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# PROPOSALS & IMPACT ASSESSMENT

The Charles Darwin Exhibition and Education Centre  
Darwin House, Shrewsbury



Prepared for the Darwin Birthplace Society by  
**DONALD INSALL ASSOCIATES**  
in conjunction with  
Furneaux & Stewart Design, Bob Costello Associates,  
and The John Pidgeon Partnership

5 Swan Hill Court, Shrewsbury, Shropshire SY1 1NP  
Tel: 01743 351244 Fax: 01743 357172 Email: [architects@insall-salop.co.uk](mailto:architects@insall-salop.co.uk)

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## **1.0 INTRODUCTION & BACKGROUND**

### **1.1 Introduction**

This document has been prepared by Sarah Butler of the Shrewsbury Office of Donald Insall Associates.

It sets down the outline proposals to RIBA Stage C together with an Impact Assessment which will form part of a Heritage Lottery Fund Stage 1 application.

This document was commissioned on behalf of the Darwin Birthplace Society.

This proposal is to be read in conjunction with the following drawings:-

TMS 050 - Site Plan - As Existing

TMS 051 - Site Plan - As Proposed

TMS 100 - Floor Plans - Main Block - As Existing

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## 1.2 Background

The Mount, Shrewsbury was built and completed by October 1797, for Dr Robert Waring Darwin, Charles Robert Darwin's father. Charles was born in this house on 12th February 1809. He is one of the most famous men to have lived. His theory of natural selection and evolution put forward in 1859, in the book *On the Origin of Species*, was controversial at the time but eventually changed the way that most scientists and other people think about how different species of animals and plants came to arise. His life at The Mount during his formative years as a young child played a key part in the development of his interests in nature and science.

Darwin House is a pleasantly proportioned Georgian building, constructed in the late eighteenth Century.

In his book 'Shropshire', in the 'Buildings of England' series, Nikolaus Pevsner describes Darwin's House thus:

"Late Georgian, red brick, five bays and two and a half storeys, quite plain. Deep Tuscan porch. Lower wings of different length and height, that on the (left). of four bays, one-storeyed with windows in blank arches".

Darwin House and its outbuildings are respectively Grade II\* and Grade II listed and are therefore perceived to be particularly important, of more than special interest and of national significance. However within the buildings there are areas which do not themselves contribute to this status and where alteration or, in some cases, removal would not diminish the significance of the site.

The best use for a listed building is very often the one for which it was designed, or a functionally similar use. The appropriateness of the current or anticipated use is fundamental from a conservation point of view and will be an important guiding factor in any decision making process. In considering the future development of Darwin House, and its various outbuildings, the conservation authorities will be mindful of the need to allow alterations and adaptations in order to ensure its continued use as a building of national significance.

The Darwin Birthplace Society was established in 2004 with the objective of bringing in to charitable ownership the birthplace of Charles Darwin, at Darwin House (No. 2 The Mount), Shrewsbury. The Society is currently seeking incorporation as a charitable company and registration as an educational charity. Successful funding bids have been made to a number of organisations including the HLF and AWM. The Society is now in a position to develop a detailed scheme for the conservation, repair and adaptation works to put the building and its gardens into good order as a public attraction.

The Society is currently negotiating to obtain the freehold or head lease to The Mount. The objective is to create a successful public attraction at ground floor level of the building; including exhibition, education, café and retail services. The upper floors would remain as tenanted spaces providing rental income for the maintenance of the house and its gardens.

### 1.3 The Consultant Team

#### Architect

**Donald Insall Associates Ltd**  
5 Swan Hill Court  
Shrewsbury  
Shropshire, SY1 1NP

Telephone : 01743 351244

#### Contact

Geoff Broster (Senior Associate)  
Sarah Butler (Senior Architect)

#### Quantity Surveyor & Planning Supervisor

**John Pidgeon Partnership**  
Suite 5 Noram House  
Victoria Road, Shifnal  
Shropshire, TF11 8AG

Telephone: 01952 461881

#### Contact

Wilf Jones (Partner)

#### Mechanical & Electrical

**Bob Costello Associates Ltd**  
Britannia House  
Eastgate Street  
Stafford, ST16 6NQ

Telephone: 01785 247300

#### Contact

Brian Thompson (Partner)

#### Exhibition Consultants

**Furneaux & Stewart Design Ltd**  
Bloxham Mill  
Barford Road  
Banbury, OX15 4FF

Telephone: 01295 724160

#### Contact

John Furneaux (Partner)  
Laurie Stewart (Partner)

Should the Stage 1 Heritage Lottery Fund (HLF) application be successful and the Consultant Team appointed for Stage 2 HLF application, a structural engineer will join the team:

#### Structural Engineer

**Bob Johnson**  
First Floor  
Old Bank Buildings  
Shrewsbury

Telephone: 01743 350893

## 1.4 The Study Site

Darwin House is located to the north west of Shrewsbury town centre in an area called Frankwell. It is sited on high ground which steeply slopes towards the River Severn to the north. It lies within a conservation area.



**Location Plan**



**The study site - boundary shown in red**

The study site will be focused on the current boundaries of The Mount (red boundary), the original Estate boundary is indicated in blue.

## **1.5 Existing Use – Valuation Office**

The Valuation Office currently occupies all buildings on the site.

In summary:

- The Stable Yard buildings are not used with the exception of the Coach House garage.
- The main active storage areas are File Room (04) and File/Records Room (20). These records need to be stored on site.
- The western annex first floor is under used. Material stored here could be removed off site and rationalised.

An area analysis has been carried out to assess spatial requirements and demand (see Appendix A).

Informal parking occurs along the front drive and in the Stable Yard. The number of cars can vary between seventeen and forty.

## **1.6 The Brief**

### **Exhibition and Education Centre:**

- To create public access to the birthplace of Charles Darwin and tell the story of the young scientist's life and education in Shropshire.
- To provide facilities that could accommodate 50,000 visitors in a year.
- To provide a prestigious venue with educational and conference/seminar facilities to serve the Exhibition and Education Centre, county town of Shrewsbury and beyond.

To provide:

- Café facilities to accommodate 64 covers.
- Conference/Seminar space to accommodate 60 – 100 delegates.
- Retail space
- Temporary Exhibition space
- Office accommodation
- Support accommodation – toilets etc.

Refer to Appendix B for Brief and Spatial Analysis.

### Valuation Office:

- To provide work stations for 40 staff.
- To provide approximately 90 metres linear length of shelving unit for archive storage together with filing cabinet and other storage units (see appendix C)
- To provide 75% of essential parking. An estimate of this at present is 12 spaces.

## 1.7 Options Appraisal

An options appraisal was carried out for the site and buildings primarily to assess the allocation of space requirements both for the Exhibition and Education Centre and the Valuation Office. Refer to Appendix D

In summary :-

**Option 1** – Provision of Valuation Office space on the ground floor of the Western Annex to overcome DDA access requirements. This option has been discounted. It results in dividing up the principal spaces important to the story of Charles Darwin, namely the main house from back-of house and stable yard; provides for difficult separation and security issues; would result in the under utilisation of the existing stable yard outbuildings.

**Option 2** – Exhibition and Education Centre capturing all the ground floor and the stable yard. The Valuation Office located on the upper floors served by a new stair and lift shaft to the east of the main house. It assumed a proportion of off-site storage for the Valuation Office allowing the demolition of the eastern 20<sup>th</sup> century buildings for Valuation Office parking. This option was discounted as the Valuation Office required all archive documents to be stored on site.

**Option 3** – As Option 2 but with Valuation Office archive storage on site.



Site Plan: Blue – Exhibition, Red – Education & Support, Yellow – Valuation

This option has been developed and provides the following allocation:

- i. Exhibition – to occupy all of the ground floor area of the Main House, Conservatory and Western Annex.
- ii. The Education and Support Accommodation is located in the Stable Yard.
- iii. The Valuation Office is located to the east with a new entrance and vertical circulation to the upper floors, continued use of the File/Records Room (20) and designated car parking. The retention of the File/Records Building is necessary in order to meet the on-site archive storage requirements of the Valuation Office.

This layout allows for:-

- The exhibition to occupy the key and principal spaces associated with the Darwin household, including important back-of-house rooms and outbuildings adjacent to the stable yard.
- The Stable Yard forms a key part of the Darwin estate and the running of the household. Continuing the exhibition flow into this area provides a coherence in telling of the story.
- The Stable Yard provides a contained and screened setting for the introduction of new build associated with the spatial requirements of the education, retail, café and temporary exhibition.
- The requirements for a separate entrance and access to the upper floors for the Valuation Office are appropriately sited at the east end:-
  - i. It allows for a discrete and separate entrance:-
  - ii. Dedicated parking is located away from the main house.
  - iii. The vertical circulation is tucked behind the existing two-storey eastern annex.
  - iv. It allows for a direct relationship with the continued use of the record store (east 20<sup>th</sup> century building).

## **2.0 PROPOSALS**

### **2.1 Exhibition**

The exhibition spaces are to be contained on the ground floor of the main house and western annex; together with exhibition space in some of the outbuildings. The upper floors of the Western Annex are to be upgraded for office use, workshop (for work on small scale exhibits), and exhibition store.

The aim is to conserve and repair the architectural elements and features to the period when the Darwin's occupied the house to provide a back drop for the exhibitions.

#### **Main House & Western Annex**

- Replace modern fire doors with fire rated panel doors to match existing.
- Reinstate the detail to the enriched plaster cornices which has been diminished due to layers of paint and lime wash. Specialist conservator to undertake the work.
- Expose, repair and reinstate timber floor boards throughout the rooms.
- Replace carpet and nosings to main stair with carpet runner and stair rods.
- Open up blocked or blanked fireplaces to all exhibition spaces including kitchen range. Conserve warming oven.
- Open up and reinstate surviving door openings which serve the ante room between the Dr Darwin's Waiting Room and Surgery.
- Overhaul ground floor window shutters to full working order. Shutters are to be used for security at night.

#### **Stable Yard & Outbuildings**

- The Dairy - the architectural detail survives in tact including window and door joinery and slate shelves. This is to be conserved to provide a back drop for an exhibition suitable to the 'external' environment. The steps down to the Dairy are to be retained. Access to the material within this room is to be made available elsewhere in order to meet with DDA requirements.
- The Laundry – this space has been stripped of any features associated with its use as a laboratory or laundry at the time it was converted to a cottage. These rooms are to be repaired and decorated to provide a simple back drop for the proposed exhibition.
- Drying Yard Sheds – The existing wc is to be stripped out and the sheds repaired to provide external exhibition spaces.

## **Hot House**

As part of the exhibition experience it is proposed to provide a Hot House on the site. A feature that played a key role during the life of the Darwin's at The Mount.

The preferred location would be on or near the original site of the Plant Stove and Vineries. That is at the east end of the site where the Valuation Office record store is located.

As this site is not available at present it is proposed to locate the Hot House within the Stable Yard between the Western Annex and the Coach House complex. It is located on the exhibition route and forms a key part of the experience. It will be of modern design and construction to contrast but compliment the Stable Yard area.

A further green house may become an option and could be located to the east once this area becomes available in the long term.

## **2.2 Education and Support Accommodation**

The Stable Yard will provide the facilities to serve and support the exhibition.

The proposals acknowledge and retain the 19<sup>th</sup> century extensions to the original coach house and stable block. The scheme utilises all the outbuildings.

In order to provide for all the use and space requirements it is necessary to introduce an element of new build within the stable yard. This space acts as a central flexible area that serves and is served by the existing stable yard buildings.

The coach house and stable are to provide dedicated conference, seminar and education rooms. The upper loft floors are to be cut back to form galleries within these spaces, opening up the roof space and structure to the main room. The opening to the coach house is to have a timber folding screen that can be opened up to allow connection with the larger central space.

The central space will contain furniture, shop displays and exhibition displays that are demountable or can be moved with ease in order to facilitate and enable several configurations and uses for this area. The space can adapt to suit the varying and seasonal demands of the café, shop, temporary exhibition and conference requirements.

There will be storage provision in the south cottage and beneath the proposed stable gallery which will accommodate tables and chairs.

The south cottage contains kitchen facilities with an open counter arrangement within the central area. The upper floors of the cottage will provide office and staff accommodation.

The north cottage is opened up to provide direct access from the central space to a suite of public toilets.

The central building is to be a light weight contemporary structure in design. For it to sit away from the existing buildings with a glazed zone all round, and to have a low roof form.

The roof is an elliptical copper shallow dome supported on a structural timber ring beam and posts; reflective in form of a beetle's shell or a leaf. The junction to the existing buildings is to be flat planar glazing together with the front façade to create an impression that the central enclosure is floating unconnected to the stable buildings. It will also provide views through to the surrounding buildings.

The levels throughout this area will need to be addressed in order to provide level access between new and existing. Currently the cottage floors are two steps above the yard.

It is proposed that a combination of lowering the cottage floors and raising the yard will enable access throughout the ground floor area. Stable block paving, and terracotta floor tiles are to be set aside for re-use where appropriate.

The yard is to be re-surfaced in paviers or suitable treatment appropriate to an eighteenth century stable yard. This treatment is to be carried through into the central space.

## **2.3 Valuation Office**

### **Entrance and Record Storage**

The existing eastern extensions are to be modified to provide a new separate entrance to serve the valuation office.

Floor levels are to be adjusted to this area to match that of the main house. The connecting building between the conservatory and record store needs to be raised by a level of approximately five steps. The record store floor needs to be raised by a level of approximately two steps.

The external ground is to be re-graded locally to the approach for the valuation office entrance.

The existing connecting building between the conservatory and record store is to be adapted to provide a waiting area with frameless glazed links either side, one serving the entrance lobby and the other linking to the vertical circulation shaft. The glazed links are to have a flat roof construction continuous with the waiting area.

The existing windows to the proposed waiting area are to be enlarged to afford views across the rear garden and out to the north.

The aim is to reduce the impact of this structure on the setting of the front gardens and main house. This will be achieved by putting a lead flat roof on the front two bays tucked behind a new brick façade reflective of a garden wall. The visual impact is thus reduced by re-cladding the front elevation in an appropriate and sensitive manner and by pushing back the gabled roof form.

The front two bays of the existing record store are to be adapted to provide staff toilet and kitchen facilities.

The record store is needs to accommodate approximately 90 metres linear length of storage for the Valuation Office. Some of this will be accommodated in a rolling racking system in order to meet space requirements.

The asbestos roof is to be replaced with a lightweight metal sheet roof. It is proposed to provide a timber screen with planting to the front of the west elevation of the record store to improve it's visual appearance relating to the terrace garden.

### **Vertical Circulation**

The proposed vertical circulation shaft is located behind the two storey eastern annex. It will house an eight person DDA compliant lift to serve the first floor. The new stair will serve the first and second floors.

This arrangement minimises the massing and height impact on the historic facades and form, while enabling compliance with DDA, increasing flexibility in the use of the first floor and providing for means of escape.

The internal layout is such that it endeavours to minimise its impact on existing façade of the main house. The central windows are to be opened up to form doors to connect the landings to the first and second floors. There is no connection with the Exhibition space, however the layout is designed to allow a connection should this be required in the future.

The shaft is to be constructed in brickwork to match the main house. It is to be plain in treatment. Where the shaft connects to the main house there is to be a full height glazed link. There is to be a roof light to the top of the stair well. The shaft will have parapet walls with lead roofs behind.

There are existing rainwater outlets and drains to this area that will require modifying to allow for the extension.

### **Office Space**

The upper floors are to have modern partitions removed to facilitate planning of the office work stations.

The circulation is to be modified and adapted to allow the Valuation Office to function without using the main staircase and hall which is to be dedicated to the exhibition space.

The existing toilets on the back stair landing and second floor are to be stripped out and converted to provide new unisex toilets for staff use.

The rooms are to be decorated and re-carpeted throughout.

## 2.4 Services

*See Mechanical & Electrical Consultant Report – Section 6*

Remove all surface mounted wire, conduits and cabling to ground floor areas. Locate service routes within floor and ceiling voids. Routes to be identified to minimise impact on historic fabric.

Remove fire panel from main hall to administrative location more appropriate to proposed use.

Remove security panel from Dr Darwin's Waiting Room to administrative location more appropriate to proposed use.

Overhaul existing cast iron radiators throughout. Re-site radiators on ground floor where they currently clash with floor to ceiling windows in the rear principal rooms or where they clash with window shutters. Large sized surface run pipe work serving existing radiators on the ground floor to be removed and replaced by a small diameter discrete piped system.

Allow for general room lighting to be provided by light fittings reflective of a late 18<sup>th</sup> century house, together with integrated emergency lighting.

## 2.5 Parking

Designated parking has been kept to a minimum in order not to impact on the setting of the house and grounds. It is proposed that visitors will utilise the 'Park and Ride' and proposed 'Darwin Trail' from Frankwell and the town centre as part of the journey through Charles Darwin's life in Shrewsbury before arriving at the Centre.

The proposals allow for extending the hard surface at the east end of the front drive. This layout will develop in conjunction with a garden specialist to ensure the existing landscape is not compromised.

### **Valuation Office Parking**

The proposal provides twelve spaces one of which is disabled. The Valuation Office has indicated that they require 75% of their essential parking allocation based on forty staff. The proposals, however, provide a balance between the demands of the users and ensuring the minimum impact on the setting.

### **Exhibition and Education Centre Parking**

There is to be limited parking provision for the Centre. There will be two disabled parking spaces located adjacent to the Valuation Office parking.

It is anticipated that the education and conference facilities will use the Valuation Office parking when not in use by the VO, for example evening and weekend events.

There will be occasional managed parking to the front drive area when there are large events.

## **2.6 Landscape**

- The proposals are to retain and enhance the mature trees and shrubs established within the grounds.
- A discrete garden trail is to be incorporated as part of the exhibition experience.
- The Drying Yard to the north of the laundry is to be re-surfaced. The existing terraced slope and steps to this area are to be adapted to form ramped access to the rear garden path. The path is to be replaced with a surface treatment appropriate to an 18<sup>th</sup> century garden, but also DDA compliant.
- A scheme for external lighting is to provide:
  - i. Discrete and sensitive light fittings not fixed to existing buildings
  - ii. Lighting to highlight architectural features on the house and western annex
  - iii. Lighting to serve paths and trails
  - iv. Security lighting
- The existing vehicular and pedestrian entrance gates are to be over-hauled to full working order.
- Consideration is to be given to the re-surfacing of the front drive in a sealed gravel; more sensitive and appropriate to the period of the house.

The northern boundary adjoining the terrace is to be replaced with a barrier more in keeping with the house setting; the introduction of a low screening hedge that will not obscure the terrace wall or views beyond.

However, any opportunities to reinstate land that has been separated from the original estate should be encouraged. The terrace and terrace wall forms an integral part of the rear garden and directly relates to the principal rooms of the house. The current boundary division results in an uncomfortable and unsightly separation of this feature. Alteration of the boundary line to the north of the terrace wall is highly desirable.

## **3.0 REPAIRS AND MAINTENANCE STRATEGY**

### **3.1 Repairs**

#### **Condition Report**

We have been provided with a copy of the 'Schedule of Condition' prepared by Balfours based on inspections carried out on 27<sup>th</sup> and 28<sup>th</sup> June 2006 for the Darwin Birthplace Society. We have carried out a visual inspection of the buildings based on this report.

The report has not identified any excessive structural movement in the area referred to in the letter dated 1828 from Sarah Owen to Charles Darwin. Presumably adequate structural remedial works were undertaken in the past to rectify this problem.

We have included recommendations within the Balfours report of those items which we feel relevant to a building of this historical importance. The recommended repairs are in accordance with current accepted practice for the conservation of historic buildings. It is important that the building be allowed to retain its patina of age and its character, whilst at the same time being satisfactorily brought to a state appropriate for beneficial reuse.

The following summarises the key repairs to areas and elements to be retained, those installations that are to be removed under the proposals have not been indicated.

### **Stable Yard Outbuildings:-**

The outbuildings on the western side of the property require a comprehensive scheme of repair. These works are to include re-roofing and any associated structural repairs to roof timbers; remedial work to address rising damp and water ingress along the west wall of the complex where it adjoins the high ground of the adjoining property; repairs to external joinery. The proposals have included for new floors and services throughout.

### **Chimney Stacks and Roofs: -**

Carry out re-roofing works to the Main Roof – reforming parapet and valley gutters, and reinstating all leadwork, in accordance with current LSA recommendation. Allow for the replacement of decayed structural roof timbers discovered during the execution of these works. Allow for new natural slates throughout. Allow for localised repair and reconstruction of brick parapet walls and re-setting of parapet copings. Cap off and ventilate the flues of the large west chimneystack to the Main Roof.

Carry out re-roofing works to the East Wing roofs – reinstating all leadwork in accordance with current LSA recommendations. Allow for the replacement of decayed structural roof timbers discovered during the execution of these works. Allow for new natural slates throughout.

Repair and reinstate the Conservatory roof - reinstating all leadwork to hips in accordance with current LSA recommendations. To the large lantern replace decayed timber elements as appropriate, and ensure that the finished construction is fully watertight.

Improve maintenance access to the north and east roofspaces of the main roof, and to the roof void of the two storey east wing.

Reinstate the insulation within the roof voids.

### **Rainwater Disposal & Drainage Systems:-**

Clear out, unblock, flush through, and restore to full working order all above-ground rainwater disposal systems and below-ground drainage systems. Allow for overhauling, together with replacement of any defective sections and redecoration of all cast iron rainwater goods (gutters, downpipes, hopperheads and so forth). Replace all plastic rainwater goods with appropriate cast iron rainwater goods. Allow for a CCTV survey of these systems. Install an overflow pipe, or some form of electronic warning device, to the large central valley gutter to the West Wing.

### **External walls:-**

Carry out repair and repointing works as appropriate to reinstate cracking in the external walls, most notably those above the main entrance to the front façade together with repairing lintol; to the right-hand side of the stone sill to the east light of the single storey east wing bay; below the right-hand second-floor window to the front façade, and; to the right-hand side of the extreme left-hand second-floor window to the front façade. Allow for these works to include insertion of bed joint reinforcement. Carry out minor repointing works to the brickwork to the south wall of the single storey East Wing. Renew lead cornice flashings and so forth in accordance with current LSA recommendations.

### **External joinery repairs and decoration: –**

The external joinery is in a poor state of decoration and therefore has been vulnerable to weathering and decay. Those windows showing decay, particularly cills, are to be repaired to match existing materials and detail. All external joinery to be redecorated.

### **Cellar:-**

Limited lining and tanking has taken place to the walls and floors of this area; however damp ingress is still in evidence to those areas that haven't been treated.

It is recommended that no further work is undertaken to this area as this provision is adequate for the proposed use as a service and temporary storage area. Good ventilation of the spaces is to be encouraged.

### **Interiors:-**

Allow for carrying out plaster patch repairs to interior wall surfaces, as deemed necessary.

## **3.3 Maintenance Strategy and Management**

### **Maintenace**

Routine maintenance is key to the preservation of both the actual fabric and the appearance of a building of historical significance, as well as saving on the costs of extensive repair programmes.

When repair is necessary, as much of the original material as is practically possible should be retained.

Where original fabric is beyond repair, it should be replaced using the same specification and design as the original. On rare occasions, there may be an inherent problem that cannot be solved using “like-for-like” repairs. In such cases a proven technique that retains as much as possible of the original fabric and the building’s appearance should be employed. Sometimes a balance needs to be struck between the retention of fabric or appearance, depending which is considered to be more significant.

Alterations fall into three main categories: -

- Work undertaken to meet new requirements
- Undoing past repairs or alterations
- Restoring items which are missing, either due to past repairs, alterations or decay

New alterations should be kept to the minimum necessary to achieve modern requirements. Any new demands must be compatible with the long-term interests of the building, not just the immediate needs of the current user.

Before past alterations are removed, the possibility that they may themselves be of special interest must be investigated. Only damaging alterations of little or no merit should be reversed.

Restoration of lost items should be confined to those, which are essential to the proper maintenance or aesthetic value of a building. Restoration should never be attempted unless the design of the missing item is known.

While any repairs, alteration or restoration must be sympathetic to the building’s special interest, no attempt should be made to pretend that new fabric is original. This would cause unnecessary confusion in the future.

### **Long Term Management**

Responsibility for routine maintenance, periodic repair and future alterations must be clearly defined. Over a period of time numerous small scale alterations, unsympathetic repairs or lacking maintenance can cumulatively cause considerable damage to the special interest of a building.

Three frequent causes of small scale and uncoordinated alterations are: service installations; minor adjustments to ease existing uses; and well meaning but ill-considered improvements to access. It is essential that all those with the authority to commission such works and those undertaking them are aware of the Conservation plan and the status of the building.

Examples of such alterations are new surface wiring, the installation of flues and pipes, the fitting of door closers, extra fire doors, signage and warning stickers (such as, “fire door, keep closed”), high visibility treads to steps and changes to door furniture. Even redecoration can have a dramatic effect on the character of an historic space.

A maintenance manual setting out routine maintenance and procedures for repair works should be produced. Repairs, which could affect the building’s special interest, need to be identified so that appropriate specialist advice can be sought. This includes even quite minor items such as a new window or gutter, or repointing of damaged stone or brickwork.

An appropriate budget for repairs and maintenance, commensurate with the importance of the building, is essential. If the special interest of a building is to be passed on intact for future generations to enjoy, good stewardship by the current owner and user is required.

Almost all alterations and some repairs will require Listed Building Consent and should be discussed with the Borough Council’s Conservation Officer at the earliest stage of conception. Appropriate professional advice will usually be required.

#### **4.0 ENVIRONMENTAL POLICY & SUSTAINABILITY**

This proposal will adopt the approach of sustainable architecture; including consideration of the impact on the environment of all aspects of design, specification and building usage.

The following topics will be addressed throughout the design development:-

##### **Reducing energy in use:**

Consideration of insulation materials; use of low energy lighting and electrical fitting; use of efficient low pollution heating systems; use of passive and active solar energy; use of passive and natural ventilation; use of energy from renewable sources.

##### **Minimising consequences of building work on the external environment:**

Enhancement of the buildings surroundings; retention of natural habitats of flora and fauna; reduction of water usage including recycling rain and waste water; recycling waste materials; minimising use of extraction materials; use of natural materials, avoiding where possible chemical treatments; reduction in site waste; proper disposal of waste materials.

##### **Use of sustainable materials:**

Use of locally sourced materials; use of second-hand or recycled materials; use of materials from sustainable sources, particularly timber; use of materials with low energy in manufacture; re-use of existing buildings and structures.

##### **Promotion of healthy working and living environments:**

Provision of good natural daylight and ventilation; reduction of dust; choice of materials to promote good internal air quality; use of natural rather than synthetic

materials; involvement of users in design and end management of the building; design of buildings to please occupants in use.

## **5.0 IMPACT ASSESSMENT**

The proposals have endeavoured to respond to the assessment of significance and conservation policies set down in the Conservation Management Plan. The following key areas have been identified for assessment.

- The Stable Yard provides a contained and screened setting for the introduction of a new building associated with the spatial requirements of the education, retail, café and temporary exhibition; support accommodation to serve the exhibition in the main house; reflective of the stable yard when it once served the mansion house. It is an area that has been subjected to a continual change and development over time. It is a space that is subservient to the main house and gardens.
- The aim of the proposal is to minimise the impact of the new build on the existing outbuildings to ensure that their architectural form and detail will have a presence and to retain the spatial feeling of the enclosed stable yard.
- The incorporation of the lift and stair shaft to the east will result in two windows on the east façade of the main house being adapted to form doors. However the siting of the vertical circulation offers the minimum of impact to the existing historic fabric and setting compared to anywhere else.
- The lift shaft has not been taken to the top floor in order to ensure the massing of the shaft remains subservient to the main house terrace façade. By locating the stair centrally it provides a balanced form externally with the lower wings of the existing two storey eastern annex and the lift shaft.
- Where the proposed new extensions meet the existing buildings this connection will be done in glass. This maintains a clear statement of separation and allows the existing buildings to be seen to continue through at this junction.
- It is proposed to form new doors within the upper floor partitions to interconnect the Valuation Office space without encroachment on the main hall area. This is to ensure separation and security between the two user groups.
- A glazed screen is to be located on the back stair to ensure separation and security between the two user groups. Its integration within this area will need careful consideration so as not to impact on the spatial integrity of the stair as it rises through the building.
- On the upper floors various doors are to be closed off from use. The proposals will retain doors and architraves insitu so that they can be reinstated in the future if required.

## **6.0 MECHANICAL & ELECTRICAL REPORT – To Follow**

## **7.0 QUANTITY SURVEYOR REPORT – To Follow**

## **8.0 CONSULTATION & FURTHER INVESTIGATION**

### **Consultation**

The Shrewsbury & Atcham Council Conservation Officer and English Heritage have been consulted during the Options Appraisal process and in principal support the scheme for the insertion of a new build element within the stable yard and lift and stair shaft to the east of the house. However this has been qualified by the statement that the success of the scheme will be in ensuring the execution of a building of exemplary design.

### **Further Investigation**

It is recommended that paint analysis be carried out to help clarify detailed changes that have occurred to the interiors and indicate the possible colour schemes associated with the house when occupied by the Darwins. Some clues may possibly be revealed in the uncovering of underlying structures during repair and alterations.

It is recommended that a room-by-room record of all historic features and fittings should be produced.

It is recommended that a topographical and aboricultural survey is carried out to identify those plants associated with the Darwin garden to ensure they are safeguarded and incorporated into the interpretation for communicating the role, history and significance they played during the childhood of Charles Darwin.

It is recommended that Shrewsbury & Atcham Local Council prepare an Archaeological brief for the site and that an Archaeology Consultant is appointed to carry out the works identified in the brief together with a watching brief during any excavations.

## **APPENDIX**

- A      EXISTING ROOM AREAS – NET**
- B      BRIEF & SPATIAL ANALYSIS**
- C      VALUATION OFFICE STORAGE REQUIREMENTS**
- D      OPTIONS APPRAISAL**

## APPENDIX A – EXISTING ROOM AREAS - NET

### MAIN HOUSE

Basement			Net	Area M <sup>2</sup>	
B1 - corridor	11.5	x	1.2	13.8	
B2	5.3	x	2.3	12.2	
B3	3.2	x	3.0	9.6	
B4	4.7	x	1.8	8.5	
B5	4.7	x	2.6	12.2	
B6	4.7	x	4.6	21.6	
B7	4.7	x	1.3	6.1	
B8 Boiler Room	6.0	x	6.0	36.0	includes chimney breast

120.0

Ground					
Hall	6.4	x	3.9	25.0	includes stair
Inner Hall	4.4	x	2.3	10.1	includes stair
Corridor	11.5	x	1.2	13.8	
Office 1	4.6	x	3.7	17.0	includes chimney breast
Office 13	6.0	x	5.2	31.2	
Office 15	9.0	x	6.0	54.0	includes chimney breast
Office 16	7.4	x	5.4	40.0	includes chimney breast
Office 17 (main)	9.2	x	4.5	41.4	includes chimney breast
Office 17 (cons)	8.2	x	5.4	44.3	excludes 6.8m <sup>2</sup> for bay & recess
plus bay and recess				6.8	
Kitchen	3.4	x	3.0	10.2	includes chimney breast
Stair & Lobby & Cleaners Cupboard	3.4	x	2.0	6.8	
Male WC	4.9	x	3.1	15.2	
Female WC	4.7	x	1.5	7.1	
Server Room	5.3	x	2.3	12.2	
File Room 4	6.4	x	4.8	30.7	
Store				29.7	
File/Records Room	14.0	x	7.5	105.0	excludes store 8m <sup>2</sup>
plus store				8.0	

St

508.4

First					
Hall	6.4	x	3.9	25.0	includes stair
Inner Hall	4.4	x	2.3	10.1	includes stair
Charles Darwin Room 101	4.6	x	3.7	17.0	includes chimney breast
Office 103	6.0	x	2.9	17.4	includes chimney breast
Office 104	6.0	x	2.9	17.4	includes chimney breast
Computer Room 105	6.0	x	2.8	16.8	includes chimney breast
Office 106	5.6	x	5.0	28.0	includes chimney breast
Office 107	4.0	x	2.7	10.8	
Office 108	9.7	x	4.6	44.6	includes chimney breast
(Store)	6.5	x	6.3	41.0	excludes cupb'd 3.57m <sup>2</sup>
plus cupboard				3.6	
Store 109	5.4	x	2.3	12.4	
Store 110	4.8	x	3.1	14.9	includes chimney breast
Stair	5.0	x	2.0	10.0	
Staff Rest Room 111	5.0	x	3.2	16.0	
Male WC	1.7	x	1.5	2.6	

287.5

**Second**

Stair	4.7	x	2.2	10.3
Office 201	6.3	x	3.5	22.1
Cleaners Cupboard 202	3.0	x	1.2	3.6
Office 203	4.6	x	3.0	13.8
Male WC 204	3.5	x	2.0	7.0
Office 205	3.6	x	3.0	10.8 includes chimney breast
Office 206	5.1	x	2.6	13.3
Office 207	5.6	x	2.8	15.7
Office 208	5.8	x	4.9	28.4 includes chimney breast
Office 209	5.0	x	3.9	19.5 includes lobby 4
Office 210	5.0	x	4.0	20.0
Lobby 1	3.9	x	1.4	5.5
Lobby 2	2.6	x	2.0	5.2
Lobby 3	2.9	x	1.4	4.1

**179.2**

**1095.1** TOTAL NET AREA

Circulation & Ancillary Accommodation		237.2
Office Space		542.4
Storage Space		200.7
Disused Space		114.8
		1095.1

**STABLE YARD**

**Stable/Coach House**

Coach House				
Ground (garaging)	8.0	x	6.8	54.4
First	8.0	x	6.8	54.4 within roof space
North Stable				
Ground	8.6	x	6.0	51.6
First (part 2A cottage)	8.6	x	6.0	51.6 within roof space
South Stable (2A cottage)				
Ground	8.6	x	4.8	41.3
First	8.6	x	4.8	41.3 within roof space
2A Cottage (+ see above)	6.1	x	3.4	20.7
2B Cottage	9.8	x	3.4	33.3
	10.1	x	4.4	44.4
	1.6	x	1.0	1.6
Saddle Room	5.0	x	3.2	16.0
Dairy	4.6	x	3.4	15.6
Shed	3.6	x	6.4	23.0

**449.3** TOTAL NET AREA

Circulation & Ancillary Accommodation		54.4
Disused Space		394.9
		449.3

## APPENDIX B – BRIEF & SPATIAL ANALYSIS

### Visitor Numbers

50,000/annum	30,000/annum
4,200/av. month	2,500/av. month
1,050/av.wk	625/av.wk
175/day (closed Sunday)	105/day (closed Sunday)

NB Averages, does not indicate peak periods.

### Coach capacity varies - 12 to 57 seaters

Assume av. 50 persons

### Net Area M2

#### Café Facilities

Assumptions:

Tables – round to seat 4 persons.

Tables on diagonal – 1.65m x 2m per table = 3.3m<sup>2</sup>

3.3m x 8m = 2 rows x 4 rows = 8 tables = 32 seated

64 heads = 16 tables = approx 54 m<sup>2</sup>

Min area/person approx. 0.9 to 1.1m<sup>2</sup> (includes circulation)

0.9	x	64	57.6
1.1	x	64	70.4

Allow

60.0

#### Kitchen

Conventional kitchen or finishing kitchen?

Areas based on finishing kitchen:-

Kitchen to café ratio – 1:3 = approx 18 m<sup>2</sup>

18.0

Total kitchen area to servery, stores, ratio – 1.5:1 = 12 m<sup>2</sup>

12.0

Kitchen staff

12.0

#### Conference/Seminar Space

60 to 100 delegates

Seating – 0.46 m<sup>2</sup> (armless moveable seats @ 450mm centres)

Min area/person approx. 0.9 to 1.1m<sup>2</sup> (includes circulation)

60 delegates x 0.46 m<sup>2</sup> = approx 30 m<sup>2</sup>

100 delegates x 0.46 m<sup>2</sup> = approx 46 m<sup>2</sup>

46.0

#### Toilets

Based on requirements for restaurant/canteen

Assume 64 persons

Assume equal number male and female

WC's - 3 female & 1 male

Urinals x 2

Wash basins - 2 female & 2 male

Unisex assisted WC and baby change

Male Toilets – approx 3.5 x 5

17.5

Female Toilets - approx 3.5 x 5

17.5

AWC/Baby Change – 1.5 x 2

3.0

**Flexible Exhibition Space**

30.0

**Retail**

Min area/person approx. 4.6 to 7.0m<sup>2</sup> (includes circulation)

Assume max 10 people through put at any time

4.6	x	10	46
7	x	10	70

Allow

60.0

**Staff**

Assume:-

1 x person at House reception

1 x person at Retail/exhibition reception

3 x persons for kitchen/café

1 x administrator (seminar/conference)

Min area/person approx. 9.3m<sup>2</sup> (includes circulation)

Office = 18 m<sup>2</sup>

18.0

Staff room with lockers/kitchenette/unisex toilet

20.0

**APPROX TOTAL NET AREA (Excluding Hot House)**

<b>314.0</b>
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## **APPENDIX D – OPTIONS APPRAISAL**

### **General Issues for all proposals:-**

Integration of new build with historic fabric.

Adaptations required to historic fabric to enable new uses and physical links.

Separation of Exhibition & Education Centre with Tenant.

Security between Exhibition & Education Centre with Tenant.

Means of Escape for both Exhibition & Education Centre and Tenant.

### **OPTION 1 – Shared Ground Floor Use**

#### **Exhibition and Educational Centre**

Located in part of Main House together with New Build to eastern end.

- Separation between uses results in Darwin Centre having no connection with Stable Yard.
- Key spaces for telling Charles Darwin storey not incorporated – Back of House, Dr Darwin's Surgery etc as occupied by VO.
- Scale and mass of new build to house education, conference, retail, café and temporary exhibition impacts on main house. Either loss of mature trees to rear or building projects forward of main house.
- Hot House not allocated.
- Vision compromised by mixed use on ground floor.

#### **Valuation Office (VO)**

Housed in all of West annex, first and second floor of main house, together with the approximate 200m<sup>2</sup> ground floor office space re-allocated to adapted Cottages 2A, 2B, Coach House and Stable.

This assumes full reallocation of VO space if required.

Having office accommodation on ground floor meets DDA requirements, however it seriously compromises the Exhibition and Education facilities.

#### **Valuation Office (VO) Storage**

145m<sup>2</sup> storage to be allocated once eastern extension demolished.

- 70m<sup>2</sup> located in lined and ventilated basement. Environment issues to note.
- 80m<sup>2</sup> located in converted north stable, saddle room and dairy. Floor loading issues to note.

#### **Valuation Office (VO) Parking**

Contained within stable yard. Approximately 7 spaces + 2 spaces in garage.



SECOND FLOOR PLAN

- EXHIBITION
- SUPPORT/CONFERENCE/EDUCATION
- VO OFFICES
- VO STORAGE



THIRD FLOOR PLAN

HOT HOUSE NOT SHOWN



VILLATION OFFICE

MAIN ENTRANCE

DARWIN HOUSE - EXHIBITION

GROUND FLOOR PLAN

A 316 m<sup>2</sup> FLOOR AREA

B 320 m<sup>2</sup> FLOOR AREA

NEW BUILD

SUPPORT/CONFERENCE/EDUCATION



BASEMENT

**DONALD INSALL ASSOCIATES LIMITED** REGISTERED ARCHITECTS  
 1 Swan Hill Court, Shrewsbury, Shropshire, SY1 5NP Tel: 01753 352344 Fax: 01753 357175 Email: [insall@insall.co.uk](mailto:insall@insall.co.uk)

at DARWIN HOUSE, SHREWSBURY  
 - GREAT DARWIN BROTHERHOOD SOCIETY  
 THE OPTION 1 - SPACE ANALYSIS  
 MAIN HOUSE

DATE	BY
TMS	E
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## **OPTION 2 – Ground Floor Use for Darwin Centre**

### **Exhibition and Educational Centre**

All ground floor dedicated to Darwin Centre.

- The Main House will contain the main exhibition spaces.
- Stable Yard houses education and support accommodation.
- Provision of new build within the stable yard provides flexible space to enhance the adaptive re-use of the stables, coach house and cottages.
- The stable yard will also accommodate a Hot House.
- Provides coherent spatial and circulatory layout for telling the Charles Darwin storey.

### **Valuation Office (VO)**

Introduction of vertical circulation and access at eastern side of main house.

- Provides separate independent access to tenants.
- Complies with DDA requirements.
- Facilitates Means of Escape.
- Facilitates long term future expansion for Darwin Centre.

### **Valuation Office (VO) Storage**

145m<sup>2</sup> storage to be allocated once eastern extension demolished.

- On site storage maintained on upgraded first floor of West Annex, approximately 44m<sup>2</sup> area. Floor loading issues to consider.
- Off Site storage allocation for remaining records. Is this a feasible option?

### **Valuation Office (VO) Parking**

Located at eastern end of main house. Approximately 6 spaces.



SECOND FLOOR PLAN

- EXHIBITION
- SUPPORT/CONFERENCE/EDUCATION
- VO OFFICES
- VO STORAGE
- VO - MEANS OF ESCAPE  
- SECURITY  
- SEPARATION



FIRST FLOOR PLAN

- NEW VERTICAL CIRCULATION**
- BENEFIT ACCESS
  - DDA
  - MEANS OF ESCAPE
  - FUTURE EXPANSION

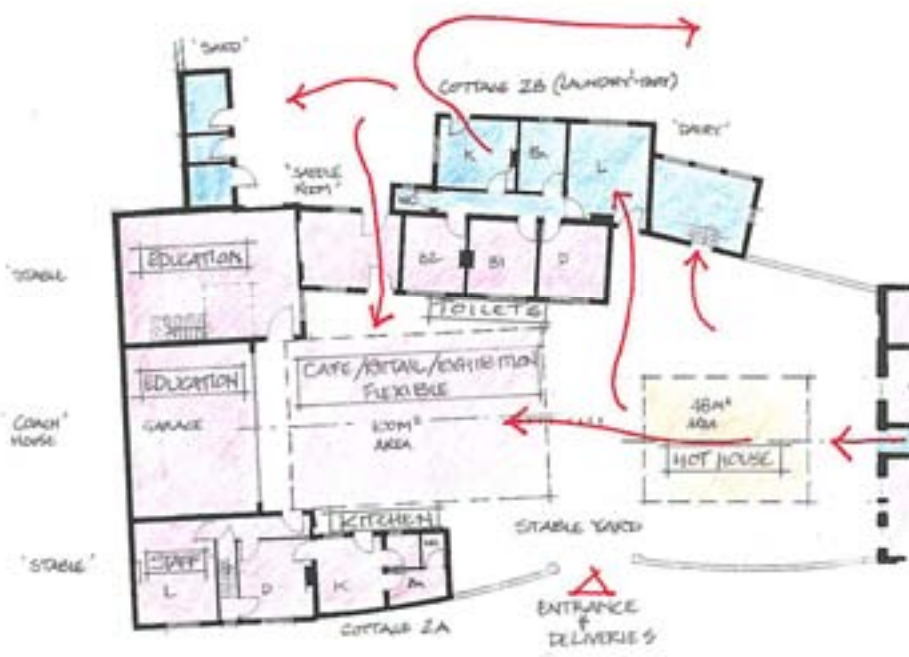


BASEMENT

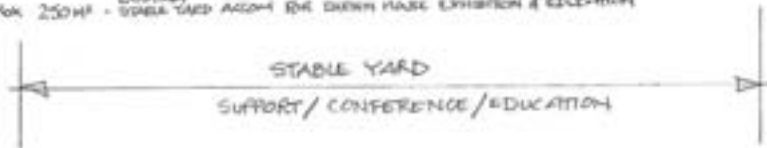
**DONALD INSALL ASSOCIATES LIMITED** 01223 200000  
 1 Zone 88 Court, Shrewsbury, Shropshire, SY1 1NP Tel: 01743 381244 Fax: 01743 381212 Email: [donaldinsall@donaldinsall.co.uk](mailto:donaldinsall@donaldinsall.co.uk)

for DARWIN HOUSE, SHREWSBURY  
 for THE DARWIN BIRTHPLACE SOCIETY  
 THE OPTION 2 - SPACE ANALYSIS  
 MAIN HOUSE

Date: TMS	Scale: E
Rev: 03	
Drawn by: 2.0.10	



APPROX 250M<sup>2</sup> - STABLE YARD ACCOM FOR OTHER MAKE EXHIBITION & EDUCATION



INTERNAL LAYOUT NOT SURVEYED - PRELIMINARY

**DONALD INSALL ASSOCIATES LIMITED**

1 West Hill Court, Scarborough, Singapore, S11 047 Tel: 6740 3124 Fax: 6740 3172

14 DARWIN HOUSE, SARONGSBURY  
 FOR THE DARWIN BIRTHPLACE SOCIETY  
 OPTION 2 - SPACE ANALYSIS  
 STABLE YARD

DATE	13/05
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