Report

on

The Holyrood Project

to

The Scottish Parliamentary Corporate Body

by

John D Spencely

March 2000

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1 Introduction

1.1 I was appointed by the Scottish Parliamentary Corporate Body on 25 February 2000, in accordance with the Terms of Reference 1 - 5 as set out in section 2 below, to report by 27 March 2000. Terms of Reference 6 and 7 were added during the course of the Review and I was also asked to make recommendations under all Terms of Reference and to consider options for future action as I thought fit. This is my Report.

1.2 I appointed, with the Corporate Body's consent, Neil G Thomson Chartered Quantity Surveyor and Robert B Wilson Chartered Architect and Director of Estates of the University of Glasgow as my Advisers.

1.3 My Review has been carried out over a three week period by me and my two Advisers. We have interviewed each member of the Corporate Body, members of the Project Team and the Design Team and representatives of the Construction Manager, all of whom have been very helpful. We have been given access to reports and minutes of some Project and other meetings and have inspected the work in progress in the Architect's Edinburgh office and on site.

1.4 I am conscious that, in the very short time available, my appreciation of the detail of the Project can only be a fraction of that held by those who have been involved for the past two years or so. Nevertheless my Advisers and I have independently each come to similar conclusions as to the condition of the Project. These conclusions form the basis of my Report.

1.5 The creation of a building to house the Nation's Parliament is a great enterprise. Those engaged in bringing this Project to fruition are working in a situation and on a building which are unavoidably more complicated than most, if not all, have ever experienced. Little in their previous experience can have prepared them for this task. We found an enthusiasm and dedication to the project at all levels, tempered somewhat by the stresses and strains of recent events.

1.6 Nevertheless my appointment by the Corporate Body indicated that all might not be well with the Project and my Review confirms this.

1.7 It would have been impossible for me to have fulfilled my Terms of Reference without the help of the Valuation Office Agency on whose professional advice I have relied in respect of the site value and the Construction Manager on whose programming skills I have relied on in assessing a likely completion date.

1.8 I owe special thanks to my Advisers without whose skilled assistance my task would have been impossible and to whom I am accordingly greatly indebted.

1.9 In this Report, the "Client" means the Scottish Parliamentary Corporate Body; the "Project Team" means the Client's Project Sponsor, Project Managers and their team; the "Design Team" means the Architect, the Engineers, the Quantity Surveyor and other design consultants; the "Construction Manager" means Bovis.

1.10 My Report is provided to the Corporate Body to assist with its review of the Holyrood Project. The estimates for the building and fit-out costs have been provided by, or derived from information provided by, the Quantity Surveyor and the Project Team. The expenditure figures have been provided by the Project Team. I have not independently measured the area of the building. I have not made any independent estimates of, nor made market enquiries about, building or fit-out costs. I have not made any independent check of the expenditure figures.

1.11 My views on the scope for potential changes to the costs of the building and fit-out are based on my understanding of the current proposals of the Design Team and the Project Team.

1.12 The actual potential for real and achievable changes is a matter for the Project Team and the Design Team based on their knowledge of the Project. Any confirmation of the budget or establishment of a new budget for the Project is a matter for the Client based on advice from the Project Team and the Design Team. Any approvals by the Client of design or design changes and any approval of expenditure estimates should be based on advice given to the Client by the Project Team and the Design Team.

John D Spencely
MA BArch DipTP RIBA PPRIAS MRTPI FCIArb
24 March 2000

2 My Terms of Reference

My terms of reference are as follows:

1 To review the current estimates of cost and time to delivery and occupation

2 To review the value for money of the Project

3 To review and compare the advantages of alternative contractual methods

4 To review the effect on cost and delivery of a reduced specification

5 To review the effectiveness of communications between the Corporate Body and the Project Team

6 To report on the current market value of the Holyrood site

7 To report on expenditure to date

and to make recommendations and consider options for future action as I think fit.

3 The Chronology of the Project

3.1 The Holyrood site was selected in January 1998.

3.2 The Brief was produced in April 1998.

3.3 The Architect was appointed in July 1998.

3.4 The Architect's Outline Proposals were presented to the Client in October 1998.

3.5 The Brief was revised by the Client during the Outline Proposals work stage.

3.6 The Architect's Scheme Design, which accommodated the changes to the Client's Brief, was presented to the Client in March 1999.

3.7 Responsibility as Client for the project passed from the Secretary of State of Scotland to the Scottish Parliament on 1 June 1999.

3.8 On 17 June 1999, the Scottish Parliament agreed the following motion:

That the Parliament endorses the decision to provide its permanent home on the Holyrood site and authorises the Scottish Parliamentary Corporate Body to take forward the project in accordance with the plans developed by the EBMT/RMJM design team and within the timescale and costs estimates described in the Presiding Officer's note to members of 9 June 1999.

3.9 The Scheme Design was never approved by the Client but the Design Team was instructed to proceed with detailed design in July 1999.

3.10 A value engineering (cost reduction) exercise was carried out in the summer and autumn 1999 by the Design Team. In October 1999 the Design Team was instructed by the Client to change the shape of the Debating Chamber and did so.

3.11 In November 1999 the Design Team was instructed by the Client to implement some of the potential design changes identified in the value engineering exercise, and to carry out a feasibility study on accommodating 203 additional staff.

3.12 In February 2000 the Design Team reported on the changes to the design necessary to accommodate the additional staff.

3.13 In March 2000, after the commencement of my Review, the Design Team was instructed by the Client to investigate the potential for reducing the size of the building and the quality of the specification in order to reduce the cost of the building.

4 Review of the current estimates of cost

4.1 This section reviews the history of cost reporting for the Project and provides, at paragraph 4.5 below, an estimate of the cost of the Project as I believe it actually stood in February 2000.

Costs have been reported throughout this Project under two main headings:

- basic construction cost
- fit-out and other costs

The fit-out cost and other costs includes professional fees, VAT, site acquisition costs, demolition and furniture, fittings and other equipment not included in the basic construction cost.

4.2 The basic construction cost

4.2.1 10 separate cost reports, from the original site comparison cost completed in December 1997 to the last feasibility cost check on the plans current as at February 2000, have been produced by the Quantity Surveyor. A value engineering exercise carried out in the summer and autumn of 1999 by the Design Team culminated in a report submitted to the Project Sponsor in October 1999.

4.2.2 These cost reports have been examined and the level of drawing and specification information available at each stage for costing has been established in discussion with the Quantity Surveyor.

4.2.3 The following table has been produced in order to plot the movement of the basic building cost over the last two years. A commentary follows.

Breakdown of Buildings/elements	Site Comparison DEC '97 £M	Yardstick Costs 23/10/98 £M	Stage C Cost 03/11/98 £M	Interim Cost 11/02/99 £M	Interim Cost 04/03/99 £M	Stage D Cost 26/03/99 £M	Stage D Cost 25/05/99 £M	Interim Cost 30/08/99 £M	Interim Cost 27/09/99 £M	Interim Cost 14/02/00 £M
Assembly Block	44.93	53.30	53.98	57.36	54.70	54.38	54.61	66.53	48.74	63.41
MSP Block								-	20.54	22.98
Queensberry House			2.17 *	1.79 *	1.79 *	1.79 *	1.81 *	1.86 *	5.98	10.34
Car park			2.09	2.42	2.72	3.12	3.45	5.22	6.50	6.89
East Basement			Incl.	incl.	Incl.	incl.	incl.	incl.	7.62	8.30
Site dev/prep.			1.54	1.83	1.85	1.85	2.29	2.79	4.97	3.36
Preliminaries			7.47	incl.	Incl.	incl.	incl.	incl.	incl.	incl.
Externals			Incl.	incl.	Incl.	incl.	incl.	incl.	incl.	incl.
Sub total	44.93	53.30	67.25	63.40	61.06	61.14	62.16	76.40	94.35	115.28
Enhancement	-	-	-	-	3.11	4.13	4.13	7.39	incl.	incl.
Contingencies & Design Reserve	4.50	5.36	6.78	6.34	6.43	6.53	5.22	8.38	17.19	19.34
Design risk Assessment	-	-	-	17.03	17.28	16.16	15.86	21.70	incl.	incl.
Art	0.10	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Site costs	-	-	-	-	-	-	1.58	1.58	3.59	3.62
Special	-	-	-	0.14	0.14	0.14	incl.	incl.	incl.	incl.
TOTAL	**49.53**	**58.91**	**74.28**	**87.16**	**88.27**	**88.35**	**89.20**	**115.70**	**115.38**	**138.49**
Gross area ex car park m2	16,470	21,299	21,396	22,905	23,098	23,214	23,214	27,329	27,329	29,579
Car Park m2	3,600	3,300	3,300	3,736	3,867	3,867	3,867	3,792	3,792	1,731
Total Gross area m2	**20,070**	**24,599**	**24,696**	**26,641**	**26,965**	**27,081**	**27,081**	**31,121**	**31,121**	**31,310**

* These figures excludes M&E costs which are in the Main Building figures

4.3 Commentary on cost reports

4.3.1 The first cost estimate produced was part of the cost comparison of Holyrood with other sites. It was based on a notional design produced in December 1997. The basic construction cost was estimated at approximately £50 million for a gross building area of 20,070m^2. The balance area (for circulation, plant rooms etc) used in the brief calculation was 20**%** of net area; this has proved to be an underestimate.

4.3.2 Once the design team was appointed yardstick costs were produced by the Quantity Surveyor based on average rates for the different types of accommodation and in October 1998 a new cost estimate of £58.9 million was produced.

4.3.3 The winning concept design was developed in more detail over the next 6 months, culminating in the Stage D cost estimate of 25 May 1999 of £89.2 million for a gross floor area of 27,081 m^2 (including approximately 40% balance area).

4.3.4 An amended budget of £62 million was approved in June 1999 based on this estimate. This excluded the design risk assessment (i.e. design uncertainty) and other costs totalling £27.04 million which had been included in the £89.2 million estimate but which were not identified in cost terms in the report to the Client.

4.3.5 Area and cost estimates produced in August and September 1999 showed a substantial increase in gross floor area to 31,121 m^2 and a rise in the basic construction cost to £115 million.

4.3.6 The value engineering exercise was conducted with the target of achieving 25% savings. Potential reductions of £20 million in the basic construction cost were identified of which £13.3 million were accepted by the Client.

4.3.7 The area and cost estimates produced by the Quantity Surveyor in February 2000 showed a further rise to a basic construction cost of £138.49 million for 31,310 m^2 gross floor area. These estimates were based on the Feasibility Study prepared by the Design Team to show how 203 additional staff could be accommodated. The reliability of the cost estimate is uncertain, in my opinion, due to the short time within which it was made and the limited information on which it was based. Although the total gross area was only up by 200 m^2 from the September 1999 figure, the (expensive) building area was actually increased by 2,250 m^2 partially balanced by a reduction of (cheaper) car park area by 2,061 m^2.

4.3.8 The effect of the changes to the Brief is that, in my opinion, the Project design is less settled than it was in March 1999 and that the estimate for the basic construction cost is less reliable than it was in May 1999.

4.4 Fit-out and Other costs

4.4.1 In the latest report of February 2000 from the Quantity Surveyor the costs excluded from the basic construction cost were as follows:

1. Site acquisition and associated costs
2. Building control and planning fees
3. Off site costs in respect of party wall disputes
4. Future legislative changes
5. Site and building investigation costs
6. Historic Scotland and archaeology contractor costs
7. Effect of discovery/excavation etc
8. Demolition costs
9. Hard and soft landscaping
10. Built furniture in MSP offices and Assembly and all internal furniture and fittings, planting and equipment
11. Video Conference fit-out
12. Media room fit-out
13. IT hardware/equipment, data, video wall, video conferencing, telephones, electronic voting etc
14. Official Building Models and wind tunnel testing
15. Inflation beyond March 1998
16. Professional consultants and Construction Management fees and charges
17. VAT

4.4.2 Project costs were reported to the Client in June 1999 showing an original figure of £90 million and a revised figure of £109 million, as follows:

	£ million	£ million
Site acquisition, demolition, archaeology	5.0	5.0
Construction	50.0	62.0
Contingencies	5.0	6.0
Fees	10.5	14.0
VAT	12.0	14.0
Total site and construction cost	**82.5**	**101.0**
Fit-out including loose furniture & IT etc	7.5	7.5
Financial provision required	**90.0**	**109.0**

It will be seen that the fit-out budget was £7.5 million.

4.4.3 As part of this Review the Project Team has, at my request, updated the fit-out costs, which include an allowance for contingencies, as follows:

	£ million
Chamber	2.00
Committee Rooms	1.50
Catering Furniture	0.50
Reception Areas	0.25
MSP Block	2.37
Queensberry House	0.44
Towers/Canongate	1.10
Miscellaneous	2.31
IT	2.85
Broadcasting	2.63
	15.95
* Allowance for Fees	0.50
VAT 17.5%	2.88
Revised Total for Fit-out	**19.33**

Note: *This is a provisional allowance for ad-hoc advice to the Project Team.

4.4.4 This revised total is incorporated into the estimate of total budget requirements in section 4.5 below.

4.4.5 The base date used by the Quantity Surveyor for estimating basic construction costs is March 1998. Cost estimates have to be adjusted for the effects of inflation from then to the tender dates for the various work packages so that the estimates may more closely reflect what may happen to tender prices. Such adjustments have not so far been applied to the cost estimates for this project. This Report does so.

4.4.6 Any prediction for future inflation is naturally uncertain. In the assessment of future costs contained in this Review, the Building Cost Information Service indices produced under the auspices of the Royal Institution of Chartered Surveyors have been used. This produces a figure of 5% building inflation from March 1998 to October 2001 which has been applied to the construction cost in the estimate of total budget requirements below.

4.4.7 The site staff and accommodation costs of the Construction Manager for any period beyond January 2002 have not so far been included in any cost report. This Report does so.

4.5 Total Current Budget Requirements

4.5.1 I believe that the total Project Budget requirement for the scheme presented to the Client in February 2000 was as follows:

	£ million
Site acquisition, demolition, archaeology (including VAT)	5.00
Construction	126.00
Contingencies	12.50
Professional & Construction Management fee	21.50
Construction Manager Staff Costs (to January 2002)	2.24
Subtotal	**167.24**
VAT on £162.24 @ 17.5%	28.39
Fit-out (including VAT)	19.33
Inflation allowance from March 1998 on Construction Works to end of Tendering period	9.40
Construction Manager's costs Extended to Dec 2003	6.50
Total	**230.86**

I understand that VAT on Professional fees may be recoverable. If this is the case, the total would be reduced by approximately £3.94 million to a total of £226.92 million.

4.6 Costs allocated to other budgets

4.6.1 Some costs associated with the Project are, and always have been, covered by separate budgets. These include, for example, landscaping works between the Holyrood site and the Queen's Park and the costs of the Project Team staff and their site accommodation. Such costs are accordingly not included in any of the cost comparisons in this Review. I understand that they have been reported to the Corporate Body by the Project Team.

5 Review of the current estimate of time to delivery and occupation

5.1 The most recent estimate of time to delivery and occupation prepared by the Construction Manager (reference Bovis Programme dated 11 February 2000) was as follows:

Delivery of building	24 December 2002
Occupation	25 August 2003

5.2 Taking into account the current state of the design and the current instructions to the Design Team, I consider it unlikely that these dates will be achieved.

5.3 On the assumptions (provided by me to the Construction Manager), that a new Scheme Design, including a cost plan, will be approved by the Client by 8 June 2000 and that Bovis are appointed to manage the fit-out as well as the basic construction, more realistic estimates of time to delivery and occupation are as follows:

Delivery of building	25 August 2003
Occupation	24 December 2003

5.4 It is clearly imperative that the Brief is frozen now and that the Design Team proceeds immediately to produce a Scheme Design including a cost plan to a Brief and a budget approved by the Client, so that approval may be given to proceed with the Project by 8 June 2000, or earlier if that is possible. Removal of the current uncertainties and a reduction in the overall Project cost could result in an earlier date for delivery and occupation. These are matters for consideration by the Client and the Project Team.

5.5 The MSP Block is programmed for completion in June-July 2002 and Queensberry House in March-April 2003. I recommend that the Client should consider taking occupation of these two buildings in advance of the final project completion date, for three reasons. They would otherwise lie unoccupied which is bad for buildings; current MSPs would be able to occupy their office accommodation before the next election; and the overall capital cost of the project would be reduced by relieving the project of the Construction Manager's costs for maintaining the buildings unused for up to 18 months. The resulting saving would accrue to the Client. Early occupation would require the current location of the main plant to be reconsidered, but I am advised that this would not be an insurmountable problem.

6 Review of the value for money of the project

6.1 In this section, I set out some comparative costs for guidance and follow this by a discussion on value for money.

6.2 Cost comparisons

6.2.1 The current estimate of the cost of the three principal elements of the project, on a rate per m^2 basis, is

MSP Block	£ 3,659m^2
Queensberry House	£ 4,061m^2
Assembly/Debating Chamber	£ 3,521m^2

6.2.2 The MSP Block provides accommodation for MSPs and their support staff. It may reasonably be compared with, on the one hand, high quality Headquarters Buildings in Edinburgh and, on the other, Portcullis House (the new accommodation for MPs at Westminster), as follows:

MSP Block	£ 3,659m^2
Headquarters Building	£ 1,544m^2
Portcullis House	£ 4,742m^2

It will be noted that the MSP Block is estimated by the Quantity Surveyor at a rate which is twice as expensive as an equivalent Headquarters Building in Edinburgh, but about 75% of the cost of Portcullis House.

6.2.3 Queensberry House provides office accommodation for the Presiding Officer and reception facilities for MSPs. I have been unable to find an equivalent project for comparison. It will however be noted that it is the most expensive part of the project, albeit the smallest, and that it is nearly as expensive as Portcullis House.

6.2.4 The Assembly/Debating Chamber provides meeting rooms for the committees of the Parliament, the Debating Chamber and support accommodation. I have not found an exactly equivalent building in the UK and have accordingly chosen to compare it with the newly completed Museum of Scotland, simply because this is also a complex city centre building with demanding structural and servicing requirements.

Assembly/Debating Chamber	£3,521m^2
Museum of Scotland	£2,587m^2

6.2.5 The fit-out costs of the Project have been calculated as a percentage of the basic construction cost to allow the following comparison:

Parliament	13.3%
Headquarters Building	16.0%
Museum of Scotland	38.0%

Information on Portcullis House is not included because the published information is limited, and the Museum clearly has fit-out requirements of a different order. The comparison with the Headquarters Building favours the Parliament and suggests that the fit-out standard is appropriate.

6.3 Comparison of basic construction costs

6.3.1 It may be helpful to show how these figures are built up.

TABLE 1

Comparative Analysis : MSP Block			
Element	MSP Block Rate/m²	HQ Office Rate/m²	Portcullis House Rate/m²
Substructure	62	130	Incl
Frame Upper Floors & Roof	)	)	)
Roof Finishes	) 1051	) 246	) 1178
Stairs	50	44	34
External Walls Windows & Doors	1145	300	1723
Internal Walls & Doors	243	50	396
Wall Finishes	)	)	)
Floor Finishes	)	)	)
Ceiling Finishes	) 265	) 165	) 307
Fittings	28	34	96
Services	720	475	1008
Preliminaries	95	100	Incl
Total Rate/m²	£3,659	£1,544	£4,742

6.3.2 In my opinion, the rates for the frame, upper floors and roof finishes, the external walls and for the services would be worth reviewing and the design and/or specification reconsidered if cost reductions are to be pursued.

TABLE 2

Comparative Analysis: Assembly/Debating			
Element		Assembly Rate/ m^2	Museum Rate/ m^2
Substructure		155	156
Frame Upper Floors & Roof	)		
Roof Finishes	)	869	425
Stairs		62	201
External Walls Windows & Doors		765	584
Internal Walls & Doors	)	Incl	Incl
Wall Finishes	)	361	461
Floor Finishes		130	162
Ceiling Finishes		70	35
Fittings		98	Excl
Services		978	563
Preliminaries		33	Incl
Total rate/ m^2		£3,521	£2.587
Total area/ m^2		20,329 m^2	12,803 m^2

6.3.3 In my opinion, the rate for the frame, upper floors and roof finishes would be worth reviewing and the design and/or specification reconsidered if cost reductions are to be pursued. The rate for the external walls may be explained by the complex building shape and the rate for services by the sophistication of the communications systems and security. They may be less open to review.

TABLE 3

Analysis of Queensberry House	
Element	Rate/ m^2
Repairs & Restoration	1724
Building Works	224
Wall Finishes	358
Floor Finishes	199
Ceiling Finishes	211
Fittings	134
Services	1211
Total Rate/ m^2	£4,061
Total Area m^2	2483 m^2

6.3.4 The repairs and restoration element is clearly a considerable burden on this part of the project. In my opinion, the rate for the services is unusually high and would be worth reviewing and the design and specification reconsidered.

6.4 Overall value for money

6.4.1 Value for money is in the eye of the beholder; in this case, the Nation as expressed through the collective voice of Parliament in debate.

6.4.2 If the current estimate of the Project cost, at £230.86 million or thereby (see section 4.5.1 above), is accepted as accurate and affordable, then no more need be said by me.

6.4.3 However, if Parliament were to decide that this is too great a price to pay, but that the Project should proceed, then it may wish to authorise a lesser sum on the Project.

6.4.4 I would counsel against setting cost limits on individual buildings. The current design proposals for many parts of the Project have, I consider, potential for reductions, and to set precise limits would place unhelpful restrictions on the Project Team and disadvantage the Project. I recommend that Parliament should go no further than setting a limit for the Project as a whole and some guidance is given in section 8 below.

6.5 Building area and overall quality

6.5.1 Turning now to the building, as opposed to the Project as a whole, I observe that cost is the product of building area and building quality. And that value for money is the perception of what one is getting for one's money in absolute and relative terms. It is possible to reduce the cost of a building by making it smaller and/or by reducing the quality of materials and the quality and extent of the built-in services and fit-out required for creature comfort and support to the occupants.

6.5.2 Whatever quality is now thought to be appropriate in the light of the reported costs, the Design Team has been working to meet the requirement that "*the building which the Scottish Parliament occupies must be of such a quality, durability and civic importance as to reflect the Parliament's status and operational requirements*" and that must clearly be kept in mind if costs are to be reduced.

6.5.3 The area of the building is a consequence of the number of people working in the building and of the functions which they have to perform. This is of course a matter for the Client.

6.5.4 On the assumption that staff displaced by reducing the size of the buildings have to be housed elsewhere, the Client may wish to consider, before taking a decision on size reduction, where they would be housed and at what capital cost, if any.

6.5.5 Furthermore, it is the experience of all organisations, old and new, that moving into a new building usually reveals that more space is needed than had been anticipated. It would, in my opinion, be imprudent to reduce the area below the maximum that the site can contain, if this can be afforded.

6.6 Changing the site

6.6.1 I have considered whether or not a change of site for the Project would be productive of savings in the present design. I have not considered the merits of other sites. This was not in my terms of reference. However the present state of the Project has nothing, in my opinion, to do with the location of the site.

6.6.2 Changing the site would mean starting again. A new brief would be required as the precursor to a new design. The present design could not, in my opinion, be transplanted unchanged. Time would be lost and this would cost money. The money invested in the Project to date would be largely thrown away.

6.6.3 For these reasons and on the basis of the information currently available to me, I consider that there would be no advantage in moving this design to another site.

6.7 Queensberry House

6.7.1 In my opinion, the expenditure on Queensberry House, at an estimated £10 - £11 million, is not value for money when compared with the benefit gained. On the information available to me, the building is in poor structural and physical condition. In my opinion, the interior contains little of architectural (as opposed to archaelogical) value and the interior spaces are neither grand nor memorable. The current design requires removing most of the fabric of the building, and creating a conjectural 17th century external appearance built around extensively repaired external walls. The construction will be largely 21st century.

6.7.2 This is, in my opinion, an inappropriate approach to providing Parliamentary accommodation, which can in any case only be achieved at great expense in this building. It would, in my opinion, be more appropriate and cost effective to provide the accommodation within a building clearly of the 21st century.

6.7.3 Nevertheless, the current approach may be considered essential and I appreciate that the design and design approval processes may have reached a stage of finality which to undo might cause real harm to the programme. If this is the case, the same effect could be achieved at lesser cost by building anew from new foundations and I recommend that this be done.

6.8 The MSP Block

6.8.1 In my opinion, the cost of the facades of the MSP block could be reduced by simplifying the design. This would also make the facades easier to build and reduce the frequency of maintenance, without compromising the integrity of the architectural design. I recommend that this be done.

6.9 Other issues

6.9.1 It has not been possible to review the value for money of other elements of the Project within the time available. It will be clear from the tabular comparisons contained in sections 6.2 – 6.3 above that there are significant variances from the costs of elements of other comparable buildings and I recommend that these should be borne in mind by the Client and the Design Team.

6.9.2 The terms of the agreements between the various members of the Design Team and the Client and between the Construction Manager and the Client are commercially confidential. I have studied them, but as they are conventional, I do not think it necessary to subject them to analysis in this review.

6.9.3 I do however observe that they were entered into on the basis of a £50 million project. No doubt, had it been appreciated at the time of entering into these contracts that the building costs might increase to the levels now estimated, other terms might have been agreed and the Parties may wish to consider this matter.

7 Review and comparison of the advantages of alternative contractual methods

7.1 This section is about alternative contractual arrangements for the building works. It is not about alternative methods of funding the capital required for the Holyrood Project, which I have not been asked to consider and which are, in my opinion, irrelevant to the present situation.

7.2 The current contractual arrangement, which was selected before the Design Team was appointed but confirmed as appropriate by the Design Team, is as follows:

- The building works are divided into a series of individual "works packages", each for a recognisable element, such as "foundations", "frame", "electrical services", etc.

- Each is put out to the market at the appropriate moment, for suitable contractors to tender competitively. The most economical is accepted and the work in that package proceeds. A number of work packages will be in progress on site at any one time. Clearly the work of individual work package contractors has to be coordinated. A Construction Manager (Bovis) is employed by the Client to do this.

- Each work package contractor is contracted to the Client to carry out and complete his package in accordance with the relevant drawings and specification.

7.3 This contractual arrangement may be contrasted with the "single stage lump sum building contract", by which the carrying out and completion of the entire building works are entrusted by the client to a single "main contractor". The main contractor may (if he so wishes and as would be normal) subcontract part or most of the works to subcontractors. In this case, the main contractor and not the subcontractor is responsible to the Client for carrying out and completing the works in accordance with the drawings and specification. The main contractor coordinates his own work with that of each of his subcontractors.

7.4 The principal reason for preferring the "construction management" over the "single stage lump sum" contract is that the former does not require the entire work for the whole building to be designed and specified before any one "trade package" is let, whereas the latter does.

7.5 Other things being equal, a building project will be completed earlier by using the "construction management" method because building can start earlier.

7.6 Subsidiary advantages of the "construction management" method are as follows:

- The construction manager is engaged before any building work starts and while design work is still in progress. The Design Team can accordingly use his expertise in building techniques to inform their detailed construction decisions, and his expertise in programming construction operations to inform the selection of appropriate work packages and the timing of design decisions.

- Because each work package is tendered separately in a logical progression, any variance from the budget for a particular work package can be compensated by increasing or reducing the content of subsequent packages. This can provide a welcome degree of flexibility to the Client and Design Team, albeit that this will diminish with each successive work package.

- Furthermore, as each work package is tendered separately, advantage of market conditions for each can be obtained at the time it is tendered.

7.7 The advantages and disadvantages, by comparison, of the "single stage lump sum contract" are a mirror image.

- In place of a speedier start on site, leading to an earlier completion, the client obtains a greater degree of cost certainty.

- In place of separate contracts with each trade package contractor, the client obtains a single point of responsibility with the main contractor.

- In place of the market price for each trade package, the client has to pay the main contractor's price which is the aggregate of the cost of his own work and whatever price he places on the work of his sub-contractors. The client does not know what the subcontractor is being paid. In a fierce market place, potential subcontractors may be subjected to a dutch auction, forcing down their prices to the advantage of the main contractor. The client will not benefit from the dutch auction but may suffer from a reduced quality of management and workmanship by the subcontractor.

7.8 There are several contractual variants between the poles of "construction management" and a "single stage lump sum contract" which are not, in my opinion, relevant in the present circumstances. The question which I therefore consider is whether it is advisable to change from the present "construction management" method to a "single stage lump sum contract".

7.9 A necessary precondition for a "single stage lump sum contract" is a completed set of production information drawings and specification before tenders for the works as a single package are obtained. I consider the consequence of waiting for a completed set would be considerable delay to the start, and therefore to the completion of the works.

7.10 The Project would lose the benefit of the expertise provided by the present construction manager, and the knowledge of the Project which he has accumulated since he was appointed in 1998.

7.11 Accordingly, I recommend that the contractual arrangements should not be changed.

8 Review of the effect on cost and delivery of a reduced specification

8.1 To reduce the settled specification for a project is to make a change. Any change to a project has the potential to cause confusion (which may lead to design error and/or uncoordinated design), delay and additional cost. Most architects have had the experience of seeing changes instructed to save money turning out unexpectedly to increase costs.

8.2 The timing of change is therefore critical.

8.3 In the Plan of Work adopted for this Project, the design programme is divided into five work stages as follows:

Briefing
Outline Proposals
Scheme Design
Detailed Design
Production Information

8.4 In my opinion, this Project has not reached the end of Scheme Design. Consequently, a reduced specification of materials should have the effect of reducing cost more than the additional cost which might arise from delay to the Project. Reducing the specification should, if it leads to a simplification of the design of the building (in particular its external appearance), also enable the building to be built more quickly.

8.5 To answer in another way, I suggest that any possible effect on progress should not preclude consideration of a reduction in specification if that were thought to be desirable for other reasons.

8.6 I have considered the scope for reducing the Project cost. This is of course an exercise that can only be done knowedgeably by the Design Team and the Project Team who are familiar with the Project design in all its detail. I am confident from the discussions which have been held with the Design Team and the Project Team that there is scope for doing so and the cost comparisons in this Review support their view that this is possible.

8.7 Such an exercise could, in my view, produce reductions in the order of 15 – 20% from the current (February 2000) estimate of basic construction cost and 10 – 15% from the current estimate of fit-out costs. Achieving such reductions would produce the following results:

	Target savings	£ millions
Building	20%	15%
Site acquisition, Demolition, archaeology	nil	nil
Construction and Contingencies	£27.70	£20.70
Fees	£4.30	£3.20
Construction Manager	Nil	Nil
VAT	£5.60	£3.20
Inflation	£1.90	£1.41
Extended programme	Nil	Nil
Fit-out	15%	10%
Gross reduction	£2.90	£1.93
Total reduction	**£42.40** million	**£31.44** million

Achieving one or other of these targets would produce a basic building cost of **£110.8 - £117.8** million and an overall Project cost of **£188.46 - £199.42** million.

If VAT can be recovered on professional fees as previously mentioned, a further £3.5 million in round terms could be saved from these figures.

9 Review of the effectiveness of communications between the Corporate Body and the Project Team and recommendations

9.1 Conventional management structures and management processes for a government funded project are in place. The Design Team has adopted the industry standard "Plan of Work" for its design work.

9.2 Management Targets

9.2.1 Nevertheless the Project has acquired three characteristics which these management systems are designed to prevent, as follows:

- The approved budget bears no relation to the current Brief.
- The current Scheme Design bears no relation to the approved budget.
- The Project cannot be completed by the completion date most recently reported to the Client.

9.2.2 Thus the Client's expectations for time and cost are not being met.

9.3 Communications

9.3.1 There is an established route for communications between the Corporate Body as Client and the Project Team.

9.3.2 Nevertheless the messages which are communicated are not always understood and do not always lead to action being taken, when action is clearly required. That the Client's expectations for time and cost were not being met has been known within the Project Team for nine months at least.

9.3.3 Messages are not always communicated along the established route and line managers are accordingly, on occasion, less well informed about decisions taken further up the line than those whom they are employed to manage. This is clearly destructive of effective management. In particular, messages between the Client and the Design Team do not always pass through the Project Sponsor and Project Manager. This has led to misunderstandings and to instructions not always being acted on. I have observed examples of both of these during my brief acquaintance with the Project.

9.4 Management recommendations

9.4.1 I do not consider that the characteristics to which I refer above are the consequence of the management structure or the Plan of Work procedures and I do not, accordingly, think that changes to the structure or the procedures are essential. Nevertheless some changes to the manner in which management operates would benefit the Project, as follows:

- Those responsible for communicating a matter on which a decision is required must ensure that the need for the decision is spelt out in the communication.

- Those responsible for decision making must allocate sufficient time to make and communicate decisions effectively through the correct channel.

- Where matters are to be discussed and decisions made at a meeting, the relevant line manager(s) should be present. Thus, the Project Sponsor and the Project Manager should be present at any meeting between the Client and the Design Team. The Project Sponsor should be present at any meeting between the Client and the Project Manager.

9.4.2 Although I do not consider it essential that the management structure should be changed, it would nevertheless be prudent for members of the Corporate Body to consider whether it has the time and expertise to perform the Client role on a day-to-day basis. If it does not think that it has, there are two options which could be considered:

- Specialist member

  Appoint one member of the Corporate Body as the principal link with the Project Team, spending more time than any member of the Body has yet been able to do and becoming in the process better informed and more expert in Project matters.

or

- Project Progressing Committee

  Establish a Project Progressing Committee to support the Corporate Body in the delivery of the Project. I leave consideration of who should serve on this to the Corporate Body.

In either case the responsibilities of the Project Sponsor should, in my opinion, remain unchanged.

9.4.3 I recommend that arrangements are made to facilitate a closer working relationship between the Architect and Engineers and the Quantity Surveyor.

9.4.4 I recommend that the future design work of the Architects should take place only in one office, rather than being geographically split.

10 Report on the current market value of the Holyrood site

10.1 The site has been valued by the Chief Valuer for Scotland. His valuations are based on what I consider to be reasonable assumptions, but which have naturally not been market tested nor indeed checked with the local planning authority. The determining factor is the investment required for Queensberry House.

10.2 The Chief Valuer has provided three valuations for a mixed residential, retail, office and hotel development of 25,000 m^2, taking into account the benefit of the work done on site and with three different assumptions for Queensberry House, as follows:

Scenario 1: £5 million is spent on Queensberry House plus about £2 million on professional fees, profit/risk, cost of finance and other ancillary costs; no grant aid is available; the result is a £4 million loss on the building, which has to be subsidised by the remaining development.

The current open market value of the entire site is estimated to be between £8 million and £11 million.

Scenario 2: £11 million is spent on Queensberry House plus about £4 million on professional fees, profit/risk, cost of finance and other ancillary costs; no grant aid is available; the result is a £12 million loss on the building, which has to be subsidised by the remaining development. (Note: the current Project estimate for Queensberry House is £10 - 11 million).

The current open market value of the entire site is estimated to be between £nil and £3 million.

Scenario 3: The full expenditure on Queensberry House is grant aided.

The current open market value of the entire site is estimated to be between £12 million and £15 million.

10.3 If the local planning authority were to permit a development of 30,000 m^2, these values are estimated as follows:

Scenario 1	£10 million to £14 million
Scenario 2	£ 2 million to £ 6 million
Scenario 3	£14 million to £18 million

10.4 However, neither the Chief Valuer nor I consider that it would be prudent to assume that this greater area would be permitted by the local planning authority and I recommend that it be discounted.

10.5 If accounting conventions for expenditure by the Parliament meant that grant aid to Queensberry House was effectively a debit against the Project, then Scenario 3 would not be relevant.

10.6 I should emphasise the tentative nature of these valuations. They have had to be made without the normal enquiries and investigations, in a very short space of time.

11 Report on expenditure to date

11.1 The expenditure set against the capital budget to date is shown on the spreadsheet below. The total is £20.907 million.

			£m	£m	£m	
			ex VAT	VAT	Inc VAT	
Site acquisition			4.000		4.000	
Demolition			1.000	0.175	1.175	
Archaelogical survey			1.000	0.175	1.175	
	Sub-total		6.000	0.350	6.350	**6.350**
Fees			All individual figures below are commercial-in- confidence			
	Bovis					
	Bovis (temp works)					
	EMBT/RMJM					
	RMJM Services					
	DLE					
	OAP					
	Buro Happold					
	Carillion					
	Turner & Townsend					
	Lime Centre Trust					
	Sub-total		8.006	1.401	9.407	**9.407**
Work Packages						
1610	Tower cranes					
2100	Piling & retention					
2200	Substructure concrete					
2300	Earthworks					
	Sub-total		0.000	0.758	5.092	**5.092**
Queensberry House						
	Various works					
	Sub-total		0.011	0.002	0.013	**0.013**
Site preparation						
	Store stone					
	Well probing					
	Well drilling					
	Sub-total		0.038	0.007	0.045	**0.045**
	Total					**20.907**

11.2 The expenditure for March 2000 is expected to be around £3.5 million including VAT. The value of contracts let to and through Bovis is £17,778,286 including VAT. This includes the value of contracts let to or through Bovis for which payments have been made as shown on the spreadsheet.

11.3 The contracts let do not represent committed expenditure. If the Project were to be cancelled, the various construction and professional contracts would, in general terms, entitle the contractors to reimbursement of their earnings to the date of cancellation plus the reasonable costs of closing down their various operations.

11.4 I cannot say what the costs of termination would be with any degree of precision. Much would depend on when this was done and, in my view, the manner in which it was done. However, if the Project were cancelled in early April 2000, a budget for the costs incurred as a result, including expenditure already incurred, would sensibly be in the order of £27-£30 million.

11.5 Relating the site valuations to the predicted cancellation costs shows that there would be a debit in the order of £16 - £30 million.