

**Edinburgh Tram Network**

**Schedule of documentation leading up to formation of contract**

Date	Document	Description
19.09.05	SDS agreement	tie and PB
31.01.06	OJEU advertisement for construction contract	
06.09.06	Pre ITN bidders' meeting	<p>Para 2.11: "tie explained the status of the SDS design information and the Employers' Requirements. Bidders' will need to propose a costed solution that meets the functional requirements. This may use the PB designs as the bidder sees fit. The PB designs are not warranted to comply with the requirements but have been developed to allow progress on an acceptable solution and to gain third party approvals."</p>
03.10.06	ITN	<p>Para 3.2.2: "The Infraco is liable for the design of the [ETN] (using the design already prepared by [PB] and is obliged to carry out all works required for the [ETN] to be fully constructed and capable of entering into full public service. The Infraco will also be responsible for the design, construction, delivery and testing of the Trams to run on the completed [ETN]."</p>
		<p>Para 3.2.3: " tie has been in contract with the SDS Provider in respect of the development of the design for the Edinburgh Tram Network since 19th September 2005 and in the intervening period, the SDS Provider has been advancing the design for the construction of the Edinburgh Tram Network and the required utilities diversion works...Under the terms of the Infraco Contract, the Infraco will be required to procure works, services and supplies from the SDS Provider (design of the Edinburgh Tram Network), the Tram Supplier (design, manufacture, testing and delivery of Trams) and the Tram Maintainer (maintenance of Trams) under their respective contracts and it is proposed that tie's contracts with each of these parties will be novated to the Infraco, with each novated party providing an assignable collateral warranty to tie in respect of the performance of its obligations under the relevant contract."</p>
		<p>Para 3.7.1: "[PB] has been engaged by tie to provide [SDS] and to develop a detailed design of the [ETN]. This detailed design is being developed from the substantial design and investigative work which has already been carried out for tie in support of the parliamentary process...It is the intention of tie that the SDS Agreement will, in due course, be novated to the Infraco. A detailed scope of the services being provided by the SDS Provider and a copy of the executed SDS Agreement is set out at Part 6 of Volume 4."</p>

12.01.07	BBS tender	<p>Item 3 Schedule of Clarifications: <i>"due to unavailability of design information and the uncertainty of the final delivered solution all prices are based on similar technical solutions offered for Tram systems, out with the UK. The prices quoted, whilst as accurate as possible, are therefore indicative and do not form an offer which can be accepted."</i> (this comment also repeated throughout the tender)</p> <p>Item 6 Schedule of Clarifications: <i>"due to the current design status a detailed evaluation of risk cannot be undertaken. In the meantime we have allowed for a notional allowance of 10% on Civil and 6% on Systems and Track within our Proposal"</i>.</p>
30.03.07	ITN Information release	<p>This sought consolidated tenders on the basis of additional/revised information.</p> <p>Para 3.2 refers to proposed amendments to the ER's:</p> <p><i>"The amendments to the Employer's Requirements have been developed in four main categories:</i></p> <ul style="list-style-type: none"> <li><i>• Amendments in response to specific comments from parties to the project. These comments generally relate to making the Requirements more clear or to accord with other project deliverables.</i></li> <li><i>• Amendments to resolve inconsistencies within the technical requirements.</i></li> <li><i>• Amendments to align the technical wording with the wording used elsewhere within the ITN documentation. This has led to the extension of the list of Defined Terms used in the Employers Requirements as given in Part 3a of the document.</i></li> <li><i>• Amendments required to provide a definition of the deliverables against Phases 1a and 1b. There has also been some clarification provided on the procurement of elements of the Edinburgh Tram Network outwith the scope of Infraco (e.g. pantograph and ticket machines).</i></li> </ul> <p><i>It is accepted that there may be further amendments proposed to the Employer's Requirements to reflect the developing nature of the Infraco scope as Bidders Proposals are evaluated and accepted."</i></p> <hr/> <p>Paras 4 deals with design information:</p> <p><b>4.1 Progress to Date</b>  <i>There have been several formal releases of structural design information to date. The information had been used to develop the Bill of Quantities that was issued with the ITN and the Bidders were expected to price. The expectation is that Bidders will consider the available design information and pricing documents so that they offer back to tie proposals for implementation. The proposals will need to define a fully priced technical solution that takes account of all of the relevant project constraints. In this way the Bidder would need to confirm the veracity of the ITN design information and pricing schedules or amend them to suit, highlighting any such amendments.</i></p> <p><b>4.2 Developed Structural Design Information</b>  <i>A set of developed design documents is now provided in the Appendices (previously released in several batches</i></p>

		<p>phased over a number of days due to the availability of the information). This consists of information that provides greater detail to the preliminary design already included with the ITN. The structures that represent the majority of the cost of all the ETN structures have been targeted for release at this time. This should allow the Bidders to reassess their pricing of these structures and reduce the risk allocation made at Stage 1 Tender Returns.</p> <p><b>4.3 Submission Requirements</b>  <i>Bidders should update their proposals and pricing submissions as part of the Consolidated Proposals. A detailed pricing breakdown of each structure is required by tie to allow a comparative evaluation leading to the selection of a Preferred Bidder. The structure and detail of the Bills of Quantities provided with the ITN are appropriate but Bidders must ensure that the quantities presented back with the Consolidated Proposals represent the technical proposal being made by the Bidder.</i></p>
12.07.07	Minutes of technical meeting tie: David Powell, Michael Jesuarul, Bob Dawson. BBS also attending	<p>Para 8.0 headed "management of SDS":</p> <ul style="list-style-type: none"> <li>• "BBS very keen to fully integrate the SDS team into the consortium with an understanding of deliverables and division of scope between PB/Halcrow and others.</li> <li>• BBS will consider passing design delivery to in-house teams and additional external consultants if need be but needs detailed discussion with PB first. BBS to provide an indication of which disciplines they will have designed by others and those where there is no point in PB continuing to develop detail designs."</li> </ul>
05.09.07	Letter from tie (Geoff Gilbert) to BB	<p>Informs BB that a virtual data room has been set up containing SDS data in accordance with an attached list<sup>1</sup>. The letter concludes:  <i>"Please provide definitive requirements and priorities for the information that you wish to see to satisfy yourselves that the designs will deliver the performance set out in the Employers Requirements and satisfy yourselves as to the adequacy of the designs to meet the performance requirements."</i></p>
22.10.07	Agreement between tie and BBS in relation to selection for appointment as preferred bidder (executed by William Gallagher on behalf of tie)	<p>The basis of this agreement is the "Draft Deal", defined as the draft contract package, including a document in relation to price. The draft contract package is contained in appendices to the agreement<sup>2</sup>.</p> <p>2.1 provides:  <i>"[BBS] and tie agree and confirm that the Draft Deal constitutes the entirety of its proposal to deliver the [ETN] and, therefore, the terms on which it will be appointed as [preferred bidder], should this be tie's decision."</i></p> <p>2.2 provides:  <i>"Subject only to clause 3 [BBS] and tie accordingly agree that any appointment of [BBS] as [preferred bidder] by tie is solely on the basis that the Bidder and tie adhere in all respects to the terms of the Draft Deal, and that unless otherwise agreed, [BBS] or tie will neither require, propose or procure circumstances to cause any change to the</i></p>

<sup>1</sup> We do not have a copy of the list itself

<sup>2</sup> We do not have a copy of the appendices, but one has been requested from Andrew Fitchie

		<p><i>terms of any aspect of the Draft Deal or to any other matter relating to the Submission, the Infraco Contract, the SDS Contract or the Tramco Contract other than to resolve the PB Finalisation Issues".</i></p> <p><i>3.1 provides:</i>  <i>"tie and [BBS] acknowledge and agree that there are a number of matters contained in the Draft Deal, the Infraco Contract, the SDS Contract and the Tramco Contract which must be resolved before tie seek CEC approval to enter into the Infraco Contract with [BBS] ("PB Finalisation Issues")...more particularly set out in Appendix 7.1"</i></p>
05.11.07	Letter from tie (Matthew Crosse) to BB	<p><i>BB confirmed as preferred bidder on the basis of the agreement of 22.10.07. The letter identifies 20.11.07 as a critical milestone in relation to "conclusion of contract negotiations on core terms and SDS and Tramco alignment".</i></p>
07.12.07	Final business case v2 (subsequently approved by CEC)	<p><i>Under the heading "Procurement strategy and risk allocation":</i>  <i>"1.77 The Procurement Strategy followed by tie responds to feedback from the National Audit Office (NAO) in 2004 on the effectiveness of light rail schemes. The objectives of the Procurement Strategy are summarised as follows:</i></p> <ul style="list-style-type: none"> <li><i>• Transfer the design, construction and maintenance performance risks to the private sector;</i></li> <li><i>• Minimise the risk premium (and/or exclusions of liability) that bidders for a design, construct and maintain contract normally include. Usually at tender stage bidders would not have a design with key consents proven to meet the contract performance obligations and, hence, they would usually add risk premiums for this...</i></li> <li><i>• Mitigation of utilities diversion risk (i.e. potential impact of delays to utilities diversion programme on Infraco works)..."</i></li> </ul>

	<p>Strategy is described at 1.80 onwards<sup>3</sup>: <i>"The entire strategy has been developed to help facilitate the speedy implementation and completion of the construction phase of the project and to remove uncertainty and, therefore, cost from bidders' proposals i.e. to deliver value for money.</i></p> <p><i>1.81 In summary, the key attributes of the strategy are...</i></p> <ul style="list-style-type: none"><li><i>• Early commencement of design by the SDS contractor – To reduce scope and pricing risk in Infraco and Tramco bids and to reduce the overall project programme...</i></li><li><i>• Re-aggregation of the supply chain at the point of award – By novation of the SDS and Tramco contracts to Infraco, thereby creating single point responsibility for design, construction, commissioning and subsequent maintenance of the tram system, with consequential transfer of performance risk to the private sector...</i></li><li><i>• Validation of the SDS designs by a Technical Support Services (TSS) consultant – To provide comfort that the designs produced will deliver the required performance;</i></li></ul> <p><i>1.82 These arrangements provide early involvement of the tram system operator, risk transfer to the private sector at an affordable level, a shorter overall programme and a single point of responsibility for the delivery of the operating tram system and subsequent maintenance."</i></p> <p>The most significant risks retained by the public sector are described at para 1.85 as follows: <i>"As the project moves towards physical construction, the following are the most significant risks which could impact on the delivery of the project on time and within the capital cost estimates (including risk allowances):</i></p> <ul style="list-style-type: none"><li><i>• <b>Utility diversions...</b></i></li><li><i>• <b>Changes to scope or specification</b> – A great deal of care has been taken in defining the scope and specification of the tram project throughout the Parliamentary process and during design development, with input from TEL and Transdev and extensive consultation with CEC and TS. However, significant unforeseen changes to scope and specification could have a very significant impact on the deliverability of the project. Similarly, any changes introduced by stakeholders that are over and above the approved scope will increase the project estimate. Effective management of the consideration of changes through the Governance processes implemented for the project will be vital to mitigate this risk; and</i></li><li><i>• <b>Obtaining consents and approvals...</b>"</i></li></ul> <p>The background to the procurement strategy is described at para 7.7: <i>"tie's Procurement Strategy has resulted in it taking a greater degree of control over the process during the early 'development' phase, compared to what the public sector has done on other projects. This has resulted in tie progressing the overall project sufficiently in advance of seeking bids from Infraco bidders such that it was able to</i></p>
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<sup>3</sup> Repeated in part at 7.13

		<p>offer the private sector Infraco and Tramco bidders a <b>better defined basis</b> on which to bid and a less onerous risk allocation (and in particular <b>reducing the extent of design and approval uncertainty</b> at bid stage). Therefore the private sector were able to <b>price their bids with a greater degree of accuracy</b> and certainty than has been achieved on other projects. In this way, <b>tie</b> believes it has significantly reduced the cost of the overall project, having considerably de-risked certain of the elements of the project that fall to the private sector to deliver. This is shown by the minimal risk allowance included in the Infraco and Tramco bids."</p> <p>In relation to SDS, the procurement approach is described as follows:</p> <p>"7.48 Commencement of design early in the procurement process, followed by a novation of the contract to the Infraco at financial close (as described below), is a key element in delivering the objectives of <b>tie's</b> Procurement Strategy objectives of reducing construction contractor risk premiums, reduced delivery programme and single point responsibility for delivery of the tram system.</p> <p>7.49 Development of the design ahead of and during the Infraco tender has helped to create improved scope and cost certainty and is significantly reducing the overall project programme and, in particular, the lead time between approvals and commencement of construction...This is born out by the low level of risk pricing included in the Infraco and Tramco bids.</p> <p>7.50 The anticipated novation of the SDS contract to the Infraco will mean that responsibility for the design and all risks arising are transferred to the private sector system integrator (Infraco), without the normal disadvantage of an increased risk premium, that bidders would apply due to uncertainty, if they had to carry out all of the design work post contract award.</p> <p>7.51 It is expected that the Infraco will benefit significantly from the SDS provider's work and its experience of the planning and utilities diversion processes. The planned novation to Infraco incentivises the SDS provider to consider issues of practicality, cost and 'constructability' more than if it were simply <b>tie's</b> consultant. The Infraco bidders have prepared their bids on the basis of the emerging SDS designs and the successful bidder is required, following a process of due diligence of the design, to adopt the SDS provider's design as at the date of Infraco contract signature. <b>Variations to this design can be introduced with the agreement of tie, but at the risk of the Infraco unless they represent changes to tie's Employer's Requirements (ERs), which are at cost to the public sector...</b></p> <p>7.53 The original assumption was that overall design work to Detailed Design would be 100% complete when the Infraco contract is signed. Due to a number of delays, largely outwith <b>tie's</b> control, this is now not achievable. However, by identifying key risk areas and prioritising SDS activities, <b>tie</b> is completing several key elements of the Detailed Design in time to inform the Infraco bids on price-critical items. This has enabled the Infraco bidders to firm up their bids based on the emerging Detailed Design and thereby reduce the provisional scope allowances and design risk allowances that they would otherwise have included.</p> <p>7.54 [Detailed information in relation to the status of the SDS design at the time]...</p> <p>7.55 <b>tie</b> is monitoring the quality of the solutions being developed by the SDS provide with the assistance of the TSS provider and Transdev, and drawing on the significant experience of other schemes gained by the <b>tie</b> team members. In particular TSS are reviewing that SDS have delivered their contract obligations in respect of design, including verifying that the designs will deliver the specified tram system performance.</p>
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	<p style="font-size: 48pt; opacity: 0.5; transform: rotate(-15deg); position: absolute; top: 20%; left: 20%;">Draft</p>	<p>7.56 This process, together with value engineering exercises, is mitigating the risk of 'gold plating' the design of the system, and any tendency towards low risk/high cost solutions which do not provide the overall best value for money that tie is seeking. tie has been tracking the estimated cost of the system throughout the design period, so that cost overruns could be identified quickly and mitigating actions taken while there is still scope to change the solution... ■</p> <p>7.59 The risk transfer to the SDS is substantial and the separation of designer from the delivery contractor during the procurement phase affords tie control over scope definition that would not otherwise be achieved where design is undertaken by the delivery contractor after contract award under more conventional procurement approaches.</p> <p>7.60 Following novation of SDS, after completion of the design due diligence process at Financial Close, the design risks pass to Infraco (although tie will retain a collateral warranty over the work of the SDS provider), but without the disadvantage of substantial risk premiums applied by Infraco bidders where design works are executed post contract award. Therefore, tie's approach will provide the benefits of having a designer involved in the project from an early stage, whilst retaining substantial risk transfer to the private sector."</p> <p>In relation to Infraco, the procurement approach is described as follows:  "7.100 The principal attributes of the procurement approach for this contract are:</p> <ul style="list-style-type: none"> <li>• Scope – Single point responsibility for detail design, construction, integration and commissioning into service of Phase 1a of the ETN (capital works) and its subsequent maintenance. Options included for subsequent Phases;</li> <li>• Design liability and capability transferred by novation of SDS contract into Infraco;</li> <li>• Tram vehicle supply, commissioning and subsequent maintenance liability and capability transferred by novation of Tramco contract into Infraco;</li> <li>• Approximately three year contract duration for delivery into service of Phase 1a. Maintenance duration of up to 15 years;</li> <li>• Lump sum price for delivery into service of the tram system. Thereafter lump sum payment each period for maintenance works, subject to performance adjustment;</li> <li>• Maintenance price adjusted for inflation by applying RPIx (Retail Price Inflation index excluding mortgage payments);</li> <li>• Maintenance prices include for market price reviews at yearly intervals over the duration of the contract;</li> <li>• Milestone payment mechanisms for capital works with performance related payment mechanism for maintenance;</li> <li>• Liquidated damages for delay to completion;</li> <li>• Parent company guarantees, bonds and warranties to secure redress in the event of major default on capital works and maintenance; and</li> <li>• Contractor's liabilities capped at predetermined but significant levels."</li> </ul> <p>The risk allocation as between Infraco and tie is described as follows:  7.111 The key benefits of the Infraco procurement strategy are primarily through the award of a single turnkey fixed price contract and in the novation of the SDS and Tramco contracts and the transfer of risks to the Infraco. The benefits include:</p> <ul style="list-style-type: none"> <li>• Single system integrator responsible for implementation of design and construction of the</li> </ul>
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	<p><i>ETN and its subsequent maintenance;</i></p> <ul style="list-style-type: none"> <li>• <i>Full design risk passed to Infraco post contract award, including critically the deliverability of the design;</i></li> <li>• <i>Full vehicle risk passed to Infraco post contract award, including the deliverability of the vehicle design and compatibility with the infrastructure and systems;</i></li> <li>• <i>Reliability of Infraco supply chain and products to be supplied within it;</i></li> <li>• <i>Infrastructure and vehicle maintenance risk passed to Infraco ;</i></li> <li>• <i>Value for money of maintenance contract market tested through variant bids;</i></li> <li>• <i>Enables the Infraco bidders to minimise risk pricing; and</i></li> <li>• <i>Enables delivery of the tram system within the optimum programme.</i></li> </ul> <p><i>7.112 Risks remaining with the public sector are as follows:</i></p> <ul style="list-style-type: none"> <li>• <i>Maintenance and lifecycle risks beyond the chosen maintenance contract period;</i></li> <li>• <i>Costs incurred above the Infraco contract liability caps in the event of default; and</i></li> <li>• <i>'Political' risk associated with planning and Prior Approvals."</i></li> </ul> <p>The procurement process to financial close was described as being:</p> <p><i>7.119 The key steps to concluding the procurement process to financial close and award of the Infraco contract are:</i></p> <ul style="list-style-type: none"> <li>• <i>Release of detailed design information to preferred bidders for them to undertake due diligence;</i></li> <li>• <i>Mobilisation and advance works agreements to be placed with Infraco and Tramco to enable a swift start on site at Contract Award and to mitigate programme and cost risks;</i></li> <li>• <i>Facilitated Infraco / Tramco negotiations (facilitated by tie);</i></li> <li>• <i>Facilitated Infraco / SDS negotiations (facilitated by tie);</i></li> <li>• <i>Conclusion of various value engineering initiatives;</i></li> <li>• <i>Final negotiations with Tramco and Infraco;</i></li> <li>• <i>Conclusion of the basis for contract award with both Tramco and Infraco;</i></li> <li>• <i>Confirmation of contract award recommendations; and</i></li> <li>• <i>Award of Infraco and Tramco contracts and concurrent novation of SDS and Tramco to Infraco."</i></li> </ul> <p><i>i.e. no reference at this stage to a design freeze, or for the need to assumptions being built in</i></p> <p>Para 7.127 deals with "value for money risk transfer mechanisms", which include:</p> <p><i>"Consistent with the principals of tie's Procurement Strategy, value for money risk transfer mechanisms have been incorporated into the principal contracts, namely Tramco and Infraco. In summary these mechanisms are:</i></p> <p><i>a) The creation of a single point contract, Infraco, with responsibility for the design, construction, system integration, commissioning and subsequent maintenance of the Edinburgh Tram system, including tram vehicles. This transfers the following responsibilities and hence risks to the private sector:</i></p> <ul style="list-style-type: none"> <li>• <i>System integration – That all components, subsystems and systems are integrated together such that ETN delivers the specified performance and maintenance delivered such that level of specified performance is delivered during operation;</i></li> </ul>
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	<p>• <i>Design – That the design completed by SDS delivers the required tram network performance; and</i></p> <p>• <i>Interface management – The effective management of the interfaces between suppliers and sub contractors to deliver the specified performance within the agreed programme;</i></p> <p>b) <i>The creation of the Infraco contract as a lump sum contract transfers the pricing risk to the private sector. Finalisation of certain ‘Edinburgh specific’ elements, such as structures, of the Infraco contract price on the basis of SDS Detailed Design significantly reduces their scope and performance risk pricing premium that would otherwise be necessary under conventional design and construct or PFI approaches...</i></p> <p>7.128 <i>The above mechanisms provide VFM through a prudent and affordable risk allocation to the private sector with the requisite incentivisation and sanctions. In addition, tie’s strategy of separate procurement of the principal elements of the supply chain, and their subsequent reaggregation, further improves VFM by reducing overall programme duration, and hence cost, plus avoiding the risk premia that bidders would inevitably otherwise include under PFI style arrangements. This is achieved by:</i></p> <p>• <i>Procuring the design early via the SDS contractor thereby reducing scope uncertainty at the close of the Infraco and Tramco bids...</i></p> <p>Section 10 contains the financial analysis, and states at 10.26:  <i>"Design work has continued to refine the requirements of the utilities, Infraco and Tramco contracts. The utility design work has been used as the utility work has been implemented since summer 2007. During the tender process in 2007, the Infraco and Tramco bidders were provided with details of the emerging designs for the main price-critical items which allowed them to incorporate these in their final bids, as well as to develop proposals for value engineering. Although the final acceptance of the design is subject to bidders’ due diligence and final negotiations, the consultative approach taken will have reduced the scope and pricing risks normally included in bid prices under a traditional procurement approach. In overall terms, the design work is being completed within the aggregate allowed for in the November 2006 estimate, plus approved changes...."</i></p> <p>10.35 <i>A risk contingency sum has been retained in the final cost estimate. The level of contingency reflects the reduced risk attaching to project costs, in the light of the further work described above and, in particular, the conclusion of negotiations on the Infraco and Tramco contracts. This allowance provides an uplift of 15% on the construction period base cost estimates of Phase 1a, calculated using the QRA at this point in time. Added to the balance of the committed funding available for the tram, this allowance currently provides a headroom of 29% over the future Phase 1a costs. This is considered a very reasonable allowance for headroom."</i></p> <p>Section 11 deals with risk management. At 11.6, the risks to the scheme are categorised as follows:</p> <ul style="list-style-type: none"> <li>• <b>Development risk:</b> <i>design and development, scheme approvals and procurement of all scheme components and activities to be concluded prior to commencement of construction of the network;</i></li> <li>• <b>Construction risk:</b> <i>advance works including utility diversion, main infrastructure construction and integration, project management and commissioning related risks and trial running;</i></li> <li>• <b>Performance risk:</b> <i>standards, defects and delays related risks occurring during and post-construction; and</i></li> <li>• <b>Operation risk:</b> <i>repair and replacement risks impacting the scheme during operation of</i></li> </ul>
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		<p><i>the system (outwith DPOFA Operator risks)."</i></p> <p>Table 11.1 includes the following as Development risks:</p> <ul style="list-style-type: none"><li>• <i>Incomplete definition of scope to implement the operational tram system.</i></li><li>• <i>Failure to design to brief.</i></li><li>• <i>Continuing design development...</i></li><li>• <i>Changes in design required by the Operator.</i></li><li>• <i>Changes in design required by stakeholders."</i></li></ul> <p>Para 11.7 states "<i>many of the Development and Construction risks are now either crystallized, superseded or effectively mitigated, through management action or transfer to the private sector.</i>"</p> <p>At 11.12, mitigation of design related risks is described as follows: <i>"An integrated team approach involving experts from tie, SDS and CEC continues to mitigates design related risks in obtaining Prior Approvals...The Infraco bidder will undertake a due diligence exercise on the SDS designs and tram designs as part of the procurement process."</i></p> <p>Para 11.14 identifies the following risk and associated mitigation: <i>"SDS deliverables are below the desired quality levels leading to delays to approval of Planning Consents and issue of design information to Infraco bidders: This is mitigated by independent validation of the design, as it emerged, supported the issue of price-sensitive information to the bidders throughout the bid process. Further, the Infraco bidder will perform a due diligence exercise before accepting the SDS design. Therefore, this aspect of the risk is mitigated."</i></p>
		<p>Para 11.50 sets out the allocation of risk during the development period:</p>

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Risk allocation during the Development Period				
Risk	Public sector	MUDFA contractor	SDS designer	Utilities
Land acquisition	✓			
Planning (Prior Approvals)	✓		✓	
Temporary and permanent TROs	✓		✓	
Design risks	✓		✓	
Major utility diversion quantity	✓		✓	✓
Major utility diversion cost	✓	✓		✓
Major utility diversion delay	✓	✓		
Delays to utilities agreement	✓			✓
NR related delays	✓			
Required approvals from HMRI	✓		✓	
Incorrect cost estimate	✓			
Incorrect timetable assumptions	✓			

Para 11.58 sets out the equivalent risk during the construction period:

Risk allocation during the Construction Period				
Category	Risk	Public sector	Infraco contractor	MUDFA contractor
Design	Changes in fundamental design and performance requirements.	✓		
	Changes in construction design and failure of design post award of Infraco.		✓	
	Award of Prior Approval consents.	✓		
	Provision of adequate submissions necessary to obtain Prior Approval and TRO consents.		✓	
Utilities	Major utility diversion quantity.	✓		
	Major utility diversion unit cost.	✓		✓
	Major utility diversion delay.	✓		✓
	Minor utility diversion quantity.		✓	
	Minor utility diversion cost.		✓	
Construction	Minor utility diversion delay.		✓	
	Force Majeure.	✓	✓	
	3 <sup>rd</sup> party claims.	✓	✓	
	Ground condition.	✓	✓	
	Archaeology.	✓	✓	
	Site safety.	✓	✓	
	Technology risk.	✓	✓	
	Compliance with street possessions.		✓	
Commissioning	System integration failure.		✓	
	Failure to meet standards.		✓	
	Inappropriate vehicle.		✓	
Contractual / Financial	Required approvals from ICP, HMRI and others.		✓	
	Weaknesses in contractual interfaces.	✓		
	Incorrect cost estimate.		✓	
	Incorrect programme assumptions.		✓	

Para 11.59 refers to risks associated with design:

*"Changes in design which are required by the public sector after the signing of the Infraco contract will be at the*

		<p>risk of the public sector. The progress of detailed design has somewhat mitigated this risk. However, a significant failure in the agreed design will effectively be transferred to the Infraco contractor following novation. Provision of consents for Prior Approvals and Temporary and Permanent TROs by the statutory authorities remains a public sector risk, but provision of the necessary information in the required format and timescales will be at the risk of SDS and / or Infraco."</p> <p>Risks retained by the public sector described at 11.69 include "the design development".</p>
11.12.07	Letter from tie (Willie Gallagher) to BB	<p>"Your news today that BBS are unable to achieve the pricing objectives we set you is extremely disappointing. In recent weeks we have talked at length about tie's critical milestone on 20<sup>th</sup> December where the full Council finally accept the project business case and Infraco and Tramco deals. Their acceptance on the 20<sup>th</sup> December paves the way to achieve financial close on the 28th January 2008. We have made it very clear to you at each of the last four weekly progress meetings that the end result of all of the circa 40 technical and commercial meetings is to enable tie to make a firm recommendation to Council that the deals can proceed to contract award. Our visit to Germany on Thursday is focussed on cementing the final deal and particularly finalising the price. As it stands today we are not in a position to consider the results of the repricing exercise and therefore question the value of the visit to Germany. Unless you are able to confirm that, by the end of Thursday's meeting, we will have been able to consider, and agreed the following items then I must state that tie will not attend and we will need to revisit the entire preferred bidder programme.</p> <ol style="list-style-type: none"> <li>1. Price confidence: we ask you to consider fixing your price, save for a very few notable exceptions where for example the design itself is absent.</li> <li>2. Price level: we ask that, having been through the value engineering exercise including the targets agreed at preferred bidder date - your price level and VE savings are confirmed at a level that enables our project business case target to be met.</li> <li>3. Programme confidence: Following the meetings with SDS, CEC and tie, we ask that you confirm that you can achieve the programme opening dates i.e. revenue service commencing 11 February 2011 for Line 1a contained within the proposal - together with any key assumptions.</li> <li>4. Contracts closure: After a large number of contract meetings your team appear to have become entrenched in respect of finalising the positions on a number of important legal/commercial issues. These have been reviewed today and a timeline agreed on their resolution, We need your definitive responses on each and conclusion of these issues tomorrow.</li> <li>5. Employers Requirements: we need your team's provisional agreement on the compliance matrix and confirmation of alignment with your proposal." </li></ol>
12.12.07	Letter from BB to tie (Willie Gallagher)	<p>"Further to your letter of 11<sup>th</sup> December 2007 and our telephone conversation, we too are disappointed at our combined inability to achieve all the measures necessary to fully achieve the pricing objectives of tie. However, we are firmly wedded to achieving the goals leading to contract award and a successful contract for all stakeholders.</p>

		<p><i>Our response to your particular points 1 to 5, are detailed below:</i></p> <ol style="list-style-type: none"> <li>1) <i>Price Confidence – we have considered fixing our price on the information provided and believe that we are able to do this in all areas where the design is available. See attached schedule.</i></li> <li>2) <i>Price Level – we believe that with the willingness and co-operation of all concerned parties, we will be able to achieve the VE savings targets agreed at preferred bidder date.</i></li> <li>3) <i>Programme Confidence – we are confident that we can achieve revenue service commencement in February 2011, providing the following assumptions are met:</i> <ol style="list-style-type: none"> <li>a) <i>SDS design is delivered in line with our programme submitted as part of our August 7<sup>th</sup> Submission</i></li> <li>b) <i>Relaxation on multiple junction working in Edinburgh City Centre is achieved</i></li> </ol> </li> <li>4) <i>Contract Closure – Following yesterday's meeting, we believe that all contractual issues can be cut through and resolved in line with our commitment.</i></li> <li>5) <i>Employer's Requirements – We have submitted today our updated compliance matrix, which we believe aligns with our proposal.</i></li> </ol> <p><i>We therefore believe that with the due cognizance of our assumptions (see attached) and the willingness and co-operation of all parties, we will greatly be able to achieve the objectives and move towards a contract award on 28<sup>th</sup> January 2008. We look forward to meeting with you in Wiesbaden. "</i></p> <p>There is a schedule of clarifications attached to the letter, which lists specific items of work, previously dealt with as provisional sums, in relation to which it is stated that the "price can be fixed by adding" a specific sum of money – essentially a premium for a fixed price.</p> <p>There is also a document headed "assumptions" attached to the letter. In relation to design, it states:  <i>"In those locations where the design is absent, we are not able to fix our price. Typically these include: Picardy Place, St. Andrews Square, London Road, York Place, Forth Ports Area etc.</i>  <i>In areas where design is partial, we have made reasonable assumptions based upon our experience and the existing design information provided. Notwithstanding material design changes we have a high level of confidence in our pricing, e.g. Track Slab, Roads and Pavements, Drainage connections, all as identified in our initial main submission.</i>  <i>In respect of pavements, we have assumed full reuse of existing curbs and flags and minimal reinstatement behind curb lines. i.e. not wall to wall. Design must be delivered by the SDS in line with our construction delivery programme previously submitted. "</i></p> <p>There are also a number of specific assumptions in relation to e.g. earthworks where the price has been fixed.</p>
13 and 14 December 2007	Meeting in Wiesbaden	Described in the "Financial Close Process and Record of Recent Events" document (see below) as a meeting of senior representatives at which the contract price was concluded within the business case budget of £498m, supporting revenue service in spring 2011. Close was anticipated in early January 2008.
13.12.07	Internal tie e-mail from	The document is essentially a script for the negotiations, and proposes that a response to the BB letter of 12.12.07

<p>13.02</p>	<p>Geoff Gilbert to Matthew Crosse and Willie Gallagher attaching briefing document for negotiations</p>	<p>should be:</p> <p>"1. We have reviewed your proposed letter and it is not acceptable:-</p> <ul style="list-style-type: none"> <li>• Had access to design information for some time and have greater knowledge of design than is reflected in your proposal</li> <li>• <b>Your price based on prelim design includes risk for emerging detailed design changes (accepted not fundamental design changes)</b></li> <li>• It does not represent a real firming up of price</li> </ul> <p>Not good value for tie – couldn't sell this to our board</p> <p>2. Our proposal to firm up price is:-</p> <ul style="list-style-type: none"> <li>• BBS provide a firm price for             <ul style="list-style-type: none"> <li>○ Structures</li> <li>○ Highways (excluding additional cost of Forth Ports current design, Picardy Place, York Place)</li> <li>○ Tramstops</li> <li>○ Earthworks</li> </ul> </li> <li>• <b>This is to be for BBS taking the risk of design development to construction stage, excluding changes to design principles and adding scope. This is to include the scope referred to in Normalisations</b></li> <li>• We recognise that certain things cannot be included as a fixed price within the deal. These are:-             <ul style="list-style-type: none"> <li>○ Utilities diversions to be transferred from MUDFA</li> <li>○ Changes to design at Edinburgh Airport</li> <li>○ Ground conditions risks beyond the agreed baseline</li> <li>○ Frontage to frontage finishes along Leith Walk</li> <li>○ Bernard Street</li> </ul> </li> </ul> <p>(This list must be definitive in any final deal)"</p>
<p>13.12.07 4pm</p>	<p>Internal tie e-mail to Willie Gallagher and Matthew Crosse from Julie Thompson</p>	<p>The e-mail attached a letter and attachments to BB for Willie Gallagher to sign and hand over to BB. It is not clear whether this letter was ever given to BB or not. It is a response to the BB letter of 12.12.07 and appears to have been drafted by Jim McEwan, possibly with input from Geoff Gilbert.</p> <p>"I refer to your letter of 12<sup>th</sup> December 2007 and have to convey to you the deep disappointment that I and my team feel on its content. This letter is the product of the labours undertaken since the announcement of BBS as the preferred bidder and yet it gives little of the required certainty we are seeking and without which we cannot proceed. The seriousness of this in the context of the approval of this Project cannot be overstated and unless we can find some a way forward which removes the uncertainty, then my recommendation to the City of Edinburgh Council will be that the Project should not proceed, I would see that as my duty and professional responsibility.</p> <p>In reviewing your response to our 'particular points 1 to 5 ' ; I have outlined below the form and assurance we</p>

	<p><i>require against each:-</i>  <i>1) Price Confidence – We will fix our price in accord with the attached schedule...</i>  <i>5) Employer's Requirements – We have submitted our updated compliance matrix which aligns with our proposal."</i></p> <p>The letter attaches a detailed excel schedule (in contra-distinction to the brief schedule attached to the BB letter of 12.12.07). It also attaches a revised version of the BBS Assumptions document headed "<i>we have modified your assumptions to a form which we believe is required</i>". Comparing the tie version with the BB version in relation to design, the majority of the BB wording has been scored out:</p> <p><b>"Assumptions</b>  <i>In respect of our pricing and programming certainty exercise we have made the following assumptions:</i></p> <p><i>Design</i></p> <p><i>In those locations where the design is absent, we are not able to fix our price. Typically these include: Picardy Place, St. Andrews Square, London Road, York Place, Forth Ports Area etc.</i></p> <p><i>In areas where design is partial, we have made reasonable assumptions based upon our experience and the existing design information provided. Notwithstanding material design changes we have a high level of confidence in our pricing, e.g. Track Slab, Roads and Pavements, Drainage connections, all as identified in our initial main submission.</i></p> <p><i>- See attached file "AnticipatedPrice.xls"</i></p> <p><i>In respect of pavements, we have assumed full reuse of existing curbs and flags and minimal reinstatement behind curb lines. i.e. not wall to wall. Design must be delivered by the SDS in line with our construction delivery programme previously submitted."</i></p>	
<p>17.12.07 09.48</p>	<p>E-mail from Stewart Hardy of tie to Geoff Gilbert of tie headed "BBS Deal (1)"</p>	<p>The e-mail attaches what is described as the "BBS Deal". It is not set out as an agreement, but as series of notes.</p> <p><i>"1) Proposed Price</i>  <i>The price negotiated for Phase 1a is £220,117,432. Details of the build-up to this price are set out in Appendix A. The general Value Engineering items included in the price are set out in Appendix A3. These sums are fixed reductions save for the conditions listed in the Appendix.</i>  <i>Normalisations included within the price are as set out in Appendix A4. These allowances are provisional sums for the work described.</i>  <i>All other prices are fixed and firm, based on basis of the price set out below.</i></p> <p><i>2) Basis of the Price</i></p>

		<p><i>The price is based on the following: Employers Requirements Version 3 as qualified by the BBS Compliance Matrix, save for:-</i></p> <ul style="list-style-type: none"> <li>- <i>Prior Approvals and other consent allocation of risk and responsibility is as set out in tie (G Gilbert email dated XXXX December 2007)</i></li> <li>- <i>OHLE – fixed termination system from Haymarket to Newhaven and catenary system from Haymarket to Edinburgh Airport. Stepped poles will be adopted throughout.</i></li> <li>- <i>Trackform will be as the BAM Rail System (Check) except in open countryside from Depot to Airport.</i></li> </ul> <p><i>Detailed designs being developed by SDS. <b>BBS included the construction cost risk for the development and completion of detailed designs, save for:-</b></i></p> <ol style="list-style-type: none"> <li><i>a) <b>Any elements of the design for construction works which are substantially different to the those forming the scheme currently being designed.</b></i></li> <li><i>b) Items designated provisional in the Price Summary ('Normalisation')</i></li> <li><i>c) Excluded elements, to the extent they are excluded."</i></li> </ol>
<p>17.12.07 13.47</p>	<p>E-mail from Geoff Gilbert of tie to Matthew Crosse of tie</p>	<p>The e-mail attaches a draft of the Wiesbaden Agreement dated 14 December 2007 and a one page summary of the commercial position. The draft appears to translate the note which had been sent to Geoff Gilbert at 9.48 that morning into a draft agreement. The e-mail enquires whether Matthew Crosse wishes to send the documents on to BBS. The wording of the proposed clause 3.3 is very similar to that which appeared in the earlier note:</p> <p>3.3 <i>Detailed designs – BBS included in their price for the construction cost risk in the development and completion of detailed designs being prepared by SDS, save for:-</i></p> <ol style="list-style-type: none"> <li><i>a) Any future changes to elements of the design for civils works that are substantially different compared to those forming the current scheme being designed by SDS.</i></li> <li><i>b) Items designated as provisional in the Appendix A4.</i></li> <li><i>c) Excluded items, to the extent described in 3.4 below. "</i></li> </ol>
<p>17.12.07 15.48</p>	<p>E-mail from Geoff Gilbert of tie to Richard Walker of BB</p>	<p>Richard Walker was in Belfast and presumably could not access attachments or documents. Geoff Gilbert sent him extracts from the wording of the draft agreement dated 14.12.07.</p>
<p>18.12.07 10.23</p>	<p>Internal tie e-mail from Jim McEwan of tie to Stewart McGarrity, Alistair Richards, Geoff Gilbert, Matthew Crosse and Steven Bell</p>	<p><i>"A meeting has been convened today at 2pm in the Brunel room to discuss and clarify issues with respect to the BBS deal in its current form with especial focus on the overarching position on Risk and the facets of what sits with whom, and the related positions on Employer's requirements and VE. This meeting is a 3 line whip at the express wish of the Executive Chairman."</i></p>
<p>18.12.07 10.26</p>	<p>Internal tie e-mail from Geoff Gilbert to Stewart</p>	<p>Geoff Gilbert circulated a copy of the note headed "BB Deal" which Stewart Hardy had e-mailed to him at 9.48am on the morning of 17 December 2007. The e-mail did not attach a copy of the draft agreement itself. The e-mail</p>



	McGarrity, Alistair Richards and Jim McEwan	noted: "Enclosed is the latest position on the draft deal for your review and to inform discussions at 2pm. Please note that this is still under discussion with BBS to get full and final agreement to the words. I'll keep you all posted."
18.12.07 11.23	Internal tie e-mail from Stewart McGarrity to Alistair Richards, Geoff Gilbert, Matthew Crosse, Steven Bell and Jim McEwan, cc Willie Gallagher	The e-mail referred to the internal meeting to take place at 2pm that day and noted: "We've agreed to have a meeting at 2pm this afternoon to discuss the list below. We won't solve all of this afternoon but the end result <b>must</b> be a reasonable view of where the numbers fall for the presentation thereof to TPB tomorrow."  In the list, under the heading "3. The documentation of the conditions in the Infraco price deal we hope to get signed today with particular ref to", it was noted "what level design development risk they are <u>actually</u> taking off our hands"  with reference to: "4. How all of the above impacts upon our view on the prospective outcome on the Infraco line versus base costs budget – we previously told TPB it was £10m+ 5. The adequacy of our remaining risk pot to deal with uncertainties to Financial Close and remaining public sector risk thereafter"
18.12.07 13.47	E-mail from tie (Geoff Gilbert) to BB (Richard Walker)	This attached a draft of the Wiesbaden Agreement dated 18.12.07. The covering e-mail stated: "I have amended the figure to the correct sum and clarified that BBS have not allowed for completion beyond March 2011. Please could you confirm that this is now agreed."  The draft attached was in similar form to that dated 14 December 2007, and the only change in relation to the design development provisions was the addition of the words "in respect of pavements, full reuse of existing curbs and flags and minimal reinstatement behind curb lines is assumed. i.e. not wall to wall. Design must be delivered by the SDS in line with our construction delivery programme previously submitted" after clause 3.3(c).
18.12.07 14.00	Internal tie meeting	Called by Willie Gallagher, requiring the attendance of Jim McEwan, Stewart McGarrity, Alistair Richards, Geoff Gilbert, Matthew Crosse and Steven Bell. There is no record available of what was discussed at the meeting.
18.12.07 14.11	E-mail from Andrew Fitchie of DLA to Alistair Richards, Stewart McGarrity, Geoff Gilbert, Matthew Crosse, Jim McEwan cc'ed to Steven Bell and Graeme Bissett	Andrew Fitchie had that morning been sent the draft agreement by Alistair Richards for comment. His comments do not touch on design development, and he concludes "I am uncertain, to be honest, what me expressing an opinion on this will achieve - the document has been put to BBS, it is qualified and it has Appendices I do not have, particularly regarding status of negotiations summary".
19.12.07	E-mail from BB to tie	"Our firm price including the additional £8m to fix the 'variable' sums noted

08.37		<i>in our tender is based on all the additional information which we received from SDS via the 4 No. CDs. The last of which was delivered to us on 25th. November 2007. We therefore insist that our contract be related to this."</i>
19.12.07 09.11	E-mail from tie (Geoff Gilbert) to BB (Richard Walker)	In relation to the point quoted above in the e-mail of 8.37am, Geoff Gilbert noted: <i>"Don't understand what this really means and will call now to discuss"</i>
19.12.07 11.43	E-mail from tie to BB	<i>"Scott has had a discussion with Matthew. Based on that discussion there would be no reason to change the current wording on design – which was acceptable to you yesterday."</i>
19.12.07 13.29	E-mail from tie to BB enclosing draft Wiesbaden Agreement	<p>2.1: <i>The negotiated price for Phase 1a is £218,262,426. Details of the build-up to this price are set out in Appendix A.</i></p> <p>2.2 [Value Engineering items]</p> <p>2.3 [Provisional sums]</p> <p>2.4 <i>All other prices are fixed and firm, based on the Basis of the Price as set out below.</i></p> <p>3.0 <i>Basis of the Price</i></p> <p>3.1 <i>The price is based on the following:</i></p> <p>3.2 <i>Employers Requirements Version 3 as qualified by the BBS Compliance Matrix contained within BBS's Email dated 12 December 2007, save for [some specific exclusions]</i></p> <p>3.3 <i>Detailed designs – BBS included in their price for the construction cost risk in the development and completion of detailed designs being prepared by SDS, save for:-</i></p> <p>a) <i>Any future changes to elements of the design intent for civils works that are substantially different compared to those forming the current scheme being designed by SDS, as typically represented by the drawings issued to BBS with the design information drop on 25<sup>th</sup> November 2007." [red represents tie changes]...</i></p>
19.12.07 14.45	E-mail from BB to tie	Broad agreement in relation to terms of draft
19.12.07 18.11	E-mail from Matthew Crosse to BB (Including Richard Walker and Michael Flynn), cc to Susan Clark, Steven Bell and Geoff Gilbert	The e-mail refers to a progress meeting to be held on 20 December 2007 at 11am, and sets out an agenda which includes at item 1: "Sign agreements (Mobilisation and Contract price Agreement)"
19.12.07 19.42	E-mail from tie to BB	Further draft circulated with minor changes following board meeting
20.12.07 6.07	E-mail from BB to tie	<i>"we still have issues with accepting design risk. We have not priced this contract on a design and build basis always believing until very recently that design would be complete upon novation. With the exception of the items</i>

		<i>marked provisional which we have now fixed by way of the 8 million we cannot accept more drain development other than minor tweaking around detail. Your current wording is too onerous. Trust we can find a solution."</i>
20.12.07 8.48am	Internal tie e-mail from Geoff Gilbert to Steven Bell and Matthew Crosse	This forwarded the BB e-mail of 6.07am, with no comment other than "!!!"
20.12.07 13.02	Internal tie e-mail from Geoff Gilbert to Steven Bell entitled "BBS Agreement words"	<p>There is no text in the e-mail than draft wording for clauses 3.3 to 3.5, which are in almost identical form to that e-mailed to BB at 14.07 on the same day (changes between 13.02 and 14.07 are shown in redline below):</p> <p>"3.3 <i>The BBS price for civils works includes for any impact on construction cost arising from the normal development and completion of designs based on the design intent for the scheme as typically represented by the design information drawings issued to BBS with up to and including the design information drop on 25<sup>th</sup> November 2007. The price excludes:-</i></p> <ul style="list-style-type: none"> <li>a) <i>Items designated as provisional in the Appendix A4.</i></li> <li>b) <i>Any material changes to the design resulting from the impact of the kinematic envelope of the CAF tram vehicle on the civils design.</i></li> <li>c) <i>Excluded items, to the extent described in 3.4 below.</i></li> </ul> <p><i>In respect of footways, full reuse of existing kerbs and flags and minimal reinstatement behind kerb lines is assumed. i.e. not wall to wall. Design must be delivered by the SDS in line with our construction delivery programme previously submitted.</i></p> <p><i>For the avoidance of doubt normal development and completion of designs means the evolution of design through the stages of preliminary to construction stage and excludes changes of design principle, shape and form and outline specification</i></p> <p>3.4 <i>The BBS price for systems works is fixed save for:-</i></p> <ul style="list-style-type: none"> <li>a) <i>Items designated as provisional in the Appendix A4.</i></li> <li>b) <i>Any agreed material impact of the CAF tram vehicle specification on the traction power supply system as demonstrated by power simulation modelling.</i></li> </ul> <p>3.5 <i>In all other respects the BBS price is fixed"</i></p>

<p>20.12.07 14.07</p>	<p>E-mail from tie to BB</p>	<p>tie send a revised draft almost in the form eventually executed, save that there is no 3.4(c) in this version</p> <p>1.1 The agreement was executed later that same day, in the form of the draft referred to above, save that additional words were added in manuscript as a new 3.4(c):</p> <p><i>"In the event of any conflict between the obligations in the Employer's Requirements and the SDS design the obligations in the Employer's Requirements shall prevail."</i></p>
<p>20.12.07</p>	<p>Wiesbaden Agreement – executed by Willie Gallagher and Richard Walker</p>	<p>New 3.3 (replaces the version referred to above):</p> <p><i>"The BBS price for civils works includes for any impact on construction cost arising from the normal development and completion of designs based on the design intent for the scheme as represented by the design information drawings issued to BBS up to and including the design information drop on 25<sup>th</sup> November 2007. The price excludes [specific items]. For the avoidance of doubt normal development and completion of designs means the evolution of design through the stages of preliminary to construction stage and excludes changes of design principle, shape and form and outline specification."</i></p> <p>New 3.4:</p> <p><i>"The BBS price for systems works is fixed save for:-</i></p> <ul style="list-style-type: none"> <li><i>a) Items designated as provisional in the Appendix A4.</i></li> <li><i>b) Any agreed material impact of the CAF tram vehicle specification on the traction power supply system...</i></li> </ul> <p><i>3.5 In all other respects the BBS price is fixed."</i></p>
<p>20.12.07 17.49</p>	<p>E-mail from Geoff Gilbert to Stewart McGarrity and others at tie</p>	<p>The e-mail attached the agreement executed by BB</p>
<p>21.12.07</p>	<p>Wiesbaden Agreement amended</p>	<p>A new 3.4(c) was added in manuscript by Geoff Gilbert:</p> <p><i>"In the event of any conflict between the obligations in the Employer's Requirements and the SDS design the obligations in the Employer's Requirements shall prevail."</i></p> <p>The change appears to have also been initialled on behalf of BB, but it is not clear by whom.</p>
<p>January to March 2007</p>	<p>Further negotiations – no contemporaneous correspondence, but referred to in the "Financial Close</p>	<p><i>"Negotiations in the period from October to December 2007 were conducted in a constructive if robust manner. However, from January 2008, it became increasingly concerning that the BBS consortium was operating in a manner which militated against an efficient Close. The behaviours included lack of competent senior commercial management involvement, leadership on commercial as well as legal issues by BBS's lawyers, lack of a cohesive approach between the consortium partners and their use of different law firms, consistent re-opening of apparently</i></p>

	<p>Process and Record of Recent Events" of 12.05.08</p>	<p><i>agreed positions and lack of focus on important matters in favour of volumes of detailed points.</i></p> <p><i>A consistent additional problem was the under-performance and unhelpful approach of PB. This was critical as PB needed to enter into the tri-partite Novation of their design contract. CAF played a more constructive and passive role.</i></p> <p><i>Extended negotiations took place in which the prevailing theme was the attempt by tie to remain close to the draft terms which supported preferred bidder selection in the face of attempts by BBS to improve their position.</i></p> <p><i>These negotiations led to a further summit meeting in March 2008, when a further series of lines were drawn. This "Rutland Square Agreement"<sup>4</sup> included different (offsetting) cost and risk transfer terms which drove the overall cost to £508m. The delay in reaching close meant that revenue service could not now commence until July 2011. The negotiations at this stage were substantially driven by Siemens. "</i></p>
<p>07.02.08</p>	<p>Rutland Square Agreement (executed by Matthew Crosse and Richard Walker)</p>	<p>The "Construction Contract Price for phase 1a is £222,062,426 (as opposed to the "negotiated price for phase 1"of £218,262,426 in the Wiesbaden agreement.</p> <p>Para 2 states that the parties agree that "<i>under no circumstances shall the Construction Contract Price...be increased prior to formal signature of the [contracts] except in respect of:</i></p> <p><i>2.1 the formalisation of the price for changes to the Employer's Requirements Version 3.1; and</i></p> <p><i>2.2 the resolution of the SDS Residual Risk Issue."</i></p> <p>Para 4 states that "<i>The SDS Residual Risk Issue relates to the provision of adequate design information and particularly earthworks design by SDS and the recovery by the BBS Consortium of costs and expenses from SDS in the event that their designs are inadequate."</i></p>
<p>18.02.08</p>	<p>BB's design due diligence summary report</p>	<p>Executive summary, page 3/9:</p> <p><i>"Contrary to the tie's original intention for this project stage, the design is incomplete and will require significant further development. Several sections are currently under re-design and the final concepts for these are unknown to us. According to the SDS document tracker more than 40% of the detailed design information has not been issued to BBS at all by the above mentioned cut-off date. Where the detailed design is available, it is mostly of acceptable standard. However this does not apply throughout...</i></p> <p><i>For many areas the 3rd party approval status is not clear. Formal tie / CEC design approvals are generally outstanding. Not a single design element has received final approval and has been issued for construction.</i></p> <p><i>The latest available SDS programme is version V23. This shows a slippage of more than a year compared to the programme in the SDS agreement. It schedules the release of issue for construction information from April 2008 to the end of 2008. This is based on optimistic approval periods for which no contractual reference could be found.</i></p> <p><i>In accordance with tie's original procurement concept a complete and issued for construction design would have</i></p>

<sup>4</sup> The Rutland Square agreement actually appears to have been executed on 07.02.08, not in March as stated in the report

<p>February to 30.04.08</p>	<p>Further discussions – no contemporaneous correspondence, but referred to in the "Financial Close Process and Record of Recent Events" of 12.05.08</p>	<p><i>been novated to the Infraco. The current design is far from meeting these requirements and, as consequence, a novation is considered to present significant and unforeseeable risks to the project."</i></p> <p><i>"Negotiations over detailed documentation continued, although BBS's approach continued to cause concern and delay. On 14<sup>th</sup> April, senior representatives of BB and S visited tie and marginal residual issues were agreed. The meeting concluded with confirmation that all terms were agreed and the final documents should proceed to final legal quality control and then signing on 2<sup>nd</sup> May.</i></p> <p><i>On 30<sup>th</sup> April 2008, in a telephone call to Willie Gallagher, BB (Richard Walker) requested a last minute and largely unsupported price increase of £12m. This was at the final point before the pre-agreed timing of contract approval for signature. No such request had emerged from Siemens or from CAF or indeed SDS. The anticipation had been that the contracts would be signed on 2<sup>nd</sup> May and a preparation period of 36 hours was needed.</i></p> <p><i>An emergency meeting of those members of the Tram Project Board who were available plus tie / TEL / CEC representatives was held on 30<sup>th</sup> April. The options available were discussed and it was concluded that we should deploy tough tactics, but not stonewall the BB request completely as it was felt that the alternatives were likely to be worse notwithstanding the intense frustration at BB's tactics."</i></p>
<p>01.05.08 – 09.05.08</p>	<p>Final negotiations – no contemporaneous correspondence, but referred to in the "Financial Close Process and Record of Recent Events" of 12.05.08</p>	<p><i>"BB senior management visited Edinburgh on 5<sup>th</sup> May 2008, met by messrs Gallagher, Mackay and Bell. Their support for the price increase was sketchy and confused, focussing around an admitted failure on their part to assess or control their supply chain prices, £ / € movement and a claim for underwriting of central demobilisation cost which they had allocated to their bid for Phase 1B in the light of a more cautious view on the execution of 1B.</i></p> <p><i>All signs pointed to last-minute unprofessional brinkmanship. BB claimed their costs were actually £17m wrong, but that they had reworked internally to arrive at £12m, casting further doubt on their credibility. There were veiled threats that failure to meet the demand now would force BBS to seek every opportunity to create claims during the construction period to achieve their financial target. As a matter of record, tie is comfortable with its contractual position and the experienced people recruited to manage the contract effectively.</i></p> <p><i>The 5<sup>th</sup> May meeting culminated in a proposal from tie that tie would :</i></p> <ul style="list-style-type: none"> <li><i>• Absorb £3m of additional cost in return for tangible contractual and risk improvements ;</i></li> <li><i>• Agree to meet BBS allocated demobilisation costs of £3.2m in event that Phase 1B does not proceed</i></li> </ul> <p><i>The BBS response on 6<sup>th</sup> May was disjointed (different responses from different senior people in the BB team). A series of meetings involving messrs Gallagher, Mackay, Bell, Fitchie and Bissett concluded that a formal letter to BBS in the form of an ultimatum was needed to bring matters to a close. In addition to the continuing delay and attendant costs, and the unpalatable alternatives to concluding with BBS, there were concerns that Siemens, CAF and PB may also seek price increases if BB were seen to be making inappropriate progress.</i></p>

		<p>A letter was sent to BBS late on 6<sup>th</sup> May which reiterated the tie proposal described above. A response was received on 7<sup>th</sup> May which proposed :</p> <ul style="list-style-type: none"> <li>• A payment of £9m to BBS</li> <li>• Further examination of the contract terms surrounding the design management process, which although unclear pointed to an extended design and consent programme with potentially material adverse consequences for the construction programme.</li> </ul> <p>The letter was silent on tie's contractual requirements.</p> <p>A combined meeting of the TPB and tie Board was held (as scheduled) in the morning of 7<sup>th</sup> May. The meeting reviewed the position thoroughly and concluded that the approach which best protected the public sector's position would be to seek a conclusion with BBS within their demand for £12m.</p> <p>Further negotiations were conducted on 7<sup>th</sup>, 8<sup>th</sup> and 9<sup>th</sup> May and an acceptable conclusion reached. The final terms negotiated reflect agreement by tie to increased consideration and contingent cost underwriting in return for early progress to contract signing, improvement in terms and capping of cost exposures. "</p>								
12.05.08	Financial Close Process and Record of Recent Events	<p>Report prepared by tie<sup>5</sup> to recommend financial close on the basis of a number of amendments agreed during the negotiations in early May 2008 referred to above. These included an incentivisation bonus, which tie said was given in return for an improved risk profile:</p> <p>"The incentivisation bonus should support programme adherence. In return for the financial amendments, tie has secured a range of improvements to the contract terms and risk profile. The elements of the aggregate risk contingency of £32m which are relevant to the improved position are :</p> <table data-bbox="784 956 1344 1084" style="margin-left: 40px;"> <tr> <td>General programme delay</td> <td style="text-align: right;">£6.6m</td> </tr> <tr> <td>Delay due to design &amp; consents</td> <td style="text-align: right;">£3.3m</td> </tr> <tr> <td>Contamination risk</td> <td style="text-align: right;">£3.4m</td> </tr> <tr> <td>Road reinstatement – direct costs</td> <td style="text-align: right;">£2.0m"</td> </tr> </table> <p>In addition the report notes that "all of tie's preferred positions in the Infraco contract which were under query by BBS and their lawyers would be accepted...The attempt by BB to revise the design process in a manner which would have created delay was also successfully rebuffed"</p>	General programme delay	£6.6m	Delay due to design & consents	£3.3m	Contamination risk	£3.4m	Road reinstatement – direct costs	£2.0m"
General programme delay	£6.6m									
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Road reinstatement – direct costs	£2.0m"									
12.05.08	Report on Infraco Contract Suite	<p>Report produced by tie summarising the provisions of the contract.</p> <p>Under the heading "<b>price</b>" on p4:          "A contract price has been agreed. The detailed contract price and pricing schedules for carrying out the Infraco</p>								

<sup>5</sup> It is not clear who at tie prepared the report, but it was forwarded to us by Graeme Bissett

		<p><i>Works is contained in Schedules to the Infraco Contract. A substantial portion of the Contract Price is agreed on a lump sum fixed price basis. There are certain work elements that cannot be definitively concluded in price and therefore Provisional Sums are included. A number of core pricing and programming assumptions have been agreed as the basis for the Contract Price. If these do not hold, Infraco is entitled to a price and programme variation known as "Notified Departure".</i></p> <p><i>Under the heading "<b>design expectations of the Infraco</b>" on p.8: "The Infraco offer is based on design completed to date and a programme for future delivery of design. The offer is also based on those approvals achieved to date and a programme for achieving the remaining prior and technical approvals. The construction programme included in the final 'Infraco' proposal has been updated to match up with version 26 of the SDS design programme (dated 4 February 2008). The Novation Agreement is based on version 30 of the SDS design programme and the differences between these programmes has been documented and will form the basis of the expected Notified Departure referred to in the programme section above and which has been risk-assessed. The substantial progress with completion of the SDS design has reduced the risk of late production impacting on the construction programme and has given 'Infraco' greater certainty of the construction needed."</i></p> <p><i>Under the heading "<b>Infraco Proposals and the Employer's Requirements</b>" on p.9: "tie has instructed SDS to carry out an exercise to bring the Employer's Requirements and the Infraco Proposals into alignment so that SDS Provider are able to confirm that their design will be in compliance the Employer's Requirements. This may result in further changes to the Employer's Requirements and/or the Infraco Proposals and/or the SDS design.  The risk created by discrepancies between the version of the Employer's Requirements eventually settled on and the Infraco core terms and conditions lies in the Infraco attempting to exploit ambiguity to engineer the need for tie Change or Relief when none is in fact justified. tie project management will need to be vigilant in identifying and closing off such opportunities, using the mitigating contract provisions which impose duties on Infraco to respect ambiguities and discrepancies and permits tie Representative to interpret provisions to avoid these difficulties."</i></p>
Undated	Report on terms of financial report	<p>Report to Tram Project Board, TEL Board and tie Board.</p> <p><i>Under the heading "2.3 Scope of Works – Employer's Requirements" (p.7): "Since preferred bidder award, all of the ER terms have been reviewed in a three way technical alignment process: o BBS proposal → ERs. To ensure that BBS proposals comply with the ERs. This has involved removing all of the stated non-</i></p>



	<p><i>Draft</i></p>	<p>compliances noted at the preferred bidder stage by either relaxing the ER clause (without affecting the output requirements) or by updating the proposal to make it compliant. Commercial alignment of the ERs and the Infraco proposals has been concluded.</p> <ul style="list-style-type: none"><li>○ SDS design → ERs Because the SDS Design had responded to an up to date though not final draft of the ERs, the final alignment process produced no material mis-alignment issues. The final alignment review identified potential mis-alignment which was documented and assessed for its cost and programme implications and some minor amendments were agreed.</li><li>○ Proposal → SDS design To ensure that in areas where the ER terms allow flexibility in approach, it was necessary to ensure that the BBS proposed solution was consistent with the SDS design. A review of the final Proposals against the SDS design was executed and again some minor amendments were agreed. The main issue was the extent of road reinstatement and adequate allowance has been made in the final budget to accommodate this factor.</li></ul> <p>In addition to these processes the ERs have also been reviewed in varying degrees of detail by three legal teams, DLA, BB's lawyers and Siemens lawyers (because a far larger part of the ERs relate to Siemens scope). In these cases the ERs were checked for consistency and alignment with the contract suite. All evident ambiguities, duplications and gaps have been dealt with to ensure that as a vital contract document it can be used effectively in the future.</p> <p>DLA have also undertaken a legal review to ensure that within the Infraco Contract there is a contractual mechanism for precedence of T&amp;C's over the ER's in the event of ambiguity and for tie to instruct how any ambiguity or inconsistency is dealt with. tie do not anticipate any significant risks to CEC in this respect.</p> <p>The tie team is confident that the final version of the ERs, the contract version fully meets the requirements of the client, i.e. is consistent with the technical principles of final business case; and is consistent with both the SDS design and BBS proposals."</p> <p>Section 8 deals with "risk assessment of in-process and provisional arrangements", and is described as "contributed by Stewart McGarrity, who reviewed those areas of the documents which are provisional in nature and the documents which will be in draft form at Close." 8.3 is headed "Infraco price basis and exclusions" (page 26):</p> <p>"The Infraco price is based upon the Employers Requirements which have been in turn subject to thorough quality assurance and the significant areas where post contract alignment of the SDS design will be required. Crucially the price includes for normal design development (through to the completion of the consents and approvals process – see below) meaning the evolution of design to construction stage and excluding changes if design principle shape form and outline specification as per the Employers Requirements."</p>
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		<p>The report of 12.05.08 referred to above had identified the figure of £3.3m as being allocated to risk in relation to "delay due to design &amp; consents". This report attributes that figure to "post Financial Close consents and approvals risks which provides for the cost or programme consequences of imperfections which may arise in elements of the consents and approval risk transfer" – i.e. this just relates to consent issues, and not design generally. No part of the risk allowance of £32m is described as relating to design issues.</p> <p>At page 28, the report notes: "the Risk Allowance does not provide for the costs of:</p> <ul style="list-style-type: none"><li>• Significant changes in scope from that defined in the Employers Requirements – whether such changes were to emerge from the consents and approvals process or otherwise"</li></ul> <p>Reference is made to a DLA report<sup>6</sup>, and quotes from it: "5.1 Employers Requirements (ERs) – Alignment issues</p> <p><i>There is a well understood and limited level of uncertainty with regard to the alignment of the ERs, the SDS design and the Infraco proposals (on which their price is based). The alignment work described at Section 2.3 above resulted in limited amendment to cost and risk contingencies."</i></p> <p>Appendix 1 to the report (page 33) is headed "SDS – Delivery and Consent Risk Management". Under the heading "background":</p> <p><i>"Negotiations have taken place over a lengthy period of time with the objective of defining a process and set of contractual terms which will enable tie and CEC to manage the risks arising from the overlapping design and construction periods. This problem was not anticipated when the SDS contract was concluded in 2005. The recent discussions have taken place under the umbrella of the SDS Novation Agreement, but it is important to distinguish two groups of issues:</i></p> <p><i><u>Cost certainty:</u> The primary objective of the novation approach was to ensure that design work could commence long before commitment to the construction contract suite generating maximum construction price certainty and transferring design risk to the construction partner.</i></p> <p><i><u>Outstanding design risk:</u> SDS have resisted accepting liability to BBS for the timeliness of submission and approval of design packages after Financial Close. Their concern is that the risk is different from (and incremental to) the underlying risk arising from the quality of their work. A delay, they argue, could result in hefty exposure because of the linkage to construction programme delay. SDS did not anticipate this risk when committing to their contract - the expectation was that the majority of design scope and certainly all approvals would be complete prior to Financial Close. "</i></p>
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<sup>6</sup> We do not have a copy of the report

		<p>The report identifies risk to tie/CEC in relation to design packages which at financial close had either not yet been submitted, or had been submitted, but not yet approved. It was concluded that "cost certainty and risk transfer" had been achieved in relation to all other packages. The risk overview is at p.34:</p> <p><i>"The risks which arise from the overlap of design and construction periods are summarised below :</i></p> <ul style="list-style-type: none"><li><i>A. The Submitted packages are not of requisite standard, preventing CEC from providing consent timeously and creating delay to the construction programme.</i></li><li><i>B. The Submitted packages are of requisite standard, but CEC fail to provide consent timeously, creating delay to the construction programme.</i></li><li><i>C. SDS fail to provide the Outstanding packages on a timely basis relative to the agreed programme, preventing CEC from providing consent timeously and creating delay to the construction programme.</i></li><li><i>D. SDS fail to provide the Outstanding packages to the requisite standard, requiring rework and delay, preventing CEC from providing consent timeously and creating delay to the construction programme.</i></li><li><i>E. CEC provide consents and approvals timeously, but SDS then fails to provide IFC ("Issued For Construction") drawings to BBS timeously creating delay to the construction programme.</i></li><li><i>F. SDS provide the Outstanding packages on time and to the requisite standard, but CEC fail to provide consent timeously, creating delay to the construction programme.</i></li></ul> <p><i>It is not anticipated that the final Outstanding Packages will be delivered until Autumn 2008. The option of delaying Financial Close to eliminate the risk is therefore unattractive.</i></p> <p><i>SDS has resisted accepting any liability in the event of any of these scenarios. Since the point of investing in a procurement of a design appointment in Autumn 2005 was to secure a completed approvals process with an advanced network design development, there was no allowance for the implications of a coincident design and construction process in the existing SDS agreement. Accordingly, tie /CEC's leverage over SDS on the issue is limited.</i></p> <p><i>BBS have similarly resisted accepting any liability for the consequences of delay arising from the Submitted or Outstanding packages. Their position was reserved (as was Tramlines' position) at preferred bidder, pending due diligence on SDS, as they were aware of the issue at the Preferred Bidder stage, but again we have only limited sanction over them.</i></p> <p><i>There has been no sustained attempt by BBS to sidestep the transfer of design quality risk once the Submitted and Outstanding packages are eventually signed over to them with consent. In fact they have now explicitly accepted the design quality risk as part of the Agreement made on Friday 7 March for Contract Price adjustment. Accordingly, the remaining risk is focussed on construction programme delay as a result of late delivery of design and hence IFC drawings impacting construction.</i></p>
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		<p><i>Resolving this issue has been made more difficult because of concern built up over a long period about the quality and timeliness of SDS's work on the part of tie, CEC and BBS.</i></p> <p><i>There is also a concern that performance against the agreed submission programme could be obfuscated with the intent (or at least result) that design packages fall outwith BBS / SDS responsibility because of claimed failure by CEC. This could happen in four ways:</i></p> <ol style="list-style-type: none"> <li><i>1. Confusion about submission date if a package is returned by CEC for quality improvement</i></li> <li><i>2. Swamping CEC with a high volume of design packages which cannot be processed within the 8-week period</i></li> <li><i>3. BBS and SDS by some means acting in concert to subvert the process</i></li> <li><i>4. Lack of clarity about the quality of submissions</i></li> </ol> <p><i>In summary therefore, tie / CEC are exposed to risks relating to timeliness of submission and / or quality. The risk could be heightened by deliberate or inadvertent actions by BBS / SDS. The next section describes the primary means by which these risks can be contained, through an effective management process controlled by tie / CEC. "</i></p>
Undated	Summary of changes in price	Summarises changes in price from preferred bidder (October 2007) to execution of the contract (May 2008)
14.05.08	Contract executed	<p>NB Schedule 23 contains SDS novation agreement which provides for the development workshops, as follows:</p> <p><i>"4.6 tie warrants that it has received a report from the SDS Provider (annexed at Part B of Appendix Part 7) setting out the misalignments between the Deliverables completed prior to the date of this Agreement and the Employer's Requirements and that it has issued initial instructions (in the form of the letter annexed at Part A of Appendix Part 7) to the SDS Provider in relation to addressing all such misalignments. Upon completion of the work entailed to resolve the misalignments, the SDS Provider confirms to tie and the Infraco that such Deliverables shall be consistent with the Employer's Requirements.</i></p> <p><i>4.7 As soon as reasonably practicable, the Parties shall commence and expeditiously conduct a series of meetings to determine the development of the Infraco Proposals and any consequential amendment to the Deliverables (the "Development Workshops"). The matters to be determined at the Development Workshops shall be those set out in the report annexed at Part C of Appendix Part 7 (the "Misalignment Report"), together with any items identified as "items to be finalised in the SDS/BBS alignment workshops" in Appendix 4 to be dealt with in the following order of priority...</i></p> <p><i>At the Development Workshop, the Parties shall also develop a strategy for co-operation between the SDS Provider and the Infraco to manage design development and the necessary interface between the Infraco's design and the design developed by the SDS Provider.</i></p> <p><i>4.8 The product of the Development Workshops shall be a report signed by each of the Parties to detail the conclusions in respect of each matter and the payments to be made to the SDS provider in respect of the work to be carried out by the SDS Provider as a result of the conclusions set out in the report. Any consequential tie</i></p>

		<p><i>Change Orders or instructions shall be appended to such report as and when the same are issued. <b>tie</b> shall pay the SDS Provider for the work required for the Development Workshop on an hourly rate basis in accordance with the hourly rates set out in Appendix Part 8 and the SDS Provider agrees that the Infraco shall not be liable to make such payments to the SDS Provider. For the avoidance of doubt, the Infraco and <b>tie</b> agree that any amendment to the Deliverables completed prior to the date of this Agreement as set out in this report will be a Mandatory <b>tie</b> Change under the Infraco Contract, and a Client Change under the SDS Agreement."</i></p>
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McGrigors LLP  
16 February 2010

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