LDN Architects

CASTLE TO CATHEDRAL TO CASHMERE : GRANT LODGE, ELGIN

The Moray Council

in partnership with:

City of Elgin Business Improvement District Company
The Elgin Fund
Historic Scotland
Moray College / University of the Highlands and Islands Partnership
Johnstons of Elgin
Elgin Benevolent Trust

HLF STAGE 1 DESIGN REPORT

by:

LDN Architects llp

with:

Campbell and Co	Museums exhibition designer + Interpretation advisor
Torrance Partnership	Quantity surveyor + CDM Co-ordinator
A F Cruden Associates	Structural and civil engineer
Irons Foulner Partnership	Building services engineer

February 2013

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1.0 Introduction and Background

1.1 Project Background

A consultant design team led by LDN Architects was appointed by The Moray Council, on behalf of the Project Partnership, following a competitive selection procedure in June 2012.

The purpose of the Design Report is to record the outcome of the process by which the design was developed to RIBA Stage B in advance of an application to the Heritage Lottery Fund (HLF) Heritage Grants Programme in Spring 2013. This document should be read in conjunction with a series of separate documents, listed in the contents, not least of which, the Heritage Interpretation and Design Report.

The design team assembled to assist the client in this bid comprises:

LDN Architects	Architect and Team Leader
Torrance Partnership	Quantity Surveyor + CDM Co-ordinator
Campbell & Co	Museums exhibition designer + Interpretation advisor
AF Cruden Associates	Structural and Civil Engineer
Irons Foulner Partnership	Building Services Engineer
LUC	Landscape Consultant
Dr Eric Marchant	Fire Consultant

Moray Council have independently appointed Andrew Wright as Project Manager for the bid and have assembled a variety of working groups to provide oversight and specialist advice to the team. These are as follows:

- The Heritage Experience Working Group
- The Archives Working Group
- The External Reference Group

This structure reports to the Partnership Management Group and ultimately the Councillors.

1.2 Project Brief

Moray Council, along with their Project Partners which include local business interests, charitable Trusts, Historic Scotland and Moray College/University of the Highlands and Islands set the following aims and objectives for the project:

- To enhance the experience for visitors to Elgin city centre
- To provide greater access to the local heritage
- To create a sense of ownership of, and pride in, the historical and environmental legacy within Elgin, particularly by the younger generation
- To improve the economic opportunities within Elgin city centre
- To create the opportunity to conserve and improve the built, historical and social environment.

This builds on the Moray Economic Strategy and Elgin City of the Future study which identifies 'The Visitor Economy' as one of the key drivers in Elgin and Moray's recovery.

In particular the consultants employed to carry out the Elgin City of the Future study have identified the 'Town Centre – Cooper Park – Cathedral – Cashmere' corridor as key areas for heritage related development and specifically Grant Lodge has been identified as a 'key transformational site'.

Grant Lodge is strategically placed within this corridor and has been identified as having the potential to be an attraction in itself, whilst being a component of the wider initiative referred to in future as the 'Castle to Cathedral to Cashmere'.

Elgin City for the Future : Cooper Park Promenade
Connecting the Cathedral with a new Civic Square

Grant Lodge is a Category B listed and was built in 1766 to designs by Robert Adam. First extended in 1791, it was extensively altered in 1849 by the established local practice A and W Reid. It was purchased by Sir George Cooper and was presented to Elgin for use as a Library in 1903. It was used as such until 1996, later becoming a local Heritage Centre. Following a fire in 2003 Grant Lodge has lain empty.

Whilst there have been other feasibility studies to find a compatible new use for Grant Lodge since its closure in 2003, most notably by Highland Building Preservation Trust in 2005, the present proposals which intend to knit Grant Lodge into this wider regional objective by Moray Council is seen by many as the best opportunity to date for Grant Lodge.

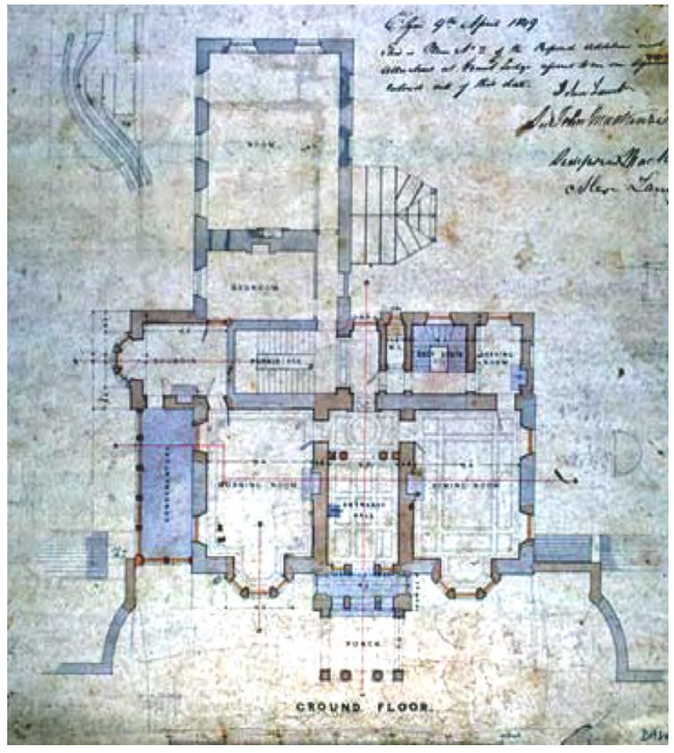
In detail the brief asked that Grant Lodge:

- Tell the story of Moray and its people through selective use of the archives held by Moray Council
- Act as a key Family History/Ancestral Tourism Centre for Moray by integrating the Local Heritage and Registrar's service
- House the Registrar's service and provide a venue for marriage ceremonies.
- Support creative industries by providing small studios/workshops
- Act as a dynamic heritage resource for the community in order to involve them in research, exhibitions and events
- House the key collections from the Council's archives and allow the repatriation of local records from the National Records of Scotland by providing facilities that meet the British Standard for archival care and access.

The design team had access to the following documents:

- Elgin Conservation Area Appraisal and Interpretation Plan
- Grant Lodge Conservation Statement
- Asbestos, Load Bearing and Condition Surveys for Grant Lodge
- Layout drawings of the building provided by Moray Council as the basis of further survey work.

South Elevation, A and W Reid, 1849



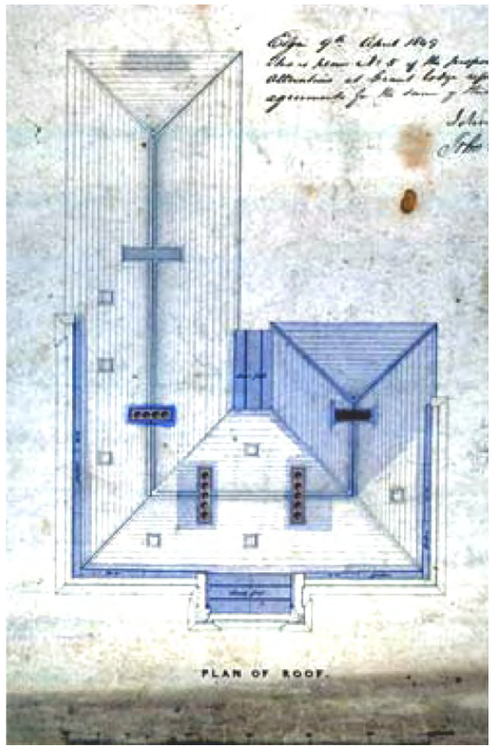
Ground floor plan, A and W Reid, 1849

1.3 Activities

The design team's initial submission set out a clear methodology for undertaking the study from inception to completion.

This defined the tasks required in the feasibility stage up to the HLF Stage 1 submission as follows:

- Start-up meeting with the Partnership Management Group
- Liaison with project manager
- Review of all extant information and reports
- Agreement on outline project brief
- Input to funding strategy for project
- Agreement to an outline programme for project and a deadline for Stage 1
- Risk register for project
- Options appraisal evaluation strategy
- Update of structural and fabric surveys
- Initial input on interpretation strategy
- Preliminary input on energy sources and services installations
- Consultations with Historic Scotland, Planning and Building Standards
- Access review
- Fire safety considerations and implications of PD 5454
- Preliminary concept sketch ideas
- Indicative costs and possible grant eligible element
- Options appraisal and identification of preferred concept design
- List of specialist reports, procurement proposals and potential costs
- Attending 2 interim workshops and final presentation to Project Management Group
- Design team report for HLF Stage 1 submission and
- Follow up input on Stage 1 submission as required



Roof plan, A and W Reid, 1849

The initial submission also took a hard look at the challenges and opportunities presented by the project, which if successful, would breathe new life into the building and contribute to the prosperity of Elgin and Moray.

These challenges will be returned to in the following text as a means of judging the success of the proposals. In no particular order they are as follows:

Funding

Devising solutions which are likely to be attractive to likely lead funders such as Historic Scotland and the HLF. In particular, early dialogue with Historic Scotland to assess likely repairs grant eligibility will be essential.

Siting and Context

Re-integrating the building into the landscape in a way that reinvigorates its importance within the city centre and places it in a "must call in" category for visitors to the city and the corridor of heritage related development.

Accommodation

Achieving the full scope of the client brief while retaining the character of the building. Design solutions must respond to the accommodation brief and at the same time be informed by the Conservation Policies in the Conservation Statement.

Costs

Working within the client's budget and funding available for the project will be essential, as will establishing future sustainability. This will involve value engineering and life cycle reviews at key stages of the project.

Access

Achieving universal access around and to all floor levels within the building will be extremely important to ensure users and visitors can avail themselves fully of the range of information, heritage and visitor facilities.

Uses and Visitor Flow

Striking an appropriate balance between the integration and separation of the various uses to be accommodated. Design solutions should encourage good visitor flow while allowing a degree of flexibility to cope with potential future change.

Key Collections

Ensuring that the collections are housed and exhibited in line with the guidance for archival care and access contained in PD 5454. Key issues will be the environmental conditions, physical security and protection from fire.

Interpretation

Developing interpretative concepts that link and support the works to the city wide visitor and interpretative strategies. It is important that the interpretation installations are fully integrated with the architectural solution for Grant Lodge.

Services

Investigating low carbon energy sources and integrating the new mechanical and electrical installations within the building will be important aspects of the project. Where feasible, passive measures should be adopted.

Option Appraisals

Discussing and agreeing methodology and for evaluating design options. Criteria could include functionality, access, looking after the collections, visitor flow, flexibility, sustainability, affordability and context in terms of contribution to the city-wide regeneration, heritage and tourism strategies.

Repairs

Investigating the structure and fabric and devising repairs strategies in line with the Conservation Policies which take into account affordability and the need for amenity and low maintenance.

Fire Engineering

Achieving fire safety standards in terms of construction and use in line with Building Standards and PD 5454. The aim should be to reduce the need for expensive services installations and the burden of future maintenance by design and by management procedures.

Consents

Working with the relevant authorities such as Historic Scotland, Planning and Building Standards to achieve their buy-in and to flag up potential risks to the project at an early stage. An example will be vehicular access and parking for the restored building.

2.0 Design Approach

2.1 The Approach

The design team's approach to the client's brief was first to look at the centre of Elgin as a whole and then progressively focus in on Grant Lodge.

'The City of the Future' strategy contains the recommendation that Elgin's heritage be used as a positive force for change and regeneration. The resultant Heritage Interpretation Plan identifies Grant Lodge as a key component to deliver the heritage objectives.

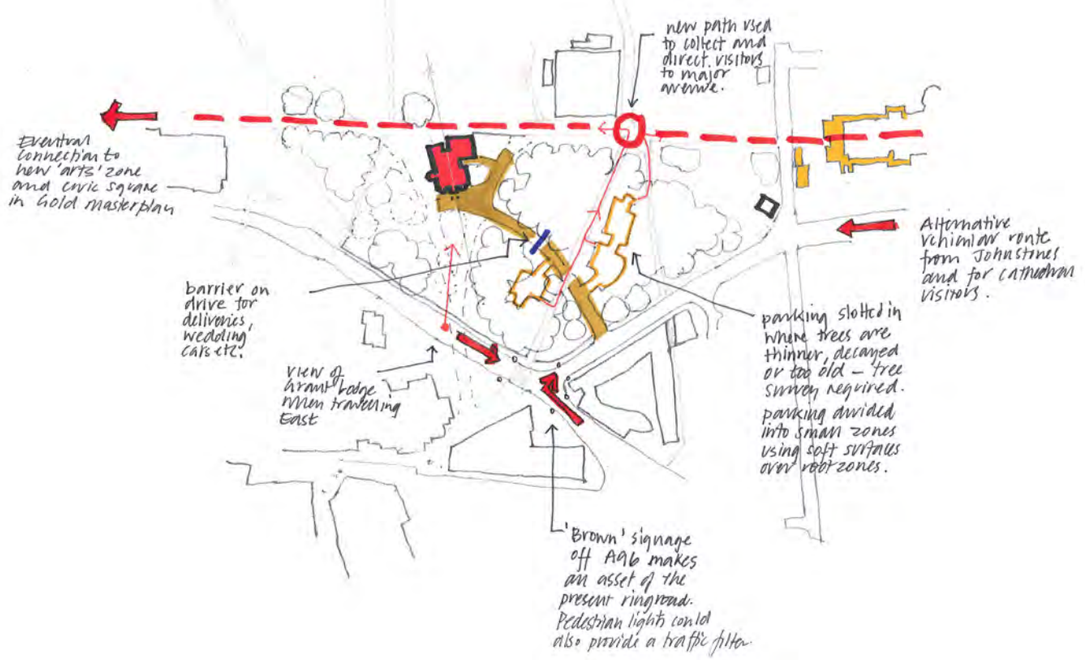
It envisages that Grant Lodge would be a focal and for many a starting point for the 'Elgin City Experience', connecting Elgin's historic attractions through a series of interpretive signpost locations in a navigable route around the city.

It is suggested that the new facilities at Grant Lodge include an Orientation Centre that would use heritage interpretation to promote the culture of Elgin and Moray and encourage the exploration of the city and wider area, introducing visitors to events, activities and things to do and see.

When the team came to focus on Grant Lodge its initial task was to familiarise itself with the project brief and the wealth of information which has been made available and, at the same time, to explore the technical issues at Grant Lodge associated with building fabric, structure, services and potential flood risk. Visits to the Moray Heritage Centre at the East End School and the present archive storage facility at the Greshop Industrial Estate in Forres were undertaken and a series of interviews with key stakeholders such as Historic Scotland and the Moray Society were held to establish the potential scope of the brief for the wider city heritage experience.

In parallel, meetings were held with the two special interest working groups – Heritage Experience and Collections – and with the Partnership Management Group, at which information and ideas were exchanged which helped both to define the brief and appraise the emerging design solutions. Finally, the outcome of the options appraisals were presented to the Public Consultation Meeting held at Elgin Library on Thursday, 27 September 2012. The presentation was given by design team leader Tom Duff, who outlined the design process by reference to three options for Grant Lodge, and by the team's interpretation and exhibition designer, David Campbell, who described the approach for linking in with the heritage experience in Elgin and Moray.

Preliminary Analysis Elgin : Sight lines



Preliminary Analysis Grant Lodge : Arrival

2.2 Design Options

The start point in considering whether a new use is appropriate for a listed building can be made by reference to recognised conservation charters, which define an appropriate new use as being one which involves no change to the culturally significant fabric, only changes which are substantially reversible, or changes which require minimal intervention.

The design team were in the advantageous position that they already had a familiarity with the building and that there was already in place a Conservation Statement drafted by Andrew Wright; the Project Manager. This clearly sets out the significance of and appropriate Conservation Policies for the building and its surroundings.

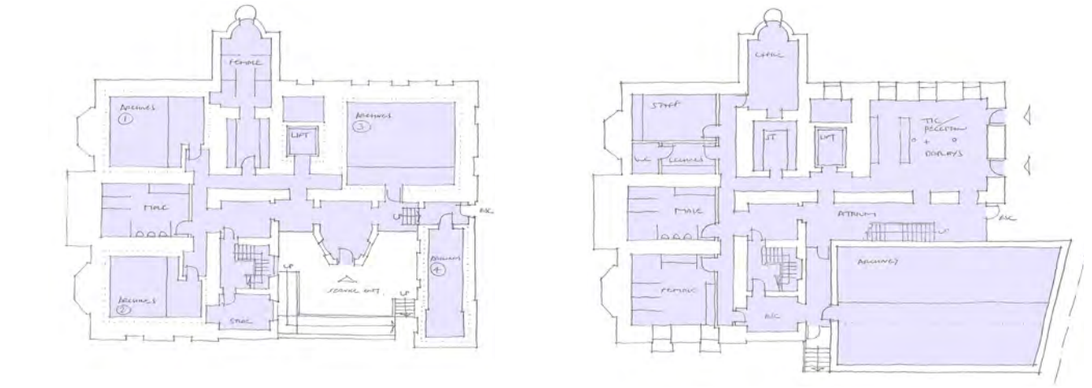
An important factor in the brief is that the mixed uses must be capable of being fully integrated and managed by a minimum of staff when appropriate, while safeguarding the items of value which are made available to the public and ensuring that the users are adequately supervised.

The three options referred to above as being presented to the public in September 2012, are now described.

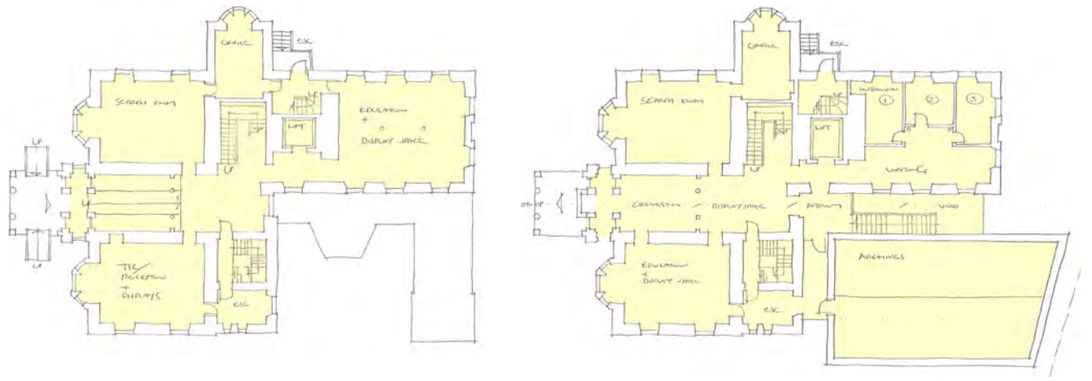
Option A works within the current constraints of the fabric and explores the potential for the existing spaces to accommodate the requirements of the original brief. The compartmentation of the existing building poses a number of challenges however, not least in the basement which would have to contain the archive repository space which is a crucially important element of the project. The fragmented nature of the available space would cause operational difficulties and, despite mitigation measures to deal with ground water, would continue to present a risk in terms of protecting archival material to the prescribed standards of care.

Option B addresses the constraints imposed by the building in two ways. First, the archive repository space is located in a new extension to the rear which, though it means removing both 19th century outbuildings, offers purpose built space for protecting the collections to the required standard and for accessing and managing them effectively. Second, the creation of an additional entrance at the lowest level and a two storey atrium separating the original building from the new extension provides a more dynamic response to the parkland setting. The atrium combines with the original entrance hall and circulation to improve opportunity for both integration and separation of the functions to be accommodated.

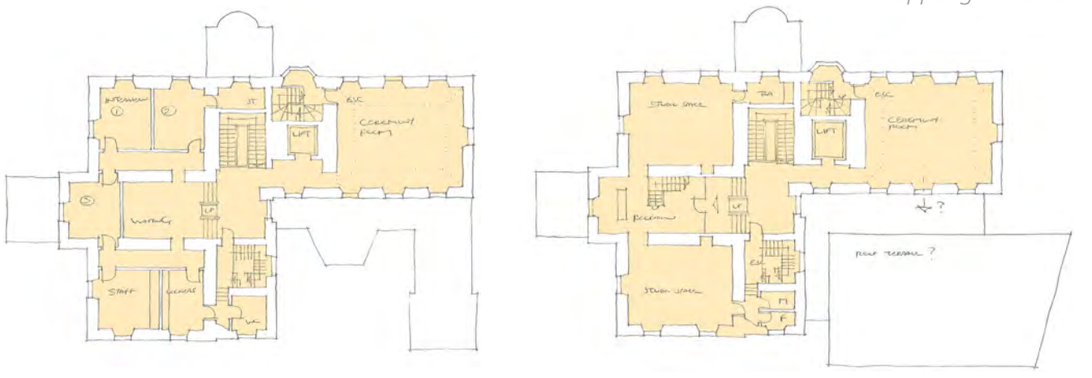
Option A *Option B*



Lower ground floor



Upper ground floor



First floor

Option C explores these ideas in more detail, taking on board input from the special interest working groups and reflecting the emerging brief. As with option B, a new two storey extension and atrium is proposed but there are enhanced opportunities for exhibition, displays and interpretation as well as a cafe in a large new flexible space at the lower entrance level. Together these form the orientation centre and permanent exhibition described in more detail below. There is also greater opportunity for community engagement, exploration and research at the upper ground and first floor levels and a greater degree of integration of the heritage and registrar functions.

The Orientation Centre would be the visitor hub of Grant Lodge and would use state-of-the-art technology and media with a range of interactive exhibits. It is proposed that the central feature of the exhibition space is an interactive 3D map of Elgin and Moray. The space around the map would be flexible and able to support new exhibits and changing interpretation. The interpretation will tell the story of the people of Elgin and Moray who shaped the city and the region. This will not be limited to historic figures and families, but will include the commoners who gave colour and character to local life. Although the permanent exhibition is envisaged as the main interpretive focus of the building, heritage interpretation, photographs, objects and paintings could be dispersed throughout Grant Lodge. The café that would flow into the exhibition space and expand or contract to meet seasonal demands.

A further option explored as part of the options appraisal might be characterised as the conversion of Grant Lodge to an unspecified community use and is reported on in the Preliminary Budget Cost Section (4.0) as the minimum intervention option.

This recognises that Moray Council own a building that, in its Category B listing, can be regarded as of 'regional or more than local importance'. As such it has a responsibility to maintain the building and the most reliable way to do this is to identify a compatible new use. Hence there is a cost associated with bringing the building back into public use as part of the Council's stock of buildings, whether or not it forms part of the Castle to Cathedral to Cashmere project.

If it is to be made available to the community for its use, this would involve not only fabric repairs, but also improvements in terms of the mechanical and electrical services, floor loadings and public access arrangements which together would have a substantial cost, and unlike the favoured option, would be unlikely to attract substantial public funding.

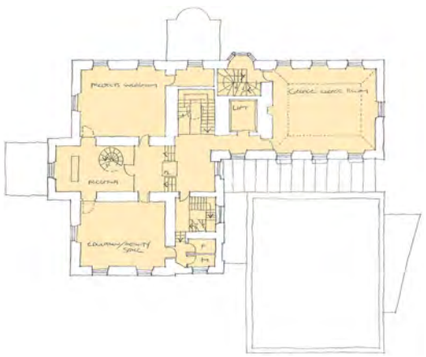
Option C

Lower ground floor

Section looking West

Upper ground floor

Section looking South



First floor

This budget cost has been identified for comparison's sake and in order to make the case that it is possible that the Council's financial liability and running costs for Grant Lodge could be substantially the same, whether the current project was to progress or not.

2.3 The results of the consultations

The outcome of the public consultation in September 2012 and options appraisal process was that, of the schemes explored for Grant Lodge, only Option C had the potential to fulfil the client's brief for an integrated delivery of services with sufficient flexibility and informality built into the scheme to allow the building to be used in a wide variety of ways and serve as a regular venue of local people, as much as a visitor destination.

It was however recognised that while the option C design had potential, the short design process had not allowed sufficient design development to fulfil the client's vision for a transformational site. This was partially borne out by reaction at the public meeting in September where comment focused on the appearance of the extension and the design team felt it encumbent upon themselves to look at this again.

A meeting was was also held with representatives of Moray Council Planning Department and Historic Scotland. This meeting focused on two aspects of the design:

- the proposal to undertake selective demolition of the ancillary spaces
- the effect and changes to Grant Lodge may have on the views to the Elgin Cathedral, and how this might affect its setting

This meeting made clear that while Moray Council would listed to a proposal for selective demolition, the design team would need to pay more attention to the appearance the new extension would have from the Cathedral.

The outcome of this was that LDN Architects were invited to submit a Preliminary Enquiry to the Planning Department in order to invite formal comment.

A further joint consultation was held with Moray Council Roads and Transport and Lands and Parks, in order to discuss the possibility of changing the current parking in the vicinity of Grant Lodge, and the introduction of an alternative pedestrian crossing location on the A96. This meeting was positive and allowed the design team to take forward their proposals for altering the setting for Grant Lodge. The process by which Transport Scotland could be approached in order to discuss alterations to the trunk road was also discussed.

Grant Lodge, as existing

Option C, as proposed

3.0 The Preferred Scheme

3.1 Development Process

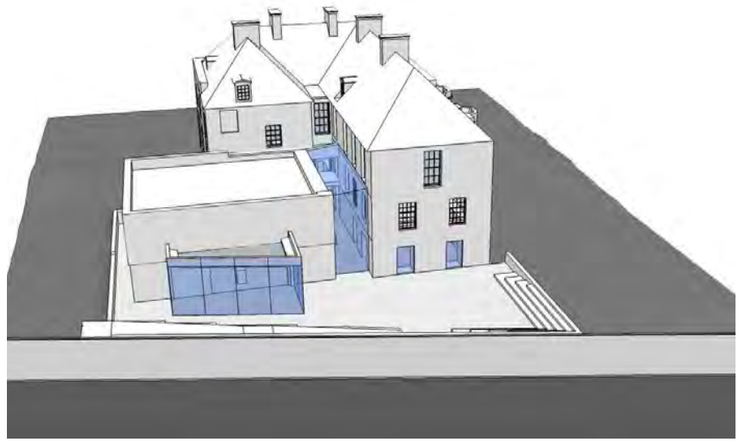
There followed a further two months of design development during which the design team took the opportunity to take forward the design.

This process resulted in the concept of the 'pavilion in the park' which allowed the inherent nature of the blank archival repository extension to be wrapped around by a flexible space which allows the building to properly address the park and attracts the general public into the building.

In parallel with this design exercise, the Partnership Management Group sanctioned the commissioning of two specialist reports in order to assist the design team. These were:

- a topographic survey of the immediate vicinity of Grant Lodge
- a historic landscape assessment which included a tree survey

This second report was commissioned from Land Use Consultants, (LUC) Glasgow.



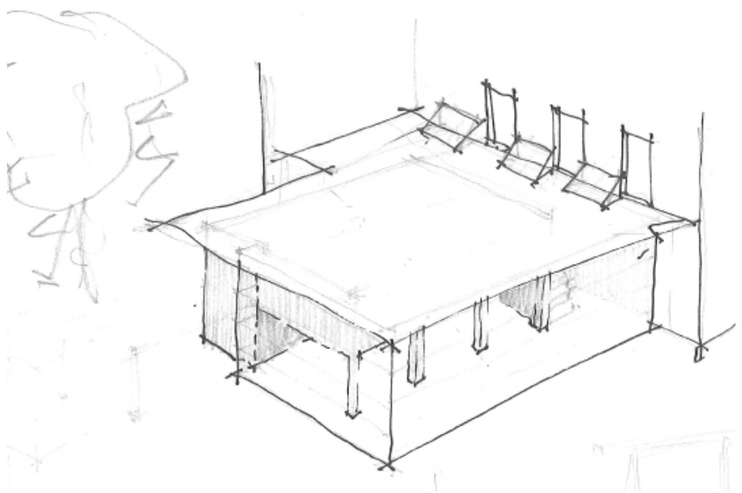
Option C

This section describes the preferred scheme design proposals and is intended as a design statement which, together with the scheme drawings and supporting reports by the individual design team members, will support an HLF Stage 1 application.

3.2 Concept

Surveys have established that Elgin receives a disproportionately small share of regional visitors and much of the visitor through-traffic tends not to stop. If they do, they tend not to spend the night in Elgin itself.

The Council's City of the Future Report states that "Elgin's under performance as the region's leading urban centre affects the whole Moray economy".



Concept sketch

The Castle to Cathedral to Cashmere project is intended as a co-ordinated approach to these findings and those of the Elgin High Street Conservation Area Appraisal and associated reports commissioned by Moray Council and published in 2012.

This sets out measures by which the historic environment can play a positive role in the regeneration of the city centre. In particular the Elgin Heritage Trail Interpretative Plan developed the idea of interpretative themes – protection, power, philanthropy and prosperity from which the concept of linking Ladyhill to the Cathedral and beyond developed. This is intended to address the under performance of the centre of Elgin and the perceived air of decline.

In January 2012, Moray Council announced that it had successfully secured a grant of £750,000 from the Scottish Government towards the conservation area regeneration, on the back of the bid supported by these documents. This initiative is complementary to the proposals for Castle to Cathedral to Cashmere and the role envisaged for Grant Lodge.

Hence the starting point for looking at Grant Lodge is the wider context of Elgin, and this quickly leads one to the conclusion that while it may be geographically central to the area to which visitors might be encouraged to visit, it is effectively cut off from the city centre by Alexandra Road (The A96).

On this basis the team were required to look holistically at how an effective connection could be re-established between the High Street and the Cathedral that would encourage the public who are visiting either the Cathedral or Johnston's Woollen Mill to remain longer in Elgin and visit the city centre.

Similary, at present visitors to the city centre who wish to visit the cathedral or Cooper Park must either discover the pedestrian bridge or are sent out of their way to reach the island-crossings associated with the roundabouts on the A96.

A key component of the preferred scheme is to create a pedestrian crossing point on the A96 which is clearly visible from the East end of the High Street and from there, direct members of the public to join the existing avenue in the Cooper Park. This crossing also forms part of the Elgin City of the Future Proposals.

This would not be an additional crossing which might further congest the traffic flow, instead, it would replace the existing crossing point on South College Street.

The A96

A new connection : Castle - Cathedral - Cashmere

The Elgin Heritage Interpretative Plan concludes that:

- Good quality visitor facilities have to be in place for interpretation to be effective
- Interpretation must have empathy with all audiences
- Creative interpretation should be deployed to develop Elgin as a compelling destination.

It goes on to articulate the need for a venue to meet certain expectations before people can focus on what they hoped to get out of their visit. Among these are:

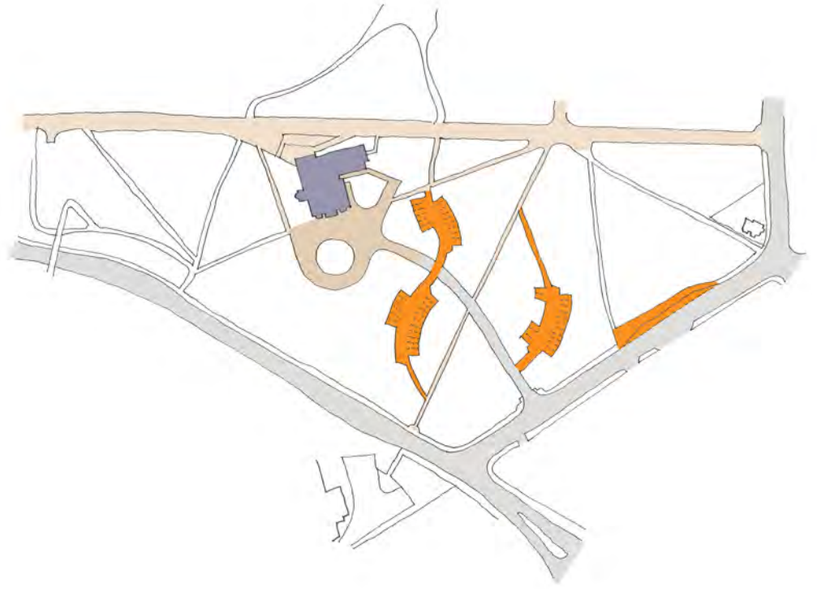
- Clear wayfinding
- Convenient and sufficient parking
- Clean toilets
- Access to food and drink.

Hence if Grant Lodge is to be the 'key transformational site' articulated by the client, it must satisfy these needs. It therefore needs to be:

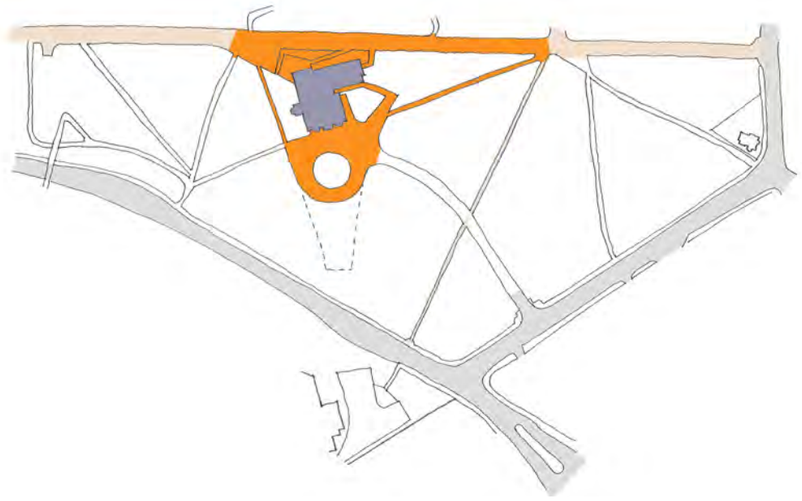
- Re-connected with the city centre
- Easily found by passing traffic
- Provided with convenient parking
- Understood as a "must call in" destination within Elgin and the wider Moray
- Able to provide universal access and satisfy the expectations of visitor's comfort, particularly if it is the first point of call for users from outwith Elgin.

The design proposals therefore take advantage of the proximity of the A96 in order to attract passing trade, and explores how convenient parking might be incorporated into the sensitive and historic Cooper Park so that visitors could radiate out from there to visit other points on the pedestrian route between Johnstons in the East and Ladyhill to the West. It suggests a reinvigoration of the route through Cooper Park and turns the orientation of Grant Lodge away from the A96 and towards this and the proposed promenade towards a new civic square described in the Elgin City of the Future proposals.

The Visitor Economy is however only one aspect of the brief and Grant Lodge is intended to be a true community building, addressing all aspects of life in Elgin and providing enhanced facilities for its people. Thus the provision of a café and changing exhibitions will encourage repeat visits and iron out seasonal fluctuations so that the building is used throughout the year.



Site Analysis - incorporation of parking within Cooper park



Site Analysis - re-orientation of Grant Lodge

3.3 Description

Even before Grant Lodge suffered a fire in 2003 its use was limited by a number of factors, most notably:

- Poor public access as a result of multiple changes of level
- Limitations on its use due to the limited load carrying capacity of its existing floors
- Problems with moisture ingress at lower ground floor level.

A comprehensive scheme of repair and improvement can overcome these barriers and in particular address issues of universal access as follows:

- The careful insertion of a lift will allow public access to the principal floors. By ensuring that the attic level contains flexible uses which could as easily take place on lower floor level, the need to take the lift up to the attic level is avoided, which in turn avoids alterations to the roofline in order to accommodate the lift's machinery; an undesirable feature in a listed building
- At the same time the insertion of a second staircase to attic level allows the upper level to be safely used and has the added advantages that it provides the necessary escape route from the ceremony suite and allows the existing formal staircase to be unenclosed
- Level access at lower ground floor level which gives access to the lift allows the removal of the disfiguring ramp from the portico at upper ground floor level
- The change in levels at first floor are addressed by the provision of a platform lift
- By raising the ground levels to the rear of the extension, level access to the archive can be achieved. The decision to ramp up to upper ground floor level rather than down to the lower ground floor level removes the opportunity for water to gather in this location
- Clarity in the planning of the stair between lower and upper ground floor makes the means of progression through the building for the public direct and unambiguous.

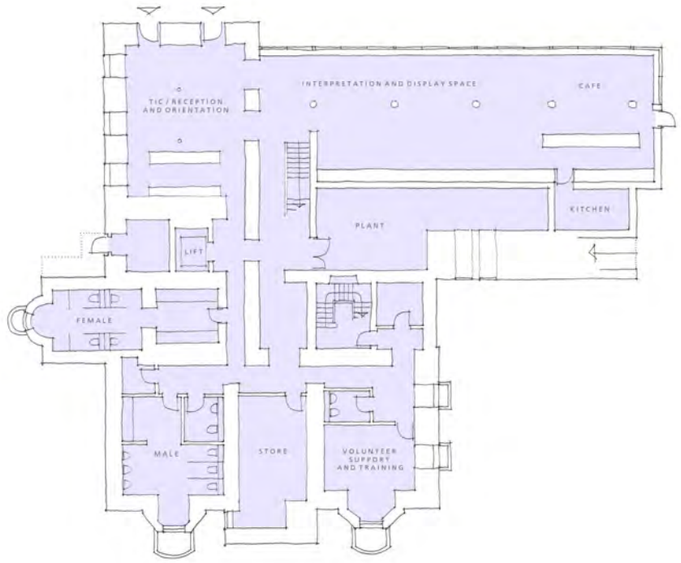
The scheme design drawings which follow show a restored and converted building which provides the accommodation required by the developed brief and is in line with the Conservation Policies and the recommendations of the Fabric Report.

Section looking West

Section looking South

The lower ground floor:

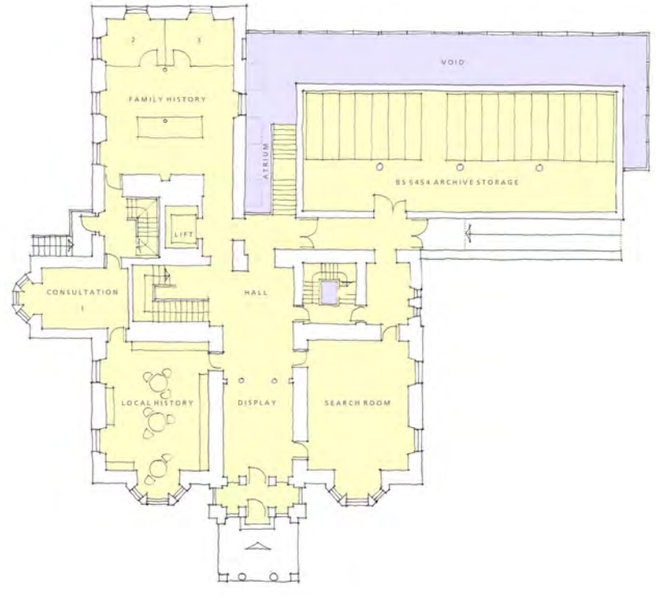
- The main entrance to the building is made from the North. Access is from the pedestrian avenue which runs East – West across Cooper Park from the Cathedral. Car parking will be located nearby
- All visitors will enter through a reception and orientation space which also serves as the Tourist Information Centre (TIC) for Elgin
- Visitors filter sideways into the lower atrium from where they can take the stairs to the upper ground level or alternatively use the lift
- Beyond the atrium, access in gained to the pavilion; a large flexible volume flooded with light which contains both a café and the display and interpretation
- The café servery is supported by a kitchen store available to the franchise holder
- Behind the pavilion and below the archive is the plant room
- The area below ground level within the existing building provides space for public and staff toilets, a large chair store for the ceremony suite and a volunteer support and training room.



Lower ground floor

The upper ground floor:

- The atrium staircase leads on to the heart of the building, the original entrance hall, now containing display and interpretation
- To either side is the local history and search rooms which will house Moray Council's extensive collection
- These library facilities have direct access to the adjacent archive
- The archive itself is a climate controlled volume which will provide the conditions required under the guidance documents
- Level access is provided to the archive to allow ease of transfer and handling and the lift has been sized to allow the use of trolleys
- The remainder of the floor contains the registration service consultation rooms/offices and family history research
- It is envisaged that the original front door and portico will still be used for civic occasions and to allow formal arrivals and departures for weddings. Wedding groups might spill out into the gardens for photographs.



Upper ground floor

The first floor:

- The first floor contains the ceremony suite, fully restored to reflect the original 18th century design and enjoying views over the park and towards the Cathedral
- This volume retains its formality by being approached by the wide central staircase
- A platform lift provides access to the remainder of the accommodation at this level. These spaces are intended to remain flexible so that they can respond to a variety of uses such as providing a venue for a particular project undertaken by library volunteers or as an education/activity space for members of the public or school children
- It is proposed that there is also a reception area for the suite of creative industries studios in the attic.

Attic level:

- The attic would provide an open suite of three volumes intended for creative industry business start-ups. This is felt to make best use of the limited floor plate and ceiling height at this level.

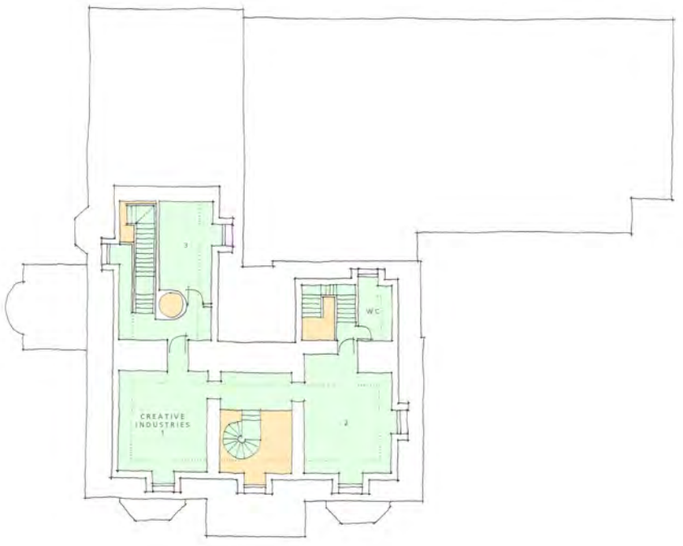
The distinctive character and detail of Grant Lodge, both inside and out, will be revealed by the conservation work and original elements and detail will be repaired and restored where possible.

Much of the architectural detail has been degraded over time and as an example the first floor ceremony suite plasterwork would be carefully repaired where fire damaged and a complimentary new fireplace sought where at present one has been removed, in order to complete the original decorative scheme.

While Grant Lodge will be conserved, the proposed interventions within the interiors will be detailed in a contemporary manner in order to make explicit what has been changed.

This new extension which is thought of as a garden pavilion is a contemporary piece of architecture, intended to compliment and contrast with the existing building.

First floor



Attic floor

3.4 Structural and Civil Engineering

Introduction

Grant Lodge was inspected by A F Cruden Associates in 2012. The following report summarises their assessment of the condition of the building, reviews earlier reports prepared by both themselves and W A Fairhurst and Partners and identifies the extent of remedial works necessary along with proposals for the new elements.

Summary of Inspection

- Generally the building appears reasonably sound for its age and construction.
- Various alterations including the introduction of steel beams to reduce the span of the timber joists have taken place over the past few years and there has been some structural repairs to fire damage to the left of the main entrance area.
- Movement is evident in the front (South) elevation, associated with the bay windows and lintels to windows above these.
- Settlement was noted in the front porch, which is separating from the main building and in the store adjacent to the main stair internally.
- Some further cracked lintels and damaged stonework was noted throughout the elevations of the building.

Summary of previous Reports

A F Cruden Associates undertook a condition survey associated with a previous study in 2006 and so were able to make an assessment of any deterioration in the structure over this time. This was felt to be minimal.

Earlier survey and investigation work was also been carried out by W A Fairhurst and Partners between 1993 and 1998. Their findings can be summarised as follows:

- Site investigation indicated that Grant Lodge is founded on a combination of fine soft silty sands, gravels and clay. Groundwater was found at 250mm below foundation level. No safe bearing pressure was identified.

Past structural repairs to roof

- WAF identified a safe floor loading as 2.5 kN/m² but do not elaborate on what restricts the loading i.e. the timber flooring or the steel or timber support beams. This is substantially less than the loading required under modern standards.
- Settlement was noted to have occurred in the ground floor store adjacent to the main stairs and the front porch.

Structural works required within existing building

Basement/Lower ground Floor

To guard against water ingress, a new ground bearing reinforced concrete slab and internal tanking will be required throughout. The proposed lift pit should be of reinforced concrete with external tanking, and its construction will necessitate mass concrete under-pinning to adjacent existing load-bearing walls.

Upper Floors

Floor strengthening will be necessary throughout in order to increase the load bearing capacity of these floors in line with their use in a public building. One option for this might comprise stressed skin plywood flooring glued and screwed to existing timber floor joists. Additionally existing steel support beams require strengthening by installation of supplementary steelwork alongside.

First Floor

Generally existing steel floor beams will require strengthening as noted above. Where existing cast-iron columns are to be removed, additional steel cross beams will be necessary, spanning between existing masonry walls.

Second Floor

Existing steel beams supporting this floor will require to be supplemented by additional steel work installed alongside.

Past structural repairs to underside of ground floor

The front porch will require to be under-pinned and tied back to the main house.

A timber infestation report should be commissioned in order to review the condition of the existing timbers and any proposed remedial work undertaken

Proposed new Archive Repository / Interpretation Area

Structural arrangement

It is proposed to contain the archive storage area within a suspended structure at Upper Floor level. To provide the required 4-hour fire resistance the structure should comprise a precast pre-stressed concrete or cast in situ reinforced concrete floor and roof slab, blockwork walls, supported on reinforced concrete or encased steel columns and beams.

The proposed 4.5m x 4.5m structural grid will result in a workable solution and help to deliver reasonable structural depths.

The full height external glazing will require some steelwork framing for restraint and to provide support to the roof overhang above.

Drainage/External works

To counteract historic issues with surface water run-off from surrounding ground, it is proposed that a cut-off drainage channel is installed around the building to intercept rainwater, and this is connected via a new underground pipe is installed to the pond nearby. Rainwater from existing roofs and the Repository roof will utilise existing drainage connections subject to condition.

There is a large diameter combined public sewer in the roadway immediately to the north of Grant Lodge and it is proposed that the existing connection to this sewer would be utilised for the development.

Damp penetration at lower ground level

3.5 Building Services

PART 1 - DESCRIPTION OF EXISTING SERVICES INSTALLATIONS

The services installations in the building are in poor condition and none of the materials are capable of being re-used, with the possible exception of the main incoming electrical cable and meter arrangement (although this requires to be re-located in the present design) and a number of cast iron column radiators which it may be possible to salvage subject to further inspection. Any refurbishment and alteration works will involve the complete replacement of the services installations.

The main electrical supply enters in a switch room in the basement. The incomer from Scottish and Southern appears to be rated at 100A three phase and is still connected.

PART 2 - PROPOSALS

The Heating, Ventilation and Water Services installations will be designed to comply with or to be in accordance with the relevant standards or guidance published in the following principal publications:

- The technical standards for compliance with the Building Standards (Scotland) Regulations 2010.
- The Gas Acts and the Regulations of the East of Scotland Water Authority.
- The Guide Books A B and C of the Chartered Institution of Building Services Engineers.
- Relevant Standards and Codes published by the British Standards Institution.
- Relevant Health and Safety Legislation.

Central Boiler Plant

Heat for the central heating and domestic hot water heating systems will be generated by modular high efficiency condensing gas fired boiler units located in a lower ground floor plant room. The modular arrangement will be designed to allow maintenance of a module without complete interruption of the heating service. It is anticipated that conventional fan assisted flue boilers will be used, the combined flue being taken up a lined chimney.

Existing boiler

The pipework distribution system will be pressurised by a local pressurisation unit; and the design circulation flow and return temperatures will be 80oC and 60oC respectively. The heating system will have flow temperature compensation, and this will be by directly controlling the firing of the boilers to maximize the condensing performance.

Space Heating

Space heating will be by low temperature hot water radiator system fed from the boilers described above. The distribution system will be steel pipe insulated to high modern standards and designed such that each floor may be isolated for maintenance or alteration work without affecting the service to other floors. Generally the heat emitters will be high quality pressed steel panel radiators located below windows, but in the more important rooms, cast iron or steel column radiators will be used. The existing cast iron column radiators will be re-used if they prove to be sufficiently sound. All radiators will be provided with a thermostatic control valve.

Archive Space Close Control System

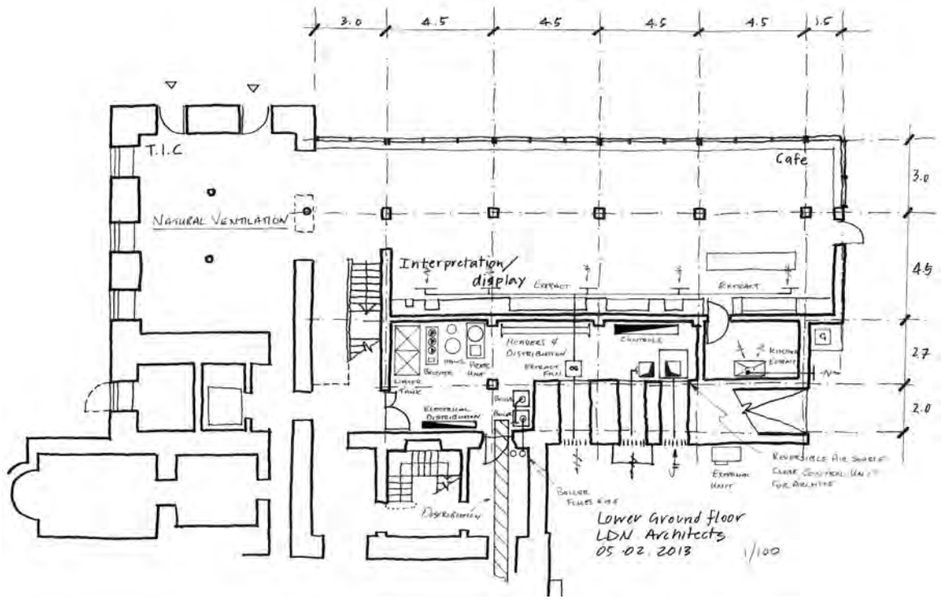
The main archive will be provided with a dedicated close control reversible heat pump to maintain conditions within the space in accordance with BS 5454. The unit will be sited in the plant space and ducted to the archive above. Ductwork will be fitted with fire dampers with a rated fire resistance of at least 4 hours when passing through fire separation walls and floors.

Toilet and Kitchen Extract Systems

Separate minor ventilation systems will be required for the toilets. These will be small self-contained extract systems to provide an extract rate of not less than 10 air changes per hour in each space.

Hot, Cold and Mains Water Services

A main cold water storage tank will be located within the attic. This will be a pre-insulated GRP sectional tank.



Lower ground floor

Domestic hot water will be provided by a pressurised indirect storage calorifier also located in the plantroom. The water storage temperature will be 60 to 65 oC as an anti-legionella precaution and to provide hot enough water for dish washing. Wash hand basins in the toilet areas will be provided with mixer taps so that users may adjust the water temperature.

All distribution pipework will be of copper to B.S. 2871 incorporating non-dezinctifiable fittings and components, and all of silver solder or lead free type.

Potable drinking water will be supplied direct from the mains to outlets in the kitchen/pantry areas and possibly to drinking water points in the toilets if required.

Fire Fighting Facilities

It is anticipated that a new ground fire hydrant will be required, although the final provision will have to be agreed with building control and the local fire officer.

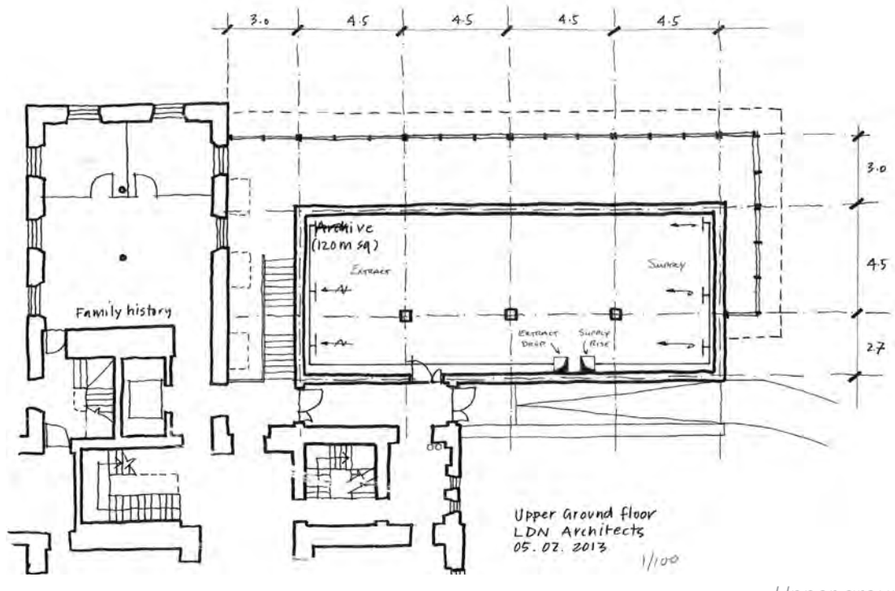
Automatic Controls

The Heating and Domestic Hot Water Services Systems (as well as some elements of the Electrical installations) will be under the control of a simple automatic control system. This will provide for simple user overrides for additional opening times and the like.

The reversible air source close control air conditioning unit will operate under its own control regime to maintain conditions in the archive space to BS 5454 conditions.

Energy Source

Will this report has been developed based on a natural gas fired central boiler plant a separate exercise has been carried out examining the potential of various other energy sources. The results of that exercise form the basis of a separate report which is appended to this. The primary heat source will be determined taking into account any grant assistance that may be available.



Upper ground floor

ELECTRICAL INSTALLATIONS

The Electrical Services and associated installations will be designed to comply with or to be in accordance with the relevant standards or guidance published in the following principal publications:

- The technical standards for compliance with the Building Standards (Scotland) Regulations 2010.
- B.S. 7671 "Requirements for Electrical Installations" - the I.E.E. Wiring Regulations which are deemed to satisfy the Building Regulations.
- The Guide books A, B and C of the Chartered Institution of Building Services Engineers, including Lighting Design Codes.
- Other relevant Standards and Codes published by the British Standards Institution.
- Relevant Health and Safety Legislation.

Distribution Equipment

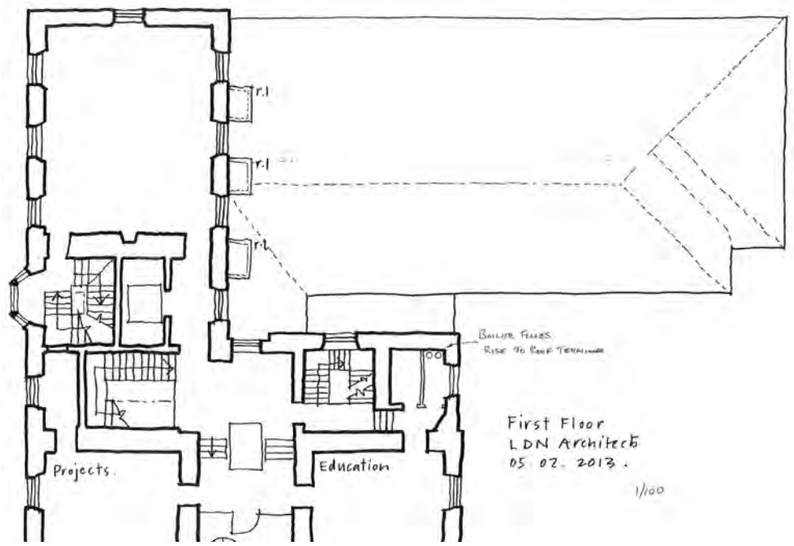
The incoming supply to the building will be terminated in a new Scottish Power panel and meter arrangement. The layout of the proposals would not permit the supply to remain in the present location, but it is possible to re-locate the supply to the adjacent plant room. From there the meter will be connected to a wall mounted panel board located adjacent to the meter. The outgoing ways will be protected by HRC fuses.

Steel wire armoured LSF insulated sub-mains cables will connect the main panelboard to three phase distribution boards and to the main heating services control panel.

The distribution boards or consumer units will be metal clad and provided with a main switch disconnector. The outgoing final circuits will be protected by miniature circuit breakers.

Lighting

Generally, lighting will be by fluorescent lamps incorporating high frequency/high efficiency electronic control gear, supplemented by spotlights.



First floor

The nature of the building is that suspended track systems will be used in the main public spaces, with fluorescent up-lighter components and flexible downlighter components which may be a mixture of compact fluorescent and incandescent spotlights. These arrangements will provide the flexibility required in the studio and exhibition spaces, and also will provide a suitable lighting solution for the cafe and conservatory areas. The main exception to this approach may be the Salon, which requires special consideration as the main historic room in the building which is to undergo a more formal restoration. Here special consideration will have to be given to lighting which is in keeping with the restoration approach.

The lighting systems will be controlled by manual switches in the main public areas. Light switches in the public areas will be good quality units such as MK Edge with plastic units used in the less important areas. Presence detectors will be used in the ancillary spaces and toilets to ensure that lights are not operating when they are not required. The lighting design will conform to the CIBSE Code for Interior Lighting. Emergency lighting will be by a small central battery system connected to dedicated emergency luminaires and illuminated emergency exit signs.

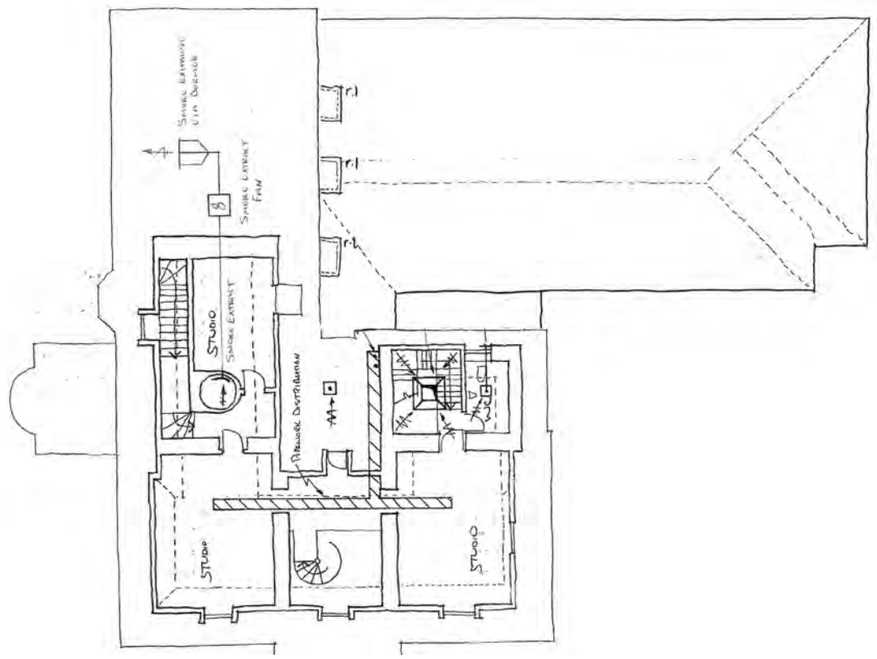
Wiring for the lighting installation and emergency lighting installation will be by Firetec, FP200 or similar soft bodied robust cable system. This form of cable is better than twin and earth but is easier to install than conduit or MICS cable in an historic building and can be run in floor spaces by drilling through joists.

Small Power

Socket outlets in public areas will be good quality units such as MK Edge or similar, with plastic units used elsewhere. In the larger areas designated for exhibition/flexible use floor boxes will also be provided so that power can be run to exhibits in the centre of the space without trailing cables. Wiring will be in ring circuits, wired in Firetec, FP200 or similar soft bodied robust cable system as described for the lighting installation.

Security System

A programmable, addressable intruder alarm system mainly comprising movement sensors will be installed. One option is for this to be a single system covering the whole building which is armed when the building is closed. Another option would be to provide each studio unit with an autonomous zone of the system which can be armed and dis-armed independently via a local key-pad, but this would be significantly more expensive.



Attic floor

The system would incorporate multiple detectors as required to constitute a ‘verified’ system as defined by the ACPO code of practice for alarm systems, and the system will be connected to a remote, permanently manned monitoring station via telephone links.

Fire Detection & Alarms

An analogue addressable fire detection system to BS 5839: 2002 L3 (M) will be provided to cover the building. The system will comprise smoke/heat detectors, break glass call points and electronic sounders. The system will be connected to a remote, permanently manned monitoring station via telephone link. Wiring will be in soft bodied fire resistant cable.

Lift

A lift will be provided giving access from the lower ground to first floors.

Telecoms and Data Wiring

Data and telecoms wiring will be installed as part of the building contract. It is anticipated that a structured cabling system using category 5e cable would be used, with all cables run to a central point.

Data connections will be provided at the floor boxes described under the section on small power above.

External Lighting

External lighting for both aesthetic and security purposes will be provided. This is likely to be a reasonably elaborate and comprehensive installation in the context of this building and the envisaged landscaping proposals. Emergency lighting will be provided throughout the building and at fire exits. Control of external lighting will be via a simple dusk-to-dawn photo sensor and contactor arrangement in the electrical switch room.

4.0 Delivery

4.1 Preliminary Budget Costs

Torrance Partnership LLP are acting as part of the LDN Architects led team appointed by Moray Council to carry out an Options Appraisal exercise for the refurbishment and redevelopment of Grant Lodge in Elgin.

The following Target Preliminary Budget Costs have been prepared over the past few months as part of this exercise and comprise the following:-

1. Minimum Intervention Scheme – costed in January 2013

2. Option A – costed in October 2012

3. Option C – costed in October 2012*

4. Preferred Scheme - costed in February 2013

* The Option C Target Preliminary Budget Cost has been reviewed taking into consideration the latest development of the drawn proposals prepared by LDN Architects (the 'Preferred' Option). Current reports from A F Cruden Associates (Structural Engineers) and Irons Foulner (Mechanical & Electrical Services Engineers) have also been reviewed and we are satisfied that the allowances included in October 2012 are sufficiently robust to realistically cover the latest "Preferred" proposals.

TARGET PRELIMINARY CONSTRUCTION BUDGET

Minimum Intervention Option Gross Internal Floor Area (approx.) 974 m2

	£
Existing lower ground level area refurbishment	347,000
Existing ground floor area refurbishment	403,750
Existing first floor area refurbishment	380,000
Existing attic area sundry work	43,500
External fabric repairs	300,000
Internal fabric repairs	45,000
	1,519,250
Preliminaries	303,850
	1,823,100
Contingencies 15.00%	273,465
Total	**2,096,565**

Notes

1. Costs exclude Planning & Building Warrant fees, profession fees & VAT.
2. Costs exclude Display/Interpretation fit out.
3. Costs assume competitive tenders are obtained based on measured Bills of Quantities and are based on rates we would hope to achieve over the next 12 months. If a start on site is envisaged to be more long term then an allowance for inflation would need to be added.
4. Cost are necessarily of a preliminary nature at present, however they are based on Torrance Partnership's in house data for comparable historic building projects of a similar scale and nature. They are believed to be realistic and achievable in the current construction climate.

PRELIMINARY OVERALL PROJECT BUDGET

Minimum Intervention Option

	£
Construction Budget	2,096,565.00
Professional Fees	284,504.00
Statutory Fees	15,000.00
Construction Related Specialist Reports	15,000.00
Total	**2,411,069.00**

Notes

1. To be read in conjunction with 'Target Preliminary Construction Budget'.
2. Costs exclude VAT.
3. Costs exclude city wide interpretation allowances.

TARGET PRELIMINARY CONSTRUCTION BUDGET

OPTION A	Gross Internal Floor Area (approx.)	1249 m2
		£
Existing lower ground level area refurbishment		359,650
Extra for forming (4) No Archive 'boxes'		245,850
New Build Space at lower ground level		55,300
Existing ground floor area refurbishment		433,450
Existing first floor area refurbishment		398,100
Existing attic area refurbishment/fit out		166,300
External GE fabric repairs		319,500
Internal GE fabric repairs		86,650
		2,064,800
Preliminaries		412,960
		2,477,760
Contingencies	15.00%	371,664
Total		**2,849,424**

Notes

1. Costs exclude Planning & Building Warrant fees, profession fees & VAT.
2. Costs exclude Display/Interpretation fit out.
3. Costs assume competitive tenders are obtained based on measured Bills of Quantities and are based on rates we would hope to achieve over the next 12 months. If a start on site is envisaged to be more long term then an allowance for inflation would need to be added.
4. Cost are necessarily of a preliminary nature at present, however they are based on Torrance Partnership's in house data for comparable historic building projects of a similar scale and nature. They are believed to be realistic and achievable in the current construction climate.

PRELIMINARY OVERALL PROJECT BUDGET

OPTION A	
	£
Construction Budget	2,849,424.00
Professional Fees	399,740.00
Statutory Fees (Planning, Building Warrant, etc.)	15,000.00
Interpretation Allowances	150,000.00
Construction Related Specialist Reports	40,000.00
Project Management	30,000.00
Total	**3,484,164.00**

Notes

1. To be read in conjunction with 'Target Preliminary Construction Budget'.
2. Costs exclude VAT.
3. Costs exclude city wide interpretation allowances.

TARGET PRELIMINARY CONSTRUCTION BUDGET

OPTION C / PREFERRED SCHEME Gross Internal Floor Area (approx.) 1437 m2

	£
Existing lower ground level area refurbishment	318,300
New Build Atrium Space at lower ground level	113,650
New Build Plant Room at lower ground level	101,750
New Build Café/Kitchen at lower ground level	207,850
Existing ground floor area refurbishment	433,450
New Build Atrium Space at ground level	117,100
New Build Archive area at ground level	339,450
Existing first floor area refurbishment	398,100
Existing attic area refurbishment/fit out	166,300
External GE fabric repairs	310,350
Internal GE fabric repairs	81,150
	2,587,450
Preliminaries	323,431
	2,910,881
Contingencies 12.50%	363,860
Total	**3,274,741**

Notes

1. Costs exclude Planning & Building Warrant fees, profession fees & VAT.
2. Costs exclude Display/Interpretation fit out.
3. Costs assume competitive tenders are obtained based on measured Bills of Quantities and are based on rates we would hope to achieve over the next 12 months. If a start on site is envisaged to be more long term then an allowance for inflation would need to be added.
4. Cost are necessarily of a preliminary nature at present, however they are based on Torrance Partnership's in house data for comparable historic building projects of a similar scale and nature. They are believed to be realistic and achievable in the current construction climate.

PRELIMINARY OVERALL PROJECT BUDGET

OPTION C / PREFERRED SCHEME

	£
Construction Budget	3,274,741.00
Professional Fees	444,398.00
Statutory Fees (Planning, Building Warrant, etc.)	15,000.00
Interpretation Allowances	150,000.00
Construction Related Specialist Reports	40,000.00
Project Management	30,000.00
Total	**3,954,139.00**

Notes

1. To be read in conjunction with 'Target Preliminary Construction Budget'.
2. Costs exclude VAT.
3. Costs exclude city wide interpretation allowances.

PRELIMINARY ASSESSMENT OF HISTORIC SCOTLAND GRANT ELIGIBLE COSTS

OPTION A	Gross Internal Floor Area (approx.)	1249 m2
		£
Fabric repairs		
External		319,500.00
Internal (includes decoration of ground and first floors)		165,715.00
Heating Installation for existing building (25% of total)		22,750.00
		507,965.00
Preliminaries		101,595.00
		609,560.00
Contingencies		91,435.00
		700,995.00
Construction Related Specialist Reports		15,000.00
Professional Fees		98,350.00
		814,345.00
Project Management		5,812.00
Total HS GE Assessment		**820,157.00**

Notes

1. Costs exclude VAT.

PRELIMINARY ASSESSMENT OF HISTORIC SCOTLAND GRANT ELIGIBLE COSTS

OPTION C / PREFERRED SCHEME	Gross Internal Floor Area (approx.)	1437 m2
		£
Fabric repairs		
External		310,350.00
Internal (includes decoration of ground and first floors)		160,215.00
Heating Installation for existing building (25% of total)		21,760.00
		492,325.00
Preliminaries		61,540.00
		553,865.00
Contingencies		69,235.00
		623,100.00
Construction Related Specialist Reports		20,000.00
Professional Fees		84,555.00
		727,655.00
Project Management		5,166.00
Total HS GE Assessment		**732,821.00**

Notes

1. Costs exclude VAT.

4.2 Programme

If successful in the HLF Stage 1 process, the client envisages working steadily towards an HLF Stage 2 submission in November 2013.

In order to advance a project of this complexity to RIBA Stage E, sufficient to apply for a Building Warrant, the design team have already identified that a variety of specialist reports will be required during the HLF development stage in order to support the work. These include:

- A Historic Landscape Conservation Statement

These would build upon the initial work by LUC which provides an understanding of Cooper Park sufficient to allow a discussion to take place about how it might be adapted to improve the setting and access to Grant Lodge, and allow for car parking to address both Grant Lodge and the perceived congestion caused by visitors to the Cathedral.

- An archaeology desktop study.

In line with the conservation policies, it is important that before work involving the disturbance of the ground is commenced, there is an archaeological watching brief in place. This in turn, requires an archaeological desktop study in order to establish the ground rules and inform the design process.

- A Traffic Management Plan

This would address concerns about the effect of increased traffic on North College Street, and the provision of a pedestrian connection to the end of the High Street. By undertaking a careful analysis of predicted traffic flow it would assist with the necessary permissions required from Traffic Scotland.

- Stonework and Mortar Analysis

These would address the concern with stone delamination and assist in the writing of a detailed specification for both stone repair and the mortar for pointing and harling.

LDN Architects
29 St Leonards Road, Forres IV36 1EN
T: 01309 673221
F: 01309 676397
E: architects@ldnf.co.uk

CASTLE TO CATHEDRAL TO CASHMERE - GRANT LODGE
DRAFT PROGRAMME FOR DEVELOPMENT STAGE

F1211/1.6

		2013													
		NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Stage C : Outline Proposals	Consultations with HS, TMC planning														
	Consultations with TMC roads and parks														
	Development of design for GL														
	Update of heritage experience content														
	Preparation of C2C2C masterplan														
	Structure, M+E, Fire strategies														
	Cost update														
	Pre-application submission to TMC														
Specialists : Landscape, transport, topo	Tender and appointments by TMC														
	Landscape conservation plan and tree survey														
	Topographical land survey														
HLF Stage 1 : Report	Preparation and submission of report														
Stage D : Detailed Proposals	Further consultation with HS, TMC planning														
	Consultation with TMC building control														
	Development of detailed design for GL														
	Development of heritage experience design for GL														
	Detailed exhibit and component design														
	Outline design of services installations														
	Design of structure and infrastructure														
	Preparation of elemental cost plan														
HLF Stage 1 :	Decision														
Stage D : Planning/ LBC	Finalisation of scheme design														
	Preparation of conservation design statement														
	Comprehensive Stage D report														
	Planning and LBC submissions to TMC														
Stage E : Final Proposals	Preparation of outline specification														
	Development of design for GL to large scale														
	Detailed consultation with TMC building control														
	Full structural design and certification														
	Final design of services installations														
	Final proposals for heritage experience														
	Final proposals for C2C2C masterplan														
	Elemental cost plan update														
Specialists : Mortar, stone, timber	Tender and appointment by TMC														
	Stonework and mortar analysis														
	Timber infestation														
	Paint analysis														
	Traffic management plan														
	Archaeology desktop survey														
	Protected species survey														
Stage E : Building Warrant	Preparation of Building Standards report														
	Building warrant submission to TMC														
HLF Stage 2 :	Preparation and submission of report														
Meetings :	Design Team														
	Collections working group														
	Heritage experience working group														
	Project management group														

LDN Architects

26 November 2012

- A Timber Infestation Survey

This would detail the sources of damp and timber decay, current and potential within the building and propose environmental control measures to allow the detailed specification of the work by the design team.

- Historic Paint Analysis

This would allow an understanding of the original decorative schemes within the building to allow the development of an appropriate response.

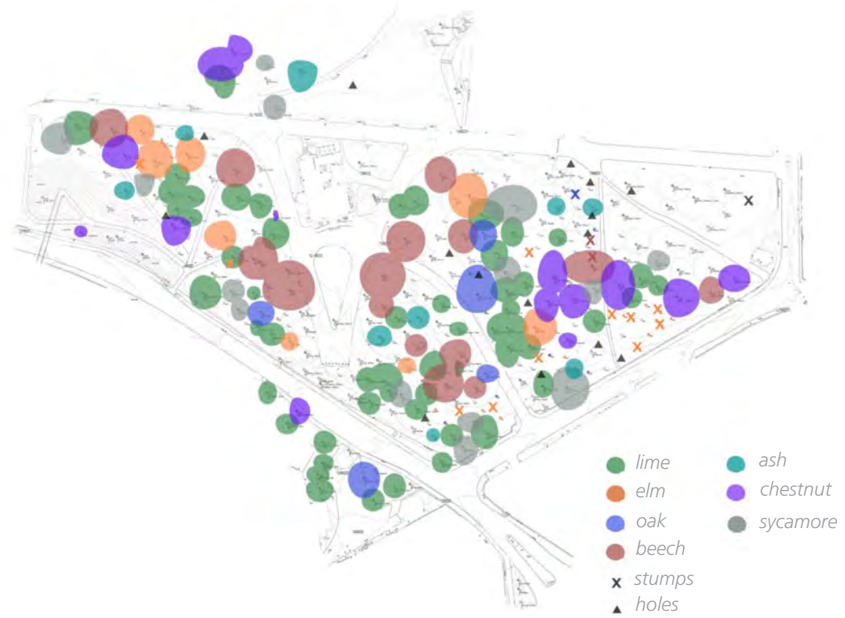
- Protected Species Survey

The team require to know whether bats or other protected species may be present due to the programme implications this can often have.

We are aware that Moray Council commissioned an Asbestos Management Survey for Grant Lodge in 2009. This noted the presence of asbestos. Prior to making a site start a more detailed Refurbishment and Demolition Asbestos Management Survey will be required.

The team have also had access to the work undertaken in preparation for the Elgin Flood Alleviation Scheme. This shows that Grant Lodge is judged to be out-with the 1 in 200 year flood risk zone.

If an HLF Stage 2 submission is made in November 2013, a site start should be achievable in mid 2014, and given a construction period of 18 months, the completed building could be delivered in the early months of 2016.



5.0 Conclusion

5.1 Summary

The sketch scheme proposals illustrated here represent the outcome of the Stage I feasibility and appraisal work and, as such, they should be seen as preliminary. Stage 2 of the process will involve considerably more design development and refinement, in terms of both layout of accommodation and architectural treatment. From the design work undertaken thus far, however, the design team is confident that there is tremendous potential for a restored Grant Lodge, along with an exciting and dynamic juxtaposition of old and new, to fulfil the vision for it as a transformational site which will contribute to the prosperity of Elgin and Moray.

In Section 1.3 above, the report articulated the challenges and opportunities which would require to be successfully addressed if the client's vision is to be fulfilled.

These challenges were:

1. Funding

The HLF Heritage Grants programme raison d'être is to fund projects which make a lasting difference for heritage, people and communities. We believe that the diverse range of functions and activities proposed for Grant Lodge when coupled with appropriate and best practice building conservation will result in the following outcomes:

- The Heritage will be better managed, interpreted, recorded and in better condition
- People will have learnt about heritage and had an enjoyable experience
- People will have developed skills and there will have been enhanced opportunities for volunteers
- Environmental impacts will be reduced
- A wider and more diverse audience will be exposed to heritage
- The local economy will be boosted in line with the predicted outcome from the various studies undertaken by Moray Council
- The improved facilities will mean that the local community will be a better place to live.

Formal opening ceremony for Cooper Park

19 August 1903

More detail on how the desired outcomes for heritage and the environment are detailed in the following sections below.

2. Siting and Context

The wider project proposes to re-connect Grant Lodge with the city centre and restore the degraded municipal landscape which surrounds it at present.

3. Accommodation

The proposals clearly accommodate the client's brief while working with the Conservation Policies laid down for the building.

4. Costs

Careful attention was given to setting an initial project budget. An exercise was undertaken to identify those materials that require specific archival storage and that which could remain in a less controlled environment. This was used in order to fine-tune the size of the archive between option B and C. This allowed an appropriate project budget to be set and the scheme developed within it.

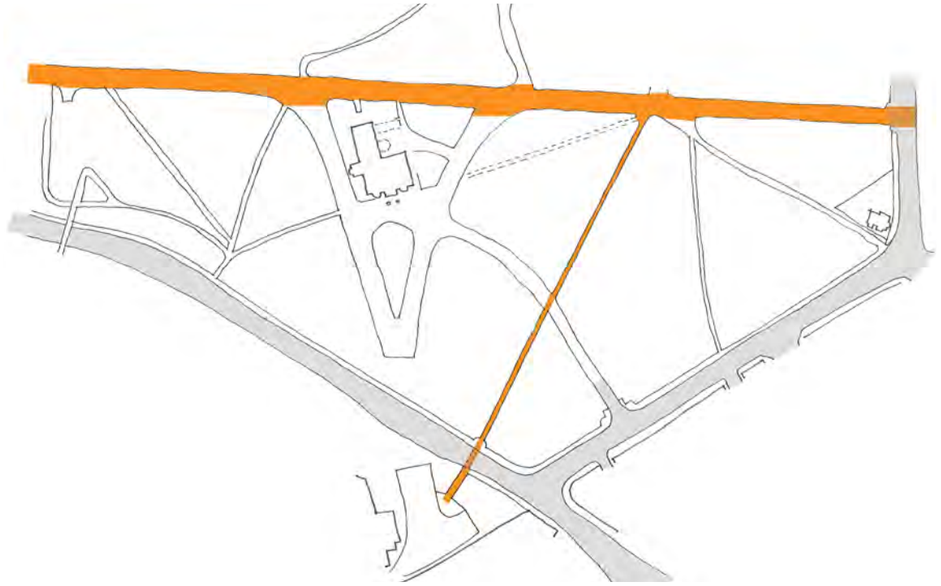
The mix of uses in the accommodation brief, developed with the client, are intended to be attractive to the various funders. Advice was sought on the level of funding which it is appropriate to seek and the scheme and an initial cost saving exercise undertaken.

Working within the client's budget for capital and running costs and the funding available for the project will be essential, This will involve value engineering and life cycle reviews at the key stages of the project as it develops.

5. Access

The project embraces universal access.

The A96 breaks the connection between the High Street and other visitor destinations



Proposed new connection

6. Uses and Visitor Flow

The client's brief called for a close integration of the differing elements of the brief in order to minimise staff numbers. The proposed scheme is based on the premise that spaces are multi-functional to ensure security and supervision.

The building's layout addresses issues of seasonal variation in functions such as Tourist Information and café use by allowing areas of the building to expand or contract, be closed off, or opened depending on demand.

7. Key Collections

The provision of purpose designed archival storage in a new, rather than converted building, addresses the necessary high standards of archival care required by national bodies.

8. Interpretation

The proposed scheme ties the work at Grant Lodge into the wider Elgin area and Moray context. It provides a flexible and purpose designed exhibition space as the main interpretative focus of the building, but also envisages interpretative items being dispersed throughout the building. An early development of this concept along with a clear articulation of the public circulation will allow this material to be fully integrated into the design.

9. Repairs

The design team have carried out a fabric inspection and this will be supplemented by further investigative work and specialist reports at the development stage. The repair strategy will be guided by Conservation Policies and will address future maintenance costs by using good quality long life materials which minimise future expenditure.

The present Local History Centre

10. Fire Engineering

In order to encourage visitor flow, the intention is to create an open route through the building and this will require particular attention to be given to early fire detection, clear signage, good emergency lighting of escape routes and effective smoke control. The design has been reviewed by the project Fire Engineer as it has developed and their advice incorporated.

While the achievement of fire safety standards for the archive are based on meeting the required 4 hour rated resistance through the use of new construction, it is hoped that the services engineer's strategy of using a reversible air source heat pump in order to acclimatize this volume will remove the requirement for a fire suppression system

The aim will be to reduce the need for expensive services installations and the burden of future maintenance by design and by staff training and management procedures.

11. Consents

Initial approaches have been made to Planning and Historic Scotland to achieve the necessary support and the design development to date has taken into consideration their comments and advice.

5.2 Heritage Impact Assessment

This section summarises the impact the proposals will have in relation to the Conservation Policies set out in the Conservation Statement for Grant Lodge produced in 2006.

It is important that the Conservation Statement is not regarded simply as an academic exercise which informs the design, but that these policies continue to influence all those involved during the detail design and beyond.

The primary purpose of Conservation Policies is to define how aspects of significance may be protected and enhanced.

While the 2006 Conservation Statement sets out 74 policies, at this point in the design it is only appropriate to respond to the general rather than the particular.

CP 01 – 19 relate to general principles of conservation practice and philosophy and it is sufficient here to say that the highest standards of good practice in conservation will be followed for this important and under recognised building, which most probably has a design by Robert Adam at its heart.

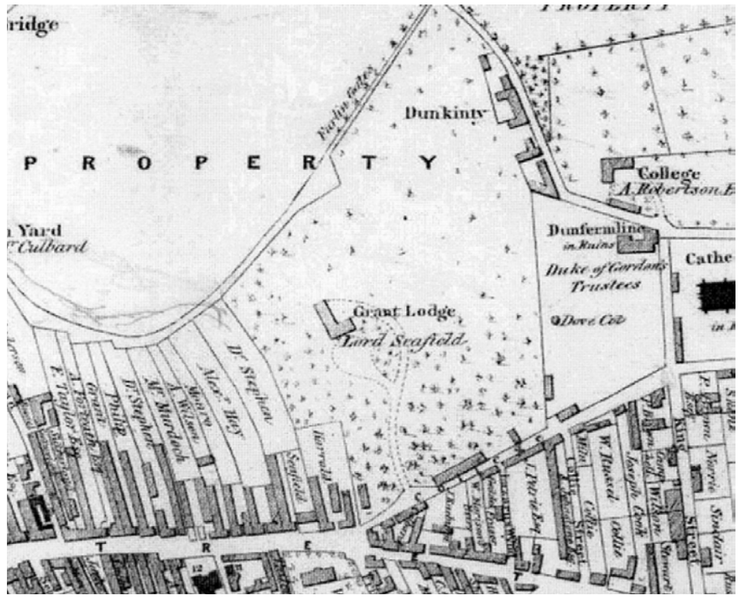
Specific Selected Draft Policies

CP 25 – 27 *Seek to protect and restore the parkland setting, and in particular, through having regard for the ancient designed landscape and its development.*

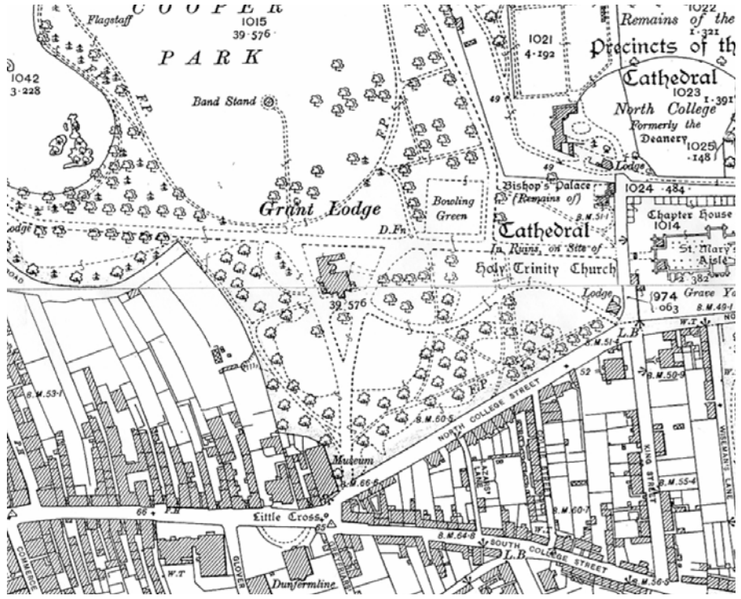
A Conservation Statement on the setting of Grant Lodge in Cooper Park will form part of the development work. This builds on the arboriculturalist's survey and analysis carried out by the Historic Landscape Consultant at this stage.

CP 28 *Ensure that any works involving the disturbance of ground surfaces are carried out in accordance with an archaeological brief prepared in consultation with the Regional Archaeologist advising the Council.*

An archaeological desk study proposed for the HLF development stage will inform the need for an archaeological brief for the project.



Extract from 1838 OS Map



Extract from 1905 OS Map

CP29 – 30 *Give consideration to ensuring that the fabric of the building is recorded appropriately.*

It is envisaged that the construction phase will involve appropriate building recording to further an understanding of how the building both developed, changed, and incorporated material from earlier structures on the site.

CP31 *Seek to restore the architectural balance of the design for the principal elevation to the south through the replacement of the missing Victorian greenhouses.*

While it may be desirable to restore the architectural balance, the client's current brief does not call for accommodation of this nature, though it may be appropriate in the future. It would be different if in a symmetrical design only one greenhouse survived, but as both are missing, the present façade has its own symmetry and balance.

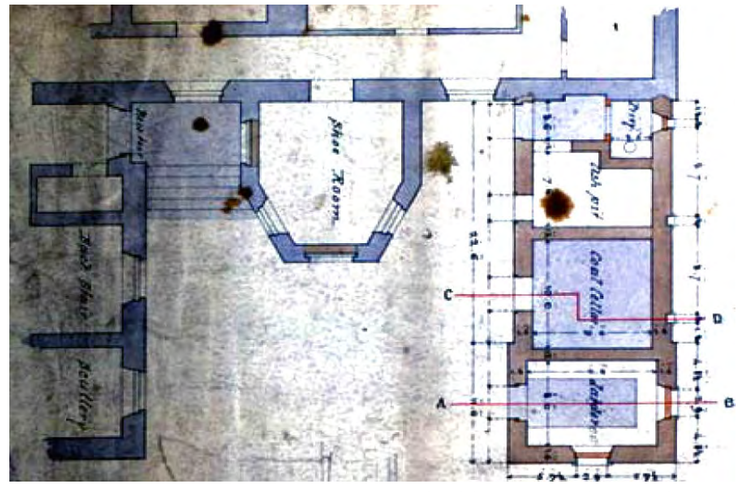
CP32 - 33 *Subject to those matters raised in restoring significance (see below) in finding new, compatible uses for the building, avoid the demolition of any part of the external fabric whether or not it may be capable of accommodating new uses; the compatibility of new uses may be governed by compliance with this specific policy.*

Having been unoccupied for 10 years, the current proposals for Grant Lodge possibly represent its best chance for finding a compatible new use before significant deterioration occurs to the fabric. On this basis it is suggested that selective demolition is appropriate.

A case will be made to the Planning Authorities that the loss of the ancillary accommodation dating from 1850 are an acceptable loss of historic fabric particularly since their conversion to public toilets in 1953 removed most, if not all, evidence of historic finishes. This will take the form of a full justification statement and will be lodged in support of the applications for Planning Permission and Listed Building Consent.

We would argue that this loss is not part of the defining architectural character as defined in CP33.

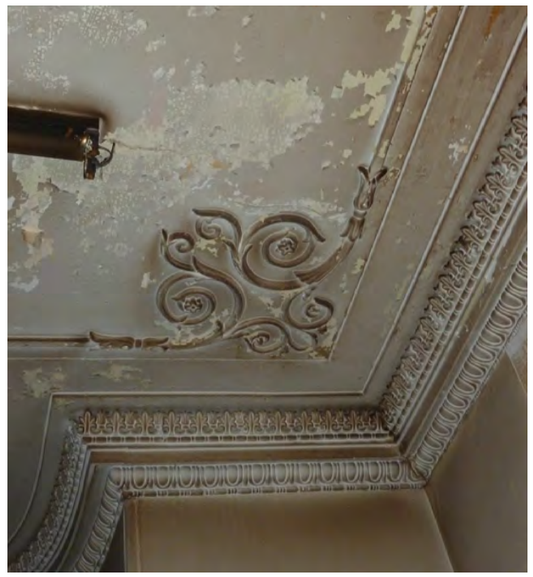
Grant Lodge in 1907



Outbuildings, A and W Reid, 1849

CP34 *Seek to restore the significance of the architectural decoration of the principal apartments where the larger part of the original scheme from one, or more, of the above listed periods remains intact; as part of this process seek to restore missing features essential to the architectural programme, such as fireplaces, missing cornices, skirtings, window shutter panels etc, based on the record of evidence embodied within the fabric of the building.*

It is intended that the architectural decoration of the principal apartments would be restored.



CP35 *Have regard to restoring the original spaces within the shell of the building by respecting past uses and room layouts; where these exist already they should not be altered through knocking downwalls or breaking through them other than restoring known openings or features.*

It is argued that the proposed design works with the layout of the original spaces and minimises disturbance to partitions.

CP36 *While having regard to the hierarchical nature of the former uses and how these were defined; where the larger part of the historic fabric of a room has been lost and is incapable of being restored, seek to impose a scheme of architectural finishes which is contemporary, while being deferential to the surviving historic fabric and to the scale and character of the spaces.*

It is not the intention that the interiors or detail will be restored on the basis of conjecture. where change is required, the proposals seek to overlay a contemporary aesthetic on the historic fabric, in order to differentiate the new elements within the composition.

CP38 *Ensure that uses are compatible with the structure of the building; uses that require extensive strengthening of intermediate timber floors to meet notional loading requirements should be avoided; repairs to timber floors should be carried out in techniques that involve the minimum intervention and should be reversible, and should follow established conservation guidelines.*

While it is acknowledged that floors require to be strengthened to meet public loadings, the decision to build a new extension containing the archive that can deal with the necessary loads and fire separation, allows a more sympathetic approach to be taken to the existing historic fabric.

CP39 *Compatible uses will be also those that minimise the impact of means of escape, fire compartmentation, and disabled access, and these considerations should be taken into account when carrying out options appraisals.*

The installation of the lift and associated additional fire escape seeks to minimise the need to compartment the main circulation spaces for fire and allows the removal of the disfiguring ramp from the existing portico.

CP39 – 48 Concern detailed considerations in terms of conserving and repairing the historic fabric. By limiting external alterations as far as possible to the proposed extension, the design seeks to put no obstacle in the way of carefully conserving historic fabric such as existing window glass. By commissioning detailed reports at the development stage, the team seek to follow best practice with regard to the harl and internal finishes as mentioned in CP43 – 46.

The following policies concern restoring significance.

CP49 *Seek to restore original ground surfaces around the building based on pictorial evidence.*

Careful attention will be paid to providing suitable ground finishes around the building in order to provide a suitable setting for the building. In particular the project proposed to remove the tarmac from the proximity of the building and specifically hopes that Grant Lodge will eventually again be seen in a garden rather than municipal landscape.

CP50 *In conjunction with compatible uses for the building, devise a scheme for improving the appearance of the internal court on the east side of the building which restores access to the rear of the property; unless original surfaces are uncovered the opportunity may be taken to introduce a contemporary new design as hard landscaping to enhance the space.*

In the options appraisal process, the first scheme explored attempted to incorporate the existing spaces surrounding the rear courtyard in the client's brief. For various reasons these were felt to be incompatible.

The disfiguring ramp to the portico

CP52 *Reconsider public access to the building as part of an access plan that permits the ramped access to the porte-cochere to be redesigned or removed altogether.*

The introduction of level access at the lower ground level allows the removal of the ramp.

CP53 – 74 Deal with present detail which is felt to be detrimental to the building's significance. These elements will be addressed at the detailed design stage.

5.3 Environmental Impact

The project recognises that not only is it good practice to reduce environmental impacts, but that the HLF will expect this to be addressed if grant support is to be given.

Energy Conservation

In the case of Grant Lodge, the reuse of an existing redundant building and the identification of a suitable new use is both good practice in terms of environmental conservation, but also energy conservation. The embodied energy tied up in the fabric of Grant Lodge represents a considerable investment which should not be squandered.

Equally rather than making substantial internal alterations to Grant Lodge to accommodate the proposed brief, it could be agreed that building a new extension to contain the archival function means that the element of the brief most likely to be heavily serviced, is likely to be the most energy efficient. It should also be reasonable to expect the new glazed element surrounding the archive to be built to meet or exceed the requirements of the Technical Standards in terms of energy efficiency.

Grant Lodge embodies considerable investment in time and materials

In terms of the archive itself, the high thermal mass of the concrete enclosure allows the creation of the most stable conditions that should allow the mechanical plant to be reduced. At this stage the design team are proposing a reversible air source heat pump close control unit for this archive volume. This option is also being explored for the space heating within the glazed volume surrounding the archive.

The primary heat source for the building as a whole excluding the archive has been the subject of a separate report entitled " Appraisal of heating options and application of low and zero carbon technology" This compares the 'base line' option of gas heating with other options as follows:

- ground source heat pump
- wood pellet boiler
- gas boiler in the existing building and air source heat pump for the new element

It weighs up capital costs with both running and maintenance costs in order to give a whole life cost over a defined timescale and expresses this as a present day equivalent cost called ' Net present value'. This takes into account fuel cost inflation over 12 years. This demonstrates that there are significant variations in capital costs, running costs and the carbon dioxide emissions from the four options. This decision will be the subject of a further economic assessment at a later stage when the Government's latest Renewable Heat Incentive (RHI) payments are clarified. At this stage, and for cost purposes, the gas fired boiler option has been assumed for the existing building.

Energy Efficiency in Historic Fabric

While proper consideration will be given to the special characteristics of Grant Lodge, opportunities will be taken to improve the energy efficiency of this fabric where work does not prejudice the cultural significance, or increase the risk of long-term deterioration of the fabric.

In this instance relatively significant improvements to energy efficiency can be made as we are starting from such a low base; Grant Lodge is an un-insulated and leaky building with out of date service installations.

Simple passive measures such as roof insulation, draught stripping, working shutters and energy efficient lighting, coupled with modern heating controls and energy efficient equipment and fittings will contribute significant savings when compared to the original fabric.

As the mechanical and electrical services are to be renewed throughout, energy efficient systems such as heat recovery can be considered at detailed design in order to reduce operational costs, as can water saving fittings.

The existing uninsulated attic

Renewable technologies

The strategy is one where renewable energy technologies will only be considered once more passive approaches such as insulation and draught proofing have been maximised. The potential impact of the decisions about an energy saving measures, including the appearance of renewable technologies on historic fabric, will be analysed before a strategy is agreed and of course it is possible to install appropriate circuits now in order to enable later addition of these technologies as energy markets change. In particular, the services engineers suggest that subject to planning constraints, solar technology could provide a useful input in the future.

Water

As a public building it is encumbent of the designers to follow best practice in reducing water use by the use of aerated water outlets and low water flushes and similarly, it will be expected that sustainable urban drainage (SUDS) is applied, as part of the approval process.

Building Materials

It is intended that the specifiers will adopt a policy of using products with low embodied energy when selecting products such as insulation, but it is acknowledged that the stable conditions required by an archive will require the high-embodied energy which comes with concrete construction. As this is to be a long life building this is acceptable, particularly if the concrete contains a recycled content.

The refurbishment will inevitably lead to the reuse of materials and the specific need for stone, slate and other natural materials will result in the local sourcing of materials.

It is now normal practice with the scale of Contractor likely to be employed on a project of this size to adopt a Site Waste Management Plan and seek to avoid the use of solvent based products where the dictates of conservation practice allows. The specification of timber from proven legal and sustainable sources is normally part of a specification and in this instance there should be little call for hardwoods.

Biodiversity

As part of the development stage a bat survey and a study of the historic landscape will include comment on biodiversity which should alert the team to any issues. The proposal includes changes to the building's setting which would remove the surrounding areas of tarmac and seek to re-establish Grant Lodge in a parkland setting. Car parking when provided, will have to be surfaced in natural porous materials due to the proximity of tree roots.

Visitor Transport

Although one strand of this development is to attract and detain tourists in Elgin, a wider appreciation of public transport links in the North-East is beyond the scope of this project. Grant Lodge as an orientation centre for Elgin is intended to provide a stopping place which then encourages visitors to explore Elgin by foot. By attempting to knit Grant Lodge and Cooper Park back into the fabric of the city centre local visits should be more likely to be made on foot or by public transport.

The size of Elgin makes it perfect for cycling and the developed Grant Lodge will cater for this. Cooper Park and the Lossie valley acts as a green lung through the city which encourages bicycles to be used and this is connected to a SUSTRANS route so that Grant Lodge is a stop on a route for the wider exploration of Moray.

Conclusion

As a public building, the future running costs are important to the client and careful decisions about whole life costing and the choice of fuel and materials to reduce future running and maintenance costs will have to be carefully evaluated.

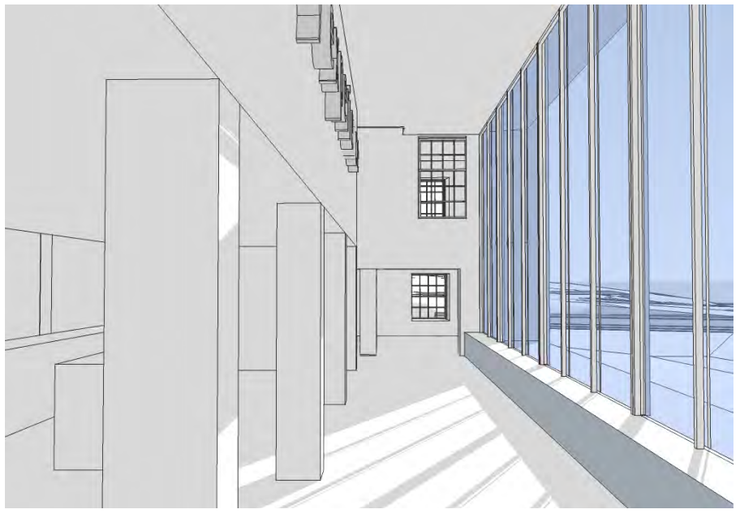
6.0 Drawings

SCALE N/A

6.1 Site plan

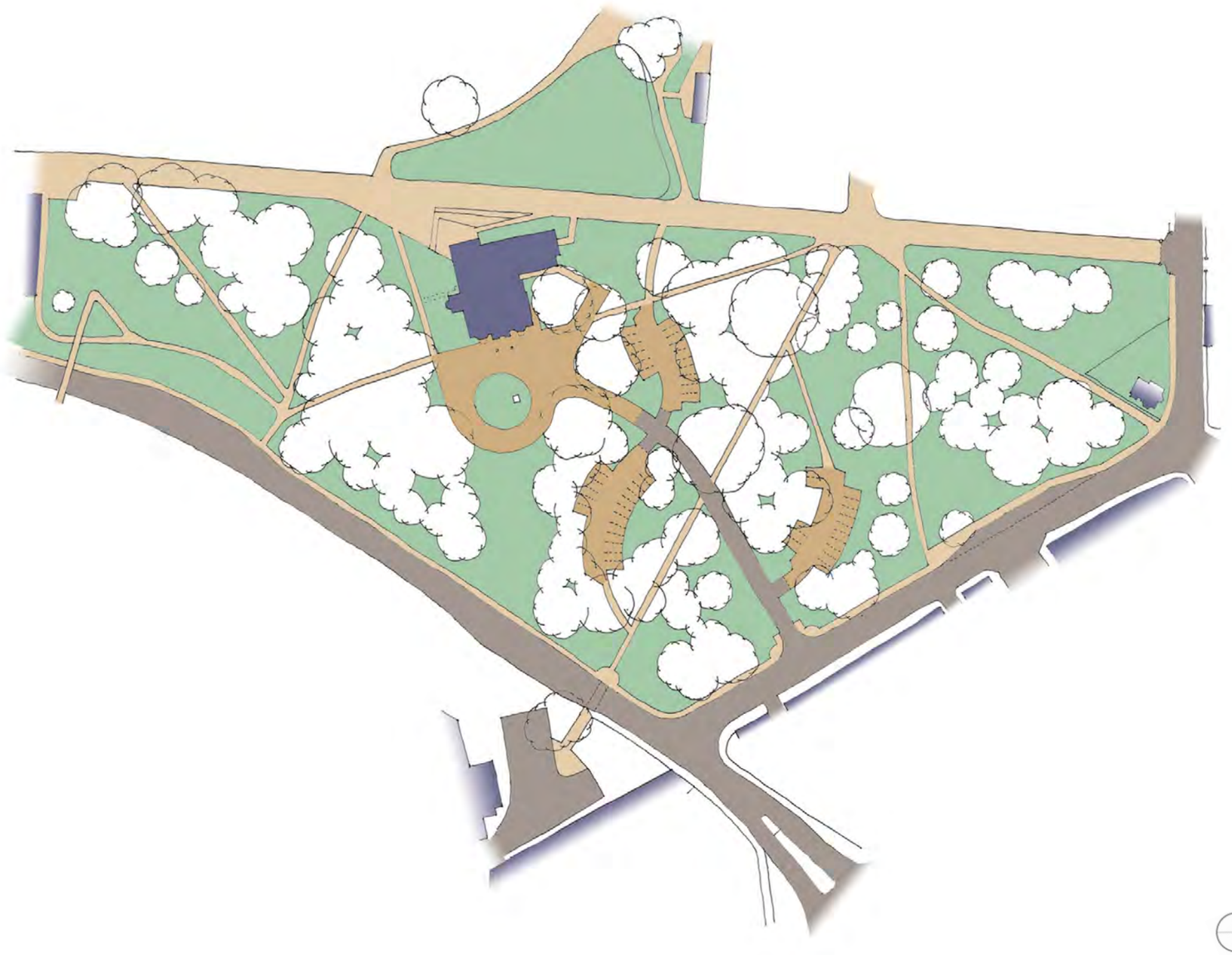
6.2 Floor plans

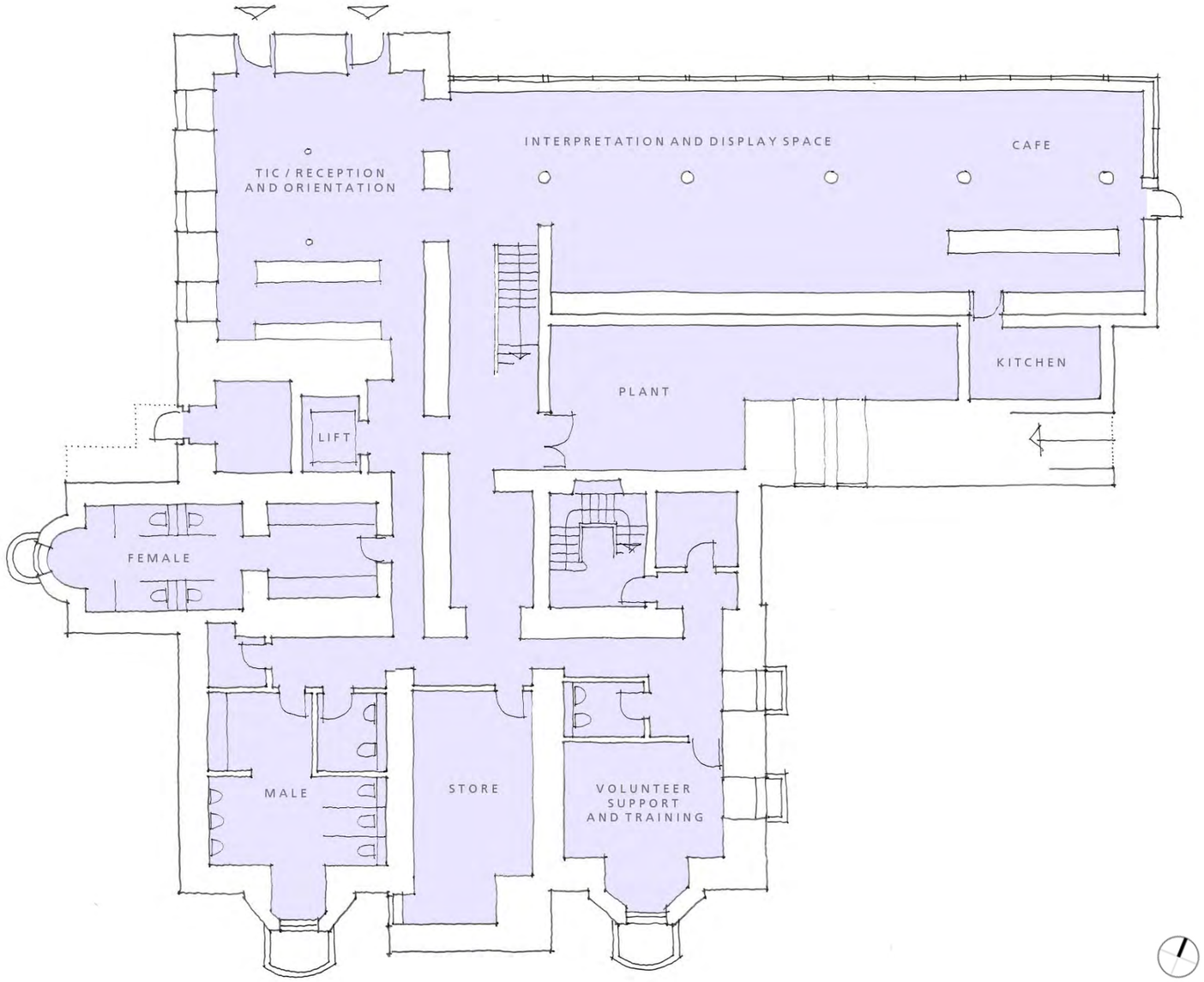
6.3 Sections

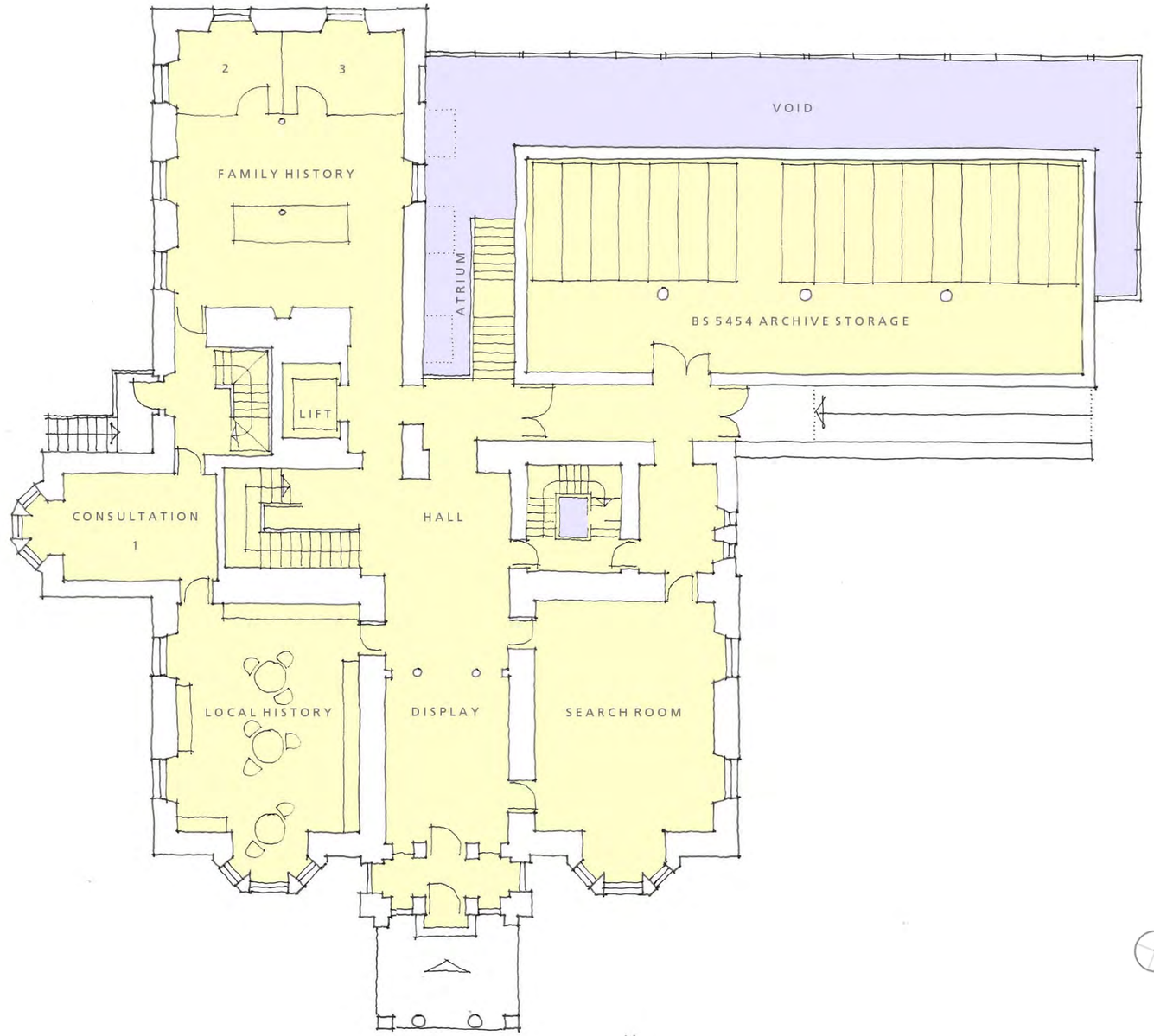


2 views of the cafe / interpretation and display space

6.1



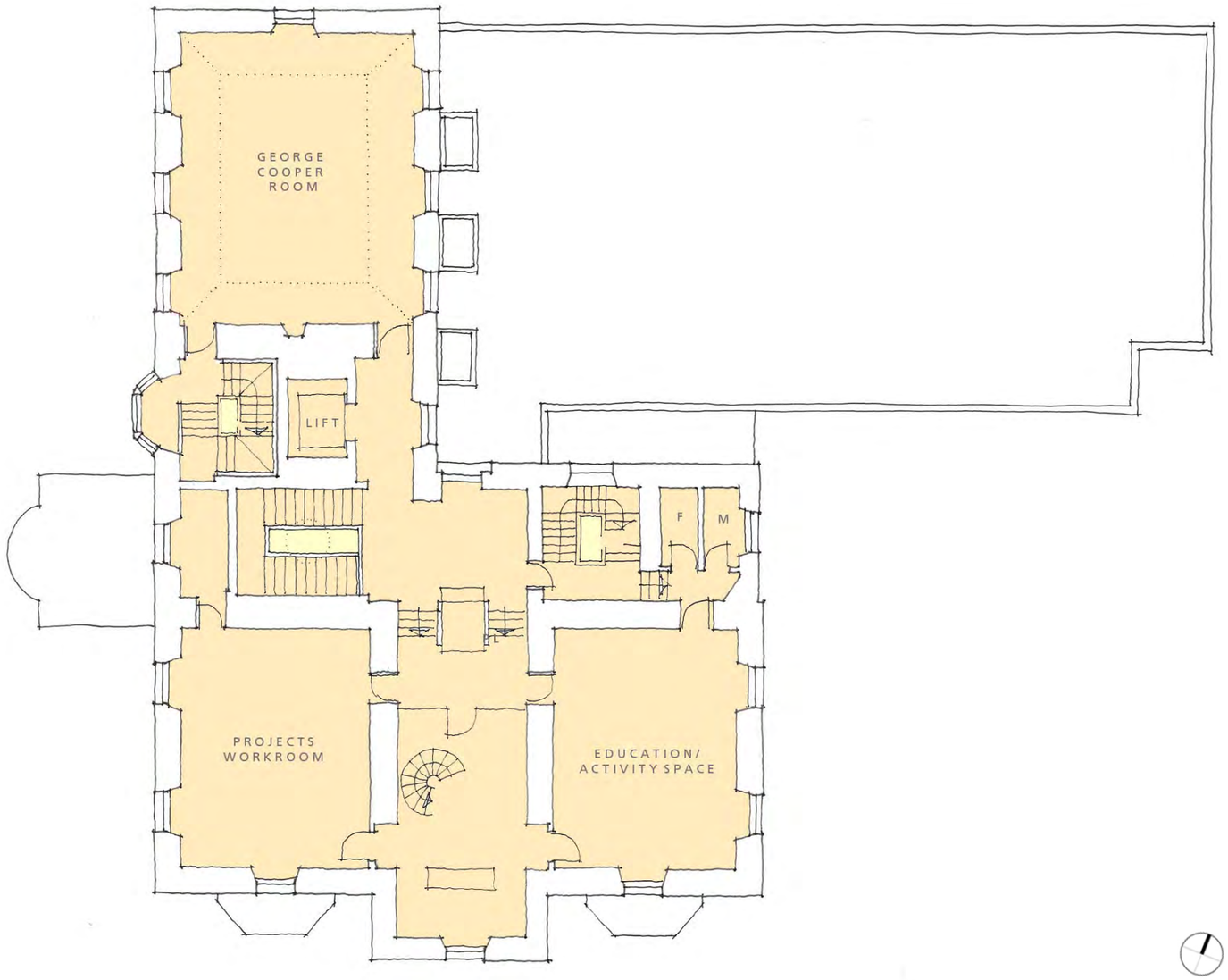

INTERPRETATION AND DISPLAY SPACE
CAFE
TIC / RECEPTION
AND ORIENTATION
KITCHEN
PLANT
LIFT
FEMALE
MALE
STORE
VOLUNTEER
SUPPORT
AND TRAINING



GRANT LODGE, ELGIN

UPPER GROUND FLOOR

LDN Architects



GRANT LODGE, ELGIN

FIRST FLOOR

LDN Architects

GRANT LODGE, ELGIN

ATTIC FLOOR

LDN Architects


BS 5454 ARCHIVE STORAGE
PLANT
INTERPRETATION AND DISPLAY SPACE

GRANT LODGE, ELGIN

SECTION LOOKING SOUTH

LDN Architects