

Fair Isle Bird Observatory

Feasibility Study Stage 1 FINAL COVERING REPORT



Prepared for :	Prepared by:
FIBOT	A B Associates Ltd in conjunction with
% Dave Okill	Locate Architects and David Adamsons
Helinabretta	Kirk Business Centre
Cauldhame	Scalloway
Trondra	Shetland
Shetland	Tel: 01595 880852
Tel: 01595 880450	Fax: 10595 880853
David.okill@sepa.org.uk	Email: info @abassociatesltd.com

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Appendices

- 1.1st Progress Report and Site Options Report
2. Business Plan
3. Economic and Social Impact
4. Funding Opportunities

1. Background

In May 2006 A B Associates was commissioned in conjunction with Locate Architects and Stephen Johnston QS to undertake a Feasibility Study into the proposal to build a new Bird Observatory in Fair Isle for FIBOT.

An initial assessment had been made of the option of refurbishment v new build and it was agreed that given the poor state of the existing building it was not realistic to refurbish or partly rebuild and that the best option was a completely new building.

As a result the immediate questions to address in this study were:-

- What is the best location/site?
- What should be in the spec for a new build?
- What could a new build look like i.e. outline plans?
- What is the likely cost of a new build?
- What is the economic and social impact of the project on Fair Isle and further afield?
- What is the viability of the project – business plan?
- What are the main funding opportunities?

The initial plan was to complete this stage by September 2006. The first draft reports were submitted in August 2006 with a recommendation that the existing site was the best. A new building was fitted alongside the existing one so that it could remain open while the new facility was completed and there was no break in service, as was required in the remit for the study.

There followed a lengthy period of discussion and consideration by the Trust which resulted in agreement that the best site was where the existing building was located and that this would mean having to close for a season while it was demolished and rebuilt on the same site, rather than the new one being on a slightly different site with the old one continuing in operation until the new one finished. Thus it was not until after meeting with Roy Dennis in May 2007 that work was recommenced in order to complete this stage of the project. Due to other work commitments it has not been possible to get plans reworked, costings and final draft reports submitted until the end of November.

This report provides an overall summary of the final findings of this stage which should provide the basis for the Directors decision on moving forward to the next pre construction stage which will involve :-

- Going out to tender for a design and build contract
- Drawing up detailed plans
- Seeking consents e.g. planning
- Seeking funding

All of this is necessary before it is possible to go ahead with the construction.

2. Site Options

A number of sites in the vicinity of the existing building were investigated as well as the site of the existing building. Each of these were evaluated for their suitability in terms of exposure, impact on the environment, ground conditions, access, views from the building etc.

Part of the remit was the requirement to maintain the existing building in operation until the new building was completed. However the site option assessment concluded that the existing site was the best one on all counts. As a result the first outline plans were drawn up for a building as close to the existing one as possible .

The initial site options report is attached in Appendix 1.

3. Specification for the Building

The space and functional requirements for the new building were identified by the Directors and staff of FIBOT as well as a number of other requirements such as :-

- Highly energy efficient building and inclusion of renewables
- Aesthetically more pleasing than the existing one
- Low maintenance and 50 year life
- Pitched roof, no windows in roof

The scale of the proposal is very similar to the existing one with scope for some improvements and a different configuration of bedspaces and bedrooms. Instead of a mix of single, twin and family rooms it was agreed to have 2 family rooms and 12 twin rooms to improve flexibility and give 32 bedspaces overall, which is 2 more than the existing 6 single, 2 family and 5 twins.

A copy of the detailed spec is in an Appendix to the Business Plan that is attached in Appendix 2

4. Outline Plans

As mentioned above it was decided not to go with the first proposal for a building alongside the existing building, but to go with demolition and new build on the same site as existing building.

As a result a second set of outline plans have been drawn up and are attached in an Appendix to the Business Plan in Appendix 2. The plans have been produced on the basis of the spec and a number of criteria such as :-

- Max prefabrication to reduce construction time on site and cost
- Max energy efficiency while being healthy
- Max environmentally friendly and sustainable building
- Use materials that minimise environmental impact and are safely disposable at the end of its life
- Min use of concrete and other heavy materials

As a result the building has the following characteristics :-

- 2 storey building with pitched roof with minimum penetrations
- Timber clad exterior
- Prefabricated insulated panels
- Metal clad roof rather than turf as suggested
- Efficient oil boiler, energy efficient appliances, 10 sq m solar heating panels, and two thermal stores. Wind turbines , air to air heat pump and photovoltaics to be considered. The cost for installing a 6 KW wind turbine is estimated to be around £30,000 at current prices.
- Rainwater harvesting store and water conservation fitments.

However it should be noted that the wind turbine has not been included at this stage due to the need for additional consultation and bird monitoring work to establish feasibility. This will be pursued as a separate project though the service systems will be designed to enable wind power or other renewable connections at a later date.

5 Outline Costs

The QS has taken the outline plans and spec and calculated a likely cost based on local knowledge and understanding of Shetland and Fair Isle conditions and the state of the construction industry.

The local construction sector is very busy at the moment and there is a high level of projects in the pipeline which means there could be difficulty getting a builder and that prices will not be so competitive. Some of the building projects (excluding civil works) are 400 homes over 5 years for HHA, new schools in Lerwick and Mid Yell, NHS investments, 100 houses for SIC over 6 years, Toll Clock extension, Scatsta airport investments, Scalloway industrial units, LPA investments, Saxavord Unst, and new music/arts centre.

The resulting outline costs are estimated to be :-

Main building work	£3,135,000
Demolition and clearance and Garage/workshop	£95,000
Sub total	£3,230,000
Contingencies 5%	£161,000
Sub total	£3,734,500
Fees 12% plus planning and building warrant	£405,000
Sub total	£3,796,000
Furnishings and equipment	£150,000
Total	£3,946,000

On the basis that the building is around 1400 sq m this represents a cost per sq m of £2,240. If this project had been in mainland Scotland the cost per sq m would have been around £1,800 to give a total cost of £2.5m as against £3.1m. In other words the combined effect of the Shetland and Fair Isle factors raises the basic price by a quarter.

The estimate is considered the best that can be made at this stage based on the outline plans. It could be higher if the circumstances were less competitive. It is possible that the overall cost could rise to over £4m.

On the other hand savings may be possible by lowering the spec, changing materials and type of construction. It may be that the figure for the main building cost could fall below £3m. However given that detailed costs are not yet worked out, the demolition costs could be higher, and there could be additional elements added on, it would seem prudent to stay with the overall £3.9m figure as a working hypothesis for the business plan and fund raising, while working to achieve savings and lower the overall cost.

It is also worth remembering that there are likely to some additional financing costs through short term borrowing to bridge the gap between incurring expenditure and receiving grant funding. These are costs that will have to be met from FIBOT's own resources.

The report from the Quantity Surveyor is attached in Appendix D of the Business Plan which is in Appendix 2 of this report.

6. Business Plan

A full business plan has been drawn up with financial projections (Cash Flow, Profit & Loss, and Balance Sheet) for the first three years of operation as well as the lead up to it.

The 2008 season is assumed to be slightly down on 2007 which was a record year and 2009 is scheduled for closure therefore there is no hostel income and there could be a loss of around £31,000 over that year, in part due to the cost of the planning and building warrant applications.

Thereafter a range of 3 scenarios have been produced to show the effect of different levels of visitors. The 3 levels are 2200, 2400, and 2700. The highest level is based on the best results achieved so far while the lowest reflects earlier lower occupancy levels. Thus they take account of differing levels of success from marketing and different market conditions. The middle figure is certainly considered to be achievable and yields a net profit before tax of around £1,500 p/a. The facility should be able to break even with 2350 bednights and 470 visitors.

Some of the key assumptions include:-

- 32 available bedspaces
- Season extended by three weeks to 30 weeks
- Average length of stay remains at 5 nights
- Room charges rise to £60 for a single, and £55 for a twin per person including VAT, from £44 and £39 at peak times

Although the room rates have been raised the assumptions on bednights remains conservative to compensate for any resistance to the rise in charges. The full business plan and projections are included in Appendix 2.

7. Economic and Social Impact

The report attached in Appendix 3 describes the current and recent socio economic situation in the island. It shows that the current Observatory has a significant impact on the island through its employment (10 people), turnover (£130,000), and the visitors attracted who spend money locally. The turnover represents over 20% of the total Fair Isle output and its purchases at the local shop are crucial to its survival in

its present form. The FTE employment of 6 represents about 14% of the total FTE employment on the island

The Observatory is also important to the transport services since 30% of the users stay at the Observatory.

In addition the Observatory is a key strategic tourism product that draws people to Shetland who might not otherwise come, and who stay in other parts of Shetland as well. Therefore it has a wider impact than just on the island. It is estimated that the Observatory in 2005/6 had a gross impact on the economy of £235,690 of output and 8 FTEs.

If it were to close there could be a gross loss to the economy of Shetland of around £350,000 p/a and 8 FTEs. This is considered a conservative estimate. The effect on Fair Isle would be even more dramatic with a fall in population, much reduced transport service especially air, possible closure of shop and a threat to the future of the school, and loss of craft sales income.

The impact of the proposed new Observatory should be slightly higher given that it will provide more attractive accommodation and thus could have more visitors. This is estimated to be in the order of £370,000- £380,000 gross impact in terms of output p/a. Over a 10 year period this provides a return to the community equivalent to the total capital cost of the new facility.

It is clear therefore that the Observatory has wider employment and expenditure impacts than just on Fair Isle since it is a primary attraction in its own right and visitors who come to the Observatory spend money throughout Shetland. This is in addition to its crucial socio economic role in Fair Isle itself.

It is also important to stress the beneficial social impact of the facility at both the community and individual levels due to the close working between the community and FIBOT. If the facility were to close it would cause significant dislocation and it could lead to a fall in population and school rolls, reduced transport services, and greater social isolation (for more detail see appendix3).

8. Funding Opportunities

The estimated capital cost of nearly £4m for the whole development presents quite a challenge for obtaining funds. It is clear from the business plan that the project cannot provide a return to repay anything but a fraction of the capital costs. The value of the project is in its wider impacts in sustaining the community on Fair Isle and the impacts throughout the rest of Shetland. Thus the case for funding has to be on the wider socio economic and community role for the project. In addition there is wider value to the environmental research community through the research that is and can be carried out there. It is an integral part of the national and indeed global

network of Observatories and makes a significant contribution to ornithological research and the wider understanding and interpretation of the natural environment.

The report attached as appendix 4 identifies a range of funding sources that could be approached in the first instance, and also identifies a number of issues and obstacles that need to be overcome in obtaining funding.

9 The Next Steps

As indicated at the beginning the next steps involve going out to tender for a design and build contract in order to get detailed designs and plans drawn up, obtaining the necessary consents, and seeking funding.

One of the first tasks is to secure funding to undertake this work based on an estimate of what this might cost through tendering the work. This could be done through an advert in the European Official Journal, Shetland Times, Orcadian, P&J, seeking expressions of interest with a PQQ from contractors who would like to undertake the work following a design and build approach rather than the conventional two stage process. If this route is chosen then it would be prudent to have a clause that makes it clear the actual construction may not proceed unless the plans and costings are acceptable. Given the building workload over the next few years in Shetland and indeed elsewhere it would be advised to try this route.

It is recommended advisable to advertise the project in the European Journal in order to satisfy the procurement rules of potential funders given that the total cost is above the threshold of £3.5m for capital projects. Unfortunately this will cause some delays initially which can hopefully be recovered later in the process.

The cost of project management, seeking funding, preparing designs and plans and costings, and seeking consents is subsumed within the 12% allowance for fees of around £400,000 for the whole project. The cost of the immediate pre construction phase over the next year could amount to at least half of the total. It is suggested this is split into two parts:-

- (a) Overall project management and seeking funds based on outputs from this stage. This would be the subject of a separate contract that is not part of the design and build contract. An indicative costing could be as follows:-

Completing 3 main applications plus some smaller ones – 18 days at £350 per day is £6,300; management of tender process – 5 days at £350 per day which comes to £1,750; overall management – 2 days per months over 12 months is 24 days at £350 per day which comes to £8,400. Thus the overall total could be £16,450 spread over the coming year.

- (b) Preparing detailed designs, plans, and costings, and seeking consents based on the outline plans and costings prepared so far. This would be advertised as

part of the design and build contract and an allowance made for an initial tranche of £150-200,000 to cover all the fees of architect, structural engineer services engineer, quantity surveyor and contractor, as well as (a) above.

A revised indicative timetable for the remainder of the project is given below. This shows a planning and preparation phase from April 2008 to April 2009 (12 months), with construction and fitting out from May 2009 to April 2010 (12 months). This is a tight time schedule and assumes everything goes according to plan. However there are risks of slippage especially with the planning process and funding delays.

