

Statement of James McEwan

Introduction

1. By way of introduction, it would be helpful if you could provide an overview of the following matters:

(1) What were your main qualifications and vocational experiences prior to joining Transport Initiative Edinburgh (TIE)?

I left my position as Head of Information Technology in Scottish Power (SP) in May 2007, having spent 40 years in the company and its predecessor SSEB. In the course of my career in SP I held posts in Customer Service, Customer Retail, Finance, HR, Generation and IT. I joined the IT Division in 1982 as an analyst, and was subsequently promoted through a range of roles, including Senior Analyst, Project Team Leader, Infrastructure Manager, Deputy Programme Director, Programme Director, IT Director for UK Customer Retail and finally Head of IT, a post which I occupied for 5 years.

I had over 20 years' experience of managing Projects and 10 years+ experience as a Programme Director.

Qualifications:

HNC Computer DP.

Advanced Diploma in Computer Studies (Scottish prize winner).

Member of the British Computer Society

MBA—Edinburgh Business School

Graduate of the Advanced Management Programme, Wharton Business School, University of Pennsylvania.

(2) What was your experience in major infrastructure projects, including tram and light rail systems, prior to your involvement with the Edinburgh Trams Project (it would be helpful if you could give examples of such projects)?

1995 I was appointed Programme Director for the refurbishment of the SP computing infrastructure, with a budget of circa 50 million pounds.

1996 Programme Director for the establishment of a new Data Centre for the Transmission and Distribution business (now known as Energy Networks). Budget: 15 million.

1997 Deputy Programme Director of the Company's Change 1998 programme, involving provisioning of 20+ new mission critical systems to enable participation in the deregulated Electricity market. Budget :125 million pounds with a staff of 500+

1998 Programme Director for the Change 1998 programme.

1999. Programme director for the Company's Y2 K Billing project and took over and delivered the Programme for provisioning the new billing system for the deregulated Market, aggregate budget: 130 million pounds.

(3) What was your experience in utilities diversions, design, and procurement and construction contracts (again, it would be helpful if you could give examples)?

I had no experience of Utility diversion but clearly much background knowledge having worked in the electricity industry for 40 years. In regards to design, procurement and construction of Computing Systems and Computing infrastructure I had long tooth experience.

In addition I had substantial experience of Contracts negotiation. In my substantive role as Head of IT I was the principal budget holder for Computing investment and operation (> 100 million annually), this involved literally hundreds of contracts. One of my first tasks after my appointment was to lead the renegotiation of the company's outsourcing contract which was not operating properly, this was duly delivered with savings of over 60 million on the period of the contract.

2. We understand that you were employed by TIE as a consultant/contractor between May 2007 and November 2009 as Business Improvement Director.

(1) It would be helpful if you could explain the circumstances in which you started working for TIE (including, for example, whether you applied for a post with TIE or whether an approach was made to you and, if so, by whom and why)?

Iberdrola took over SP in 2007 and I was left the Company in the April of that year. I had discussions with Mr Gallagher who said he had a need to augment the general management experience in TIE. I had worked with extensively with Willie at SP. I was subsequently interviewed by Steven Bell and the TIE HR Director (Colin McLauchlan). I was duly offered a contract role which was termed 'Business Improvement Director' but I was not a Director, nor a permanent employee. I had no signing authority in the role.

(2) Did you receive a briefing around that time (and, if so, from whom and what was discussed)?

I recall having discussions with Mr Gallagher and a number of the executive team, I think TIE's IT and QMS were mentioned and

Stewart McGarrity gave me a copy of the Tram business case, I have no further detail on that.

(3) What were your first impressions of TIE and the tram project when you began working for TIE?

I remember being struck by the vibrancy of the place, with a look ahead video on continual loop in the foyer depicting the Trams running along Princes St. There appeared to be a palpable missionary zeal amongst an enthusiastic staff, it was an exciting prospect being involved in something so significant for Edinburgh.

(4) What were your main duties and responsibilities while working for TIE? Did your duties and responsibilities change over time (and, if so, when and in what way)?

Initially I was given a variety of assignments directly by the TIE Executive, from memory these included reviewing the IT system and services and the Quality Management system and approach. I was asked to help establish a tracking mechanism and review meeting for the Value Engineering opportunities. I also attended TIE Executive meetings and observed at a number of the Tram Project board meetings. At the end of 2007 I was asked to assist Steven Bell in the final stages of the procurement process, once that was completed I was asked to firstly audit the MUDFA project and then move over there permanently to help improve the Management hygiene and control in the Project.

(5) To whom did you report and who reported to you?

Initially the TIE Executive until circa end 2007, then to Steven Bell for the remainder of my time in TIE. I had no direct reports at any time in TIE.

The Trams Project - General

3. A number of documents noted difficulties and delay in carrying out the design for the tram project. By way of overview:

(1) What was your understanding of the main difficulties encountered in carrying out the design work and the main reasons for these difficulties?

The Project as I understand it had been in being from c. 2002 at which time the schema devised was that the design should be undertaken and completed up front and in its completed state should be used to inform the Procurement process for the construction contract. I am not certain why that principle was abandoned but by the time I arrived in May 2007 the procurement process was well underway and there were only 2 parties left bidding I think, namely Bilfinger Berger and Lainger Rourke. Lainger subsequently withdrew leaving only the Bilfinger consortium.

One difficulty in determining the final design was that only 10% approximately of the route had been sample tested for ground conditions, it was impractical to test the whole route as this would have occasioned wide scale excavation and traffic management disruption. Without this knowledge however the design remained vulnerable to untested and unknown conditions.

Another difficulty was in getting design approvals, there were a number of key parties to assuage, including Edinburgh District Council, World Heritage, the Police and others.

(2) What steps were taken to address these difficulties?

The ground conditions issue was clearly a bit of an intractable problem, and not much could be done, given that Edinburgh's capacity to handle traffic disruption is highly limited, embarking on such a complete proving process would have been very costly and highly disruptive. As regards Design Approvals I established a Design approvals Taskforce which met weekly I think and was constituted with most of the appropriate parties.

(3) Were these steps successful (and, if not, why not)?

I believe the taskforce was reasonably successful in speeding things up but it was still a complex and laborious process.

4. TIE entered into the MUDFA contract in October 2006. Utilities diversion works commenced in July 2007 and were due to be completed by the end of 2008, prior to the commencement of the main infrastructure works. By way of overview:

(1) Prior to the utilities works being undertaken, what investigations took place (including by whom and when) to identify the utilities that would require to be diverted?

I was not there at that time and I am not certain/cannot recall what investigations were undertaken.

(2) What were your views on whether sufficient and adequate investigations had been undertaken?

As with the ground conditions issue discussed above it would have been impractical to dig up the whole route to assure that the utilities were where the respective utility company records and Edinburgh council records indicated they were.

(3) Which organisation was primarily responsible for ensuring that accurate and sufficient investigations were carried out?

That responsibility I believe was jointly the responsibility of TIE and its appointed contractor McAlpine (subsequently Carillion).

(4) What steps were taken to obtain the agreement of the Statutory Utilities Companies (SUCs) to diverting their apparatus?

Most of this was undertaken prior to (or otherwise without) my involvement but there were ongoing meetings with the utility companies after my arrival (circa May 2008), in which outages and proposed diversion/design of same were discussed, approved and arranged.

(5) What were the main difficulties encountered in carrying out the utilities works? What were the main reasons for these difficulties?

There were many difficulties:- inaccurate records from the utility companies and the Council, incomplete records, no records from unknown broadband suppliers. Some of the excavations revealed a spaghetti junction of intermingled and poorly segregated utilities. A

number of the utilities, principally water and gas were over a hundred years old.

In addition to this we found many unexpected issues like a WW2 bomb shelter, a graveyard with human remains outside its perimeter wall, there was an archaeologist assigned by the Council to the TIE team and wherever his involvement was required, inevitable delay ensued, there was an underground cinema and possibly worst of all we discovered that the cellar walls on the business side of Princes St were in fact faux walls and that underneath the road there was an empty space. I recall a Carillion executive observing that he was surprised buses had not fallen through the road.

An area of major difficulty was at Haymarket where the utilities had been successfully diverted and then there was a subsequent change to the Tram route. This resulted in the newly laid utilities having to be moved and the new route also brought a major gas main into the equation that had not previously been required to be moved. This change was agreed long prior to my involvement but the works were still ongoing when I arrived, it was a huge delay and occasioned I believe by a deemed traffic safety issue and possibly a cosmetic issue in respect of a view of the Castle needing to be unencumbered by Tram street furniture.

(6) What steps were taken to address these difficulties?

As stated earlier there was ongoing liaison with the Utility companies and the Council to try and improve things and we carried out 'test holes' to ascertain whether the utilities were where the records said they were. The problem was of course that even a

trial hole required traffic management design and that took about 4 weeks including necessary approvals from the Police and the Council. I recall us digging test holes at the Lothian Road junction with Princes Street, a candidate for the busiest junction in the UK and coming up with a 'dry hole' on repeated occasions i.e. no sign of the utility we were looking for (I think we found the original power cables for the previous Tram system). The problem was of course that if you wanted to dig another test hole you went back to the beginning of the process, traffic management design, approvals (including stakeholder communication) etc. This was further exacerbated by the lack of available space which often meant that the fencing around the excavation did not meet code.

The Princes Street issue was resolved by pouring many tons of foam concrete into the cavern under the road with attendant cost and delay.

I recall that a fast path Traffic Design process was developed to aid forward momentum.

(7) Were these steps successful (and, if not, why not)?

I would have to say that results were mixed. I established a much tighter management information regimen reporting the progress metrics and chaired a weekly progress meeting with Carillion, the Council representative and TIE project staff. Following this meeting I would brief Steven Bell on progress. These meetings were invariably heated affairs and often long in reviewing why target progress had not been made; the reality was that each excavation could, as described above, bring a whole range of unknown factors to the table.



Events in 2007

5. Notes of meetings on 4 and 6 June 2007 between Steven Bell, Geoff Gilbert, you and Stewart McGarrity (CEC01629344) noted slippage in the procurement programme.

In respect of 1. Procurement Programme, it was noted (page 1) that *"the plan as it stands shows that the due diligence process will kick in on receipt of the complete plan. The rationale of de-risking the procurement through ensuring that the design is completed upfront is laudable however the sequential nature of the process carried a cost, and the procurement team were asked to consider a different approach viz:- Take 2 months out of the programme through starting due diligence of the critical design items earlier, accepting that in doing this the design process will continue and specifications will therefore be subject to change"*.

In respect of 2. Value Engineering (VE), it was noted (pages 2-3) that there were VE opportunities of £72 million (categorised into easy, medium or difficult) and that the target for VE was £14 million.

In respect of 4. Risks, it was recorded (page 5), that the Risk Management process and associated plan had formerly been managed by SDS but that *"the execution by SDS had been unsatisfactory and there was concern on the poacher/gamekeeper status of that arrangement, it had been decided therefore to bring the process under the control of the Tram project team"*. The meeting went through a "pareto" version of the risk register, which resulted in an adjustment of the risk sum to circa £69 million (from £72 million) versus a Draft FBC position of £60 million. It was noted that *"The process, risk plan and toolset are felt to be sound, it was noted that adherence was in a patchy state with roughly 50% of project and functional managers complying"*. One of the agreed actions was *"5. Target moving the aggregate risk position back to the DFBC number"*.

(1) What were your views on these matters?

This meeting took place only a couple of weeks after I joined TIE my attendance was in the nature of familiarizing myself with what was going on and my input to the meeting (if any) would have been minimal. In retrospect I can offer opinion that the proposal to have a

completed design to de-risk cost overruns was laudable but for reasons already detailed above was vulnerable to unforeseen issues.

(2) In relation to the procurement programme, did it cause you any concern that due diligence would be carried out on the critical design items rather than complete designs? What was your understanding of what were the “critical designs”?

Notwithstanding my recent arrival I would have had some concerns about the incomplete design. That said, there is a strong corollary with my IT experience in developing ‘fixed price’ solutions with suppliers, it is difficult and often unrealistic, you can work on a watertight design specification for literally years in the quest of meeting the business needs and in securing certainty on costs and still find that you drown in change requests once construction and testing are underway. The critical designs I assume included the major bridge works and power infrastructure.

(3) In relation to Value Engineering, why did you understand there to be a need to find £14 million of VE savings? What were your views around that time in relation to whether these VE savings were likely to be achieved? Did there come a time when your views in that regard changed (and, if so, when and why)?

It was not a term that I was familiar with but clearly it is sensible in any Project to actively consider alternative approaches to completing the works which do not compromise the integrity of the solutions and at the same time are cheaper. I was subsequently asked to establish a management control on reviewing the VE opportunities and I chaired a regular meeting to pursue same, I cannot recall exactly how much was delivered but I believe it was in excess of £14m.

(4) In relation to Risk, are you aware why the Risk Management process and associated plan had formerly been managed by SDS rather than by TIE? Did you have any concerns around that time in relation to the risk management process? Why was there a target of moving the aggregate risk position back to the DFBC number?

I had insufficient understanding of the status of the Risk management process and the performance of SDS at that time to have a meaningful view. Targeting moving the aggregate position back to the DFBC number was sensible providing that it reflected the truth.

6. An e-mail dated 14 June 2007 from Stewart McGarrity (CEC01630335) attached various documents including an Infracore and Tramco Evaluation Guide (CEC01630339). The Evaluation Guide noted (page 1, para 1.1) that the objectives of the evaluation and negotiation programme to award included to: *"Minimise risk pricing included in the bids by providing as much clarity on scope, design, approvals and constraints as is necessary to achieve this ... Ensure that bidders accept the principal assigned design and performance risks ... Culminating in contracts which reflect the procurement strategy and risk balance set out in the Draft Final Business Case ..."*.

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(1) What was your understanding of the main features of the procurement strategy?

As stated earlier I believe the original strategy was to complete the design and use that to inform and thereby de-risk the procurement. In that sense it had been hoped, I would surmise, to complete said design prior to the procurement process for construction commencing. It would appear that at some point in 2006 it was decided that the difficulties in completing the design and the burn rate of the Project persuaded that the procurement process should commence armed with the incomplete design, and that the due

diligence process would sweep up any uncertainties later with a focus on 'critical designs'.

The decision to proceed with a process that separated the design and build into different contracts was taken early in the project life, I suspect that the more standard 'Design and Build' contractual approach would have been less problematic but it too would have been vulnerable to change controls based on conditions and unforeseen issues discovered.

(2) How important was it that the Infracore contract would be for a fixed price?

I was not privy to the discussions that went on originally between the Council executive and TIE where the objective of having a fixed price was set but from subsequent discussions at many meetings it was clear that the Council had set great store by this objective. The whole stratagem of decoupling the design from the more customary Design & Build contract was presumably intended to aid achieving that objective.

7. An e-mail dated 27 June 2007 from Stewart McGarrity (**CEC01631556**) attached the combined CEC/TIE responses to Transport Scotland's comments on the draft Final Business Case sent on 30 April (**CEC01631557**) and (**CEC01631559**).

(1) Why did Mr McGarrity send you CEC/TIE's responses?

I think this was purely for information and to help colour in my understanding of what had been going on in the dialogue with TS. Stewart was going off on a sabbatical as I recall.

(2) Did you have any views on the comments by TS and CEC/TIE's responses?

At the time I do not believe I was asked for any comments, on reading through the note I noticed TS concern about whether 12% was an adequate risk allowance. I recall Stewart acquainting me with the term 'optimism bias' as a facet of such Public projects.

8. A number of documents in June/July 2007 showed problems with the MUDFA works, namely:

A. The Construction Director's Report for the meeting on 6 June (**CEC01664524**) noted (page 8, Executive Summary) "*Release of ... IFC ... still a major concern and impacting significantly on programme. Ratification of full impact being assessed*"; as a result, the MUDFA programme was under further review and the next MUDFA programme "*should take into full consideration any interdependencies with INFRACO to mitigate any cost implications to TIE*" (para 2.2.2) (the minutes of the meeting are **CEC01640813**).

B. An e-mail dated 20 June 2007 from Stewart McGarrity (**CEC01650422**) noted, in the final para, that "*We've managed programme slippage by keeping them busy elsewhere (digging a hole at Gogar) but we're now running out of such ideas*".

C. An e-mail dated 26 June 2007 from John McAloon, Technical Support Services (TSS) (**CEC01640669**) attached a MUDFA design tracker (**CEC01640670**) which appeared to show that MUDFA design was behind programme.

D. The Construction Director's Report for the meeting of the Utilities sub-committee on 4 July 2007 (**CEC01640813**) noted (Executive Summary) "**Note of Concern** – *release of design IFC drawings a major concern in maintaining continuity of work and impacting significantly on the programme dates*" (original emphasis); "*shortfalls of response information and/or acceptance from the SUCs now threaten the IFC Deliverables programme*" (para 3.2) (the minutes of the meeting are **CEC01642221**).

(1) While we understand that you had responsibilities for the utilities diversions, you do not appear to have been a member of the Utilities sub-committee. Can you explain why not?

My involvement in the MUDFA project (and any related responsibilities) did not commence until circa May 2008, when I was asked to carry out a review of the Programme status. That review involved Carillion and the TIE MUDFA Project Director.

(2) Were you, nonetheless, aware of the matters noted above? If so, what were your views on these matters? What steps were taken to address these concerns?

It is possible that I had some degree of awareness through meeting attendance but had no specific actions or views; it was not within my remit at that time.

9. The minutes of the meeting of the Tram Project Board on 5 September 2007

(CEC01357124) noted: *"AH [Andrew Holmes] questioned when the more difficult sections for utility diversions would be tackled – SB [Steven Bell] confirmed that initial work would commence in October 07 with physical works starting in April 08"* (para 3.18).

(1) In which sections had utility works already taken place at that time? What were the more difficult sections (and why were they more difficult)? What was meant by "initial work" work and "physical works"?

Again I was not engaged on the MUDFA project at that time. From knowledge gleaned subsequently I would surmise that the initial works would have included utility liaison, drawings review and attendant design proposal including Traffic Management design and stakeholder communication. The physical works would have been simply digging ground and carrying out the works required.

(2) Did the fact that the "physical works" in the more difficult sections were not due to commence until April 2008 cause you any concerns?

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While in retrospect I can see that this would have been concerning, as mentioned above, I was not engaged on the MUDFA project at that time.

10. An e-mail chain in late September 2007 between Steve Reynolds, Willie Gallagher and Steven Bell discussed the question of delays in the MUDFA IFC design and problems with the statutory utility companies (SUCs) (**CEC01714281**). The Construction Director's Report for the meeting of the Utilities sub-committee on 26 September 2007 (**CEC01620243**) noted among the Key Issues/Blockers (page 7, para 6.0) "*SDS programme for IFC drawing issue – significant risk to maintaining continuity of work for MUDFA team*", "*Section 1A redesign – bottom Constitution Street and Ocean Terminal to Newhaven*", and "*BT Openreach programme works to deliver to suit TIE needs, specific issue with cabling programme*" (the minutes of the meeting are **CEC01496981**).
(1) What was your awareness of, and views on, these matters?

I would have had a limited awareness of these issues at that time, gained through attendance at TIE executive meetings but no more than that. As such I had no specific views.

11. On 25 October 2007 the Council's approval was sought for the Final Business Case, version 1, in respect of phase 1a (Airport to Leith Waterfront). The estimated capital cost of the project was £498 million.

A joint report to Council was provided by Andrew Holmes and Donald McGougan (**CEC02083538**) which noted that:

A. The SDS had prepared preliminary designs and were currently finalising the detailed designs. (para 3.22)

B. "*It is anticipated that the SDS and Tramco contracts will be novated to the provider of the infrastructure works. This means that significant elements of the responsibility for the design and vehicle provision and the risks associated are transferred to the private sector*" (para 3.27);

C. "*The infrastructure costs are ... based on the fixed prices and rates received from the*

recommended infrastructure bidder. However, there is scope for this cost to move slightly, prior to contract close as further design work is required to define more fully the scope of the works to allow a firm price to be negotiated. There is a risk allowance to take account of these variations. The price also assumes that savings can be made on the proposals through certain Value Engineering innovations proposed by ... TIE and the infrastructure bidder” (para 4.3).

D. The estimates included a risk allowance of £49m, which had been calculated based on the perceived cost and likelihood of over 400 risks in the project risk register. A statistical analysis known as Quantified Risk Assessment was carried out at a 90% probability level and had concluded that there was a 90% chance that final costs would be within that risk allowance, which *“demonstrates a higher than normal confidence factor for a project of this scale and complexity”* (para 4.10).

E. It was noted that *“The risk contingency is designed to cover additional unforeseen costs, but it is recognised that there is an element of residual risk of costs exceeding current estimates. It should also be notified that the risk contingency does not cover major changes to scope. The scope of such changes will be reviewed after completion of the Tram works and commencement of Tram operations”* (para 4.32).

F. *“Fixed price”* and contract details would be reported to the Council in December 2007 before contract close in January 2008. (para 5.3).

G. The Final Business Case, version 1 (**CEC01649235**) noted:

“The level of risk allowance so calculated and included in the updated estimate represents 12% of the underlying base cost estimates. This was considered to be a prudent allowance to allow for cost uncertainty at that stage of the project. It reflected the evolution of design and the increasing level of certainty and confidence in the costs of Phase 1 as procurement had progressed through 2006. TIE continued to comply with the HM Treasury recommendations for the estimation of potential OB and had determined, in consultation with TS, that no allowances for OB were required in addition to the 12% risk allowance above” (paragraphs 10.13 and 10.14) (these provisions were essentially the same as the provisions on risk and optimism bias included in the draft FBC dated November 2006, **CEC01821403**, paras 9.11 and 9.12).

H. *“By the time of the DFBC, OB was effectively eradicated, as per the findings explained in the Mott MacDonald Review of Large Public Procurement in the UK. This was in view of greater scheme certainty and the mitigation of factors built into the procurement process, as well as project specific risks and environmental and external risks. Instead of using OB, TS and CEC adopted a very high confidence figure of 90% (P90) in the estimate of risk allowances to cover for specified risk, unspecified risk and OB”* (para 11.43).

(1) What input, if any, did you have into drafting or commenting on the FBC and the report to Council?

The only input that I would have had would have been in providing some detail on progress in achieving VE savings and in general team discussion at the TIE exec meetings that I attended at that time. I had no direct or detailed input that I recall.

(2) Do you consider that the report to Council fully and accurately reported on the delays in relation to design, approvals and consents and utility works and the risks arising from these delays?

Yes I do, while I only had limited involvement in the preparation of the report, I believe that it and assessment would have been wholly honest and in keeping with the strong integrity of the team.

(3) What was your understanding of how the Infraco contractor could provide a fixed price, and how design risk could be transferred to the private sector, given the delay in design, approvals and consents (and given the design and TRO milestones noted at page 191 of the FBC whereby, for example, detailed design for phase 1a was not expected to be completed until September 2008)?

My understanding was that the Infraco contractor was being asked to provide a fixed price based on the design as it stood with an

appropriate vehicle in the contract for them to raise a change control on cost where a material change to the design outwith the scope of their original bid occurred. In that regard Bilfinger Berger were being hired to provide their expertise and experience on building such schemes and the design as it stood which included the major design elements, while requiring some completion on detail, it was felt with appropriate investigation under due diligence should have been sufficient for them to make a meaningful commitment.

(4) What were your views on the paragraphs of the FBC noted above? Do you have any views on the statement in the FBC that from late 2006 onwards optimism bias had been effectively eradicated and that it was appropriate to make no further allowance for optimism bias in addition to the risk allowance?

Given that I joined in May 2007 much of this had been debated and resolved earlier. As noted above, 'optimism bias' was not a term that I had been familiar with, having spent my career prior to that in the private sector. In now re-reading the material it strikes me that the optimism bias was not so much eradicated as built-in to the risk and contingency allowances.

12. In response to an e-mail dated 25 October 2007 by you circulating a proposed presentation to the Tram Project Board on Value Engineering, Willie Gallagher stated *"Let no one be [in] any doubt, we will be going back with a number of £498m for Phase 1(a). Get cracking on whatever needs to be done"* (**CEC01453723**).

In an e-mail dated 29 October 2007 (**TIE00017676**), in relation to a proposed presentation on VE, you noted *"I do understand the point of self-fulfilling prophecy but it's bogus in a sense because we are all focused on the headline number of £498m and what is required to make procethat fly"*.

(1) What was your understanding of what Mr Gallagher meant by his comment noted above?

That he wanted every stone turned over to assure that the target budget was met and that in the context of VE he wanted people to work hard to deliver said savings.

(2) To what extent, if at all, did that statement influence or reflect the approach taken by TIE to the negotiation, agreement and/or reporting of the Infracore price?

My involvement in the procurement process commenced I think circa December 2007/January 2008 following the departure of a member of the procurement team. In any negotiation there is a determination of what your tradable range is i.e. best outcome --> to poorest-but-still-acceptable outcome. The focus would have been in delivering a price within that range where the poorest outcome would still have been within budget.

(3) What did you mean by your comment noted above?

I think Mr Gallagher was saying that if you move the number upwards i.e. above £498 million that the requisite tension on the project slackens and that delivery of the higher number becomes regarded as success. In that sense had the number been eased to £510 million for example then it would have become a self-fulfilling prophecy of an outcome. I was giving him assurance that we were focused, at least from the VE perspective, in working hard to help the 498million target to be achieved.

13. By e-mail dated 30 October 2007 (CEC01498550) Steven Bell sent Steve Hudson,

AMIS, a summary of TIE's proposed settlement of AMIS issues raised up to the end of September 2007. A subsequent letter dated 9 April 2008 from Graeme Barclay (CEC00217639) noted that certain issues outwith the control of AMIS had resulted in a contractual entitlement to a settlement sum of £991,142 in relation to programme and cost up to 30 September 2007. The issues concerned: interpretation issue related to the application of Pre Construction Services (PCS) and progressing to Construction Services; political delay to the commencement of the works; and delay in IFC designs from TIE/SDS Provider.

(1) What was your understanding of each of these issues?

As explained earlier my involvement with MUDFA commenced in 2008, I have no specific recollection of this issue. The note mentions 'political' delay I assume this refers to the project moratorium instructed by the Scottish Government, which contributed delay costs across a number of areas, MUDFA being no exception.

(2) To what extent, if at all, did these issues delay the commencement or completion of the MUDFA works?

A 3 month moratorium would clearly delay completion and perhaps by more than 3 months. There was clear doubt among both suppliers and the staff of TIE as to whether the project would ultimately be signaled to proceed. On receipt of the signal to proceed, there would be a 'getting up to speed' time required in particular for the suppliers.

14. The minutes of the meeting of the Tram Project Board on 7 December 2007 (CEC01526422) noted:

A. Design Programme and Bidder due diligence, "SB gave an update on the progress of these matters, highlighting the following aspects: [i] Slow design delivery requires

prioritisation within key streams to help BBS programme, [ii] Price certainty is increasing but slow and some areas of provisional pricing may remain at end – December 07, and [iii] Feedback from initial information on technical approvals is encouraging” (para 3.2);

B. “AH [Andrew Holmes] queried the impact of the late design delivery, particularly its knock-on effects on the MUDFA programme, any change in risk profile accepted by the Infracore and the price impact ... SB explained that although the programme was tight, the current MUDFA Rev.06 programme accommodated the design delivery programme without price impact at the moment” (paras 3.3 and 3.4).

C. Mr Bell explained that the areas of provisional pricing were roads, tramstops and certain structures. Out of these, the roads pricing were the most uncertain as others had been widely explored. The technical reviews so far showed little likelihood of major networks with significant price impacts being required (para 3.5).

D. “WG [Willie Gallagher] advised that from BBS’s perspective the price critical areas were Picardy Place and the Forth Ports area plus potential implications arising from the obligations to obtain consents and complying with 3rd Party Agreements. He expected that greater certainty around these matters would be available following the latest return of price information from BBS, expected early w/c 17th Dec” (para 3.6).

The progress report presented to the meeting of the Tram Project Board on 7 December 2007 (CEC01387400) noted: *“To 23 November, of the 344 design deliverables, 236 have been delivered, representing 63% of the tram system design. 66% of Phase 1A detailed design is now complete and it is expected that about 75% will be complete by the date of placement of the construction contract in Jan 2008” (para 1.2.3).*

(1) What was your understanding of, and views on, these matters?

I do not think I can really add anything beyond that captured in these minutes. I do recall being in attendance at a meeting with the Procurement team around about this time and going through a grueling line-by-line analysis of the 600 page Business requirements document with the supplier, so there should have been no dubiety on what the project required of the supplier.

15. The minutes of the meeting of the Tram Project Board on 19 December 2007

(CEC01363703) noted:

A. Infraco Price Update, *"The Board noted the confidence by the project team in the Infraco price based on the stated conditions. The Board also accepted that, to protect the Infraco costs, it is essential to avoid client side design and/or programme changes and to ensure final design approvals are not delayed"* (p.6).

B. Project Cost Estimate update, *"AH questioned how the risk of programme delays, specifically due to design delays, had been allowed for in the cost estimate. WG explained that a number of factors provided comfort in this matter: Normal design risk is passed to BBS through the SDS novation; Sensitivity testing had been undertaken for a 6-month programme delay which is covered by risk allowances; and The risk of potential programme delays due to systems integration was passed to BBS through the Tramco novation. AH requested further details on the design risk being passed to BBS – SB to provide"* (p.6).

C. Programme, *"AH expressed his concern about potential programme impacts arising from design delays. SB to provide greater detail on how the risk is passed to BBS"* (p.7).

(1) What was your understanding of, and views on, these matters?

I understood that it was proposed to novate the Design contract to Bilfinger and with it the 'Normal design risk' and that they would be compensated for absorbing this risk. The sensitivity testing mentioned seemed prudent.

(2) Given the delays that had been experienced with design, approvals and consents, what were your views on the prospects of avoiding "client side design and/or programme changes"?

I do not believe I had any views, I cannot recall what 'client side design' it was felt might occur and nor and to what extent that Programme changes were possibly envisaged.

16. We understand that around the middle of December 2007 discussions took place at Wiesbaden, Germany, between representatives of BSC and TIE in relation to the pricing provisions of the Infraco contract and that, on 20 December 2007, an agreement, or heads of terms, were reached (the Wiesbaden Agreement) (**CEC02085660**).

See, also:

A. The preceding correspondence between Willie Gallagher and Richard Walker (**CEC01481843**, **CEC00547788** and **CEC00547779**).

B. E-mail dated 18 December 2007 from Stewart McGarrity (**CEC01430850**) which noted the need to clarify, among other matters, "*What level of design development risk they are actually taking off our hands*".

(1) What was your understanding of the purpose and outcome of the Wiesbaden discussions and agreement?

To achieve solid agreement on cost and delivery timescales for 1A.

(2) What was your understanding of the main matters agreed?

A cost of £211m was agreed and a delivery timeframe was established.

(3) What was your understanding in relation to any agreement reached as to which party would bear the risks arising from incomplete design and design development?

My understanding was that BBS would absorb the risk for normal design development on novation of the SDS contract and would be well compensated for taking that risk onboard. The contract would provide standard change control mechanisms for anything regarded by the supplier as being outwith normal design development.

17. On 20 December 2007 the Council were asked to agree the Final Business Case, version 2, for the tram project.

The report to Council (**CEC02083448**) noted that the estimated capital cost remained at £498 million (including a "substantial" contingency for risks.

The FBC, version 2 (**CEC01395434**), noted (Executive Summary) that *"The procurement of the principal contracts has reached the stage where all material terms are agreed, including the capital, operational and maintenance costs"* and that *"After an intensive and lengthy competitive procurement process, the capital and maintenance costs of the scheme have now been finalised at a level slightly below the DFBC estimate"*.

A risk allowance of 15% of the underlying base cost estimates for future phase 1a costs at contract award was included. It was noted that *"This prudent allowance for cost uncertainty reflects the evolution of design and the increasing level of certainty and confidence in the costs of phase 1a as procurement has progressed through 2006/2007 and fixed price bids for the infrastructure and tram vehicle supply contracts have been received"*.

The procurement strategy (Section 7) had led to a *"series of contracts which, managed as a group, will transfer risk effectively to the private sector, advance the scheme as quickly as possible and provide strong value for money"*.

It was noted, *"Following novation of SDS, after completion of the design due diligence process at Financial Close, the design risks pass to Infracore ..."*.

In relation to the MUDFA contract, it was noted that the physical diversion of utilities had commenced in July 2007, and was scheduled to end in winter 2008, which would result in the majority of utilities diversion works being completed prior to commencement of "on street" works by Infracore. That meant that potential conflicts between the utilities and infrastructure works would be minimised and any remaining time overlap could be managed so as to avoid programme conflicts on the ground. Work had commenced on some of the most congested sections, such as Leith Walk, and was expected *"to be completed on cost and programme"*. It was noted that *"to manage the risk to programme and scope inherent in utility diversions, TIE have adopted an intrusive management and supervision regime to ensure control to deliver the works within budget and programme, thus mitigating the risks to the commencement of Infracore works by the due date"*.

(1) What input, if any, did you have into drafting or commenting on the FBC and the report to Council?

I would assume that I gave input on VE, and would have read the document but I had no role in drafting the document.

(2) Do you consider that the report to Council fully and accurately reported on the delays in relation to design, approvals and consents and utility works and the risks arising from these delays?

As they stood at that time, yes.

(3) What were your views on the provisions of the FBC noted above?

A 15% contingency for residual uncertainty on the design seemed both prudent and reasonable.

(4) What was your understanding at that stage of whether a fixed price had been agreed for the Infraco contract?

The Wiesbaden agreement had certainly agreed a price but this price was subject to clarification on a number of issues.

Events in 2008 (January to May)

18. By e-mail dated 14 January 2008 (**CEC01468030**) you sent Steven Bell a list of questions arising from the Wiesbaden agreement (**CEC01468031**).

(1) It would be helpful if you could explain the main queries you had in relation to the Wiesbaden agreement? Which of the queries on your list, for example, did you consider to be of most importance?

I would assume this list of queries resulted from an instruction by either Steven Bell or Willie Gallagher to a number of members of the team to examine the agreement and to document queries which were not necessarily meant to be directly responded to, a catch all process in effect. In reviewing the list again after all this time, it is a mixture of minutiae involving street furniture, moderately significant and a few big ticket items notably questions 3, 18 and 25.

(2) Were your queries resolved to your satisfaction?

I refer to my response above. I do not recall receiving any direct response to this email.

19. By e-mail dated 23 January 2008 (**CEC01515082**) Steve Reynolds, Parsons Brinckerhoff (PB), noted the need to consolidate a number of outstanding matters concerning the Employer's Requirements "*in order to raise confidence that by Financial Close all parties will have a common understanding of the scope definition for the Infraco contract*".

See also Willie Gallagher's e-mail dated 25 January 2008 (**PBH00016263**) noting that "*It will be a bit perverse if we were to discover that our Designer's Design is not compliant with our requirements!!*".

(1) What was your understanding of the matters in these e-mails?

The Procurement team had been through the Employer requirements line by line on a number of occasions, I recall attending one such lengthy session, they presumably had a dialogue with SDS which led to Mr Gilbert's dictate that in the event of conflict the employer requirements prevailed.

(2) What were your views at that time on whether there was a "*common understanding of the scope definition*" of the Infraco contract, including whether there was alignment

between the Employer's Requirements, the SDS design and the BSC proposal?

I am not certain that I had a definitive view other than such an alignment was clearly required and a process to assure same was required, I would have assumed that such reconciliation would have been covered by a combination of procurement and the TIE engineering/commercial team from the outset.

20. By e-mail dated 30 January 2008 (**CEC01448017**) you listed a number of issues relating to various structures (including delay in providing design and/or the need for re-design) which could impact upon the programme for the Infracore works.

(For an update, see your e-mail dated 18 February 2008, **CEC01457442**, with attachment, **CEC01457443**).

(1) It would be helpful if you could explain the purpose of raising these issues?

Early on in my time at TIE I had been asked by Willie Gallagher to chair an 'Advanced Mobilisation' committee liaising with BBS in particular, to try and progress some pre-works that could be undertaken prior to the formal contract being in place. It is fair to say that the BBS attitude to this was substantially less than lukewarm, especially when the moratorium kicked in. The process commenced again I assume after Wiesbaden and prior to the formal contract being signed off. It would appear from the emails that I was co-ordinating various parties in pursuing completion of actions in advance of and in anticipation of the contract being placed.

(2) Were these issues ever resolved to your satisfaction?

Given that I had a project management style that was brusque and unforgiving I would assume that some of these issues were resolved but I have no recollection of the detail.

21. An e-mail dated 1 February 2008 by Stewart McGarrity (**TIE00089331**) attached a document commenting on the adequacy of the estimates for the provisional sums totalling £10.17 million included in the Infraco contract price (**TIE00089332**).

(1) Who within TIE was primarily responsible at that time for negotiating the Infraco price and for ensuring that a reasonable and reliable allowance had been made in the price/budget for provisional sums and, separately, for risk?

In the end analysis the TIE executive shared a responsibility for this but I believe Willie Gallagher charged Steven Bell with responsibility for carrying out the negotiations on price, aided by me and the legal team and procurement team amongst others.

22. The Construction Director's Report for the meeting of the Utilities sub-committee on 13 February 2008 (**CEC01398499**) noted (page 10) under Action Plan, "*Review of output performance within the current 'live' sections over the prevailing periods has noted a reduction in target achievement. This is reflective of the congestion of services being uncovered within Leith Walk and latterly the city centre and the increasing output requirement to meet programme targets*". The Key Issues/Blockers (page 15, para 4.0) included "*Design delays in issuance of IFC drawings. Trend beginning to show again*" (the minutes of the meeting are **CEC01453676**).

(1) What was your awareness of, and views on, these matters?

I possibly had some peripheral awareness but cannot recall.

23. By e-mail dated 6 February 2008 (**CEC01448355**) Bob Dawson circulated a draft of

Schedule 4 (Pricing Provisions) of the Infraco contract (which included comments by Andy Steel, TSS) (CEC01448356).

(1) When did you first become aware of Schedule 4?

I cannot recall.

(2) What was your understanding of the intended purpose and effect of the Schedule including, in particular, the Pricing Assumptions?

I surmise that it set out a base case for same.

(3) Do you have any comments on Mr Steel's comments, including, for example, his comment (at p10, para 1.1), in respect of "Notified Departures", that it *"can't be just any departure or all-risk will come back to TIE"*?

A warning I assume, although I cannot really add anything.

24. An e-mail dated 11 February 2008 from Stewart McGarrity (CEC01423172) circulated a spread sheet (CEC01423173) giving a breakdown of the latest budget at financial close, and included a risk allowance of just over £30 million (compared to a risk allowance of almost £49 million in the Final Business Case). By e-mail the same date (CEC01489953) Mark Hamill, TIE's Risk Manager, noted that the spread sheet contained information relating to the risk allowance that he was not aware of and attached a spread sheet containing a number of queries regarding potential new risks (CEC01489954). He further noted, *"my main concerns here are that (a) we are reducing the risk allowance while the risk has not actually been transferred or closed and (b) the new risk allowance is not sufficient for the risks which TIE will retain. I cannot overstate how anxious I am to ensure that the final QRA truly reflects the actual risk profile at financial close"*.

(1) What were your views on these matters?

I do not recall Mark's note.

(2) Who was responsible within TIE at that time for deciding whether the risk allowance was adequate?

The Risk Management team I believe reported to Steven Bell.

(3) What were your thoughts on Mr Hamill's comments and queries in the spread sheet attached to his e-mail?

I do not believe I saw this email.

(4) What were your views on whether the final QRA truly reflected the actual risk profile at financial close?

I do not believe I had any definitive concerns, at least I cannot recall any.

25. On 18 February 2008 BBS produced a Design Due Diligence Summary Report, based on design information received by BBS by 14 December 2007 (**CEC01449100**). That document raised various concerns about design, including that "*more than 40% of the detailed design information*" had not been issued to BSC.

(1) Were you aware of that report at the time?

I do not believe I was copied on the report but I latterly became aware of some of the issues in the Executive Summary.

(2) What were your views on the matters in the Executive Summary of the report? Did it cause you any concerns?

As noted above, the geotechnical issues were of particular concern.

(3) What discussion was there with within TIE, and with BSC, of how incomplete design would be dealt with in the Infracore price?

I cannot recall being involved in such a discussion.

(4) Were CEC provided with a copy of that report?

Although I assume they would have been, I do not have any knowledge/recollection of this.

26. An e-mail dated 19 February 2008 from Andrew Malkin, AMIS (**CEC01457599**) raised concerns in relation to the management of multiple interfaces and stakeholders. Mr Malkin stated, *"the real question for senior management is who is responsible for the planning and coordination of the precursor activities to support the MUDFA works on Revision 06. AMIS MUDFA has no control, authority or jurisdiction over SDS provider, CEC, Faber Maunsell, Lothian Buses, SUC's, Network Rail and other parties, and resolution on this particular and key issue would significantly help Carillion Utility Services on the utility specific diversion works and greatly improve our production outputs"*.

(1) What were your views on which organisation was responsible for the planning and coordination of the precursor activities to support the MUDFA works?

I would surmise that the MUDFA appointed contractor McAlpine/Carillion in combination with the MUDFA project team led by Mr Barclay who reported to the Chief Engineer.

(2) Were there difficulties in relation to managing multiple interfaces and stakeholders? Did any such difficulties lead to delay in commencing or completing the MUDFA works?

I have alluded previously to the number of stakeholders/interested parties and the challenges that their various (often conflicting) requirements posed. In arriving at the MUDFA project circa May 2008 I established a weekly progress meeting to help manage these diverse stakeholders, which was attended by Carillion, Edinburgh Council, the TIE Communications team (responsible for liaison with shop holders etc.) and the MUDFA team.

27. By e-mail dated 28 February 2008 (**CEC01546728**) Graeme Bissett noted, in relation to budget, that *"overall we believe that the existing £498m budget remains within reach if it is accepted that the balance between calculated cost and risk contingency will change and that some areas will be controlled post-Close rather than negotiated into the ground now"*.

(1) What did you understand Mr Bissett to mean by that statement? What areas would require to be controlled post-Close and how would that be done? Did you understand that to carry any cost implications?

That the budget was within reach and that there may be a shift in the allocations between calculated cost and contingency. I am not certain to what areas Mr Bissett is alluding post close but it is likely they would have had cost implications. He is asserting that the residual areas post-close were potentially containable within the headline budget.

28. By e-mail dated 3 March 2008 (**CEC01463574**) Ian Laing, Pinsent Masons, in relation to the draft SDS Novation Agreement, raised some queries in relation to understanding the process in terms of the instructions that were to be issued by TIE to the SDS, the two critical instructions being to align the SDS design undertaken to date

with (i) the Employer's Requirements and (ii) the Contractor's Proposals. The purpose of that exercise was to understand the extent of any misalignment and how that would be resolved in terms of amended Deliverables. After that had been done, Mr Laing envisaged that the process would be as follows, namely:

"1. TIE review the misalignment issues and determine whether a change is required to the ER's or the CP's.

2. TIE issue appropriate instructions after consultation with BBS and SDS.

3. The Deliverables, Contract Price and programme are updated to address the 'new' Deliverables coming out of the alignment process (with BBS being held harmless from the consequences of that exercise).

4. When all the above has been resolved, this is the earliest point at which novation of the SDS Agreement can occur". Mr Laing stated that he did not see how SDS novation could be completed until steps 1-3 had been completed.

In a reply dated 4 March 2008 (in the same e-mail chain) to Andrew Fitchie, you stated, *"Re Ian's point number 3, I believe we agreed that the contract would be signed prior to conclusion of this exercise and that any changes to programme/deliverables/cost would be dealt with, implicitly, by variation through the formal change process".*

In an e-mail dated 6 March 2008 to you (**PBH00017265**), Steve Reynolds stated *"I believe there are significant issues surrounding scope and programme to completion of the novated SDS obligations which need to be addressed in addition to the two issues of PCG [Parent Company Guarantee] and Liquidated Damages to which you refer".*

(1) It would be helpful if you could explain your understanding of the matters noted above, including your comment noted above?

That any misalignment would be dealt with through the formal change control process and that there was a list of issues to be addressed before novation was possible, including PCG and Liquidated Damages level.

(2) What was your understanding as to (i) whether there was a misalignment between the SDS design, the Employer's Requirements and the BSC Proposal and (ii) the extent of any such misalignment?

Clearly Mr Reynolds felt there were issues to resolve in aligning same, as I noted above, it is my understanding that the Employer requirements had been reviewed line by line on every page of a 600 page document by the Procurement team, on at least 3 occasions with amendments made where required with both BBS and I believe SDS in attendance. I attended one of these sessions. In that sense it was reasonable to surmise that the extent of misalignment should not have been severe.

(3) What was your understanding as to (i) whether dealing with any misalignment through the formal change process was likely to lead to increased cost and (ii) the likely amount of any increased cost?

For the most part anything which cycles through the change process is likely to increase cost, the level of that cost and how much it would eat into contingency would be determined by the process, but please refer to my response above re level of diligence on the ERs.

(4) What was your understanding as to (i) whether provision had been made in the risk allowance for any increased cost resulting from dealing with any misalignment through the formal change process and (ii) the amount of any such provision in the risk allowance?

I cannot recall either.

(5) To what extent were the above matters discussed with CEC?



I had no engagement with the CEC so cannot answer that question.

29. By e-mail dated 10 March 2008, Steven Bell noted that an agreement had been reached on 7 March (between Richard Walker, Michael Flynn, Mr Bell and you) that the contract price would be increased by £8.6 million to cover certain matters (CEC01463888).

(1) Why had a price increase been sought?

If I recall correctly BBS had introduced a large number of issues and increased costs greatly in excess of 8.6 million. I recall that negotiation on this took place over a number of lengthy meetings which also involved our legal advisors, DLA Piper.

(2) Why did TIE agree to a price increase?

I cannot recall the detail; however, I do recall lengthy discussions surrounding a change to the specification of the street poles imposed by the Council architects for aesthetic reasons.

(3) What matters did the price increase cover?

Please refer to Steven Bell's note at-CEC01463888 – I recall him preparing this by way of summary.

30. An e-mail dated 9 March 2008 from Jason Chandler, PB, (TIE00679064) noted that *"From the review of the documents so far it is clear that there are numerous areas where further clarification is required in order to secure a clear understanding from CEC as to the scope of the SDS design and the work to go to gain the various approvals"*. You responded to Steven Bell that *"This wordy email seems to say that any change by*

BBS will take more time than may be available in the Programme, do we need to explore the possibility of a fast track approach by the CEC?”.

(1) It would be helpful if you could explain your understanding of, and views on, these matters?

It is difficult to sequence these events correctly in my memory but attaining CEC approval was a lengthy task, and as noted above, I established and chaired a Design taskforce to seek to accelerate matters. I had accompanied Willie Gallagher to a meeting with a senior CEC official, whose name I cannot recall, at which I made a plea that we should establish a fast track mechanism. Members of the CEC architectural team became regular attenders at the taskforce meetings.

31. By e-mail dated 11 March 2007 (**CEC01544518**) Duncan Fraser, CEC, advised TIE that CEC required a statement confirming the elements of the SDS designs that are being re-designed by BBS, if any, the working assumption to date having been that all of the SDS designs were to be adopted by BBS.

In a reply, Graeme Bissett stated *“the information you want is embedded in the Infracore proposal ... As I think we discussed today, the liability would sit with BBS/SDS in relation to any redesign”.*

(1) What were your views on these matters?

I was not included in this interchange but referring back to the 8.6m increase, Graeme’s statement looks correct.

32. The Construction Director’s Report for the meeting of the Utilities sub-committee on 12 March 2008 (**CEC01453676**) noted, under Overall Performance to Date, that a total of 7805 metres (against a planned 9754 metres had been undertaken), including 44 chambers (out of 79 planned chambers).

In relation to Section 1B, progress in the period was less than anticipated.

The Action Plan noted that *“Overall progress in period had identified a reduction in outputs, due to increasing workload and number of live sections”* and that *“Key areas to be targeted are North end of Leith Walk (output 33%) and the Mound/St Andrew Square (output 58%) which are substantially lower than the section overall average output of 80%”*. Under Programme (para 2.2) it was noted *“Latest production figures indicate outputs have dropped significantly (approx. 50% output planned achieved), especially in the last period. Indications are we are 3-4 weeks behind programme”*.

Similar Key Issues/Blockers as before were noted (with the addition of a 1500 mm sewer under the proposed A8 underpass) (the minutes are **CEC01456730**).

(1) What was your awareness of, and views on, these matters?

I was aware that the MUDFA project was slipping, Graeme Barclay would regularly report to the weekly progress meetings, other than that I had no involvement at that time.

33. In an e-mail dated 18 March 2008 (**CEC01430245**) you noted that Mr Gallagher had asked that you be responsible for managing the process towards contract close-out (as it was better to have a member of the “deal” team of the last few weeks responsible for that) and that, in addition, you would continue to manage the SDS novation process.

(1) It would be helpful if you could explain your role and responsibilities at that time? To what extent did your responsibilities include the negotiation and agreement of Schedule 4 (Pricing Provisions) of the Infraco Contract?

There were many parties involved in bringing the process to a close, the lawyers, the suppliers, various departments of the TIE team, SDS etc., The role I was asked to play was project manager of the process. I think I established a traffic light control document which I drove and attended most of the lengthy contract meetings with Steven Bell and Andrew Fitchie of DLA Piper from that point on. I assisted/reported to Steven Bell, who provided the necessary technical expertise, in negotiating the Pricing Provisions.

34. By e-mail dated 21 March 2008 (**CEC01491920**) Willie Gallagher advised, *"Last night, we successfully concluded agreements on the price schedule and the Infraco detailed contract. There is no change to the overall price, scope and Programme reported to the Board"*.

(1) What was your understanding at that stage on the extent to which agreement had been reached on the Infraco price (and whether a fixed price had been agreed)?

As far as I recall, I did not see this email chain. I would have had no reason to question Willie Gallagher's statement.

35. An e-mail dated 26 March 2008 from Stewart McGarrity (**CEC01422917**) attached tables giving a breakdown of the Infraco contract price (**CEC01422918** and **CEC01422919**).

(1) Do you have any views on the analysis of the contract price as shown in these tables (including, in particular, the extent to which, if at all, allowance had been made for the risk of changes post financial close as a result of Notified Departures)?

The analysis reminded me that there had been a very stressed meeting at Rutland Square, I think it was in Dec 07, the attendees would have included Alistair Richards, Procurement, Steven Bell, DLA , and representatives from the suppliers. The outcome of this was a 3.8m adjustment but I can't recall the detail.

36. On 26 March 2008, Ian Laing, Pinsent Masons, sent an e-mail to Steven Bell and you (copied to others) (**CEC01465908**) in which he stated:

"As we discussed earlier today, the Design Delivery Programme that will be v28. The Pricing Assumption in Schedule 4 of the Infraco Contract assumes that the Design Delivery Programme will not change from v26. It follows that there is the possibility that there will be an immediate Notified Departure on contract execution. Given the unusual position that we are in, please can you confirm that this is understood and agreed by TIE".

In an e-mail dated 31 March 2008 in the same chain, Andrew Fitchie stated that the only approach open to TIE was *"to capture as many identified key changes that TIE knows will be required and to attempt to fix them and agree their likely programme and/or cost impact with BBS prior to contract award, or at least identify the reasonable range of programme and cost impacts"*.

In a response to Mr Bell, in the same chain, you stated, *"My view is that if we pursue Andrew's steer on this we will open up the whole can of worms on the Infraco contract cost overall, and that we have to take on the chin that the programme version is not consistent, get the deal signed and then fight the notified departure tooth and nail. I understand Andrew's point but if we are at all hopeful of getting this done by the 15 April (this year) we cannot take his suggested approach* (1) What was your involvement in the discussions and negotiations in relation to Schedule 4 (both before and after Mr Laing's e-mail)?

As noted above, I assisted Steven Bell on the contract negotiations both before and after Mr Laing's email.

(2) What is your understanding as to why Mr Laing sent the e-mail directly to Mr Bell and to you (rather than to TIE's solicitors, DLA)?

I would not know, although DLA were responsible for advising TIE throughout and would have been advised of the email.

(3) What were your views on the matters noted above?

That the decoupling of design from the construction contract with the resultant separate Management teams was making the process of perfect alignment hugely difficult and that the sooner the Management was simplified (through Bilfinger's absorption of SDS) the better.

(4) What did you mean by your reference to *"the whole can of worms on the Infracore contract cost overall"*?

Every day that passed with the contract unsigned the Project was accumulating additional costs. I cannot recall the specifics, however, there was an imperative to get the deal signed prior to the supply chain collapsing - I believe this was agreed in the original procurement phase circa early 2007 which I recall was due to occur in or around May 2008. This would have generated potentially a huge cost hit measured in tens of millions as I recall. Rereading the email, I believe my opinion was that the inconsistency that remained was best managed by dealing with it through the agreed departure process. My choice of words could have been better but I felt there was agreement in large measure on the bulk of the contract and that opening it up again A to Z ran the risk of BBS deciding that prices needed to be increased across the board.

(5) What did you mean by stating *"we have to take on the chin that the programme version is not consistent, get the deal signed and then fight the notified departure tooth and nail"*?

Please refer to my response above.. The process involved in taking the suppliers through the ERs was line by line, painstaking and exacting on multiple occasions. There was a risk balance here: continual pursuit of 100% hygienic alignment with a certain penalty measured perhaps in tens of millions through supply chain increases (and there was every reason to believe that BBS would take the opportunity to impose swinging increases), versus accepting the risk of managing any misalignments through the change control process. Given TIE's significant efforts ensuring the ER document was fully understood and the BBS responsibility for

normal design development following SDS novation, the latter course seemed preferable in my opinion.

(6) To what extent, if at all, were CEC advised of the risk/likelihood of Notified Departures under Schedule 4, including the potential number and cost of Notified Departures?

Willie Gallagher was committed to ensuring that stakeholder parties were kept in the loop on all key issues. I had no direct contact with the CEC on this. The CEC were fully represented on the Tram Project Board.

(7) How was the risk of Notified Departures reflected in the risk allowance?

I cannot recall how, but assume it would have been, the TIE executives were kept fully informed on all proceedings as a matter of course.

37. By e-mail dated 27 March 2008 (**PBH00019148**) Steve Reynolds attached a document, PB Commentary on the BBS Civils Offer (**PBH00019149**). In his e-mail Mr Reynolds noted that there were several items where PB had indicated a need for clarification from TIE on the status of the BBS Offer and further noted that *"It may be that the answers to some or all of these questions are contained in Schedule 4 to the Infraco Contract"*.

The document, PB Commentary on the BBS Civils Offer, stated on a number of occasions, under Scope of Work, *"Design to be completed to IFC status, all design consents and approvals obtained and BBS will construct IFC Design"*. In response to that, PB commented *"PB seeks clarification of this statement which is used on many occasions i.e. Which IFC Design has BBS allowed for to construct? Is this the SDS design or some variant which BBS is considering when referring to 'finalising design'"*

(1) What was your awareness, and understanding, of the above matters?

We knew there were a list of issues that PB wanted compensation for before they would agree to novation, and those were the subject of a number of meetings, I cannot recall the detail.

(2) Were these matters resolved prior to Financial Close (and, if so, how and when)?

Well they had to be or the novation would not take place, I recall issues on this being raised right up to the day of contract signing. The final determination of the SDS compensation for being novated, took place in a meeting between Mr Gallagher and Steve Reynolds in Mr Gallagher's office.

38. By e-mail dated 31 March 2008 (**CEC01546703**) Stewart McGarrity noted that a meeting had been arranged the next day to discuss Schedule 4 and attached a spread sheet (**CEC01546704**) showing how the BSC price had increased since the award of preferred bidder.

(1) Do you have any comments on that spread sheet, including why the BSC price had increased?

The vagary introduced by the decoupling of design and build in the procurement method, determined years earlier, allowed each supplier to present fresh demands for compensation based on their apparent inability to keep in sync and on their dispute of who was responsible for what.

(2) Do you have any recollection whether a meeting took place on 1 April to discuss Schedule 4 and, if so, what was discussed?

No.

39. By e-mail dated 31 March 2008 (**CEC01493317**), David Leslie, Development Management Manager, Planning, CEC, sent a letter to Willie Gallagher (**CEC01493318**) expressing certain concerns in relation to prior approvals. On 3 April 2008 Duncan Fraser sent a letter to Willie Gallagher setting out similar concerns by CEC's Transport Department relating to Technical Approvals and Quality Control Issues (**CEC01493639**).
(1) Were you aware of these letters and/or the concerns expressed in these letters?

I am sorry I cannot recall.

(2) What, if anything, was done in response to these concerns?

I do not remember this.

40. An e-mail dated 1 April 2008 from Graeme Barclay noted slippage in the MUDFA Rev 06 Programme (**CEC01456006**). The Construction Director's Report for the meeting of the Utilities sub-committee on 9 April 2008 (**CEC01456414**) noted, under Overall Performance to Date, that a total of 10,081 metres (against a planned 12112 metres had been undertaken), including 54 chambers (out of 104 planned chambers). It was noted (page 2) that *"there has been no recovery of the previously reported slippage"*. Cumulatively, the existing effect was a delay of circa 6 weeks on the affected sections. The root causes were in 4 main categories: greater congestion of existing utilities than anticipated (principally affecting Scottish Water diversions); increased temporary diversion provision; slower than estimated chamber construction for BT chambers; and incomplete supply of supervisory and operative resource to meet the full demands of the Revision 06 programme and the enabling works (AMIS addressing). *"The summary impact on the REV 06 Programme critical path suggests that 2 weeks delay is likely allowing for realistic implementation of the recovery plans to the MUDFA programme"*.

The Key Issues/Blockers were set out in para 7.0 (pp12-13) (the minutes of the meeting are **CEC01301007**).

(1) What was your awareness of, and views on, these matters?

I would have been aware through the auspices of Mr Gallagher's weekly progress meeting at which Graeme reported progress. My view would have been that this was concerning in that it had the potential to delay Infraco works.

(2) What were your views around that time of the prospect of the MUDFA works being completed by the end of 2008?

I had insufficient understanding of the position to have a meaningful view on that, I do not recall what Graeme's projection for completion was at that time.

41. In an e-mail dated 16 April 2008 (**TIE00017426**), in response to a query from Andy Conway, Steven Bell stated that the logic behind the November 2007 design freeze was that it *"allows for all normal design development at no extra cost"*.

(1) What was your understanding of that matter?

Until I read this I had forgotten about the design freeze, Steven's intent was clear namely that a line in the ground was drawn beyond which, on design development, the contractor was responsible.

42. In an internal Weekly Report dated 18 April 2008 (**PBH00018333** at para 1.3), Steve Reynolds, Parsons Brinckerhoff, noted:

"Richard Walker indicated to me on Friday that he has concerns over the presentation of the Infraco Contract deal to Council. Some weeks ago I had expressed my concerns that the price on the table from BSC did not align with the programme contained in the offer. For example, the price assumes that value engineering savings will be made whereas the programme has no allowance for the design and approvals time which would be required. I had suggested that TIE would have to be careful in the form of presentation so as not to mislead CEC. Richard is now expressing (to me) similar concerns and has suggested that he will take this up with TIE separately. To a large

extent the current position is one of BSC's making where the offer is dependent upon a set of pricing assumptions which can be interpreted by the informed reader as a basis for price increase and programme prolongation. It may be that Richard is belatedly expressing worries which have more to do with his concern over working with TIE as a client or may even be due to friction between Bilfinger Berger and Siemens. Whatever the reason I detect an air of uncertainty and last minute concern over whether BSC should be taking the job".

(1) What were your views on these matters?

I had no inkling that BBS were thinking at all of quitting the project, there may have been friction between Bilfinger and Siemens but I do not recall them being at odds with each other when in discussion with TIE.

(2) Did anyone from BSC raise with you (or anyone else at TIE) any concerns in relation to TIE's reporting of the Infraco contract or price to CEC?

I have no recollection of anyone doing so.

(3) Did you, at any time, have any concerns in relation to TIE's reporting of the Infraco contract and price to CEC?

All of the negotiations and issues arising were communicated to the TIE exec by Steven and I. The Tram Project Board was kept fully up to speed on all matters as far as I am aware, and the DLA legal team was fully involved and up to speed also.

43. By e-mail dated 28 April 2008 (CEC01312358) Graeme Bissett circulated an updated draft of the Close Report (CEC01312359) and other documents.

The updated draft Close Report noted that there had been an increase in the base cost of Infraco of £17.8m compared to the Final Business Case, which increase was as a result of *“substantially achieving the level of risk transfer to the private sector anticipated by the procurement strategy”* and that the increase of £17.8m approximated closely to *“the allowance which was made in the FBC for procurement stage risks i.e. the increase in Base Costs which might have been expected to achieve the level of price certainty and risk transfer which has been achieved”* (p4).

(1) What was your understanding of, and views on, these matters?

I find it difficult to sequence these issues in my mind now, there were a number of reasons for the shift in cost and these have been discussed previously. I cannot really add anything to this.

44. Mr Bissett's e-mail of 28 April 2008 also attached a letter dated 28 April 2008 from DLA to CEC and TIE (CEC01312368), a DLA/TIE Risk Matrix as at 22 April 2008 (CEC01312367) and a Report on Infraco Contract Suite (CEC01312363). The Report on Infraco Contract Suite noted, in relation to Price, that *“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”* (p4) and, in relation to Programme, that *“Following contract signature, it is expected that BBS will seek a Notified Departure on Programme due to SDS delay in design production”* (p4).

(1) What was your understanding of, and views on, these matters?

Please refer to my responses above.

(2) What was your understanding around that time of the number and value of Notified Departures that was likely to be received?

The misalignment was the only departure I can recall and I have previously explained the rationale. It was wholly desirable to achieve novation of SDS and in a sense establish a 'design and build' contract with clearer Management lines.

(3) To what extent were these matters discussed with CEC?

I believe they were kept fully informed.

45. By e-mail dated 30 April 2008 (**CEC01274958**) Willie Gallagher noted that Richard Walker had advised that Bilfinger required an additional £12 million to conclude the deal, despite a deal having been negotiated and agreed by all parties on 14 April. The meeting of Council on 1 May 2008 was provided with a report dated 23 April 2008 by CEC's Chief Executive (**CEC00906940**). The report did not refer to the further sums sought by BSC. The report noted that the cost of the project was now £508m (comprising a base cost of £476m and a revised QRA of £32m), which increase was largely due to the firming up of provisional prices to fixed sums, currency fluctuations and the crystallisation of the risk transfer to the private sector as described in the Final Business Case; 95% of the combined Tramco and Infraco costs were fixed with the remainder being provisional sums which TIE had confirmed as adequate. The report further noted that *"As a result of the overlapping period of design and construction a new risk area has emerged which has been the subject of extensive and difficult negotiation. TIE Ltd advise that the outcome is the best deal that is currently available to themselves and the Council. Both TIE Ltd and the Council have worked and will continue to work diligently to examine and reduce this risk in practical terms"* (para 3.10).

(1) What was your understanding of why BSC sought a further £12 million to conclude the deal?

Initially I had no idea given that we had shaken hands on the contract only days earlier. I had just moved on to MUDFA. I believe

that Bilfinger had reviewed their supply chain and recalculated their risk model to come up with this last minute demand, their position seemed cobbled and confused except that they wanted more money.

(2) What problems did that cause?

It was wholly unwelcome and there was significant concern in TIE at the nature of such a demand so soon after price had been, as far as everyone had been aware, agreed.

(3) What was your involvement, if any, in resolving that matter? Did TIE agree to pay the further sum sought and, if so, why?

As stated earlier, I had moved on to MUDFA but Mr Mackay, TIE Chairman, asked me to attend a meeting with Senior executives from Bilfinger (covered below).

(4) What were your views on the matters in the report to Council noted above?

To a great extent this has been covered already, it had become apparent that the decoupled procurement model had resulted in major difficulty in the suppliers maintaining sync with each other and logically the sooner this transmogrified into a Design and Build contract with the suppliers marching to the same beat the better.

46. In his internal Weekly Report dated 2 May 2008 (**PBH00018873**) Steve Reynolds noted: *“Two observations are that:-*

A. TIE has sponsored a paper which was materially incorrect at the time when it was presented to CEC.

B. The price increase proposed by BSC would result in an overall price of £520m in

comparison with the overall funding limit of £545m. This is without any allowance for costs to cover changes to scope and programme necessary to bring about alignment of the BSC Offer and the SDS Design”.

(1) What are your views on these matters?

I cannot recall seeing this note from Mr Reynolds, it may be that he was not fully aware of the actions being taken by Mr Mackay and Mr Gallagher on the matter. I believe the CEC were made fully aware of this issue.

47. We understand that Mr Gallagher met with Mr Enenkel, BSC, on 5 May 2008.

By e-mail dated 5 May 2008 Mr Enenkel proposed that in the event that Phase 1b did not proceed TIE would pay BSC £3.3 million under the contract for Phase 1a (**CEC01337607**) (Mr Enenkel sent a clarification e-mail on 6 May 2008, **CEC01274976**). Mr Gallagher wrote to Mr Enenkel on 6 May, listing a number of conditions on which BSC would retain its position as preferred bidder (**CEC01284033**).

(1) What was your awareness of, and views on, these discussions?

As mentioned above, I was asked to attend the meeting with Mr Enenkel and his senior staff along with Mr Mackay, Mr Gallagher and Steven Bell amongst others. I recall asking Mr Enenkel how many opportunities did his company require to get their pricing correct? The meeting, it is fair to say was heated. Mr Enenkel I recall advised in what I assume was meant to be a clipped consoling tone :-‘You have to understand that my company’s policy is that we own no risk and the client holds all the risk’. The meeting took a break after that and I was asked to stand down for the resumption.

(2) In his e-mail dated 7 May 2008 (**CEC01275063**) Mr Gallagher stated, *“We cannot be seen to have signed contracts and then be doing nothing for a few months. There is*

nothing new here. Richard, Scott and the team put together the BB Construction Programme which is an integral part of the contract. If we ask you to move away from that unreasonably, then it is a TIE notified departure from your pricing assumptions".

What did you understand Mr Gallagher to mean by that?

I assume this might be referring to potential delays arising from the issues in the MUDFA programme.

(3) What agreement was eventually reached in respect of the price increase?

I was not present for the entirety of the meeting and cannot recall the specifics, but I believe part of the increase was taken off the table and that the residual was discussed and dealt with, see Graeme Bisset's note **CEC01338848**.

48. The Construction Director's Report for the meeting of the Utilities sub-committee on 7 May 2008 (**CEC01300994**) noted, under Overall Performance to Date, that a total of 12,421 metres (against a planned 16051 metres had been undertaken), including 65 chambers (out of 120 planned chambers). Under Period Progress it was noted (page 2) that there was a downturn in output from the previous period i.e. 70% achieved in this period and 77% achieved in total to date. The cumulative effect on the sections was approximately 7 weeks. The overall effect on the critical path remained at 2 weeks, *"but implementation of revised recovery programme actions required urgently"*. The key areas of delay were as before and additional demands/constraints imposed by Traffic Management. It was noted (page 3) that elements of the city centre works (the Mound area) would extend into the first quarter of 2009 (the minutes of the meeting are **CEC01302139**).

(1) What was your awareness of, and views on, these matters?

I was asked around about this time to carry out a quick and urgent review of the programme. This process gave me an insight into the

difficulties, described earlier, facing the programme on a day and daily basis. I made some recommendations following this review which included 1. The appointment of a new Programme Director from Carillion; 2. The establishment of improved communications and the hygiene's surrounding same including setting up a weekly progress meeting with representatives from TIE both engineering and Stakeholder communications, Carillion the Programme Director and his nominees, and the CEC (Mr Fraser was a regular attendee); 3. An enhanced MIS reporting pack for weekly review with Steven Bell.

49. On 12 May 2008 (at 18.49 hours) Graeme Bissett circulated an e-mail (**CEC01338846**) attaching a final set of TIE's internal approval documents. The Financial Close Process and Record of Recent Events dated 12 May 2008 (clean copy, **CEC01338847**; tracked changes, **CEC01338848**) noted that a response was received from BBS on 7 May 2008 which proposed a payment of £9m to BBS and "*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*" (p4).

(1) What was your understanding of that matter?

I do not think I can add anything to Mr Bissett's note, the late breaking cost from BBS is correctly described and clearly notes that the CEC were kept fully aware, it also highlights the compensation payable should Phase 1B not proceed.

50. On 13 May 2008 parties signed the Kingdom agreement (**WED00000023**).

(1) It would be helpful if you could explain your understanding of the need for, purpose and effect of that agreement?

I was not involved but it arose from the discussions on BBS late

push for more money. Incentivisation, compensation in the event of 1B not proceeding and the closing of outstanding issues on the table for the novation of the SDS agreement to BBS.

51. On 13 May 2008 the Council's Policy and Strategy Committee considered a report by the Council's Chief Executive (**CEC01246115**). The report advised that the estimated capital cost for phase 1a was now £512.2 million. The report stated that *"Offsetting the increase in cost is a range of negotiated improvements in favour of TIE and the Council in order to reduce the risk of programme delays and minimise exposure to additional cost pressures, as well as better contractual positions"*.

(1) What are your views on the statement noted above?

I believe it was an accurate report on the state of play.

(2) Do you agree with it? If so, what do you consider were the "improvements" and "better contractual positions" that reduced the risk of programme delays and minimised exposure to additional costs?

I had no reason to disagree with it and assume the reduced risk was in part in reference to the measures outlined in the Kingdom agreement as detailed above.

52. Infraco contract close took place on 14 and 15 May 2008, as part of which a number of contracts were signed, including the Infraco contract (**CEC00036952**) and novation of the SDS contract to BSC. By way of overview, what was your understanding of the following matters at contract close:

(1) The extent to which detailed design was complete (and all necessary statutory approvals and consents had been obtained), the extent to which these matters were outstanding and when the detailed design was likely to be completed (and all approvals and consents obtained)?

Unfortunately I cannot recall the detail on this. The SDS novation had involved a series of meetings and a list of 'wants' from SDS, these were dealt with over a period of months, I recall on that SDS were continually raising issues and that continued right up to the day of formal contract signature and was resolved by Mr Reynolds removing said issue from the table.

(2) The extent to which utilities diversions were complete, the extent to which these works were outstanding and when these works were likely to be completed?

There were clearly significant outstanding works to complete and in what proved to be difficult areas. I cannot recall the specifics but I believe the ambition was to complete the works late 2008. As stated previously progress was hampered by poor records, inordinately complex utility installations and fresh discovery on a day and daily basis.

(3) The likely effect on the Infracore works and contract (and the cost of the tram project) if the outstanding design (and approvals and consents) and outstanding utilities diversion works were not completed within the anticipated timescale?

Clearly delay in these issues would affect cost, in particular the possible stalling of the construction project by the utilities diversion not being completed.

(4) The provision made in the risk allowance for the above matters?

I have no recollection of the provision being felt to be unrealistic.

(5) To what extent did TIE discuss the above matters with CEC?

As stated previously all matters were discussed and reported to the Tram Project Board on which the CEC was fully represented, I believe that the TIE Exec complemented this with frequent discussions with key players.

53. The pricing provisions of the Infraco contract were set out in Schedule 4 (USB00000032).

(1) What was your understanding of the extent to which the Construction Works Price of £238,607,664 was a fixed price?

From previous experience of fixed price contracts, the price was an accurate reflection of the empirical process that had taken place to arrive at the number; there were however mechanisms within the contract that could shift the price for notified departures, and those had been fully disclosed.

(2) What did you understand to be the main exclusions, provisional sums, assumptions and conditions?

It had been disclosed that there would be a notified departure on signing due to the circumstances set out above.

(3) In what circumstances did you consider that the price was likely to change?

Delays which stalled the construction programme due to requests from the CEC or the failure to complete the utility diversion works would accrue penalties.

54. In relation to the Value Engineering deductions shown in Appendix A of Schedule 4

of the Infraco contract (**USB00000032**):

(1) What was your understanding of what would happen if the VE savings were not achieved?

I seem to recall that a number of the VE initiatives had already been banked and delivered. I assume any that were not delivered would be subject to review to understand reasons why and challenged in that fashion.

(2) What were your views as to whether the VE savings were likely to be achieved?

There was a substantial number of VE initiatives but from memory these were roughly categorized as low risk/banked (see above), medium risk (good chance of achieving) and high risk (outside chance). I believe the included sum in the final contract price was a legitimate number based on these opportunities.

(3) In the event, were these Value Engineering savings achieved (and, if not, why not)?

As noted above I believe some of these had already been achieved but that others would be reviewed as the construction programme progressed. I was not involved in the construction programme and as such I do not have any detail on the extent to which others were not achieved.

55. Schedule 4 of the Infraco contract (**USB00000032**) contained a number of Pricing Assumptions. At the time of Infraco contract close:

(1) What did you consider were the main Pricing Assumptions that were likely to change and result in Notified Departures and why?

Although I cannot recall the detail, I would suggest that progress

on Utility Diversions and its capacity to delay the construction programme would have been a key concern.

(2) Approximately how many Notified Departures did you consider were likely to arise?

I knew there was one on the table, from experience it would have been unlikely that no others would be forthcoming.

(3) What did you consider to be the likely total value of the Notified Departures?

I did not have that level of detail, but the painstaking process undertaken by the procurement team to document and review the Employer requirements gave confidence that the extent of these should not have exhausted the contingency.

(4) To what extent were the above matters discussed with CEC?

As noted above, to the best of my knowledge and belief, matters were full reported to the Tram Project board and the CEC was kept fully involved.

56. Pricing Assumption 3.4 of Schedule 4 (**USB00000032**) dealt with design development.

(1) What was your understanding of the meaning of that Pricing Assumption, including which party bore the risk that development of design from the base date of 25 November 2007 would result in a contract change/Notified Departure?

My understanding was that in consideration for the amounts being paid to them, Bilfinger would be responsible for design development following assumption of the contract obligations from SDS.

57. Schedule 4 defined the "Base Date Design Information" as *"the design information drawings issued to Infraco up to and including 25th November 2007 listed in Appendix H to this Schedule Part 4"*. Appendix H of Schedule 4, however, did not list any drawings and, instead, simply stated that the BDDI was *"All of the Drawings available to Infraco up to and including 25th November 2007"*.

(1) Are you aware why Appendix H of Schedule 4 did not list the drawings comprising the BDDI?

I am sorry I cannot recall.

(2) Did that cause any problems at a later stage (and, if so, what problems arose and how were they resolved)?

Again I am sorry I cannot recall.

58. At Infraco contract close the SDS contract was novated from TIE to BSC.

(1) What was your understanding in relation to who would be responsible for managing the design process after novation and for ensuring that all outstanding design (and all outstanding statutory approvals and consents) was completed /obtained on time?

My clear understanding was that this was unequivocally the responsibility of BSC and that both they and SDS had been substantially compensated for taking on the management and risk. If that was not the case I am perplexed at what they were paid the substantial sums involved for.

(2) What responsibility and powers, if any, did TIE retain after novation in relation to managing the design process and ensuring that all outstanding design (and all outstanding statutory approvals and consents) was completed /obtained on time?

As stated above my firm belief was that these tasks were the

responsibility of BSC.

(3) Do you consider that any problems arose from the fact that (i) changes to, and completion of, design was primarily under the control of BSC (as a result of novation of the SDS contract to BSC) but (ii) changes to design, or delay in completing design, could give rise to a departure from one of the Pricing Assumptions in Schedule 4 of the Infraco contract and, therefore, give rise to a Notified Departure (leading to an increase in the cost of the project)? Was any consideration given by TIE to that potential difficulty prior to SDS Novation?

I was not sufficiently involved in the subsequent dispute and as such did not reflect at that time on the prior understanding on this point.

59. By e-mail dated 4 June 2008 (**CEC01280055**), as part of a “lessons learned” exercise, you set out certain things that had not been done well.

(1) It would be helpful if you could explain your comments in that e-mail? What, for example, were the “*major ticket items*” that were “*parked and squeezed into a highly pressurised timeframe for resolution*”?

I was asked to assist in the negotiation process circa end Dec 2007/Jan 2008. The Procurement process had been ongoing I believe since 2006 and while there had been painstaking focus on the minutiae of the Project, it seemed to me at the time that the cost and timescale projections had not received sufficient focus.

(2) You ended your e-mail by noting that that “*On the whole the procurement finished positively with relatively modest price shift and the deal struck is a good one*”. Did your views in that regard change at any time (and, if so, when and why)?

The subsequent outturn on cost and timescales would incline you

to believe that you had to change this opinion but at the time of writing that email, no one was aware of the hidden ambiguity in a contract clause which had been agreed in 2007 and the effect that it would have on the deal, including the costly dispute that ensued. On the basis that I was not involved in the subsequent dispute, I do not know what the outturn cost was and how much of it was due to penalties incurred through the dispute. I could therefore only speculate.

2008 (June to December)

60. Following contract close, a major dispute arose between TIE and BSC in relation to the interpretation and application of the Infraco contract and Schedule 4. By way of overview:

(1) What was your understanding of the main matters in dispute and the main reasons for the dispute?

I was not involved in the dispute process, my understanding was that it related to an ambiguity on the design/development.

61. In total, approximately 738 INTCs were notified by BSC between Infraco contract close and the Mar Hall mediation in March 2011. By way of overview:

(1) Were you surprised by the number of INTCs?

I left TIE in 2009, I was not aware of this number.

(2) What do you consider were the main INTCs in terms of value and importance?

I do not have sufficient knowledge to respond to this.

62. The Construction Director's Report for the meeting of the Utilities sub-committee on

4 June 2008 (CEC01302139) noted under Overall Performance to Date, that a total of 15,288 metres (against a planned 24,322 metres had been undertaken), including 86 chambers (out of 140 planned chambers). Under Period Progress it was noted that there had been improvements in Leith Walk (Foot) and Shandwick Place where outputs were circa 80%, but that remaining sections indicated similar outputs as before, at circa 65%. Overall progress in the period was 56% of planned progress. Cumulative progress was 6 weeks behind, and 2 weeks against the critical path. By e-mail dated 3 June 2008 (CEC01288728) Tara Edgar circulated that report. In an e-mail on 3 June (in the same chain) Willie Gallagher stated *"I have just reviewed this report. It worries me that all is not well. You would never have picked this up from the TPB formal report, there are issues all over the place"*. In another e-mail on 3 June (in the same chain) Graeme Bissett stated, *"I do think the reporting here and in the TPB papers (which I assume is the TS Report) is not sufficiently detailed to disclose the vital signs. For example, the Committee Report says we are nearly 40% behind on physical progress, but there is nothing I can see which relates this in a rationalized way to the commentary that programme is 6 weeks behind and will have just two weeks Infraco impact; nor is there a cum cost versus related budget analysis which should relate to the physical progress and programme"*.

(1) What was your awareness of, and views on, these matters?

I went over to MUDFA circa mid-May 2008 and became aware quickly that there were difficulties, Please refer to my responses above.

(2) Did you have any concerns, at any time, in relation to whether the problems and delays with the utilities works were fully reported to the Tram Project Board and/or to CEC?

I have no reason to doubt that the Tram Project Board was kept fully updated on this.

63. E-mails between Steven Bell and Steve Hudson of Carillion in June 2008 noted discussions in relation to a MUDFA Rev 07 Programme (**CEC01346377**). An e-mail dated 30 June 2008 from Keith Gourlay, Carillion, noted certain MUDFA Commercial Issues/Concerns (**CEC01291405**). An e-mail dated 6 July 2008 from Steve Hudson (**CEC01342171**) noted *“Overall I maintain my view that MUDFA continues to operate under a lastminute.com ethos”*.

(1) Were the price and programme for the Infraco works based on MUDFA Rev 06 and, if so, why, given that the need for a revised MUDFA Programme (i.e. MUDFA Rev 07) must, presumably, have been in contemplation prior to Infraco contract close?

I do not recall seeing these emails and at that stage I did not have a detailed awareness of the depth of the difficulties in Rev 06 and I cannot say/recall whether Rev 07 was being contemplated prior to Infraco contract close nor what the size of the delta was.

(2) What were your views on Carillion's concerns noted in the above e-mails?

I did not see these emails but Mr Hudson clearly appears to have been concerned about the remuneration for Carillion. Carillion inherited the contract through their acquisition of McAlpine and from this email seems to me to be implying that failure to address their commercial needs will result in poor progress.

64. In July 2008 a Peer Review (led by Malcolm Hutchison) was carried out (**CEC01327777**). The report noted, under MUDFA Lessons Learned, that *“The fact that the completion date remains uncertain (works 60% complete) will have an increasing impact on the Infraco works”*. The report noted, under Contract Issues, *“It is unclear to the review team where risk lies for design development. BBS and TIE in interview considered risk lay with the other party”*.

(1) To what extent did these matters cause you concern?

For whatever reason I was not involved in this peer review, I cannot recall but of course the potential for delaying the Infraco project was concerning but at that juncture I was not fully aware of the day to day difficulty and discovery that plagued the project.

(2) To what extent were you aware of these difficulties prior to Infraco contract close?

I was aware that there were difficulties but not the extent.

(3) To what extent were these matters discussed with CEC prior to Infraco contract close?

Please refer to my responses above. Prior to my involvement in MUDFA I had witnessed reports on the difficulties at the Tram Project Board, I believe the CEC were aware of these difficulties through that vehicle and through their own staff being involved in traffic management approval. The rerouting of the Tram line I believe was at CEC insistence and the difficulties that it caused for MUDFA at Haymarket I am certain would have been fully explained to them.

65. In an e-mail dated 7 July 2008 you noted that BBS had instructed SDS not to issue copies of the IFC drawings to TIE (**CEC01305068**).

(1) Had BSC issued that instruction (and, if so, why)? What difficulties did that cause TIE? Was the matter resolved (and, if so, how and when)?

Unfortunately, I cannot remember the detail of this, in the email I advised Jason that they would not get their incentivization bonus if they did not comply, so I assume that they did. I assume also that Jason had been instructed by BBS, and was not simply being difficult. Why they would issue such an instruction I could only

guess was in the interests of ensuring proper control to such access.

66. An e-mail dated 4 August 2008 from Tom Hickman, Programme Manager, TIE (**CEC01298593**) attached a report on the current status of the draft MUDFA Rev 07 Programme that showed potential clashes with the Infraco programme (**CEC01298594**). A presentation to the Tram Project Board on 27 August 2008 (**CEC01150463**) noted (slide 5) that, overall, the MUDFA programme was predicting an end date of March 2009 with potential impacts on Infraco (Haymarket would possibly be complete in December 2008, the Mound in February 2009 and St Andrew square by the end of March 2009).

(1) By way of overview, what was your understanding at that time of the main difficulties in progressing the MUDFA works?

Please refer to my description above. Poor records, unexpected objects/human remains/underground bomb shelters/hugely difficult traffic management, embargos during the Edinburgh festival, stakeholder management.

(2) What were your views around that time of the prospect of the MUDFA works being completed before the start of the Infraco works?

It is difficult to position what my feelings were at a specific point in time with the benefit of hindsight but I believe that while everyone knew there were risks, I do not think anyone could have quantified the extent of those risks due to the unknowns. I drove the progress meeting hard, and I recall my efforts being emphatically praised after one such meeting by Duncan Fraser of the CEC.

67. By e-mail dated 17 September 2008 (**CEC01130811**) Colin Brady, BSC, sent a proposal for amending the Infraco contract to facilitate urgent changes, where time was critical, to prevent delay to construction operations in progress (**CEC01130812**) (revised

versions were discussed see e.g. **DLA00001329** and **CEC01125115**). Further correspondence took place. Matters had not been resolved by January 2009 (see e.g. Michael Flynn, Siemens, e-mail dated 16 January 2009, **CEC01119821**).

16 January
should be
26 January

(1) What was the need for and purpose of that proposal?

I do not know, I was not copied on this. From reading the DLA document one facet of this appears to be Infraco being paid for carrying out Utility diversion works, I do not recall that happening.

(2) Was an amendment to the change mechanism in the contract and/or a protocol agreed (and, if not, why not)?

I do not know but I suspect it wasn't. TIE had a fixed price contract with Carillion to carry out the utility diversions in their entirety.

68. The Tram Project Board met on 24 September 2008. The minutes (**CEC01210242** at page 5) noted that there were issues around management direction and control from Carillion but significant improvement following an internal audit. Slippage on the MUDFA programme from Rev 06 to Rev 07 was currently 4 months (page 6). Slides for the meeting (**CEC01155850**) noted, under MUDFA, that *"Overall, programme is now predicting an end date of March 2009 with potential impacts on INFRACO particularly if BT overlaps are difficult to address"* (page 4). Problems were noted with Design and Consents (page 8). Factors contributing to programme slippage included Design Change V26-V31, Mobilisation and Delivery Infraco, Design/Progress/Change V31-35 and MUDFA potential overlaps/conflicts (page 10).

(1) What was your awareness of, and views on, these matters?

I believe the Internal Audit referred to was carried out by me following which Carillion replaced their Programme Director. Please refer to my responses above re the various challenges. I recall the Traffic jam which occurred on Princes Street this served to highlight

the difficulties for the MUDFA programme, 'the junction conversion did not operate as expected' and Princes Street was at a standstill, all buses and most of them empty, leading to a forced abandonment of the planned closure.

69. We understand that in late September 2008 BSC submitted an application for payment in relation to various claims for Notified Departures.

(1) What did these claims relate to?

I was not involved in this.

(2) What discussion was there within TIE (and between whom) of these applications for payment? What were your views?

I do not know/cannot recall.

(3) What was TIE's response?

I do not recall.

70. We understand that BSC submitted a further (or repeated?) application for payment in October 2008. We understand that Richard Walker made a presentation to Mr Gallagher around this time with photographs and drawings showing the problems encountered by BSC with the utility works and access to the site (**WE D00000025**).

(1) Do you remember what that application related to, what discussion took place within TIE (and between whom) and what was TIE's response?

(2) Were you present at Mr Walker's presentation and, if so, do you remember the purpose and content of the presentation and TIE's response?

No I do not believe so. I do recall there were a myriad of difficulties with Leith Walk, one principle difficulty was that the utilities required

to be diverted one section at a time, requiring each section of the road to be reinstated before moving to the next contiguous section which resulted in a piecemeal approach to each utility, which was not ideal.

71. By letter dated 13 October 2008 (**DLA00001671**) Mr Walker suggested a structured approach to progressing matters. Mr Gallagher replied by letter dated 14 October (**DLA00001672**). In his letter Mr Gallagher stated, "*We ... feel it will be important to recognise that normal design development from the base date design was provided for in the price agreed at contract close*". There appears to have been a conference call on 14 October 2008 (see the reference to such a call in **DLA00002766** and **DLA00002768**).

(1) What was your awareness of, and involvement, if any, in these matters? What were your views?

I do not believe I was involved.

72. An e-mail dated 22 October 2008 from Christie Graham, Carillion (**CEC01140099**) listed the major items "*which are currently detrimentally impacting or likely to detrimentally impact the MUDFA completion programme*" including Traffic Management constraints, incomplete design and unforeseen and congested utilities etc.

The latest review of progress against programme gave a forecast end date of November 2009.

(1) What were your views on these matters?

This email is a perfect illustration of the range and scope of difficulties that the MUDFA programme was experiencing, including embargos for Christmas etc. These were typical of the issues that were dealt with and progressed every day.

73. We understand that Willie Gallagher resigned as TIE's Chief Executive and

Chairman in late October 2008 and that David Mackay became interim Chief Executive of TIE.

(1) What was your understanding as to why Mr Gallagher ceased to be Chief Executive and Chairman of TIE?

Mr Gallagher left for personal reasons.

74. By e-mail dated 30 October 2008 (**CEC01149381**) Steve Reynolds, PB, listed a number of significant issues, namely, the absence of a Siemens Trackform design, the absence of Siemens OLE design, the lack of an overall construction programme, low volume of activity on BSC design development and likely delays due to the need to move BT Cables post MUDFA installation (especially on Leith Walk).

(1) Why had Mr Reynolds provided that list? Had you asked him for such a list (and, if so, why)?

I had not asked Mr Reynolds to do so, I think from the email we had probably bumped into one another in the corridor, and notwithstanding the combative nature of the SDS novation, we had a cordial regard and respected each other's viewpoint. Mr Reynolds chose to commit his concerns to an email,

(2) What were your views on the matters listed by Mr Reynolds?

These were obviously of some concern but as illustrated by the **CEC01140099** there was no shortage of issues to progress.

(3) What did you consider to be the significant issues affecting the tram project at that time?

I was largely based at the MUDFA offices by this time and my focus would have been the MUDFA issues and the progress of the

MUDFA programme.

75. In an e-mail dated 18 November 2008 Steven Bell noted that *"the lack of an agreed commercial position with BSC has been holding up completion of various alterations to the designs submitted for Prior Approval"* (**CEC01125370**).

(1) Why was the dispute between TIE and BSC holding up the completion of design by SDS and the obtaining of outstanding approvals and consents?

In reading this I can only assume that BSC were holding this up deliberately to create leverage on their commercial dispute.

76. An e-mail dated 25 November 2008 from Steve Hudson, Carillion (**CEC01125419**), noted that Carillion continued to experience significant delays to programme as a consequence of delays in design issue, Traffic Management and stakeholder restrictions, growth and change in work scope, delay in TQ resolution and inadequate TIE leadership and project management. Mr Hudson went on to allege a history of failures by John Casserley and his team and requested their removal with immediate effect (Carillion having recently made changes to their personnel to improve delivery).

(1) What were your views on these matters?

If you read the full letter from Mr Hudson he tracks his issues back to 2007, Carillion were looking for more money to complete a contract they had inherited, and this was part of their campaign I believe.

77. In an e-mail dated 9 December 2008 (**TIE00680964**) you noted that the failure to deliver MUDFA IFCs had serious consequences for TIE. See also the e-mail dated 23 December 2008 from Steve Beattie, Carillion (**CEC01149974**) which noted *"No formal schedule has been passed to Carillion for the remaining IFCs so the supply dates are extremely doubtful and unfortunately we cannot provide any firm forecasts"*.

See also your e-mail dated 28 January 2009 (**CEC01145982**) with a note of a meeting

(**CEC01145983**) which discussed problems facing the MUDFA programme.

1) Why were there still difficulties in delivering MUDFA IFCs? Were there particular problems in particular sections (and, if so, which sections and why)?

I am sorry I simply cannot remember the detail of this, from the email I was harrying progress and probably leveraging my relationship with Steve, I also escalated the matter. Again I assume that this was embroiled in the commercial dispute.

(2) Were these difficulties ever resolved?

I am afraid I cannot recall although I would assume they would have been.

78. By e-mail dated 18 December 2008 (**TIE00017090**) you noted problems with TIE's engagement with SDS.

(1) What was the problem? Was it resolved (and, if so, when and how)?

The email paints an accurate picture of the fundamental issue - we were not getting the drawings on schedule and there was always an excuse.

(2) Why was TIE asking SDS to make changes (give the novation of the SDS contract to BSC)?

I cannot recall the agreed protocol with BSC for interaction with SDS but I would surmise there were still interactive relationships between the Project personnel.

79. A letter dated 1 March 2010 from Martin Foerder, BSC, to TIE (**CEC00578330** at para 3) noted that prior to contract award the parties had agreed that Infracore would

incorporate the SDS Design Delivery Programme v31 into the Schedule Part 15 – Programme and the result would be the first TIE change. It was further noted that the proposed revised Programme was submitted to TIE on 2 June 2008 but remained without agreement until 17 December 2008.

(1) What was your awareness of, and involvement in, that matter?

I was not involved in the construction programme.

(2) What agreement was reached (and between whom) in relation to the revised programme on or around 17 December 2008?

I do not recall.

Events in 2009

80. On 7 January 2009 Parsons Brinckerhoff produced a Report on As-Built Drawings for the MUDFA Contract (**CEC01119469**) showing a scope shortfall in these drawings (see also your Summary Report on MUDFA Audit dated 14 August 2008, **TIE00680043**).

(1) It would be helpful if you could explain the concept and purpose of an “As-Built drawing”? Which party required to produce such drawings? Why was there a scope shortfall in such drawings?

As built drawings show changes to the working drawings which occurred during the construction. I would surmise Carillion would have been responsible for producing these in regards to MUDFA but I cannot recall the detail.

(2) What problems arose from there being a shortfall of such drawings?

I cannot recall the detail on this.

(3) Did any scope shortfall in the As-Built MUDFA drawings cause increased cost or delay to the tram project?

I cannot recall the detail on this.

81. By letter dated 23 January 2009 (**CEC01182823**), BSC intimated a Compensation Event to TIE on the basis of the failure of SDS to achieve the release of Issued for Construction Drawings (IFC) by the dates identified in the programme in relation to section 1A, Lindsay Road Retaining Wall. BSC intimated a number of other Compensation Events to TIE in respect of other alleged failures to achieve the release of IFCs by the dates identified in the programme. What was your understanding of the following matters:

(1) Why were SDS unable to achieve the release of these IFC Drawings by the dates identified in the programme?

I do not know /cannot recall.

(2) Why did BSC consider that that gave rise to a Compensation Event? What were your views?

Looking back at this I am perplexed as to why BSC felt this was not their problem and why they believe they were due compensation for something that was their responsibility post the SDS novation.

(3) Given the SDS novation to BSC, (i) why were BSC not able to take steps to ensure that SDS released these drawings on time and (ii) why was that failure not at BSC's cost (rather than at TIE's cost)?

Good questions, I surmise this was the nub of the commercial dispute. My question would be if BSC were not responsible for this why were they paid the millions involved at the contract close for

taking on the SDS novation?

82. We understand that a meeting took place between BSC and TIE on 9/10 February 2009 to discuss the dispute. Stewart McGarrity produced a note of the meeting (**TIE00089656**). (see also, for example, (i) TIE's slides provided in advance of the meeting, **DLA00003129**, (ii) TIE's note on BDDI, **TIE00665341** and BSC's response, **CEC01119885**, (iii) TIE's note on BSC Claim for Change from BDDI to IFC, **TIE00665342**, and BSC's response, **CEC01119886**).

(1) Were you present at the meeting and, if so, what is your recollection of the meeting, including who was present, what was discussed and what was the outcome?

No I was not present and had no involvement in the dispute process.

(2) Mr McGarrity's notes of the meeting, (**TIE00089656**) record that BSC had estimated their projected outturn costs on the project as between £50m and £80m (comprising broadly £20m of direct costs due to Notified Departures/TIE changes, £20m due to extension of programme and £10m due to delay and disruption). What was your understanding of what these different heads represented?

I cannot add any detail to this.

(3) Mr McGarrity's notes (paragraph 4) record Richard Walker as having said that there was general acceptance by TIE pre-contract that the project would cost £50m-£100m more than was in the contract at 15 May 2008. What are your views on that suggestion?

Mr Walker was entitled to his view but no one from TIE committed to a 50-100 million overspend as far as I am aware.

83. A dispute arose in relation to the Princes Street works due to start in February 2009. After discussions and correspondence over a number of weeks, an internal TIE e-mail

dated 20 March 2009 noted that David Mackay and Dr Keysberg had that morning agreed the principles of an agreed amendment to the measurement and payment regime for Princes Street (**CEC01009977**). The dispute was resolved by parties entering into the Princes Street Agreement (**CEC00302099**) (we understand that an initial draft of the agreement was agreed on 20 March 2009, to allow work to commence on 23 March, and that the final version of the agreement was signed on 30 May 2009).

(1) When (and how) were you first aware that there was a dispute in relation to the works at Princes Street?

I cannot recall any detail on this. I do recall and have previously commented on the problem with Princes Street cellars.

(2) What was your understanding of the basis, and underlying cause(s), of the Princes Street dispute?

I cannot recall the detail of this.

(3) What was your understanding of why BSC refused to start work on Princes Street?

From the email it would appear to have been an issue related to pervasive ground conditions and their desire for compensation for same, but as stated earlier I cannot recall the specifics on this.

(4) How, and when, was the dispute resolved? What was your involvement, if any, in resolving the Princes Street dispute?

I had no involvement in resolving this dispute, I believe.

(5) Why was it agreed that BSC would carry out the Princes Works at demonstrable cost (plus overhead and profit percentages etc)?

I do not know.

(6) Did you consider that that was likely to result in the cost of the Princes Street works being greater than the sum allowed for these works in the Infraco price?

I refer to my answers above, I cannot recall any specifics on this, and I do not believe I was involved.

84. By letter dated 30 April 2009 (**CEC00322635**) Steven Bell sent BSC revision 8 of the MUDFA Programme. That resulted in an INTC from BSC, who asserted that *"TIE's failure to procure the completion of the Utility Works in accordance with the Infraco programme, as evidenced by the MUDFA Programme Revision 8, constituted a Notified Departure. This Notified Departure, based on, inter alia, the current facts and circumstances differing from Pricing Assumptions 24, is a deemed Mandatory TIE Change"* (per BSC's letter dated 4 September 2009, **DLA00001723**).

(1) Do you have any comments on that? Do you agree, for example, that, in principle, a revision to the MUDFA programme resulted in a Notified Departure and a Mandatory TIE Change?

On the face of it this would appear to represent an opportunity to raise a Notified departure but the reasons for these delays were at least in part due to the delay in design delivery which they were responsible for.

(2) Similarly, did, in principle, any change to the design programme result in a Notified Departure and a Mandatory TIE Change?

I am sorry I cannot recall.

85. An e-mail dated 9 June 2009 from Alisdair Dickinson, TIE, (**CEC00959704**) set out ongoing problems with the MUDFA works at Haymarket and Lothian Road. See also

your e-mail dated 17 June 2009 (**CEC00949148**) noting other concerns in relation to Shandwick Place, including inadequate record keeping.

(1) What were your views on the main problems in these locations and why they had arisen?

I have covered elsewhere the problems at Haymarket. In reading this it jogged a memory of reinstatement problems emerging at Shandwick which Carillion were asked to address and their QMS records were unsatisfactory prior to September 2008. I do not believe the Carillion programme management prior to Steve Beattie's arrival was adequate.

86. An informal mediation took place between TIE and BSC between 29 June 2009 and 3 July 2009. (see, for example, the position papers produced by TIE on the following topics for the mediation: Value Engineering (**CEC00951731**), On Street Supplemental Agreements (**CEC00951732**), Off Street Issues: RRRW, Gogarburn Bridge, Carrickknowe Bridge and Depot (**CEC00951733**), Misalignments between Infracore Proposals and SDS Design (**CEC00951734**), Hilton Hotel car park (**CEC00951735**), Evaluation of Change (**CEC00951736**), Evaluation of EOT (TIE Change No 1) (**CEC00951737**), Earthworks Outline (**CEC00951738**) and Agreement on BDDI (Drawings) (**CEC00951740**). (1) Were you present at the mediation and, if so, it would be helpful if you could explain who was present at the mediation, the matters discussed and the outcome?

I was not present.

87. A joint meeting of the Tram Project Board and the TIE Board took place on 8 July 2009. The minutes (**CEC00843272**, page 6) noted, under Project Delivery (Utilities), that 77% of utilities diversions were now complete, that Carillion works continued to be slower than programmed, with justification in some areas, and in others down to poor performance, and that BT and SGN works were progressing on or ahead of schedule.

The section 7 contract (Gogar to Edinburgh Airport) had now been awarded to Farrans who were now on site and on programme (it being noted that the cost of these tendered works was less than that budgeted for Carillion). A tender was out for the utilities works in section 1a (Newhaven to Foot of the Walk), parts 3 and 4. Slides (**CEC00783725**) set out (pages 10 and 11) the preferred option of a Formal Contractual Approach and the options of reducing BSC's scope, ending the Infraco contract and other scope options (i.e. truncation).

(1) What was your awareness of, and views on, these matters?

I believe our patience with Carillion had come to an end, they had made numerous representations to me and in turn to Steven Bell on their disgruntlement with the inherited contract. TIE's position was that we had a fixed price deal with an experience practitioner and that the difficulties encountered should have been foreseen by that Contractor and accounted for in their bid price. It was self-evident however that the task was not the cynosure of all eyes at Carillion senior management and their productivity and focus were slipping badly towards the end, however much I harried and cajoled them, they may dispute that but the progress figures back it up. If I recall correctly Mr McFadden of TIE took charge of these areas and allocated them to external contractors.

(2) To what extent do you consider that the slippage in the MUDFA works was justified and to what extent was it down to poor performance (and by whom)?

There is no question in my mind that this was an extraordinarily difficult task. I have previously mentioned that some of the utilities were over 100 years old, poor records, unforeseen obstructions and constructions below ground, the requirement to do the job piecemeal, changes to the tram route and so on. All this being carried out in a world heritage city with highly limited capacity to

absorb any traffic disruption, and lacking the available space to dig the road up and still observe the required safety margins for the Heras fencing. Add to this a virtual spaghetti junction of utilities (which had to be replaced/moved piecemeal involving much jointing).

That said Carillion clearly resented the contract that they had inherited (this was not the Project's problem) and their performance on the job reflected their disgruntlement I believe. The difficulties with design services were clearly also contributory.

(3) Give that the MUDFA works were initially due to be completed by the end of 2008, why were BT and SGN works still being undertaken in July 2009?

I believe the note **CEC00762170** encapsulates why.

(4) What were your views around that time on the best option for TIE to follow in relation to the Infraco dispute and completing the works and the prospects of that option being successful?

My focus was on MUDFA and I was not involved in the dispute process.

88. By e-mail dated 27 July 2009 (**CEC00762170**) you attached a brief summary of the MUDFA Prolongation Issues (**CEC00762171**).

(1) Do you have any comments on the points made in your e-mail or summary paper?

No I think the note sums it up reasonably.

89. A joint meeting of the Tram Project Board and the TIE Board took place on 29 July 2009. The minutes (**CEC00739552**, page 7) noted (para 3.3) that the overall completion

of the utilities programme was at 80% with full completion scheduled against all areas in November 2009. Richard Jeffrey presented his quarterly review (**CEC00376412**) and noted (page 3) the following problems as having been “baked in” from the beginning, namely: risk management strategy; procurement strategy; design/design management; contractor appointment /behaviour; and optimistic estimates.

(1) What were your views on these matters?

I have covered the procurement strategy before, I cannot add anything to Mr Jeffrey's summary.

90. By e-mail dated 31 July 2009 (**TIE00031088**) Martin Foerder sent Richard Jeffrey BSC's “Final Settlement Proposal” (**TIE00031089**). We understand that discussions then continued in the second half of 2009, in particular, in relation to the on-street works. We further understand, for example, that parties met on 6 October 2009, and thereafter, to explore the possibility of using the Princes Street Supplementary Agreement as the basis of a wider On-Street Supplementary Agreement.

(1) What was your involvement in, and views on, these discussions, including the proposal that the on-street works be undertaken on a demonstrable costs (or costs plus) basis?

None I believe.

91. We understand that some of the utility diversion works were carried out by the SUCs, who then charged TIE for the cost of carrying out the work. We note, for example, an e-mail dated 4 August 2009 from Gregor Roberts (**TIE00666203**) which stated that the Turnhouse roundabout diversion was budgeted to cost £1.9 million, that SGN had undertaken the work and invoiced TIE £2.9 million (which TIE had paid) and then invoiced TIE a further £500,000, with a potential £170,000-£300,000 to follow.

(1) In general, what utility diversion works were carried out by the SUCs, rather than by the MUDFA contractor?

I am sorry I cannot recall the detail on this, we were descoping work from Carillion in the interests of getting it completed and this work I think fell into that category.

(2) In general, did the work undertaken by the SUCs end up costing significantly more than budgeted for (and, if so, why)?

I would suspect that it did because simply SUCs are more expensive than building contractors.

(3) Do you have any comments on why the Turnhouse roundabout diversion works by SGN appear to have cost so much more than budgeted for?

No.

92. We understand that you left TIE in November 2009.

(1) For completeness, when and why did you leave TIE?

I left in November 2009, by which time my contract had run out and for the last few weeks there I was carrying out administrative tasks. I also had health issues which made the leaving mutually convenient.

(2) What were your views on the tram project when you left?

I was concerned about the ongoing dispute, especially against a backcloth where the main contractor could claim liquidated damages for every day of delay. The ambiguity in the clause which alluded to responsibility for design development, something which I believe TIE's legal representation thought there was a 70% chance

of interpretation in TIE's favour had been to arbitration and went against TIE.

Project Management, Governance and Contractors

93. In relation to project management:

(1) Which body or organisation do you consider was ultimately responsible for ensuring that the contracts and works were properly managed, including managing the interface between the different contracts and works?

TIE was the CEC's agent in carrying out these tasks; I suppose the 'ultimate' responsibility would be the CEC's.

(2) Did you have any concerns at any stage in relation to TIE's management of the tram project or the performance of any of TIE's senior personnel or Board members?

No.

(3) Did you have any concerns at any stage in relation to TIE's reporting to CEC (or others)?

No.

94. In relation to CEC:

(1) How were important matters relating to the tram project reported by TIE to CEC (including by whom and to whom)?

As previously stated the Tram Project Board had full representation from the CEC. I have no doubt the TIE Chief Executive and Chairman had one to one sessions with the CEC in addition.

(2) How were the views and requirements of CEC fed back to TIE?

Through the TIE CEO and Chairman.

(3) Did you have any concerns at any stage in relation to the performance of senior CEC officials or councillors?

I was not in a position to judge that.

95. In relation to the Tram Project Board (TPB):

(1) How were important matters relating to the tram project reported by TIE to the TPB (including by whom and to whom)?

By various presentations/reports from the TIE Exec and their subordinates.

(2) How were the views and requirements of the TPB fed back to TIE?

By various briefs, the website, one to one meetings and the internal Communications team.

(3) Did you have any concerns at any stage in relation to the performance of the TPB or any members of the TPB?

No.

96. In relation to TEL:

(1) How were important matters relating to the tram project reported by TIE to TEL (including by whom and to whom)?

Representatives from TEL attended the Tram Project Board.

(2) How were the views and requirements of TEL fed back to TIE?

Through the same mechanisms mentioned above.

(3) Did you have any concerns at any stage in relation to the performance of TEL or any members of TEL?

No.

97. In relation to the Scottish Government (SG) and Transport Scotland (TS):

(1) How were important matters relating to the tram project reported by TIE to SG/TS (including by whom and to whom)?

I am not certain but I assume by briefings/reports from the TIE CEO.

(2) How were the views and requirements of SG/TS fed back to TIE?

By the TIE executive.

(3) Did you have any concerns at any stage in relation to the performance of SG/TS or any ministers or senior officials?

I was in no position to judge.

(4) What were your views on the decision taken around July 2007 that TS should play a lesser role in the governance of the project?

I think that the reduction of that highly experienced body's role in the project was regrettable.

98. In relation to the inter-action between the different bodies and organisations involved in the project management and governance of the tram project:

(1) How were important matters relating to the tram project reported between these different bodies and how, and by whom, were decisions taken in relation to these matters?

Through the TIE executive, the Internal communications team including stakeholder management, the various communications mechanisms previously identified and interactions with various members of the TIE team overall.

(2) What were your views in relation to the governance arrangements for the tram project including, in particular, the effectiveness of the governance arrangements?

I believe that it was a belt and braces paradigm of governance.

(3) Did you have any concerns at any stage in relation to the governance arrangements?

No.

(4) Which body or organisation do you consider was ultimately responsible for ensuring that the tram project was delivered on time and within budget?

Clearly TIE acting as an agent for the CEC had that responsibility but the consortium who signed up to a fixed price contract also had responsibilities in that regard.

99. In relation to the main contractors involved in the tram project:

(1) What were your views on the performance of each of the main contractors?

I had no involvement in the Construction Programme, nor the subsequent dispute. My personal involvement with the consortium was restricted therefore to assisting Steven in the negotiation process. I found the late breaking cost hike by BBS and Dr Enenkel's advice on their attitude to risk contrary to the partnership approach that I was more familiar with in past dealings with suppliers in my career.

Prior to my involvement with SDS in the novation the consensus in TIE appeared to reflect dissatisfaction with their performance; I had little or no personal experience of that. The negotiation of the novation was fraught, and SDS exacted a substantial compensation for agreeing to the novation.

Carillion as previously stated had inherited their contract through acquisition of McAlpine and clearly felt the terms of same to be onerous. Following my audit they replaced the Programme Manager and I found Steve Beattie to be a decent and more competent practitioner. That said in failing to exact any further cash from TIE, and notwithstanding the horrendous difficulties of the job, Carillion's appetite and performance in the job waned, I believe the productivity MIS reports I established would reflect that.

(2) To the extent you had concerns in relation to any of the main contractors, what did TIE do to try and address these concerns? Were these steps successful (and, if not, why not)?

I think I can only comment on measures that we undertook with Carillion which were to improve the management focus and control through improved project hygienes including control meetings and reporting. This coupled with personnel change certainly improved matters in the short to medium term but the longer the project went on it became clear that Carillion's performance and appetite for the job had waned and ultimately a number of the areas they should have covered were expediently descoped (being the lesser of 2 evils).

Final Comments

100. By way of final thoughts:

(1) How did your experience of the Edinburgh Trams Project compare with other projects you have worked on (both previously and subsequently)?

There were similarities of course in the daily diet of problems, in the difficult task of managing different contractors with different ambitions or visions of what constituted success. I recall a project where the Company had spent 2 years putting a detailed specification together to facilitate a fixed price job and we had over 600 change control requests within 6 months of the construction phase beginning. I would have to say however that the MUDFA programme would have to rank as the most difficult task with which I've ever been involved.

(2) Do you have any views on what were the main reasons for the failure to deliver the project in the time, within the budget and to the extent projected?

The Utility diversion programme was beset with problems, outlined earlier, and had been running for about a year prior to my joining it.

A more thorough and demanding management control hygiene was established including beefed up control meetings and a much greater focus on stakeholder management, the nature of the problems met (as described earlier) however meant that satisfactory progress was difficult to achieve and maintain. This was never going to be an easy or popular task.

To borrow a phrase from Richard Jeffrey's some of the problems with the Project were baked in from the start. The Project started I think circa 2002 and clearly the strategy outlined subsequent to that in decoupling the design from the build was well intentioned but ill - conceived and this was at the root of the commercial dispute.

3) Do you have any comments, with the benefit of hindsight, on how these failures might have been avoided?

Yes, the Utility diversions should have been completed before the full construction contract was let. A Phase 0 on the Construction programme would have been required in advance of this to delineate the route and hence the diet for the MUDFA programme. The MUDFA programme could then have had the dual objective of moving/renewing the affected utilities and holistically testing the pervasive ground conditions across the entire route, this would then have been used to inform a design and build contract tendering process.

One final thought in this regard would be that such projects should be equipped with a Czar who has statutory authority to cut through and time constrain the numerous stakeholders in voicing their concerns and who is empowered thus to drive through such change

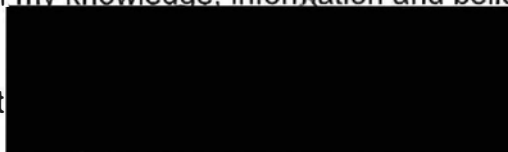
in the national interest, having parties who can impede progress without accountability for the resultant costs involved is not helpful.

(4) Are there any final comments you would like to make that fall within the Inquiry's Terms of Reference and which have not already been covered in your answers to the above questions?

I believe that notwithstanding the difficulties involved that Edinburgh will ultimately expand this Tram Network and the fundamental purpose of the Inquiry has to be to smooth the path for that, any new extension should have the route cleared of Utilities prior to starting. I think it would also be helpful to note that the Tram Project picked up a legacy of poor utility records and the renewal of some very old utilities indeed to the benefit of Edinburgh.

I confirm that the facts to which I attest in the answers contained within this document, consisting of this and the preceding 87 pages are within my direct knowledge and are true. Where they are based on information provided to me by others, I confirm that they are true to the best of my knowledge, information and belief.

Witness signat



Date of signing.....

31 APRIL 2012

Addendum for clarification

Question 28(5) To what extent were these matters discussed with CEC?

I had occasional discussion with Mr D.Fraser a representative of the CEC but this was principally through his attendance at the Mudfa progress meeting and not on the matters pertinent to this question. I did not attend CEC meetings and have any direct contact with the CEC itself and as such I am unable to answer this question.

[REDACTED]

J.McEwan 3 May 2017

[REDACTED]