft for loads supplied by the Lift Manufacturer. The Contractor's drawings, which are to be used for setting out of any cast in fixings will show the position of permanent fixing locations. Lifting beam design and any secondary running rail supports are to be by designed and set out by others.
<ul style="list-style-type: none">• Fire Protection	<p>The Architect or appointed Fire Safety Consultants should define and be responsible for the project fire strategy. Fire resistance periods and fire protection details for all elements are to be shown on the Architect's drawings. We will do the following:</p> <ul style="list-style-type: none">- steel structure - advise on intumescent paint treatments (if this is the architect's chosen method of fire protection)- concrete structure - design elements to meet the specified fire rating.- timber structures - check exposed timber sizes for adequacy subject to an appropriate charring rate where explicitly requested

Scope of Standard Structural Services (cont.)

<u>Work Element</u>	<u>Our actions, and those of others where relevant to the project</u>
<ul style="list-style-type: none">• Anti Vibration Bearings/remediation	Where we have been advised that anti-vibration bearings or remediation are required to be incorporated in the primary structure, we will show them on our structural drawings. A Specialist should be appointed to advise on the types and detailing of any anti-vibration bearings or remediation.
<ul style="list-style-type: none">• Landscaping and External Works Features	We can contribute to structural drawings and specifications for retaining walls where explicitly agreed prior to appointment. The Architect, Contractor or Specialist Supplier as appropriate should be responsible for designing and specifying gates, fencing, posts, retaining wall finishes and other landscaping features.
<ul style="list-style-type: none">• Co-ordination	We will assist the Architect or CA in their co-ordination and integration of the design of the Works with that of the Project. Any co-ordination required between Sub-Contractors/Suppliers and others (for brickwork supports, cold formed metal framing, etc.) will be the responsibility of the Contractor.
<ul style="list-style-type: none">• Alternative Designs	Work in considering alternative designs for the works submitted by Contractors or due to a change in the brief, if requested, is an Additional Service subject to an additional fee.
<ul style="list-style-type: none">• Site Visits	We can carry out site visits appropriate to the stage of construction, to monitor that the works are being executed generally in accordance with the contract documents and good engineering practice. Allowances for site visits and rates for any additional visits are noted in the fee proposal.
<ul style="list-style-type: none">• Standard Provision of Information	We will formally issue our drawings electronically as pdf files. Any printing costs will be charged as additional expenses.
<ul style="list-style-type: none">• Meetings	We can attend meetings with the design team or others where coordination is not feasible electronically. Allowances for meetings and rates for any additional visits are noted in the fee proposal.
<ul style="list-style-type: none">• Third Party Approvals	Our drawings may be used to help gain third party approvals; however, should any additional involvement or liaison be required (Meetings, correspondence, reports, additional details etc.) these can be provided as an additional service at the stated hourly rates within the agreement. Third-party approvals include items such as Party Wall Awards, AIP's, Letters of No Objection, Asset Protection Agreements or build over agreements. Our drawings may be used to help gain third party approvals; however, should any additional involvement or liaison be required (Meetings, correspondence, reports, additional details etc.)

Scope of Standard Civil Engineering Services

Work Element

Our actions, and those of others where relevant to the project

- Desk Study

Obtain the Client's Brief and examine the implications of the Civil Engineering requirements of the proposal.

Carry out a review of the existing site investigation reports, as well as any other survey information, or historic records that are made available, and advise on any requirements for further site investigations and surveys.

Outline potential applications to statutory bodies for client information and costing. Based on detailed topographical survey information (provided by others), prepare design and details for the below ground foul and surface water drainage system for the building and external paved areas.

Initially prepare a preliminary scheme and issue to the design team for information and comment. Develop these details in line with scheme progress, whilst keeping the design team informed of any significant changes.
- Below Ground Drainage Design

For finalised scheme, prepared detailed design calculations, general arrangement and detail drawings, and inclusive elements to the project designer's risk register. Preparation and submission of documentation and drawings to provide approved design in accordance with local water authority for discharge.
- Road Design and Hard Standing / Paving Detailing

Road Design and Hard Standing / Paving Detailing is by others.

It should be noted that any areas that are proposed to be paved with permeable finishes are to be co-ordinated with the Civil Engineer to ensure adaptation and connectivity with the proposed below ground drainage systems.
- Specifications

Specifications are available for Civil works if required, subject to additional fees. Standard specification and details are included within all detail and general arrangement drawings.
- Co-ordination

We will assist the Architect or CA in their in their co-ordination and integration of the design of the Works with that of the Project. Any co-ordination required between Sub-Contractors / Suppliers and others will be the responsibility of the Contractor.
- Meetings

We can attend meetings with the design team or others where co-ordination is not feasible electronically. Allowances for meetings and rates for any additional visits are noted in the fee proposal.
- Site Visits

We can carry out site visits appropriate to the stage of construction, to monitor that the works are being executed generally in accordance with the contract documents and good engineering practice. Allowances for site visits and rates for any additional visits are noted in the fee proposal.
- Alternative Designs

Work in considering alternative designs for the works submitted by Contractors or due to a change in the brief, if requested, is an Additional Service subject to an additional fee.

Scope of Standard Civil Engineering Services (cont.)

<u>Work Element</u>	<u>Our actions, and those of others where relevant to the project</u>
<ul style="list-style-type: none">• Standard Provision of Information	We will formally issue our drawings and documents electronically as PDF files. Any printing costs will be charged as additional expenses.
<ul style="list-style-type: none">• Third Party Approvals	Our drawings may be used to help gain third party approvals; however, should any additional involvement or liaison be required (Meetings, correspondence, reports, additional details etc.) these can be provided as an additional service at the stated hourly rates within the agreement.
<ul style="list-style-type: none">• Searches and Statutory Undertakers	It is assumed that all searches for existing services will be undertaken by the client and form part of our design brief.

In the preparation of this proposal, we have made the following assumptions:

- The proposed works will be carried out in a single phase, and we have based our construction fee on a time cost basis.
- The client will supply SD Structures with the details of all underground services and below ground infrastructure on or adjacent to the site, drainage serving or crossing the site, as well as any existing easements affecting the site prior to commencing scheme design.
- Detailed design by SD Structures will be undertaken once all applicable layouts are agreed and frozen for the appropriate stage, and available in DWG format, including all relevant level information and set in out in world co-ordinates – any subsequent changes within each stage to the layouts necessitating re-design will be charged as an additional fee.
- SD Structures have assumed that the foul water and surface water will discharge to existing adopted sewers adjacent or near to the site. We assume that the sewers have capacity to receive discharge, and that appropriate Drainage Authority consent to discharge will be granted without extended negotiations.
- Surface water flows from the development may be discharged on-site (instead of or in combination with discharge to an existing outfall) via a soakaway type structure. Soakaways are to be deemed appropriate by infiltration rate testing (by others), in accordance with BRE Digest 365 – Soakaway Design 2016 Revision.
- All proposed drainage systems classified as 'private' (i.e. non adoptable by the local water authority), are to be designed in accordance with Building Regulations Approved Document H.

Further to the exclusion of services within the fee proposal and Appendix A, SD Structures' proposals have not included for:

- Preparation of setting out co-ordinates.
- Issues arising from land drainage or drainage of specialist play surfaces.
- Advising on the need for the diversion or alteration of any above or below ground services on or adjacent to the site.
- Undertaking ground modelling.
- Obtaining approvals for any works from the Local Highways Authority.
- Any works associated with the design of temporary works.

Note: If any of the above services that have been excluded are required, or if any discussions are required regarding the above, please do not hesitate to contact us so we can adjust our proposal accordingly.