West Dunbartonshire Council

Review of Accounting Treatment for West Dunbartonshire Building Our Future Schools Project

23 July 2007

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Executive Summary

Introduction

West Dunbartonshire Council is currently procuring a schools PPP Project entitled "Building Our Future Schools". The project OJEU notice was published in December 2005 and BAM PPP was selected as Preferred Bidder in April 2007. The Project is intended to deliver six project schools and community learning facilities incorporating collaborative facilities management services.

Three bidders taken were taken forward from pre-qualification to the ITN stage:

- West Dunbartonshire Schools Partnership (Amey/Carillion)
- BAM PPP (HBG Construction)
- Transform Schools (Balfour Beatty)

ITN bids from each of the three bidders were received in late October 2006. After ITN evaluation, it was decided that a BAFO stage should be undertaken with the bidders. BAFO instructions were issued to the bidders in January 2007 and BAFO bids were received in February. BAM PPP was appointed preferred bidder in April 2007.

The purpose of this paper is to provide West Dunbartonshire Council with an indication of the balance sheet treatment of the Schools that form part of the Project. The paper is based upon the understanding of the principles of the Project and the analysis of the risks inherent in the Project, as set out within the Project documentation and in discussions with the Council. Any change in these underlying inputs may change the nature of the conclusion reached. The accounting standards upon which this analysis is based are outlined below. The final decision on the accounting treatment is the responsibility of the relevant Accounting Officer, in conjunction with the auditors.

The review of the accounting treatment of the Schools PPP Project is for the sole use of the Council. We shall have no responsibility or liability whatsoever to any third party in respect of the contents of this paper. This paper should not be provided to any third party without our prior written consent. The analysis contained in this discussion paper is indicative only, based on information provided to us and should not be relied upon as an audit opinion.

Results of Accounting Treatment Review

The review analysed whether the project should be accounted for under FRS 5 – Reporting the Substance of Transactions or SSAP 21 – Accounting for Leases and Hire Purchase Contracts. This was completed by reviewing whether any aspects of the project require to be excluded from the accounting analysis as outlined in Section 2 of this report. This analysis indicated that the Project should be accounted for under FRS 5, based upon current accounting standards. FRS5 has been the applicable accounting standard for other Schools PPP projects and the analysis of the Project indicates that it follows a similar structure to previous schools PPP projects.

The accounting guidance note requires that FRS 5 is applied to PPP projects through:

1. Reviewing three specific indicators to provide an initial indication of whether the assets should be on the Procuring Authority's balance sheet; and

2. Reviewing seven principal risks to determine which party bears these risks and the relative magnitude of the risks borne.

These are examined in detail in section 2 and 3 of the report. The seven principal risks, five of which are relevant to the Project, are allocated as shown in the table below.

Allocation of Principal Risks btw West Dunbartonshire Council & the PPP Contractor		
	Borne by the Council	**Borne by the PPP Contractor**
Demand	√	
Third party revenue		√
Design Risk		√
Penalty regime		√
Changes in relevant cost		√
Obsolescence / Legislative Change		√
Residual value	√	

The qualitative analysis of risks demonstrates that BAM PPP bears the majority of the risks indicating that an off balance sheet position may be appropriate. However, until the risks are quantified the analysis cannot be totally conclusive as the relative magnitude of risks transferred to the Preferred Bidder and retained by the Council cannot be assessed. In particular, the following aspects require further review:

- The majority of the significant risks lie with the private sector which would tend to imply an off balance sheet opinion; however,

- within Technical Note (4.10), the key risks in determining whether an asset is on or off balance sheet are normally demand and residual value risk, where these are significant. The analysis above shows that these are retained by the public sector. Within this project, it is the opinion of the Council that neither of these risks is as significant as the risks transferred to the private sector.

The Council has therefore quantified the spread of risk borne by each party. The approach and results of this exercise are detailed in Section 3 of this report. This indicates that the value of risk exposure to variations in property profits/losses borne by the Council is 40.1% and 59.9% by BAM PPP (a breakdown of the quantitative analysis is available at table 3.9).

The analysis undertaken to date indicates that the project should not be capitalised within the Council's balance sheet. This conclusion is based upon:

- The preferred bidder version of the Project Agreement entitled 3055855_1 WSComparison_#2638235v1_legalDiv_-Project Agreement (Pre-ITN)(Final Version)_#3055733v1_LeaglDiv_-Project Agreement(PB Draft 1).DOC
- The PB version of the financial model : "BAM bank standard bid model Sept 07.xls"

If either of these documents were to change significantly, to reflect a different spread of risk, the analysis would require to be updated. The quantitative analysis will be updated as the procurement progresses just prior to financial close.

Our review of the appropriate accounting treatment for the Schools PPP project is based upon currently applicable accounting guidance. The Treasury has announced the introduction of IFRS to public sector accounting due to apply from financial year 2008/9. It is likely that the appropriate accounting treatment may change and the assets require to be capitalised on the Council's balance sheet.

1 Proposed Transaction

Introduction

West Dunbartonshire Council ("WDC") is procuring six new schools in their "Building Our Future Schools" PPP Project - Clydebank Denominational Community Learning Centre (primary and secondary), Clydebank Nondenominational Community Learning Centre, Dumbarton Community Learning Centre (primary and secondary) and Vale of Leven Community Learning Centre.

The project OJEU was issued in December 2005 with ITN bids being received in October 2006. There then followed a request for Best and Final Offer (BAFO) submissions to clarify outstanding points in the ITN submission. The BAFO bids were received in February 2007 and BAM PPP was selected as the preferred bidder in April 2007. The project is due to close in late 2007.

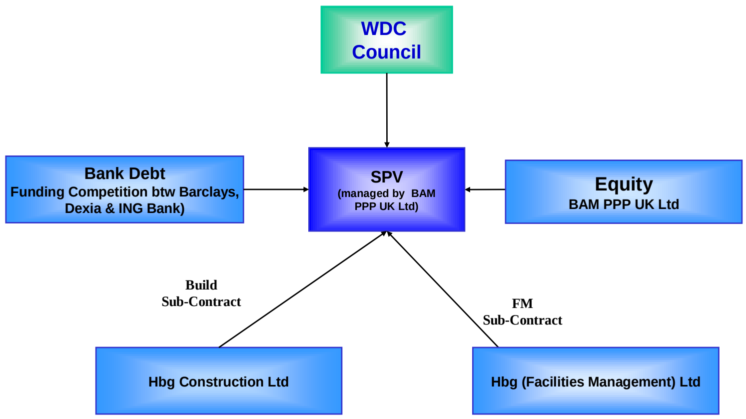
Scope

BAM PPP will enter into a design, build, finance and operate contract with WDC. It will provide ongoing services to the schools for the 30 years of the concession – from the first schools availability date. The services to be provided include lifecycle maintenance, pest control and security. The extent of the FM services to be provided are still to be finalised as an in-house team has been invited to bid against the preferred bidder for the cleaning and grounds maintenance services. The Council expect this competition to be completed by August 2007.

Project Structure

The project structure follows the standard structure for Schools PPP projects in Scotland, as summarised within Diagram 1.1 below:

Bam PPP / Hbg



Parent Company Guarantees: Hbg UK Ltd will guarantee the obligations of HBG Construction and Hbg (Facilities Management)

The process noted below will be followed:

- Immediately prior to financial close, BAM PPP will incorporate a Special Purpose Vehicle ("SPV") in the form of a limited company with the sole objective of carrying out the contractual obligations of the contract.

- At Financial Close, the Council will grant BAM PPP access rights to the sites.

- BAM PPP and the Council will contract to provide services and make payments respectively over a set period of 30 years following the first schools services availability.

- BAM PPP will arrange the financing for the project and will contract with a variety of subcontractors to perform the services, with all sub-contractors forming part of the BAM group.

- HBG UK Limited, the parent company of HBG Construction Limited and HBG (Facilities Management) Limited, will provide guarantees to the SPV regarding the performance of its subsidiaries in delivering the construction and facility management contracts. Under the preferred bank funded route HBG UK Limited will provide a parent company guarantee for 50% of the contract sum and 150% of the annual FM sub-contract and offer a 15% performance bond.

- Following Financial and Commercial Close, BAM PPP will build the new schools with the phased construction period forecast to last 37 months from Financial

Close, and Services to commence from April 2009 as the first schools become available.

- Services commencement will begin when the schools are fully operational and have met the conditions outlined within the Project Agreement. Once available, the Council will decant the individual schools into the new accommodation and will pay a unitary charge. The operational period is forecast to last 30 years. During the construction and operational periods the Council will grant BAM PPP access rights to the sites in order that they may carry out their contractual obligations.

- At the end of the operational period the facilities will be handed back to the Council at nil cost. The facilities are, however, required to meet the Conditions at handback which are included within the Project Agreement.

Project Agreement

The project agreement will follow the Scottish Schools Standard Contract, tailored to address project specific issues. The Preferred Bidder version of the Project Agreement is entitled 3055855_1 WSComparison_#2638235v1_legalDiv_-Project Agreement (Pre-ITN)(Final Version)_#3055733v1_LeaglDiv_-Project Agreement(PB Draft 1).DOC and this is the document upon which this report is based. The analysis of the appropriate accounting treatment will be updated as preferred bidder negotiations progress.

Project Financing

BAM PPP has submitted two bids – one funded by bank and one by bond. The initial indications were that the bank funded solution would provide better value for money. The decision was taken to proceed with the bank funded route in May 2007, therefore this report is based upon this funding solution. Details of the funding sources and their application are provided within Table 1.1:

Table 1.1: Finance Plan (financial close 28 Sept 2007)		
	£'m	**%**
Expenditure:		
Capital and development costs	123.391	84.7
Interest Paid	13.249	9.1
Development and bid costs	5.874	4.0
Finance and legal costs/fees	1.997	1.4
Pre-funding reserve accounts	0.175	0.1
Increase in working capital	0.761	0.5
Corporation Tax	0.225	0.2
Total financing required	**145.672**	**100.0**
Financed by:		
Equity	0.010	0.0
Equity bridge then Subordinated debt	10.198	7.0
Grants	0	0.0

Table 1.1: Finance Plan (financial close 28 Sept 2007)		
	£'m	**%**
Senior debt	124.287	85.3
Bond	0	0.0
Turnover (net of costs) received prior to full services commencement	11.177	7.7
Total financing provided	**145.672**	**100.0**

Source: "BAM bank standard bid model Sept 07.xls"

Under the terms of the Project Agreement, WDC are obligated to pay a unitary charge to BAM PPP, subject to availability and service standards, on a monthly basis. BAM PPP is required to pay its subcontractors, maintain the facility to a pre-required standard, fund a lifecycle maintenance reserve and pay internal management fees. The residual amounts are then used to service debt and provide a return on equity.

The indicative annual unitary charge payable in the BAFO financial model is £14.082m million (nominal) in 2012/13, the first full year of operation, based on an interest rate swap rate of 4.75%. Given recent increases in long term swap rates, the first full year's unitary charge will increase and the Council, in conjunction with their financial advisors, are tracking the impact of this as part of their value for money and affordability appraisals.

At ITN and BAFO submissions, the reference indexation mechanism required the bidders to index 50% of the unitary charge at RPIx and 20% of the unitary charge indexed at a fixed 2.5% per annum. The remaining 30% of the unitary charge is not indexed. The actual rate of indexation of the unitary charge has yet to be finalised, although a mechanism which indexes the unitary charge at 50% of RPIx is being considered. This would have the effect of increasing the first year unitary charge, but with a flatter profile of increases thereafter, so that the overall lifetime affordability position is similar to indexing at 70%, assuming that RPIx increases at 2.5% per annum on average.

Were RPIx increases to exceed 2.5% per annum, the affordability position would be enhanced by a 50% indexation factor compared to a 70% indexation factor.

2 Accounting Treatment Review

Introduction

This paper reviews the appropriate accounting treatment for the Council's PPP project entitled "Building Our Future Schools Project." It has been prepared on the basis of the currently applicable accounting standards as included within the Local Government SORP.

Within the 2007 budget, the Chancellor announced that from financial year 2007/8 the Government will adopt International Financial Reporting Standards. The impact of this is as yet unknown as there is no specific accounting guidance, within the International Standards, relating to how the public sector should account for PPP projects. The accounting treatment of the project should be reviewed once the applicable accounting guidance has been issued.

Scope of Review

The review of the appropriate accounting treatment for the scheme has been based upon:

- The Preferred Bidder Project Agreement entitled 3055855_1 WSComparison_#2638235v1_legalDiv_-Project Agreement (Pre-ITN)(Final Version)_#3055733v1_LeaglDiv_-Project Agreement(PB Draft 1).DOC
- Financial Model entitled: BAM bank standard bid model Sept07.xls

These documents are based upon the position as at the preferred bidder stage of the project. Following the preferred bidder negotiations, they are likely to develop and as such the review of the appropriate accounting treatment should be updated to reflect the final agreed position prior to financial close.

The remainder of this section reviews the relevant accounting guidance and determines which is applicable to the WDC Schools project.

Approach – Relevant Guidance

In September 1998, the Accounting Standards Board ("ASB") produced an Application Note ("AN") for use in applying FRS5 on PFI Transactions. Following this the Treasury Taskforce issued a revised Technical Note 'PFI Technical Note Number 1 (Revised)' ("the Technical Note") to "provide additional practical guidance on the following areas of the AN to ensure the overarching principles of the AN are consistently applied."

The Accounting Treatment Review has followed the approach outlined within Technical Note Number 1, namely:

1. Considering whether any aspects of the contract will be separable.

2. Determining the most appropriate accounting standard to follow – either SSAP 21 if the only remaining elements of the payments relate to the property or FRS 5 where services are also included within the project payments.

3. Assuming FRS5 is applicable, a qualitative assessment of the project agreement has been undertaken within Section 3, focusing upon the key risks identified within the Technical Note. Section 3 also discusses the approach taken to quantifying these risks.

Within this section, we review whether the project is likely to be separable and whether the accounting treatment is likely to follow FRS 5 or SSAP 21.

A. Separation of contract

The first step in the Technical Note accounting analysis is to separate elements of the PFI contract that operate independently of the property and relate solely to services. Specific indications of items that operate independently of the property may include but are not limited to:

- Varying payment mechanisms for different services. For instance the property is paid on availability and the service is paid by volume;
- Varying service elements which run for different periods or can be terminated separately; and
- Varying service elements which can be negotiated separately through for example, benchmarking and market testing.

Items that relate solely to services and have no impact on the property should be excluded from the accounting assessment.

The remaining part of the contract for consideration in the Technical Note under FRS 5 should include those services which are of such importance to the functioning of the property that they can be considered a property related service (e.g. lifecycle maintenance, janitorial services and property management services. If these services were to fail significantly then the property would be unavailable for the use it was intended). The property related part of the PFI contract for consideration under the Technical Note can then be classified into:

- Those where the only remaining elements are payment for the property. These will be similar to a lease and accounted for under SSAP 21; and
- Other contracts i.e. where the remaining elements include some service. These will be considered under FRS 5 "Accounting for the Substance of Transactions."

B. Analysis of the West Dunbartonshire Schools PPP

The Technical Note provides formula based examples of when a contract is considered separable and non-separable. The Technical Note suggests three situations that would indicate separability – these are reviewed in Table 2.1 and applied to the WDC Schools PPP project.

Table 2.1: Analysis of Separability Factors	
Separability Indicator	**West Dunbartonshire Council Schools PPP**
1. The contract identifies an element of the payment stream that varies according to the availability of the property itself and another element that varies according to usage or performance of certain services.	The proposed payment mechanism relates to the availability of the property itself and will not vary according to the usage or performance of certain services i.e. the services are included within the unitary charge rather than being separately invoiced. In terms of the guidance note, the payment mechanism follows the approach described as Model B which is classified as non-separable.
2. Different parts of the contract run for different periods or can be terminated separately.	The Contract provides for the provision of services over a 30 year period from the first schools services availability date. All services are to be provided over this period and there is no separate termination date. This indicates that the contract is not separable.
3. Different parts of the contract can be renegotiated separately.	This project involves the Council paying a single service charge to BAM PPP for the property and related provision of lifecycle, hard and certain soft FM services for example, janitorial. WDC has negotiated that the cleaning and grounds maintenance elements of the contract may be provided by the Council's in-house team. BAM PPP have provided two financial models – one including cleaning and grounds maintenance services and one excluding them. The analysis within this review of accounting treatment is based upon the financial model which includes these services. If they were to be included within the project it is likely that they will be subject to benchmarking and would require to be excluded from the analysis anyway. In addition to soft services, the contract allows for utilities and insurance costs to be benchmarked and these have been excluded from the analysis as separable services. Other than this, (i.e. utilities prices and insurance costs in line with SOPC3) only rates are passed through to the Council. Rates are however not included in the financial models provided by BAM.

Separability of Contract – Quantitative Analysis

Following the above assessment, further analysis of the unitary charge was undertaken to demonstrate that, on a quantified basis, there was a services element included within the unitary charge.

The approach adopted is summarised within Table 2.2 and is as follows:

A. The NPV of the unitary charge was calculated after removing any elements deemed to be separable. This included utilities, insurance costs, cleaning services and ground maintenance.

B. The NPV of the unitary charge after excluding these separable elements was compared to the NPV of the construction cost to provide an initial indication that there was a services component to the unitary charge. This indicated that the capital costs accounted for approximately 65% of the unitary charge payments on a NPV basis and that service provision accounted for 35% of it.

C. The NPV of the unitary charge after excluding separable elements was then compared to the NPV of the construction and lifecycle costs to provide a further indication that there was a services element. This indicates that service provision excluding capital and LCM costs accounted for 28.4% of the unitary charge.

Table 2.2: Analysis of Separability	
Cost Category	**NPV[1] £'000**
Annual Unitary Charge	197,438
Less: Separable elements	(28,828)
A. NPV of annual unitary charge less separable elements	168,610
NPV of construction cost	109,131
B. NPV of capital costs as a percentage of the NPV of the separable unitary charge	64.7%
NPV of lifecycle costs	11,630
B. NPV of capital and lifecycle costs as a percentage of the NPV of the separable unitary charge	71.6%

Note 1: NPV calculated as 3.5% real

The analysis indicates that 35.3% of the unitary charge relates to service provision including lifecycle and 28.4% to service provision excluding lifecycle. Therefore, there is a services component included within the unitary charge and the project should be accounted for under FRS 5 Accounting for the Substance of Transactions.

3 Accounting Assessment – Qualitative and Quantitative Analysis

Introduction

Within this section, we review the accounting guidance for assessing the likely balance sheet treatment of the project and then apply this to the proposed terms of the WDC Schools PPP project.

The review has been structured as follows:

A. Summary of Accounting Guidance: FRS 5 "Reporting the Substance of Transactions."
B. Qualitative Review – Specific Indicators
C. Qualitative and Quantitative Review – Principal Risks
D. Results of the Quantitative Analysis

A Accounting Guidance: FRS 5 "Reporting the Substance of Transactions"

Within the Technical Note, whether a party has an asset of the property will depend on whether it has access to the benefits of the property and exposure to the associated risks. The principle is to distinguish between potential variations in costs and revenues that flow from features of the property from those that do not. The non-property variations are not relevant to deciding who has the asset. Therefore variations in profit and revenue relating purely to service provision should be ignored.

The Technical Note identifies three specific indicators which must be analysed, as these provide a strong indication of which party bears most of the risks associated with a contract. These are briefly outlined below.

1. Termination for Contractor Default

A financing arrangement would be indicated where in the event of SPV default the senior debt financier is fully paid out by the Council. In such circumstances the Project would be considered an asset of the Council.

2. Nature of the Contractor's Financing

The SPV's financing arrangements may indicate a level of senior debt funding that would only be possible if a more significant entity were "standing behind" the arrangement. In practice this means that very high levels of gearing would seem to imply a "risk free" (i.e. insufficient risk transfer has occurred) project which should therefore be considered an asset of the Council. Similarly, a financing arrangement would be indicated where, in the event that the contract is terminated early, the bank financing will be fully paid out by the purchaser under all events of default, including operator default.

3. Who Determines the Nature of the Property?

Where the operator has significant and ongoing discretion over how to fulfil the PFI contract and makes key decisions on what property is built and how it is operated, this is an indication that the property is the operator's asset. Conversely, when the purchaser determines the key features of the property and how it is operated, this is evidence that the property is their asset. The risk of the property not meeting the output specifications or being "fit for purpose" is a significant indicator of who determines the nature of the Project.

In addition to these three specific indicators, the other principal factors or risks that may be relevant in establishing who will bear any variations in property profits are:

- Demand risk
- Third party revenue risk
- Design risk
- Penalties for under performance or non-availability
- Potential changes in relevant costs
- Obsolescence, including the effects of technology
- Residual value

These are assessed on both a qualitative and quantitative basis to establish the level of risk borne by both parties to the contract.

The specific indicators and principal risks, in relation to the West Dunbartonshire Schools PPP Project, are reviewed in more detail below

B Qualitative Review - Specific Indicators

The Technical Note sets out three specific indicators which should be considered when forming a view on the accounting treatment. Table 3.1 provides a summary of the contractual position on these key indicators:

Table 3.1: Analysis of Specific Indicators	
1. Termination For Operator Default.	
FRS5 Application Note Indicator that property is an asset of the purchaser	**Project Agreement**
"*a financing arrangement would be indicated where, in the event that the contract is terminated early, the bank financing will be fully paid out by the purchaser under all events of default, including operator default*."	The West Dunbartonshire Schools contract follows SSSC3 and does not guarantee that the bank finance is repaid under Operator Default. The termination provisions for operator default (at clause 45) provide for the PPP Contractor to be paid either the Estimated Fair Value of the Contract or the Highest Compliant Tender price. Neither of these approaches is based upon the value of debt outstanding at the point of termination.

Table 3.1: Analysis of Specific Indicators	
	This would indicate that the schools are an asset of the Operator rather than the Council.
2. Nature Of Operator's Financing	
FRS5 Application Note Indicator that property is an asset of the purchaser	**Project Agreement**
"*An assessment of the operator's financing arrangements (all aspects should be taken into account eg. the use of senior or subordinated debt and the presence of any guarantees) may indicate a level of debt funding that could be credible only if another party stood behind the operator.*" This means that very high levels of gearing are an indicator that insufficient risk has been transferred to the provider and that the property is an asset of the purchaser.	The project follows financing structures typical within the PPP/PFI market. In terms of financing 92.4% of the funding requirement is provided by senior debt and 7.6% as subordinated debt by BAM PPP. Pinpoint equity of £10k is also provided by BAM PPP. (An equity bridge facility will be used in the construction period, with the sub-ordinated debt replacing the equity bridge as the new schools become operational.) This level of gearing is possible within project financed deals as the SPV transfers the construction, lifecycle and FM risks from the SPV to the providers of these services. This is done through subcontracts. In this instance HBG UK Limited is providing Parent Company Guarantees guaranteeing the performance of the construction, lifecycle and FM sub-contracts. The project risks are therefore transferred to the private sector rather than being retained by West Dunbartonshire Council. The combination of the risk capital in the financing structure and parent company guarantee for the performance of the sub-contracts indicates that the schools are an asset of the Operator rather than the Council.
3. Who Determines The Nature Of The Property?	
FRS5 Application Note Indicator that property is an asset of the purchaser	**Project Agreement**
"*The purchaser determines the key features of the property and how it is to be operated, bearing the cost implications of any changes to the method of operation*."	BAM PPP has provided detailed designs for the project schools. They are responsible for the cost implications of the designs in terms of lifecycle and FM impact. They have accepted detailed planning risk on these schools and will submit detailed planning applications prior to the proposed date of financial close. This would indicate that the schools are an asset of the Operator rather than the Council.

The review of the specific indicators suggests that the property is not an asset of the Council.

C Quantitative and Qualitative Review - Principal Risks

In addition to the three specific indicators which require to be assessed under the Technical Note, it is also necessary to make a quantitative assessment of the principal risks borne by each party that give rise to the potential variations in property profits. The principal risks are identified within the Technical Note as:

1. Demand risk
2. Third party revenue risk
3. Design risk
4. Penalties for under performance or non-availability
5. Potential changes in relevant costs
6. Obsolescence, including the effects of changes in technology
7. Residual value risk

Within Tables 3.2 – 3.8 we summarise the contractual position negotiated to date in relation to each of the risks and the approach adopted to quantifying these risks. Detailed workings relating to the quantification of the risk are included within Appendix A of this report.

Table 3.2: Analysis of Principal Risks			
Demand Risk			
Risk Description	**FRS5 Application Note Indicator**	**Project Agreement**	**Approach to Quantification**
Within a Schools PPP, demand risk can be defined as the risk that demand for the schools is either greater or less than predicted/expected. The demand risk will be transferred to the private sector if payment for the Project facilities varies according to the level of usage. The WDC contract follows the precedent of earlier Scottish Schools PPPs by not transferring demand risk to the private sector on the basis that WDC are in the best position to manage it. Where demand risk is significant and can be attributed to a single contracting party, it will normally give the clearest evidence of who should record an asset of the property "FRS5-F24". Points to consider in determining demand risk are: • The longer the term generally the greater the demand risk; • Whether the payment mechanism reflects the property usage; • The party who bears demand risk typically gains if demand is greater than expected; and	The bearer of demand risk is identified by answering the following two questions outlined within the Application Note: "*a. Will the payments between the operator and the purchaser reflect the usage of the property or does the purchaser have to pay the operator regardless of the level of the usage?* *b. Who will gain if demand is greater than expected?*" The Application Note recognises that "*The first step is to identify whether demand risk is significant. There may be instances where there is little genuine uncertainty about the level of future demand for the services provided by the property… In such a case, demand risk is not significant and little weight should be given to this text.*" *"The length of the contract may influence the significance of the demand risk."*	WDC remain responsible for the level of usage of the school facilities and therefore bear this risk. In particular, in response to the two questions posed by the Application Note: a. Payment between WDC and BAM PPP will not vary by level of usage of the property. b. If demand is greater than expected the Council will gain as they will not be charged for the additional usage.	The Council has undertaken an analysis of demand risk within the project schools. This has been based on an assessment of the forecast occupancy of these schools and the likely variation around the forecast occupancy taking into account factors such as population trends and predicted house building. Based on the above analysis, WDC have produced predicted occupancy rates over the 30 year operational contract for all of the project schools. They have then assessed a best and worst case scenario in order to calculate the likely over or under provision associated with each of the project schools. A full description of the Council's assessment of demand risk is included within Appendix B. This includes the results of sensitivity analysis undertaken on demand risk to indicate how changing assumptions regarding for example, migration rates and staying on rates impact upon the overall spread of risk between the two parties. Appendix A models the implications of the Council's assessment of demand risk.

Table 3.2: Analysis of Principal Risks			
Demand Risk			
Risk Description	**FRS5 Application Note Indicator**	**Project Agreement**	**Approach to Quantification**
Whether the PFI payments vary proportionately over the reasonable spectrum of demand levels.			

Table 3.3: Analysis of Principal Risks			
Third Party Revenue Risk			
Risk Description	**FRS5 Application Note Indicator**	**Project Agreement**	**Approach to Quantification**
Third party revenue risk is the risk that revenues arising from third party demand for the property will be greater or less than expected. Within the context of Schools PPP projects, third party revenue opportunities tend to be limited and BAM PPP have not included any third party revenue within their financial model as the Project Agreement states that the Contractor is not entitled to use the property for third party revenue generation.	*"Where the Operator relies upon revenues from third parties to cover it's property costs, this is evidence that the property is an asset of the operator.* *Conversely where third party revenue is minimal or merely a future possibility this is evidence that the property is an asset of the purchaser. This would particularly be the case where the purchaser is in someway guaranteeing the operator's income from the property or where there is genuine scope for third party use but the purchaser significantly restricts such use."*	No third party revenue has been included within the financial model. This is consistent with the draft PA which states that the Contractor shall not be entitled to use Project Facilities to generate income through Third Party Use (Clause 29.4).	Not applicable. Third Party Income has not been included within the model due to the Council's requirements to access the schools for community use.

Table 3.4: Analysis of Principal Risks			
Design Risk			
Risk Description	**FRS5 Application Note Indicator**	**Project Agreement**	**Approach to Quantification**
Design risk is the risk that there is a design failure and that additional cost is incurred to rectify the failure. These costs can be incurred as either additional capital costs or through increased lifecycle expenditure over the 30 years of the contract The Technical Note repeats the ASB comment that "construction risk is not generally relevant to determining which party has an asset of the property once construction is completed, because such risk normally has no impact during the property's operational life". This risk has therefore been excluded from the analysis.	The Application Note defines design risk as "*the risk that the design of the property is such that, even if it is constructed satisfactorily, it will not fully meet the requirements of the contract.*" It notes that *"one of the key features of a PFI transaction is that the operator can make investment decisions concerning the design and build of the property (before, during and after construction) that affect operational efficiency during the life of the contract.* *The chosen design solution of the operator will give rise to an expected cost profile for those property related costs which flow from that design solution. Any potential variations in these expected property related costs are relevant to the accounting analysis."*	BAM PPP are responsible for the design of the project schools and any risks arising from this. They bear the risks of: • Incurring additional construction costs arising from design flaws. • Incurring additional lifecycle or FM costs over the 30 years of the contract arising from design flaws. • Incurring costs to meet latent defects. • Incurring additional costs to meet the handback provisions of the Project Agreement in the event that the design has not performed as expected. Not only are BAM PPP responsible for any additional costs which need to be incurred to address design flaws, they will incur penalty deductions in the event that the design flaws result in availability and performance failures. This indicates that BAM PPP bears design risk.	The Council have examined the design risk associated with the development of the school buildings. Per Turner & Townsend, the Council's technical advisers, the most likely additional cost incurred due to design flaws is a 3% increase in the capital and lifecycle costs. A best case scenario would be a 1% increase and a worst case scenario of an 8% overrun in costs. Per the technical advisors advice, a factor of 60% probability should be applied to the capital costs. The resultant risk takes into account the likelihood of design risks resulting in increased capital costs, LCM costs and FM costs including latent defects. There are a number of examples of PPP Contractors incurring additional costs due to design risks. For example, the roof on Mearns Primary School at East Renfrewshire Council was damaged by wind and became dislodged. Similarly, West Lothian Council's first schools PPP project has resulted in sever overheating in some of the project schools which the SPV is having to rectify at its own cost.

Table 3.5: Analysis of Principal Risks			
Penalties for underperformance on non-availability Risk			
Risk Description	**FRS5 Application Note Indicator**	**Project Agreement**	**Approach to Quantification**
The Project includes a penalty regime for both non-performance and non-availability of the property and associated services. However, the only penalties that are relevant for this analysis are those that are specific to the property i.e. not those penalties related to the separable services identified earlier. This includes any penalties that relate to failures resulting in the property no longer being available for use, such as availability deductions and service failures which trigger availability deductions. Where potential penalties are either not significant or are unlikely to occur, this is evidence that the property is an asset of the purchaser. Conversely, if the penalty mechanism has the effect that the operator's profits associated with the property are genuinely subject to significant potential variation, then this should be evidence that the property is an asset of the operator.	"*Many PFI Contracts provide for penalties if the property is below a specified standard or is unavailable because of operator default. (Penalties relating purely to property services, however, are not relevant and should not be brought into the assessment).* *These penalties may take the form of either cash payments or reductions in revenue. It will be important to assess both the likelihood of the penalty occurring in practice and whether the likely payments are significant*."	BAM PPP is responsible for meeting the performance requirements of the Council and will incur penalties if these are not met. The penalty performance regime is outlined within Schedule 7 of the Project Agreement. BAM PPP bears the risk of penalties for under-performance and non-availability.	The Council have assessed the penalty deduction risk on the basis that in the first year of operation likely deductions will be greater than in subsequent years of operation. In year 1, it is assumed that the expected deductions will be 2.5%, 1% on a best case scenario and 5% on a worst case scenario. In subsequent contract periods, it is assumed that the expected deduction level is 1%, with a best case of 0.5% and a worst case of 1.5%. This assessment has been based upon PPP market intelligence in respect of the Scottish Schools PPP market, in conjunction with the Council's technical advisers.

Table 3.6: Analysis of Principal Risks			
Risk of Changes to Relevant Costs			
Risk Description	**FRS5 Application Note Indicator**	**Project Agreement**	**Approach to Quantification**
The property related contract extends for 30 years after the availability of the first school, therefore the operator's cost base will be subject to variations arising from changes in technology, inflation of materials and labour rates, etc. The more "fixed" the payments are at the beginning of the contract the greater the risk retained by the contractor. For the purposes of this analysis the only relevant cost changes are those which relate specifically to the property. Therefore, changes in the cost of providing non-property related services are ignored.	"*Potential changes in relevant costs may be dealt with in different ways under a PFI contract. The contract may have the effect that any significant future cost increases can be passed onto the purchaser, which would be evidence that the property is an asset of the purchaser.* *Conversely, where the operator's costs are both significant and highly uncertain, and there is no provision for cost variances to be passed onto the purchaser, this is evidence that the property is an asset of the operator*." *Relevant costs include any planned expenditure on the property itself, such as:* • *Replacement of parts of the fabric of the building* • *Replacement of certain items of plant, machinery and equipment; and* • *Property (estates) maintenance.* *"If the unitary payment is fixed or varies in relation to a general inflation index the risk is borne by the*	The BAFO bid was based on 50% of the UC indexing at RPIx and 20% of the UC indexing at a fixed 2.5% p.a. The final indexation mechanism to be adopted has still to be agreed. BAM PPP bears the risk that increases in their underlying costs increase at a rate greater than RPI. This is a particular risk for lifecycle costs which are likely to inflate at rates akin to BCIS rather than RPI. This risk is therefore borne by BAM PPP.	This risk has been assessed on the basis of the likely increase in costs over the 30 year contract period. The costs reviewed include lifecycle costs only. Within the BAM PPP model these are assumed to increase by RPI – the accounting analysis reviews the impact of lifecycle costs increasing by BCIS. It has assessed the movement of the BCIS factors relative to RPI on the basis of a 7% worst case scenario of BCIS indices exceeding RPI; a 0.52% movement on a most likely case over the 30 years and a -4.1% movement on a best case scenario. This analysis is based on a review of actual RPI and BCIS movements – a best fit analysis has been undertaken on these statistics. Further details of the approach adopted are included within Appendix A.

Table 3.6: Analysis of Principal Risks Risk of Changes to Relevant Costs			
Risk Description	**FRS5 Application Note Indicator**	**Project Agreement**	**Approach to Quantification**
	operator."		

Table 3.7: Analysis of Principal Risks Obsolescence Risk, including the effects of changes in technology			
Risk Description	**FRS5 Application Note Indicator**	**Project Agreement**	**Approach to Quantification**
Obsolescence, Including the Effects of Changes in Technology This is the risk that the services are affected by obsolescence or technological change risk. Within a schools PPP, this risk is considered low compared to projects such as IT systems. The risk has not therefore been quantified.	"*Whether obsolescence or changes in technology are relevant will depend on the nature of the contract. In contracts for the introduction of information technology systems, it will be of greater significance who bears future costs and any benefits associate with obsolescence or changes in technology: in other cases (e.g. a roads contract) it is likely to be of much less significance"*	BAM PPP will be responsible for providing and operating the schools. They will be responsible for providing IT cabling but will not be responsible for providing the ICT equipment or services. Within a Schools PPP contract, ICT would be the service element most likely to be subject to obsolescence risk. However, as this has been excluded from the WDC project, the risk of obsolescence is considered low.	Not applicable

Table 3.8: Analysis of Principal Risks			
Residual Value Risk			
Risk Description	**FRS5 Application Note Indicator**	**Project Agreement**	**Approach to Quantification**
Residual Value Risk Residual value risk is the risk that the actual residual value of the property at the end of the contract will be different to that expected.	"*Residual value risk is the risk that at the end of the contract the property will be worth more or less than expected at the outset."* *The Treasury Taskforce Technical Note No 1 (Revised) indicates that schools should be considered to be a specialised property as there is no practical alternative use.* *The risk is more significant the shorter the PFI contract is in relation to the useful economic life of the property. Where it is significant, residual value risk will normally give clear evidence of who should record an asset of the property, and which party bears it will depend on the arrangements at the end of the contract." (para F44 Application Note to FRS 5)*	Under the proposed contract, BAM PPP will pass the project schools back to the Council at nil residual value. Although there are minimum handback conditions which must be met, these are assessed under risk 5 Potential Changes in Relevant Costs. The relevant risk is therefore by how much the value of the school buildings may fluctuate at the end of the concession period. This risk is retained by the Council.	This risk has been quantified in accordance with the guidance included within the Application Note. It is assumed that the schools have a 60 year life and therefore, a value has been calculated on the basis of a discounted half life. In accordance with the guidance, the Council have then estimated the amount by which the property value may fluctuate under different assumptions regarding property values for these types of projects in 32 years. The analysis assumes that in a best case, the property value will be 40% higher than the discounted half life. However, the most likely and worst cases are both assumed to be 27%. These indices are based upon a best fit analysis of the variation between the BCIS indices and RPI indices over a 30 year period as detailed within Appendix A.

D. Results of the Quantitative Analysis

Monte Carlo analysis has been undertaken on the above risks in order to quantify the spread of the risks involved in the project. The results are summarised in the table below. The table indicates the NPV of the spread of risk values attributed to each risk within the Monte Carlo analysis. However, given the nature of the Monte Carlo analysis the outcome of the individual risks should not be summed. Therefore, the spread of risk values under each risk has been recorded to provide an overall indication of the likely value of the risks borne by each party to the contract. This indicates that the value of risk exposure to variations in property profits/losses borne by the Council is 40.1% and by the Contractor 59.9%. This indicates that the schools are not an asset of West Dunbartonshire Council.

Table 3.9: Summary of Risk Analysis

Key Risks	Borne by Council	Borne by BAM	Council £	BAM £	95% Spread
1 Demand Risk	100%	0%	1,138,067	0	915,470
2. Third party revenue	-	-	0	0	0
3. Design Risk	0%	100%	0	2,898,268	3,507,056
4. Penalty regime (year 1)	0%	100%	0	243,223	235,680
(year 2 onwards)	0%	100%	0	1,888,536	248,094
5. Changes in relevant cost	0%	100%	0	136,368	169,387
6. Obsolescence / Legislative Change	0%	100%	0	0	0
7. Residual value	100%	0%	6,938,402	0	2,125,326
Total NPV			8,076,469	5,166,395	
Lower Limit (5% end of distribution)			7,035,939	3,590,252	
Mean			8,076,472	5,166,395	
Upper Limit (95% end of distribution)			9,402,020	7,118,697	
Range at 95% confidence level			2,366,081	3,528,445	

Total Potential Variation in property profits/losses	5,894,527	
Council’s share		**40.1%**
Contractor’s share		**59.9%**

The analysis indicates that BAM PPP is taking on the greater potential variation in property profits, indicating the property is not an asset of West Dunbartonshire Council. The quantitative and qualitative analysis are consistent in suggesting that that the greater range of property risk lies with the private sector preferred partner BAM PPP.

This view should be considered by the Proper Officer of the Council (in terms of S95 of the Local Government (Scotland) Act 1973) and discussed with the Council's auditor. The effect of future changes to the contractual document and any further developments in negotiations with BAM PPP will need to be considered to ensure that this assessment remains appropriate. The Accounting Treatment Review will therefore be updated prior to Financial Close.

Appendix A: Quantification of Principal Risks

Please see attached spreadsheet

Appendix B: Analysis of Demand Risk

Demand Risk Sensitivities

Background

As part of the work being carried out on the accounting treatment for the WDC Schools Project, it was decided by the Project Team to carry out sensitivity analysis on the Council’s demand risk in the project in order to assess the robustness of the assumptions.

The demand risk figures used in the sensitivity analysis have been generated by West Dunbartonshire Council’s school roll projection software. The different assumptions used to generate the sensitivities for the accounting treatment analysis are described below.

The Council’s roll projection sensitivities results are then run through @risk software producing a monte carlo analysis of changes in the factors contributing to demand risk. This enables us to quantify the effect of the stated scenarios on the distribution of property related risk to the Council (and therefore indirectly the Private Sector Partner BAM PPP).

Influencing Factors

There are four main factors which affects the school roll projection. These are placing requests, migration factors, staying on rates and housing provision.

Placing Requests

This is historically the most variable factor. When one year is used as a base year, the roll projection software mechanism takes all subsequent years to be the same as the year immediately preceding the projection. This could mean a swing of as many as 10 pupils from one set of requests to the next causing a cumulative effect of 70 in Primary rolls and 53 in secondary.

In order to produce a smoother and more reliable projection, a rolling average of the three years requests preceding the year of projection has been applied. Nonetheless the variation in rolling averages is significant and has been factored in by using the highest and the lowest of the historic rolling averages to produce upper and lower bounds for the projections.

Migration factors

This is the average percentage shift of roll on an annual basis. That is for example the change in roll from S2 in one year to S3 one year later. These are all negative for the project secondary schools but are both positive and negative for primary schools. The migration factors are calculated on a geographic basis and not for each school. Secondary factors vary between -1.98 and -0.81.

It should be noted that movement between schools within the authority is caught by placing requests.

Staying on Rates

This is the percentage of pupils from S4 who return to school for S5 and the percentage of S5 pupils who return for S6. This is calculated as a rolling average for each school. The variation between schools can be large with an S4/5 low of 73% and high of 83%.

West Dunbartonshire is one of the four pilot areas for the Educational Maintenance Allowance (EMA) scheme which is an allowance calculated for those staying in full time education between 16 and 19, based on parental income. West Dunbartonshire has been involved in the pilot scheme since 2001 and it is believed that any possible increase in staying on rates due to EMA will already be present in the figures used.

Housing

This is potentially the factor which might have the greatest effect. It is also the one which is least easy to predict at a range of years. Figures exist (Land Supply) for housing for which land is or will become available. This does not mean that these land options will be taken up by builders or that land not currently predicted as available will not become available. A year on year analysis of land supply shows remarkable consistency with little variation in predicted availability. The current roll projection software is populated on the assumption that all options will be taken up which is historically not a likely scenario. The pupil per household multiplier is 12 years old and does not fully reflect current trends, nor does it take account of the type of housing being built. The General Registry Office (GRO) has stated that they generally consider the factors being used to be too high.

Other than if large new areas of land become available the projection package can be considered as an upper boundary for housing. After consideration, it was decided that there is no realistic means of suggesting a reduction factor to produce a lower bound and therefore it was decided no further sensitivity work on housing would be undertaken.

Other risk categories

For the purposes of the demand risk sensitivities the assumptions and inputs for the other risk categories described above in section 3 have been held constant. The results below therefore illustrate the effect of the movement in demand risk assumptions to the overall split of potential property profits/losses between the Council and BAM PPP.

Base Case

The ‘base case’ that has been used for demand risk, is concerned with fluctuation in placing requests as the only variable, as this is the most volatile variable. The range of projected school rolls has been calculated with reference to the historic high and historic low for placing requests.

The base case does not include any adjustment to the opening values for either migration or staying on rates.

Sensitivity One

This model includes the placing requests base case, and a +/-25% change in the migration starting value.

Sensitivity Two

This model includes the placing requests base case, and a staying on rate increased and decreased by 5% of the absolute initial value (i.e. if the initial value was a staying on rate of 67%, the sensitivity would generate the effect of the rate falling to 62% or increasing to 72%).

Sensitivity Three – combining all the scenarios

The final sensitivity combines the base case placing requests range with a 25% increase in migration and 5% drop in staying on rates (minimum value) and a 25% decrease and a 5% increase in staying on rates (maximum value).

Effect on school roll projections

Each of the above sensitivities were run using the school roll projection software and the following ranges were produced:

	% range variation min-max (at Authority level)
Base Case	3.5%
Base Case and migration	6.7%
Base Case and staying on	6.9%
Combination of all	10.1%

These min-max levels for school roll were then applied to the demand risk worksheet and @risk was applied to the new figures. The results are shown below:

	Council spread of property risk (95% confidence)	BAM PPP of property risk (95% confidence)	Council share of potential variation %	BAM PPP share of potential variation %
Base Case	2,366,081	3,528,445	40.1%	59.9%
Base Case and migration	2,775,892	3,546,811	43.9%	56.1%
Base Case and staying on	2,866,136	3,543,349	44.7%	55.3%
All combinations	3,424,396	3,522,210	49.3%	50.7%

Conclusions

Base Case – The base case for demand risk, where movements in placing requests were projected, resulted in a Council share of the potential variation in property profits/losses of 40.1%, with BAM PPPs share 59.9%.

Given the significance of demand risk, additional sensitivity analysis was undertaken on key assumptions such as migration rates and staying on rates. The results of the sensitivity testing are documented below:

Sensitivity 1 – Base Case plus migration – In addition to the Base case a +/-25% difference was applied to the migration rates. This resulted in an increase to the Council's share of the potential variation of the property related risk to 43.9%, BAM PPPs share reducing in percentage terms to 56.1%.

Sensitivity 2 – **Base Case plus staying in rates** – An absolute +/- movement in staying on rates was applied to the base case. This resulted in an increase to the Council's share of the potential variation of the property related risk to 44.7%, BAM PPPs share reducing in percentage terms to 55.3%.

Applied separately, the introduction of fluctuation in staying on and migration rates leave the Council with a share of the potential variation that still indicates that the schools are not an asset of West Dunbartonshire Council. A combination of the base case and these sensitivities was then run as a monte carlo analysis.

Sensitivity 3 – Base Case placing requests + /-25% migration rate and +/-5% staying on rates – The combination of the fluctuation in the various factors produced the greatest variance in projected roll and resulted in the Council bearing 49.3% and BAM PPP 50.7%.

Under this 'worst case' sensitivity, the analysis continues to indicate that the schools would be off balance sheet for West Dunbartonshire Council.

Appendix C: Glossary

ASB	Accounting Standards Board
AN	Application Note
FM	Facilities Management
FRS5	Financial Reporting Standard No 5: Reporting the Substance of Transactions
IFRIC	International Financial Reporting Interpretations Committee
OJEU	Official Journal of the European Union
PA	Project Agreement
PPP	Public Private Partnership
SORP	Statement of Recommended Practice
SPV	Special Purpose Vehicle
SSAP 21	Statement of Standard Accounting Practice 21: Leases and Hire Purchase Contracts
Technical Note	PFI Technical Note Number 1: How to account for PFI transactions
WDC	West Dunbartonshire Council