

## JOHN CASSELY

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### 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 experience prior to joining TIE?

BSc Quantity Surveying and post graduate Masters In Management.

(2) What was your prior experience in major infrastructure and transport projects?

What was your experience in diverting utilities, including diverting utilities in cities? Varied and extensive experience working for a variety of construction organisations with extensive experience under NRSWA and of utilities design, removal, repair, modification, installation, maintenance, operation etc particularly in relation to waste water, clean water, gas mains/connections and telecoms (BT, Verizon, Tele West, Network Rail, private networks etc),

2. We understand that you joined TIE in April 2007:

(1) Between what dates were you employed by TIE?

April 2007 to August 2010

(2) What was your job title?

Commercial Manager for MUDFA (Multi Utility Diversion Framework Agreement)

(3) What were your main duties and responsibilities?

Administration and commercial management of all aspects of MUDFA

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

Initially I reported to Geoff Gilbert and then to Dennis Murray. Thomas Caldwell, Iain Black, Lay San Kuak reported to me.

(5) More generally, what was the structure of the TIE MUDFA team? Approximately how many individuals were in the TIE MUDFA team? What was the role of the different members of the team?

Project Director Graeme Barclay led a project team consisting of myself (Commercial Manager), Tara Edgar (PA/Secretary), Michael Blake (Project Manager), Iain Clark (Project Manager), Alasdair Dickson (Project Manager), Jim Johnstone (Electrical / Design lead), Thomas Caldwell (Senior Surveyor), Iain Black (Surveyor), Lay San Kuak (Surveyor), Phil Douglas (Senior Inspector), Neil Hobson (Inspector), Jackie Paton (Inspector), Robert Bell (Assistant Project Manager), Robert Maxwell (Assistant Project Manager), Kevin Gray (assistant Project Manager), Michael O'Connor (BT/Telecoms Project Manager), Jim Ritchie (Health & Safety). Circa 18No staff.

3. When you first joined TIE:

(1) What were your initial impressions of TIE, the tram project and the MUDFA works?

Tie was split into different contracts which were managed by independent/separate teams ie MUDFA, INFRACO, SDS design Contract, EARL etc all the contracts / project teams reported into a central management team. The basis of the MUDFA works to have a single contractor working on behalf of all the utilities to divert/relocate the services two years in advance of the tram to create a swept path was a good idea and built on lessons learned on previous similar tram projects in Leeds, Dublin and Manchester. However there were no accurate records available from any source for the actual utilities present before the MUDFA/ Infraco commenced. Design of the services was running late and limited if any actual excavations works had commenced.

(2) Did you receive a briefing on these matters (and, if so, by whom and what were you told)?

Yes, from Susan Clark, Geoff Gilbert and Martin Hutchinson

## **MUDFA – General**

The MUDFA contract was entered into between TIE and Alfred McAlpine Infrastructure Services Ltd (AMIS) in October 2006 (CAR00000300). We understand that AMIS were acquired by Carillion plc in February 2008.

It would be helpful if you could give an overview of the questions in this section.

4. In relation to the utilities design:

(1) Which organisation was responsible for producing the utilities design?

Parsons Brinckerhoff Ltd under the provision of System Design Service (SDS).

(2) What, if any difficulties were experienced in that regard? What were the reasons for any such difficulties?

Design information was significantly late from SDS (CEC01473858 & CEC01473859 dated 4th December 2007 details significant delays and changing dates in SDS designs programme between MUDFA Programme Rev 04, Rev 05 and Rev 06 ie Section 1A moved from Sept 07 to Oct 07 to Nov 07 to Mar 08; Section 5B moved from Aug 07 to Oct 07 to Apr 08 etc – these changed dates were before any excavations commenced). Insufficient ground investigation carried out by SDS (only Ground Penetrating Radar adopted by SDS with limited if any trial holes/excavations particularly in the 'on road' sections). Significantly increased number of utilities found and required diversion (originally anticipated circa 27,000m actually undertook circa 59,000m utility diversions). Unexpected subsurface obstructions encountered during excavations/utility diversions ie cellars, basements, air raid shelters, tunnels, historical steam cable infrastructure buried in Leith Walk etc all which required changes/amendments to designs and design solutions Delays in SDS securing the utilities (BT, Scottish Water, SGN, Scottish Power, Verizon, Telewest etc) sign-off/ agreement to the SDS designs. Note : See CEC00100146 ( although I was not issued with a copy of this witness statement and I do not agree fully with some comments particularly No 3.6) see also "Notes of meeting between John Casserly, Jane Ferrier and Nicola Whiteford On 4th March 2015 at Waverley Gate" (copy of which I will forward/attach with these answers).

(3) What were the consequences of any such difficulties?

Delayed the works and resulted in additional costs incurred by Tie and the MUDFA Contractor.

(4) Which body or organisation was responsible for ensuring that the requirements of the various interested parties (including e.g. the statutory utility companies, Forth Ports plc, British Airports Authority, Network Rail and the City of Edinburgh Council) were taken into account and reflected in the design?

SDS Provider - Parsons Brinckerhoff Ltd

(5) What procedure was followed in that regard? How was agreement reached?

Detailed in the SDS Contract

- (6) To what extent was the MUDFA design dependent on the civil engineering design for the tram project and vice versa? To what extent did delay or changes to the civil engineering design cause delay or changes to the MUDFA design?

The DKE swept path and zone of influence from which all the utilities had to be diverted is dependent upon the civil engineering design for the Infraco tram slab. Prior to the appointment of the Infraco Contractor SDS and Tie Board instructed the MUDFA utilities to be designed on the basis of a tram slab depth of 450mm. This tram slab depth was later amended/changed following the appointment of the Infraco contractor to circa 600mm/650mm, this resulted in a number of diverted utilities being too high and requiring additional works and delay – in order to mitigate delay and reduce disruption it was decided any/all clashes as a result of the increase in tram slab depth would be undertaken by Infraco when the slab was being installed. The details of all affected utilities and a detailed list of all other potential utility issues which would/could affect the Infraco works was produced and issued to Infraco Contractor and the Tie Infraco Team prior to finalising/agreeing the Infraco Contract for incorporation into the Infraco contract. DLA Piper also produced a recommendation, in respect of the listed items from the MUDFA contract, for the incorporation of this information into the Infraco agreement before it was signed but I do not know if the Tie Infraco team followed the recommendation.

5. In relation to utilities investigations:

- (1) Which organisation was responsible for instructing/undertaking the utilities investigations for the tram project?

SDS Provider for the design and construction. Under CDM and the NRSWA MUDFA Contractor (Carillion/AMIS) also have a responsibility to adopt safe systems of works to identify services/utilities etc prior to and during the works.

- (2) In general, what investigations were undertaken (including by whom and when) to identify the utilities that would require to be diverted and replaced?

In addition to checking existing utilities with all the utility providers and Susie Phone etc minimum investigation under the SDS Contract in the form of ground penetrating radar with limited trial holes, the majority of which were undertaken in the 'off road' sections; MUDFA Contractor also carried out trial holes to validate and inform the design prior to commencing utility diversions.

- (3) What use was made of trial holes and at what stage e.g. were trial holes dug before the utilities design was produced in order to inform the design and/or were trial holes dug after the utilities design was available but before the utilities diversion works took place?

As stated in (2) above trial holes were dug before to inform the design and after utility design but before utility diversion works took place.

- (4) Did the results of the investigations turn out to be reliable (and, if not, why not)?

Not very often, the ground penetrating radar was limited, and a significant number of additional utilities were discovered during the trial holes and diversions works than identified or considered by SDS in their investigation and design.

- (5) Do you consider that any other investigations could or should have been carried out before the utilities diversion works took place?

A greater degree of trial holes could have been undertaken to inform the design and reduce the delay however to identify every utilities you have to excavate the whole route to determine all the services and reinstate while waiting for the approved utility diversion designs – this is neither practical nor cost effective.

6. In relation to the statutory utilities companies (SUCs):

- (1) What was the main purpose of the various agreements entered into with the SUCs?

As CAR00001078 1No Contractor to undertake the utility diversions for all the SUC's with a uniform design approach (design hierarchy leave, abandon, protect, slew/lower, provide reserve ducts, internal reinforcement or diversion outwith DKE), optimising diversion works to avoid multiple disruption, reduce/improve programme & coordination with Tie retaining control. The SUC's design solution would provide a utility free zone for the tram and ensure future safe access to the SUC's for operation and maintenance without disrupting the operation of the tram. In addition under the NRSWA the SUC's contribute towards the cost of any utilities diversions the extent of the SUC contribution is dependant on the age of the existing SUC asset before diversion.

- (2) Were these agreements successful in achieving their aims (and, if not, why not)?

Yes and No – a significant number of uncharted / unknown utilities were encountered which the utilities did not know or have details on ie anticipated 27,000m of diversions but actual circa 59,000m diversions undertaken. The contributions under the NRSWA were difficult to agree with some utilities as they have all the information required to demonstrate age of the existing assets which they do not always share and Tie also required a good working relation with all the SUC's to ensure the designs accepted and agreed particularly in the very congested areas.

- (3) In general, were any difficulties encountered with the SUCs? If so, what were these difficulties and how were they resolved?

Location of utilities within the design and within actual physical space available out with the DKE etc – due to safety case some utilities such as gas mains given priority locations and the remainder fitted around; identifying and agreeing ownership of utilities – if utility ownership was not established after meeting with all SUC's the utilities were severed by controlled means, if customers complained of loss of service utility identified and diverted/reconnected, if no customer complaints severed utilities abandoned. Agreeing the SUC contributions under the NRSWA for new utility diversions – regular meetings and agreeing sectional contributions with SUC as works progressed.

(4) Did any difficulties with the SUCs cause delay or increased cost?

Yes delays caused and increased costs.

(5) We understand that some utility diversion works were carried out by the SUCs, at TIE's expense. It would be helpful if you could indicate the main utilities works that were carried out by the SUCs? Were TIE able to challenge or dispute the cost of these works (and, if so, by what means)?

BT/Telecoms pulled their own cables through ducts provided by MUDFA and made connections at agreed rates/prices; Scottish Power placed/pulled buried electric cables at actual cost of work done – cost subject to audit and challenge; some gas main diversions particularly the Gogar diversion (see TIE 00771511) and Palmerston place undertaken by SGN at actual cost of work done – cost subject to audit and challenge; gas main connections from new gas mains to and within properties/houses/flats etc undertaken by SGN as they are the only Statutory Authority who have legal authority to enter properties to replace/renew pipework/ensure gas connections are safe in all properties, works undertaken on a re-measurement basis using a schedule of agreed rates and prices prior to the works commencing.

7. In relation to Traffic Management (TM) arrangements:

(1) It would be helpful if you could give an overview of the different steps, and timescales, involved in obtaining agreement for TM arrangements?

TM process established/imposed by CEC after the MUDFA contract finalised, TM process required all TM requirements to be submitted to TMRO for discussion / agreement with CEC taking into account any constraints/restrictions they consider appropriate at time of request whether or not these restrictions were detailed and agreed as part of MUDFA. The timescales varied and in a number of instances the CEC TM approvals actually dictated or delayed the works programme to suit restrictions imposed at will by CEC see CEC01140105 (TMRO rejects TM proposals works will need to be re-programmed), CEC01452007 (revised programme required with delays to accommodate TMRO and stakeholder requirements before TM will be agreed), CEC01454816 (Rev 3 TM for trial reprogrammed by TMRO)

- (2) We understand that it was originally proposed that TIE would provide the MUDFA contractor with all approved and integrated Traffic Management Plans/Designs and Temporary Traffic Regulations Orders (TTROs) by January 2007. Did that timescale slip and, if so, why?

When were they all approved and integrated Traffic Management Plans/Designs and TTROs available? Timescale slipped due to delay in issue of design which prevented TM requirements being finalised in addition any design produced and associated TM was subject to continual change and adjustment to accommodate unidentified utilities encountered in excavations, unexpected obstructions/structures in excavations and enabling works etc.

- (3) What, if any, problems resulted from embargos on when work could take place (e.g. due to Edinburgh's summer and winter festivals)?

A number of embargos were imposed by CEC/TMRO throughout the currency of the works to accommodate not only identified festivals but also ad hoc stakeholder/CEC Councillors requests. These embargo required the works to be temporary backfilled/reinstated, all TM etc removed and footpaths etc reinstated once embargo passed the temporary back fill had to be removed, TM fully reinstated etc prior to works recommencing; this resulted in considerable delay and costs not envisaged in MUDFA. See CEC01452200 request from CEC for all mass barrier to be removed and reinstated along Princes Street between 31/12/07 and 1/1/08 this also included full permanent reinstatement of all excavations in Princes Street and surrounding streets and then re-excavation etc to complete utility diversions. Due to TMRO restrictions imposed on the works, the works to accommodate these embargos etc where normally undertaken under out of hours shifts by the operatives which are significantly more expensive than during a normal day.

- (4) To what extent did TM issues cause increased cost or delay?

Significant additional cost and delay incurred due to TM as CEC/ TMRO requirements significantly greater than detailed or anticipated under MUDFA – MUDFA post contract signature subject to restrictions and high level of requirements not included or contemplated under MUDFA.

8. In relation to CEC and third parties (including, in particular, Forth Ports plc, Network Rail and British Airports Authority):

- (1) To what extent, if at all, were difficulties encountered with any of these bodies when undertaking the MUDFA works?

Getting utility diversions designs approved/agreed for their private utilities difficult and they own the ground/future developments which resulted in requirement to provide greater utility diversions to safe guard future development.

(2) Did any such difficulties cause delay or increased cost?

Yes additional cost and delay – although part of the delay and cost resulted from poor SDS service provision etc.

9. We understand that there was a Pre-Construction Services (PCS) phase under the MUDFA contract. By way of overview:

(1) What was the purpose of the PCS phase?

What was to be done during that phase? This element of works was undertaken before I commenced employment with Tie.

(2) What was done during that phase?

This element of work was undertaken before I commenced employment with Tie

(3) What, if any, difficulties were experienced during the PCS phase?

This element of work was undertaken before I commenced employment with Tie but design from SDS an issue.

(4) What was the originally anticipated duration of the PCS phase?

(see e.g. (i) a document produced by Carillion in September 2009, CEC00790177, which noted, page 1, that the PCS phase was to run between October 2006 and March 2007) Settlement agreed for not completing PCS phase the details of which were provided / confirmed by Tie Board for the executed Settlement agreement.

(5) Was the PCS phase completed (and, if so, when) (see, for example, Mr Malkin's letter dated 3 August 2007, **CEC01702507**, which referred, at page 2, to a "break down" of the PCS phase)?

This element of work was undertaken before I commenced employment with Tie but design from SDS an issue which also delayed impacted TM etc.

(6) Did any difficulties experienced during the PCS phase affect the Construction phase?

Delayed commencement of utility diversion works and prevented Carillion/AMIS providing value engineering input into the design prior to issue to SUC and commencing diversion works. Note : See CEC00100146 ( although I was not issued with a copy of this witness statement and I do not agree fully with some comments particularly No 3.6) see also "Notes of meeting between John Casserly, Jane Ferrier and Nicola Whiteford On 4th March 2015 at Waverley Gate" (copy of which I will forward/attach with these answers).



10. In respect of the Construction Phase under the MUDFA contract:

- (1) We understand that payment was on a remeasurable basis and, for completeness; it would be helpful if you could explain your understanding of that term as it applied to the MUDFA contract?

Carillion/AMIS only paid per linear metre of utility placed/completed ie installed, tested, signed off and adopted by the SUC's payment calculated using the Schedule 4 rates and prices. ie Leith Walk BT duct utilities diverted 3 or 4 times by Carillion/AMIS due to quality issues but only paid the linear meterage undertaken once.

- (2) In general, what differences were there in the utilities diversion works that required to be carried out in the "on-street" and "off-street" sections?

'On street' significantly more extensive and expensive works due to TM, temporary works, excavation and reinstatement of roads/footpaths etc and much greater congestion which makes it more difficult to accommodate and design utility diversions.

- (3) Which sections were more difficult and why?

On street more difficult as points in (2) above as well as dealing with residents/public, dealing with traffic, reduced working space, number of restrictions / embargoes imposed on street, utility connections in to private homes/flats etc.

- (4) In general, which utility works were to be carried out, respectively, by AMIS/Carillion, the SUCs and the infrastructure contractor?

(see e.g. a spread sheet dated November 2006 showing the MUDFA/Infraco split, CAR00002079)

As per CAR00002079 all AMIS with limited/ancillary works by Infraco to prevent rework, with limited works to be undertaken by SUC's as per MUDFA agreement.

- (5) In what sequence were the utility diversion works to be carried out (see e.g. a TIE presentation dated January 2007, **CAR00001078**, page 15, Programme)? Why was that sequence chosen?

No specified sequence within MUDFA contract; start and finish dates specified with indicative programme – decision and sequence in January 2017 taken before I commenced with Tie.

- (6) Were the works, in fact, carried out in that order (and, if not, why not)? In what sequence were the utility diversion works carried out?

Order and sequence of the works changed/amended during the currency of the works due to design availability, agreement with SUC's,

unknown/unexpected utilities encountered, unknown obstructions/ structures encountered etc. However MUDFA contract envisaged and anticipates encountering unknown utilities etc. In addition as per CAR00001078 AMIS slides presented by the Project Director confirms AMIS have over 30 years' experience of digging streets in Edinburgh so they are aware of the issues they would encounter. Note : this experience and knowing what to expect when digging streets in Edinburgh and taking this into account in their Schedule 4 rates and prices was also stated and confirmed in the AMIS pre contract tender submissions and considered as part of the evaluation of the tenders.

- (7) How was it envisaged that TIE would exercise supervision and control over the utilities works?

Tie provided the design and design solutions agreed with SUC's, instructed/agreed where, when and in which areas the works could commence in and then carried out inspections of the works being undertaken. AMIS as principle contractor supervised and controlled the construction activities undertaken.

11. We understand that the utilities diversion works were due to commence in April 2007 (which was changed to July 2007) and were due to be completed by the end of 2008 (i.e. before the commencement of the infrastructure works) but that difficulties and delays were encountered.

By way of overview:

- (1) What were the difficulties and delays encountered in carrying out the utilities works?

Government election and the new Government's decision to hold a vote on whether the Tram project and EARL projects should continue put the project at risk which delayed the works commencing in earnest from April 2007 until July 2007. There were also issues/delays with the design from SDS which ran concurrently but there was sufficient design available to commence a greater quantity of works if the government vote was not an issue. In addition the completion date was delayed as a result of extent of unexpected utilities encountered, the significant increase in diversions from circa 27,000 m to circa 59,000m, encountering subsurface obstructions/ structures, delay in identifying SUC ownership of unknown/unidentified utilities, delay in achieving SUC approval for designs/solutions, limited/ restricted free space out with the DKE to accommodate utilities, SDS safety audit carried out Sept/Oct 2008 changed the DKE and also resulted in significant additional works to construct side entry manholes along the tram route to move manhole access as far from the tram tracks as possible etc. AMIS/Carillion's inability to manage and or progress the works available, AMIS/Carillion quality issues resulting in having to redo utility diversion a number of time (although they only got paid for doing them once) etc. Note : See CEC00100146 ( although I was not issued with a copy of this witness statement and I do not agree fully with some comments particularly No 3.6)

see also "Notes of meeting between John Casserly, Jane Ferrier and Nicola Whiteford On 4th March 2015 at Waverley Gate" (copy of which I will forward/attach with these answers).

(2) What were the main reasons for these difficulties and delays?

Uncertainty over the outcome of parliamentary vote on Tram project resulted in direction from Transport Scotland, CEC and Tram Board to minimise the extent of work undertaken and minimise committed liabilities under MUDFA until outcome of vote established. This political intervention delayed the project. In addition there was concurrent SDS design and SUC approval delays, AMIS/Carillion progress and quality issues etc see also (1) above.

(3) What steps were taken (by whom and when) to address these difficulties?

MUDFA Project Director arranged SDS design representative to be on site at all times to coordinate issued design and any issues encountered with unknown/unchartered utilities, obstructions, structures etc with the SUC's and SDS designers in Newcastle as they arose. In addition MUDFA Project Director arranged for authorised representatives of each of the SUC's to be either permanently on site or within 30mins travel from site at all times in order to address and agree issues/variations/solutions as they arose to reduce delay. A significant number of additional trial holes were instructed and carried out by MUDFA to better inform the SDS design and SUC approval process. Weekly coordination meetings were held and advised to all stakeholders in the affected work sections. Weekly TM work shops were arranged and a dedicated TM liaison allocated for MUDFA to manage the TMRO approvals and any changes/amendments required.

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

The steps taken were effective to a degree but due to the extent and nature of a number of the issues encountered during the actual excavations and utility diversion works in a number of work sections the steps taken merely mitigated but did not improve the position in a number of work sections.

(5) When were the utility diversion works completed (or, at least, substantially completed)?

This depends on whether this is in relation to the MUDFA works undertaken by AMIS/Carillion, which I believe were substantially complete around the period I left Tie in August 2010 (at August 2010 MUDFA completed circa 59,000m of diversions against the original envisaged 27,000m), or also the utility diversion works transferred / undertaken by Infracore which were completed sometime after I left Tie.

12. In relation to the main utilities contractors:

(1) In general, what were your views on the performance of AMIS/Carillion?

Poor performance – the contract based on Schedule 4 rates per linear m with an hourly rate of circa £14.50 and AMIS/Carillion in-house staff/operatives undertaking the works. However in reality supervision very poor, productivity poor, and majority of works undertaken by labour only subcontractors on an average hourly rate of £20.00 (significantly higher than the AMIS /Carillion tender base rates and was not tied or related to productivity or the Schedule 4 rates/returns all the labour was paid per hour irrespective of how much or little works actually undertaken. Note : See CEC00100146 ( although I was not issued with a copy of this witness statement and I do not agree fully with some comments particularly No 3.6) see also “Notes of meeting between John Casserly, Jane Ferrier and Nicola Whiteford On 4th March 2015 at Waverley Gate” (copy of which I will forward/attach with these answers).

(2) Was there any difference in performance after AMIS were acquired by Carillion in February 2008?

None

(3) What utilities works, in which sections, were undertaken by Clancy Dowcra and Farrans?

I do not recall fully, the reports and summaries will details this accurately but I think areas of Haymarket and off street sections in the airport.

(4) In general, what were your views on the performance of these contractors?

The majority of these works were managed under Infraco contract team however my anecdotal view was they were better than AMIS/Carillion but they applied commercial acumen by incentivising their workforce for achieving productivity/outputs rather than just hourly rates.

(5) How did the performance of these contractors compare with the performance of AMIS/Carillion?

See above (4).

13. In relation to TIE:

(1) In general, what were your views on TIE's management of the MUDFA contract and works?

I believe the Tie MUDFA team managed and administered the contract with AMIS/Carillion reasonably and fairly. Tie management/negotiation of all the other contracts particularly the SDS agreement and latterly the Infraco agreement could have been significantly more robust and effective.

(2) In general, what are your views on the criticisms made by Carillion of TIE's management of the MUDFA contract and works (see e.g. the criticisms made in

Carillion's September 2009 Interim Submission/Claim for Additional Payment, CEC00774156)?

Designs were issued before sections commenced and the Schedule 4 rates and prices applied, all changes valued in accordance with Schedule 4 rates and prices or the Contract etc. Real issue lack of productivity of AMIS/Carillion, mismanagement/lack of management of the works/costs etc and AMIS/Carillion figures spurious and wrong. This is reflected in the agreed Settlement Figures which were significantly less than the AMIS/Carillion submissions. Note : See CEC00100146 ( although I was not issued with a copy of this witness statement and I do not agree fully with some comments particularly No 3.6) see also "Notes of meeting between John Casserly, Jane Ferrier and Nicola Whiteford On 4th March 2015 at Waverley Gate" (copy of which I will forward/attach with these answers).

14. An e-mail exchange in May 2008 noted problems in the working relationship between TIE and AMIS (CEC01301877).

(1) Were there problems in the working relationship between TIE and AMIS?

If so, what were the problems and when and why had they arisen?

Commercial tension – issues are encountered and designs/solutions change the MUDFA Agreement anticipated these events and they were dealt with in accordance with the Contract, this is not what AMIS/Carillion wanted. AMIS artificially delaying the process for a potential commercial advantage rather than adopting common sense way forward of utilising formally issued design/details etc and if/when changes occur manage the changes in accordance with the MUDFA Contract.

(2) Were the problems ever resolved? (see also e.g. e-mails in June, September and December 2008 and February 2009 which suggest continuing difficulties, CEC01301877, CEC01148415, CEC01118807 and CEC01010661)

AMIS/Carillion throughout the currency of the project did not follow the contract or try to value the works in accordance with the Contract but rather adopted a 'global' claim strategy submitting spurious and duplicated valuations, see CEC00100005 report and summary of external independent expert which confirms AMIS/Carillion approach is not justified, demonstrated or sustainable nor in accordance with the Contract and the independent expert states 'AMIS/Carillion has failed to prove any entitlement beyond the £1,200,000.00 allowance currently certified by Tie. Tie MUDFA team administered the contract fairly and reasonably and valued the claims at £561,248.53 (see TIE00259372) on account of £1,200,000.00 advised by Tie Board members while awaiting AMIS/Carillion supporting/substantiating this entitlement. In addition the MUDFA project/contract was independently audited by CEC and Transport Scotland on at least 3 No occasions who also reported the MUDFA Contract was being administered correctly and in accordance with the

contract. Note : See CEC00100146 ( although I was not issued with a copy of this witness statement and I do not agree fully with some comments particularly No 3.6) see also "Notes of meeting between John Casserly, Jane Ferrier and Nicola Whiteford On 4th March 2015 at Waverley Gate" (copy of which I will forward/attach with these answers).

(3) Did any difficulties in the working relationship cause delay or increased cost?

No these were mainly commercial issues – AMIS/Carillion threatened action if payments not increased; I was requested by Tie Board members to look at assisting cash flow for AMIS/Carillion with on account payments on the basis AMIS/Carillion would produce the requisite justification to maintain the on account payments made see CEC01301877, CEC01118807 and TIE00104672 (Tie MUDFA original certificate value circa £1.1m, AMIS/Carillion seeking circa £13.1m following on account payment review requested by Tie Board members certificate increased £1.3m – note AMIS/Carillion failed to substantiate / justify the majority of the on-account interm sums which were subsequently reduced or removed from the certificates accordingly). Note : See CEC00100146 ( although I was not issued with a copy of this witness statement and I do not agree fully with some comments particularly No 3.6) see also "Notes of meeting between John Casserly, Jane Ferrier and Nicola Whiteford On 4th March 2015 at Waverley Gate" (copy of which I will forward/attach with these answers).

15. In relation to reporting, we understand that AMIS produced Monthly Progress Reports between October 2006 and November 2007 (see e.g. the report for November 2007, **CEC01523817**) and that TIE produced monthly MUDFA Contract Review Reports between December 2007 and February 2010 (see e.g. the report for December 2007, **CEC01452199**).

(1) Are we correct in our understanding that AMIS produced monthly MUDFA progress reports until around November 2007, after which TIE produced monthly progress reports?

No AMIS produced monthly reports every month throughout the full contract period. Tie MUDFA produced monthly reports for the duration of the MUDFA contract which included/took into consideration AMIS monthly reports. These Tie MUDFA monthly reports were presented to Tie Senior Management every month, these meetings were always attended by representatives of CEC. The outputs of the Tie Senior Management meetings was a monthly report to the Tram Board on all Tram related contract works (including MUDFA) which I believe was also shared with CEC and Transport Scotland on a monthly basis.

(2) If so, why did AMIS stop producing such reports at the end of 2007 and why did TIE then take on that responsibility?

They didn't stop producing reports.

(3) Why were monthly progress reports not produced by TIE before then?

See (1) above

In the following sections we look in more detail at particular events between 2007 and 2010. Please, of course, feel free to refer back to your previous answers if you consider that you have already dealt with these matters in your response to the above questions.

## Events in 2007

16. By letter dated 19 February 2007 (**CAR00000910**) Andy Malkin, Project Manager, AMIS sent Alasdair Slessor, MUDFA Project Manager, TIE a "MUDFA Report and Recommendation to Manage the 'Transition Gateway' from MUDFA Pre-Construction Services to Construction Services".

Mr Malkin stated that it was imperative to convene an Extraordinary MUDFA Board Meeting to discuss and resolve a number of key issues and that without mutual appreciation and understanding of these issues at senior management level *"the current contract position may well degrade and become untenable"*.

By letter dated 7 March 2007 (**CAR00000917**), Mr Malkin sent Susan Clark, TIE, MUDFA Schedule 1 Deliverables, while noting that, *"As you are aware a number of the enclosed deliverables remain as a work in progress and AMIS will continue to enhance these documents as part of the construction implementation process"* (**CAR00000917**)

We understand that at a meeting between TIE and AMIS on 15 March 2007 the parties agreed that, as a consequence of late designs and associated data, a phased transition would take place rather than the distinct completion of the PCS phase and commencement of the Construction Services phase (which was noted to *"provide the opportunity to complete PCS in parallel with CS as design detail and definition are made available"* – see para 3 of the draft Commercial Proposals for Construction Services following Pre-Construction Services Delays, **CEC01630357**).

An e-mail dated 22 March 2007 from Geoff Gilbert, Project Commercial Director; TIE (**TIE00070136**) attached a Note on Improvements to MUDFA Working Arrangements (**TIE00070137**). While AMIS had expressed a desire for wholesale change, Mr Gilbert did not consider that to be necessary.

A presentation on "MUDFA Commercial Arrangements" made to the Tram Project Board on 19 April 2007 (**TIE00087959**) noted that completion of the Pre-Construction Phase was "not realistic" (slide 5) and a different approach to the MUDFA works were proposed.

(1) What was your awareness and understanding of these matters when you joined TIE?

Limited awareness when I initially joined Tie however the MUDFA agreement allows, anticipates and accommodates works as they progress see Clause 8.6. see also CEC01630357.

(2) What was the current contract position and why was it at risk of becoming, in Mr Malkin's view, untenable?

Not aware

(3) Was completion of the PCS phase unrealistic and, if so, why?

Not aware

(4) Was the PCS phase completed in parallel with the Construction Services phase? If so, did that cause any problems or difficulties?

Was completed in parallel with construction services but it did take some time and remained a source for AMIS to list in support of spurious claims.

(5) What was the different approach to the MUDFA works that was proposed?

Was that different approach adopted? With the exception of value engineering incentive not required and not adopted. The MUDFA Contract envisaged, anticipated and accommodated the works encountered. Value Engineering was originally envisaged to be undertaken in conjunction with SDS prior to issue of designs to SUC's however inability of SDS to provide design prevented AMIS from adding/participating in value engineering therefore value engineering clauses amended as part of settlement agreements.

17. By letter dated 18 April 2007 (**CEC01634872**) Graeme Barclay, MUDFA Construction Director, TIE wrote to Mr Malkin attaching Bill of Quantities pages that were missing from the MUDFA agreement.

(1) What was your understanding as to why the Bill of Quantities appears to have been missing from the MUDFA contract (see e.g. the MUDFA contract, **CAR00000300**, Schedule 4)?

Pages missed by Turner Townsend/DLA Piper and not incorporated by mistake in final executed MUDFA contract, this was an admin issue as points had been agreed previously and accepted only an oversight.

(2) Did that cause any problems?

Limited issues – early in the process AMIS raised an issue re gas connections and their interpretation which changed a number of times to suit their argument at any given time.

(3) How was the matter resolved?

Tie MUDFA administered the Contract taking into account the clarification pages that had not been inserted by mistake during execution, the interpretation at time of execution was also checked/confirmed with Turner



Townsend and utilised throughout the currency of project.

- (4) Incidentally, Schedule 8 of the MUDFA contract, Programme, also appears to have been missing. Do you have any comments on that?

None - contract programme agreed with fixed completion dates unless extension of time granted under the MUDFA contract.

18. In a letter dated 26 April 2007 to Alan Dolan, SDS, (CEC01691204), Graeme Barclay noted that TIE were greatly concerned about the delay to the initiation of the utility diversion work programme and, with that in mind, had decided to implement the AMIS proposal of a Risk and Trade off programme and intended to begin the programme in section 1 (i.e. Newhaven – Leith – Leith Walk – Princes Street – Haymarket).

In his reply dated 1 May 2007 (CEC01664017) Mr Dolan stated, *"It is unfortunate that the MUDFA Construction Implementation Programme starts in the one area where tie have placed the SDS Infrastructure Design on stop"*.

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

SDS unable to secure Forth Ports approval to SDS design because they had not taken into account Forth Ports requests to future proof their development sites. Tie MUDFA reached agreement with Forth Ports and utility diversions to commence works which required SDS alignment change but reduced delay in design and allowed the project utility diversion works to commence

- (2) What was the "Risk and Trade off" programme? Why was it necessary?

Design accepted and met Tram requirements programme, and reduced risks/impacts on Infraco – also allowed Tie MUDFA to test/validate the sufficiency of Site Investigation carried out by SDS.

- (3) Why had TIE instructed a design hold? Was the design hold for all of section 1 or only part of it?

Change to design agreed by Tie MUDFA and Forth Ports within the Tram requirements to accommodate future potential development by Forth Ports which SDS were involved with but MUDFA did not want SDS wasting design time on designs which had been superseded by agreed design solution.

19. By e-mail dated 4 May 2007 you advised Geoff Gilbert of certain concerns relating to SDS MUDFA design delays.

- (1) What were your concerns and how were they addressed?

Unable to comment as I do not have a copy of the e-mail dated 4th may 2007.

20. An e-mail dated 11 May 2007 from Ailsa McGregor, TIE, noted that *"Gaps between the SDS and Mudfa contracts were identified in October/November 2006 and as far as I am aware there [sic] gaps remains"* (CEC01626559).

See also, in that regard, AMIS's monthly report for January 2007 (CEC01818206) which stated (page 5, para 3.1) that *"As per previous AMIS monthly reports a 'Step Change' (i.e. SDS Design/AMIS Construction Contracts Gap Analysis) is urgently required"*.

- (1) What was your understanding of what these "gaps" were, how they had arisen and whether there were still "gaps" between the SDS and MUDFA contracts in May 2007?

Unaware of gaps – it is difficult to understand how SDS could produce detailed design and C\$ estimates for same without producing a summary of each utility/item of work to be undertaken by a rate to produce an estimated price, this is a BofQ. In addition this requirement is detailed under the SDS scope of service Appendix 3 Deliverables Page 6 'BofQ for all Utilities'.

- (2) Were these "gaps" ever resolved (and, if so, when and how)?

Tie MUDFA staff/QS/commercial produced and provided requisite information to ensure issue resolved but SDS did not provide and I am unaware how Tie SDS team dealt with this contractually. However this meant SU's agreed prices for work section designs after works complete rather than before commencing as Tie MUDFA 'assisted' SDS to get SUC approval for the designs asap to mitigate SDS design delays.

21. The Construction Director's report for the meeting of TIE's Utilities sub-committee on 6 June 2007 (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).

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

SDS performance poor with late designs even before excavation commenced and issues with unidentified utilises and obstructions encountered. The SDS contract did not appear to be managed/administered appropriately by Tie SDS as SDS were not providing the designs in line with the agreed programme/delivery dates or contractual deliverables without a 'fight' or additional cost – Tie MUDFA attempted to robustly manage the SDS interface by managing and controlling all changes to design onsite within MUDFA team. See CEC01473858 and CEC01473859 both dated Dec 2007 which detail SDS advised/agreed design delivery dates continually moving significantly and delaying the works ie Section 1A original SDS design delivery date in programme 04 Oct 07 moved to Oct 07 moved to Nov 07 and then to Mar 08 by programme rev 06; Section 5B original SDS design delivery date in

programme 04 Aug 07 moved to Oct 07 moved to Apr 08.

- (2) How were the concerns about interdependencies with the Infracore programme and works addressed?

Workshops held with SDS and advised Tram Management Board and Tram Project Board of issues for resolution through SDS Contract Administration. In addition Tie MUDFA arranged for a full time SDS representative to be onsite in MUDFA to coordinate design deliverables from their Newcastle office and to address any changes/issues as they arose Tie MUDFA paid SDS for this service to mitigate delays.

22. By e-mail dated 14 June 2007 (CEC01630356) you attached a revised version of a proposed agreement between TIE and AMIS, "Commercial Proposals for Construction Services following Pre-Construction Services Delays" (CEC01630357).

- (1) What was the purpose of that agreement? Why was it necessary?

It dealt with not completing PCS before construction commencing. Amis wanted to change the commercial basis of the contract but Tie MUDFA did not agree this was required so agreement formally records the steps of the process' contained within the MUDFA contract.

- (2) Did it cause you any concerns that the MUDFA contract (and programme) required to be amended relatively soon after it was entered into?

No – nature of works results in issues but the MUDFA contract envisaged that would be the case the issues that concerned me was the inability of AMIS to progress the works due to their own issues/inefficiencies and the potential for both reasonable and spurious claims from AMIS as a result.

23. A letter dated 19 June 2007 from Mr Malkin (CEC01636547) advised that AMIS had suffered losses of about £530,000 due to the delay in the commencement of sustainable and productive Construction Services. He noted that *"the approved Pre-Construction Services Programme, as contemplated under Clause 35, indicated a total of circa 325 IFC drawings and associated data being issued on 16 January 2007 (assessed as 25% of the overall total), complete with Bill of Materials, procurement Specifications, Conflict Registers and HAZID logs. This information, at the time of writing, and opening deliverable is now twenty two weeks behind schedule i.e. five months"*.

He considered that Revision 05 of the Programme was untenable.

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

AMIS produced and provided input into updates on Rev 05 programme based on information available at the time the intimate AMIS loss/claims was unsubstantiated/unjustified with limited contractual basis as shortfall in expected turnover was AMIS risk – there are no guarantees or details under the contract as the works are re-measurable not cost reimbursable.

Note : See CEC00100146 ( although I was not issued with a copy of this witness statement and I do not agree fully with some comments particularly No 3.6) see also "Notes of meeting between John Casserly, Jane Ferrier and Nicola Whiteford On 4th March 2015 at Waverley Gate" (copy of which I will forward/attach with these answers). See agreed settlements reached with AMIS and also CEC00100005 all of which confirms there is no contractual basis for the AMIS claims/losses etc.

24. We understand that a delay occurred to the MUDFA works as a result of the Scottish Parliament election on 3 May 2007 (and the subsequent debate and vote on the tram project on 27 June 2007, which resulted in the Scottish Government deciding to continue with the project).

The record of a MUDFA meeting on 10 July 2007 (TIE00059760), for example, noted (item 4.1) a "3 month delay to site works in region of £1.5m".

(1) Why did the election delay the MUDFA works?

The newly elected SNP Government confirmed a vote would be held to determine whether or not to continue to support/part finance the Tram Project post the election. This uncertainty coupled with direction from Transport Scotland, CEC and Tie Senior Management to minimise spend and potential liability until the outcome of the vote was clear delayed the works. The potential cost implications of all the options including delay, proceeding before a vote of confidence and the implications of terminating if the vote was negative were produced and issued to Tie Senior Management, Tram Project Board, CEC, Transport Scotland and Scottish Government.

(2) How much delay was caused?

3 months

(3) To what extent, if at all, did delay in utilities design also contribute to the delay around this time? To what extent, for example, was the three month delay to the site works noted in the above meeting note caused solely by the election and to what extent would a similar delay have occurred in any event due to other factors including, in particular, late design? See, for example, (i) TIE's Project Director's report to the Utilities Sub-Committee on 4 April 2007 (CEC01638569) which stated (page 9, paras 4.2 and 4.2) that AMIS had produced a draft Rev 04 Programme, showing the main MUDFA works starting on 2 July 2007, which was "3 months later than shown on Rev 03 and is driven by design and Work Order requirements", (ii) AMIS's Monthly Reports for April, May and June 2007 (TIE00261238), (CEC01664355) and (CEC01565583) which note some delay caused by the election but also problems with other matters including, in particular, outstanding IFC utilities design, and (iii) Mr Malkin's letter dated 28 June 2007 (CEC01691617) which noted that only one IFC drawing had been issued and that the underlying delay was a minimum of six months. Putting matters another way, what utilities diversion works could and would have been undertaken in April, May and June 2007 if the election to the Scottish Parliament

had not taken place?

Delays ran concurrently in some areas but my understanding from the Tie planners at the time was a 3 month delay to the completion date was the result on the programmes critical path of just the delay associated with the election. Actual events post-election and progress etc may have superseded this impact.

25. An e-mail dated 20 June 2007 from Stewart McGarrity, Finance Director, TIE (CEC01650422) noted (final para), in relation to the MUDFA works, 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"*.

(1) What is your understanding of what Mr McGarrity meant by that comment?

AMIS was running out of the 'on street' and 'off street' work areas Tie would allow AMIS to work in before the vote in parliament but there were other work section areas which could have commenced if Tie instructed AMIS to commence as per contents of CEC01650422.

26. 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).

See also AMIS's Monthly Progress Report for August 2007 (CEC01683946) which stated (in the Executive Summary) that *"In line with the last ten monthly reports the main AMIS concern still relates to the lack of IFC detailed utility design drawings (circa 285) ..."*.

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

I was aware and administering the impacts under the MUDFA agreement

(2) What were the main causes of the delay in IFC utilities design?

Detailed previously Note : See CEC00100146 ( although I was not issued with a copy of this witness statement and I do not agree fully with some comments particularly No 3.6) see also "Notes of meeting between John Casserly, Jane Ferrier and Nicola Whiteford On 4th March 2015 at Waverley Gate" (copy of which I will forward/attach with these answers).

(3) Were the problems in producing design to programme ever resolved?

Detailed previously Note : See CEC00100146 ( although I was not issued with a copy of this witness statement and I do not agree fully with some comments particularly No 3.6) see also "Notes of meeting between John Casserly, Jane Ferrier and Nicola Whiteford On 4th March 2015 at

Waverley Gate” (copy of which I will forward/attach with these answers).

27. We understand that the utilities diversion works commenced around July 2007.

(1) It would be helpful if you could explain, by way of overview, the sections in which the works commenced and any problems that were experienced?

Detailed previously and contained in the Monthly AMIS/Tie Mudfa and Tram Board Reports

28. By e-mail dated 13 July 2007 (TIE00006965) you noted that TIE had been in discussion with AMIS over a period of time to try to agree the wording of papers relating to (1) the transition period from the end of the PCS phase to the commencement of Construction (TIE00006967) and (2) new contract incentivisation proposals (TIE00006966).

(see also the “MUDFA Contractor Incentivisation Proposal” circulated in September 2007, CEC01636808).

(1) By way of overview, why were agreements on these matters necessary? Is our understanding correct, for example, that any incentivisation provisions in the original MUDFA contract could no longer operate because of delays in the MUDFA works and the need for a revised programme?

The original incentive mechanism was based on AMIS being involved in the development of the design solution bring value engineering benefits and savings to SDS designs in terms of both cost and time before the SDS design submission to the SUC's for final agreement. The delay in the SDS design issue prevented this process from taking place and as such a different mechanism was agreed.

(2) What were the effect of the delays and revised programme on any penalty provisions in the MUDFA contract for not completing the works on time i.e. did the delays to the MUDFA works and programme mean that any penalty provisions in the MUDFA contract re timescales no longer operated? Were new penalty provisions agreed?

The penalties under the MUDFA agreement re completion date still applied for the duration of the works and the only way they could be alleviated was by Tie MUDFA assessing and granting extensions of time. During the currency of the MUDFA contract Tie MUDFA did fairly and reasonably assess any delay entitlement in accordance with the MUDFA contract which was limited as the significant delays lay in AMIS's limited production rates during construction which ran concurrently with delayed design/unexpected utilities/obstructions etc.

29. By letter dated 3 August 2007 (CEC01702507) Mr Malkin sought a variation of schedule 4 rates and prices. (see also e.g. Mr Malkin's letter of 23 August 2007, CEC01702113)

- (1) What, in general, were your views on the matters in Mr Malkin's letter of 3 August?

No changes to the rates and prices required – all works undertaken valued at Schedule 4 rates and prices and in accordance with Clause 46; none of which allowed or required a departure from the Schedule 4 rates and prices. See CEC00100005 which confirms Tie MUDFA approach/administration.

- (2) What were your views on the conclusions listed by Mr Malkin at pages 14 and 15 of his letter of 3 August? Did you consider that any of these points were valid?

PCS was dealt with and agreed as part of an agreed settlement. AMIS paid per linear metre for every utility diversion actually undertaken by AMIS, all other items listed covered under the MUDFA Contract. The items that had some validity were included in the agreed settlements.

30. By letter dated 8 August 2007 (CEC01697452) Mr Malkin noted that Schedule 8 of MUDFA established the Construction Services duration as 59 weeks (i.e. covering the period between April 2007 and May 2008, with a further five weeks for snagging, demobilisation, and Final Account resolution etc), limited progress had been made due to *"the delay, disruption and dislocation to the Programme, compounded by late and prolonged project approval"*, that the Longstop Date of 30 September 2008 had been *"fundamentally compromised"* and that the ongoing delay and disruption was not due to factors under AMIS's control.

He noted that the current thinking, in relation to the development of Revision 06 of the programme was a nominal three to four month delay as a consequence of the delayed approval of the tram project by the newly elected administration.

He noted (top of page 2) that the cause of the delays was *"predominately late and inadequate SDS Provider Designs"*.

A further letter dated 27 August 2007 from Mr Malkin (CEC01704259) noted (top of page 4) that *"The delays are as a result of the late and inaccurate designs, the breakdown of Pre-Construction Services, insufficient detail to support planning and effective operations, together with ongoing concerns relative to the suitability, accuracy and viability of those IFC designs and design related information provided by tie Limited to date, as Employer, Project Sponsor and Project Manager"*.

See also an internal e-mail dated 4 October 2007 by Andrew Fitchie, DLA (CEC01714047) noted that *"SDS is now seriously behind programme in relation to design release to support the utilities diversions works which were meant to be an advance works programme to derisk the main tram on street installation works"*.

- (1) What were your views on these matters?

The points made were challenged and/or rejected under the Contract and included in Tie formal responses. Re CEC01714047 this is an internal Tie issue with the Tie SDS contract team's administration of the SDS contract. These issues were relieved/part mitigated by adopting 'RATS'.

31. 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) What were the more difficult sections (and why were they more difficult)?

I was not present or party to the meeting so cannot comment on the context or detail discussed however the programme at the time and progress reports will identify the initial works commencing in Oct 07 and physical works commencing in Apr 08.

(2) What were the "initial works" and the "physical works"?

See comments re (1) above – I presume initial works would be enabling such as trial holes, utility diversion design, TM approvals, removal of street furniture etc with physical works being the actual excavations and diversion of the utilities themselves.

(3) Did the fact that the "physical works" in the more difficult sections were not due to commence until April 2008 cause you or others in TIE, any concerns? With the benefit of hindsight, ought it to have?

See comments re (1) above – generally delay in programme was a concern throughout the project re interfaces with Infracore but we had to administer and manage the MUDFA works and all the associated issues etc to achieve the best result based on what we knew and was available at the time.

(4) Why were the more difficult sections not dealt with first?

See comments re (1) above – generally however it is very difficult to select and design utility diversions and DKE alignment for any sections in isolation as this may lead to misalignment of DKE or utilities resulting in even more delay, disruption and additional cost as the impact would be as a result of Tie changing the design etc rather than AMIS quality/productivity issues.

32. An e-mail dated 24 October 2007 from Brian McCall, Senior Engineer, TIE noted that trial holes were to be dug at Leith Walk, Shandwick Place and Duke Street and that various CCTV surveys were to be carried out (see also the Schedule of Future TM works, which gave further details of the MUDFA works, trial holes and CCTV surveys, CEC01495740).

(1) Had trial holes been dug (or CCTV investigations carried out) at these locations earlier? If not, why not?

Not that I remember, as stated previously SDS were responsible for the Site Works to be undertaken and they limited the majority of their on road SI to ground penetrating radar surveys rather than trial holes to inform their design. The issue of lack of trial holes to inform the SDS design was raised with SDS and the Tie SDS project team but we did not get sight of any resolution if any was achieved with SDS. In order to give a greater level of



certainty to the design, a realistic view of the utilities present, the potential available space outside the DKE into which the utilities could be diverted, inform the design and secure SUC agreements MUDFA undertook a significant number of trial holes. The trial holes were administered through the MUDFA contract using the Schedule 4 rates and prices which included rates for trial holes etc.

33. An e-mail dated 24 October 2007 from Steven Bell, Engineering and Procurement Director, TIE (**TIE00678318**) noted, in relation to Production/Site Supervision/Quality Control, that he had discussed matters with you and that you were both *"uncomfortable with the current perceived level of performance"*. A number of issues were listed.

(1) What were your views on these matters?

They were quality issues with AMIS and Tie inspectors/SUC's needed to be 'firmer' to ensure acceptance only once appropriate tests, inspections, signed/witnessed records of same and handover had taken place.

(2) Were they ever addressed to your satisfaction?

Quality issues re final MUDFA reinstatement etc were addressed and inspections, testing etc were reinforced with additional input / inspections from suitably competent CEC representatives. There were still issues but they decreased dramatically.

34. We understand that Revision 06 of the MUDFA Programme was adopted in October 2007 and showed a revised completion date of December 2008. It has been suggested that, at that time, approximately 83% of the IFC designs were still not available (see (i) letter dated 30 November 2007 by Mr Malkin, **CEC01520590**, and (ii) the "Road Map" document produced by Mr Kolon, Carillion, in September 2009, **CEC00790177**, page 1).

(1) Did that accord with your general understanding of these matters around that time?

The Tie correspondence at the time covered these issues in detail. I did not agree with all the notes/clarifications and these were recorded in correspondence at the time but I did accept that the programmes are based upon the best information you have available at that time. I did not agree with the 'road map' or the associated AMIS consequences. See CEC 00100005 the independent expert also did not agree with the AMIS position/'Road Map'.

(2) Given the difficulties and delays that had been experienced, how confident were you around that time that the MUDFA works would be completed in accordance with the revised Programme?

Level of confidence was dependent upon delivery of designs and AMIS continual failure to actually deliver anything on time whether it be due to

quality, mismanagement or other issues. However the programmes were put together in good faith based on the best information available at the time and signed off by professional planners and delivery experts with buy-in/input from SDS, SUC's, AMIS, TMRO etc so it had a reasonable chance of success.

35. AMIS's Monthly Progress Report for November 2007 (CEC01523817) contained an Appendix 2, Live Work Order Progress, which showed that only 8 work orders had been issued and noted that approximately 197 trial holes were planned or were underway.

(1) Is it the case that the main MUDFA works being undertaken around that time (in particular, for the on-road sections) were trial holes rather than utilities diversions?

Mixture of both utility diversions and trial holes but the contemporaneous programmes / progress reports from the time will contain detail.

(2) Why had these trial holes not been undertaken earlier? Should they have?

See previous comments re trial holes and SDS

36. An e-mail dated 3 December 2007 from Sandra Cassels, DLA (CEC01540976) noted that there was a disagreement between TIE and SDS in relation to the surveys SDS required to carry out under the SDS contract, it being noted that *"Tie are of the opinion that SDS were obliged to carry out certain types of survey far greater in scope than SDS actually carried out, whereas SDS are of the opinion that they have fulfilled their obligations under the SDS Agreement"*.

(1) What was your understanding of, and views on, that issue?

The level of scope and under SDS contract includes surveys (Schedule 1 Scope Of Service; 2.1.5 states SDS 'undertake all necessary research, surveys and investigation necessary to support the provision of the a cost effective design'; 2.3.3 states 'ground penetrating radar, ground investigation, geotechnical investigations and any other survey necessary to inform the design including the utilities'). In addition under the SDS contract Schedule 1 Scope of Service; 4.2.2 Risk Management states 'SDS provider shall prepare (RAG) on key components adequacy of site investigations, surveys, constructability etc'. The scope is clearly within the SDS scope however the SDS contract was managed by the Tie SDS team.

(2) When did you first become aware that the surveys instructed by SDS did not meet TIE's expectations?

From my first day and advised SDS and the Tie SDS team managing the SDS contract accordingly from April/May 2007. We also requested copies of the RAG status reports under SDS Contract Schedule 1 Scope of Service 4.2.2 in order to understand the risk view of SDS but these were not provided by Tie SDS team. See also TIE00692650 re SDS issues to be

addressed by Tie SDS team.

(3) What was done and when to remedy that?

Tie MUDFA undertook trial holes to inform design and mitigate time/cost impact of SDS not performing the requisite SI to inform the designs – Tie SDS team advised which culminated in meetings with SDS which were attended by Tie MUDFA project management team.

(4) Did that issue cause or contribute to any delay or increased cost?

Increased cost, increased risk and delayed works.

37. An e-mail dated 6 December 2007 from Mark Hamill; TIE (TIE00350879) attached a copy of the MUDFA risk register (TIE00350880).

(1) It would be helpful if you could explain what were considered to be the main MUDFA risks around that time and how they were to be addressed?

The main risks and how they were being addressed/managed are identified as 'high' and red in TIE00350879 see also CEC01198911 and TIE00350880.

(2) To what extent did these (or other) risks materialise?

Risk 926 Major Single Safety Incident Injury To Employee – did not materialise all others did to varying degrees

(3) To what extent were the mitigation measures effective?

Measures effective to manage risks but did not remove risks only reduced the potential impact ie trial holes undertaken to identify all utilities/unknowns etc but the unknowns and issues discovered still have to be addressed and solutions designed to accommodate.

(4) To what extent, if at all, did the risk register include the risk of delays to the MUDFA works resulting in delays and increased costs to the infrastructure works?

All the risks on the project including the MUDFA risks were fed up to and coordinated into a single Tram Project risk register which included cost and time implications/issues. The updated risk profile/implications for each of the contracts and also the coordinated Tram Project risk register were included as part of the monthly reports to the Tie Management Review, Tram Project Board and CEC. The reports TIE00350880, CEC01198911 and TIE00350880 are extracts from the monthly updated risk reports/analysis.

38. We understand that an agreement was reached in December 2007 for a payment of £991,142.95 in relation to AMIS's claim for delay and disruption up to 30

September 2007 (and that the agreement was formally executed by means of a letter dated 9 April 2008 from Mr Barclay to Mr Malkin, CEC00217639). We further understand that the sum included an incentivisation payment of £200,000 in relation to section 7 (Gogar to Edinburgh Airport) and that agreement was reached to reset the programme baseline (revision 06) showing a revised completion date of 30 November 2008.

- (1) Is our understanding of these matters correct? The agreement covered a number of issues including PCS and incentivisation as covered previously.
- (2) Why was an incentivisation sum included in respect of section 7? Were there incentivisation sums or provisions in relation to the other sections?

As detailed in the settlement agreement the £200,000 was in respect of AMIS design savings/approach in Section 7 which generated the saving in which AMIS shared – other sections were dealt with under the agreement and as previously covered.

- (3) How confident were you around that time that the works would be completed by 30 November 2008? Did your views in that regard change (and, if so, when and why)?

Level of confidence was dependent upon delivery of designs and AMIS continual failure to actually deliver anything on time whether it be due to quality, mismanagement or other issues. However the programmes were put together in good faith based on the best information available at the time and signed off by professional planners and delivery experts with buy-in/input from SDS, SUC's, AMIS, TMRO etc so it had a reasonable chance of success.

## Events in 2008

39. By letter dated 9 January 2008 (CEC01530140), Mr Malkin wrote to Graeme Barclay in relation to Programme Rev 6 and listed a number of issues at pp 2-3.

- (1) What were your views on the issues listed by Mr Malkin?

Disagreed as per Tie correspondence at the time; settlement up to 30th September 2007 agreed and confirmed on the 9th April 2008, if everything had been agreed /accepted post Sept 07 to 9th Jan 2008 would have been included in the agreement.

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

Some instructions impacted the works re final completion but the extent was limited and unclear as AMIS utilised the changes to mask their own inefficiencies, lack of productivity etc of which no account was ever made by AMIS. The issues which resulted in a contractual entitlement to AMIS were administered and dealt with in accordance with the contract and

addressed/finalised in agreed commercial settlements under the contract.

40. 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).

TIE's MUDFA Contract Review Report dated 1 February 2008 (CEC01448120), Appendix 3 - Performance Measures, contains a graph "MUDFA – Issue of IFC Design Packages for Construction" (page 16), which appears to show that of 140 IFC Design Packages that ought to have been issued by 30 November 2007, only approximately 60 had been issued.

(1) What problems did congestion of services give rise to?

Delay in production and agreement of utility diversion design with SUC's due to limited available space for diversions and subsequent delay to commencement of work sections and delay to progress with some utilities being undertaken in a section while awaiting sign off/approval from other SUC's.

(2) Was congestion of services experienced throughout the on-road sections? Were certain areas particularly bad (and, if so, which areas)?

Congestion experienced throughout on-road sections – the extent of congestion was reported in every monthly report by AMIS and MUDFA and issued to Tie Management Board, Tram Project Board and CEC.

(3) Had congestion of services been adequately taken into account in drawing up the MUDFA programme and budget (and, if not, why not)?

Significantly greater than anticipated service were encountered due to being built up over circa 120 years with limited records, if any, kept by the utilities or CEC. Some of the services encountered were redundant/abandoned etc. Based on previous similar tram projects in Manchester and Dublin unexpected/unknown services were anticipated and expected hence the £21m risk allocation allowance and a two year programme in advance of the Tram/Infraco. When I left Tie my understanding at that time, as verified by Transport Scotland audit, was that circa 59,000m of utilities had been diverted compared to the originally envisaged circa 27,000m in Phase A with a projected final cost of circa £70m against an original budget allowance of circa £69.7m.

(4) What were the main reasons for the continuing delays in utilities design around this time?

As stated previously SDS performance, time to get SUC design approval, number/extent of unknown services/utilities encountered, TM, uncharted air raid shelter/basements/structures/, size of diversions with limited available space out with the DKE ie below road/ground BT junction box at junction of Jamaica Street and Leith Walk is the size of whole junction etc

41. A letter dated 14 February 2008 from Mr Malkin (CEC01125420) noted concerns in relation to Work Order Proposals (works were, apparently, proceeding on Confirmation of Verbal Instructions rather than Work Orders) and Changes (it being noted that in excess of 400 Change Orders were outstanding).

See also Mr Malkin's letter dated 19 March 2008 (CEC01520380) in which he stated that the introduction of the CVI/Record Sheets was an AMIS initiative *"designed to ensure an appropriate level of control, Project and Risk management was maintained given the ongoing failure of tie Limited to manage the MUDFA works in accordance with the agreed terms and conditions; primarily Work Ordering under Clause 8 and Change under Clause 46"*.

(1) It would be helpful if you could explain the issues, why they had arisen and how they were resolved?

Due to the extent of the changes and issues encountered or changes required in the works sections both during enabling works, such as TM requirements, and actual utility diversions it would have significantly delayed the works and progress if we Tie had to issue and agree formal work orders so instructions/agreements/changes to designs, late changes/requirements re TM were captured and recorded using CVI/Record Sheets. The MUDFA contract anticipates there may be a requirement for works to progress without or in addition to the full work order process and this was implemented. The works undertaken under CVI/Record sheets were administered and valued in accordance with the MUDFA Schedule 4 rates and prices and clause 46. AMIS were looking to change the commercial basis of the contract to either cost plus or related – this was not accepted by Tie or required. See Tie letter reference DEL.MUDFA.7594.GS.GB dated 7th March 2008. The majority of the issues captured on CVI/record sheets at this time related to TM changes. See e-mail of 18/2/08 from Graeme Barclay contained in CEC01457599 and AMIS acceptance of design release and TM issues due to CEC require AMIS work order proposal which they did not provide.

42. An e-mail dated 19 February 2008 from Mr Malkin (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 precursor activities were required to support the MUDFA works?

Design, SUC/stakeholder approvals, consents, surveys, trial holes, dilapidation surveys of the roads and adjacent buildings, TMRO etc

(2) What were the difficulties in relation to managing multiple interfaces and stakeholders?

Different agendas and priorities rather than prioritising the efficient and most economical delivery of the MUDFA utility diversions and the construction of the Tram

(3) Which organisation was responsible for managing the multiple interfaces and stakeholders?

Tie liaison coordinated between the stakeholders with the Tie director/lead for each work scope/contract also involved in the process with Tie Management Board and Tram Project Board as required.

43. An e-mail dated 21 February 2008 from Stewart McGarrity, Finance Director; TIE (CEC01490664) noted that the minutes of the meeting of the Utilities sub-committee on 13 February 2008 (CEC01490665) made no mention of the current and future resource shortages being experienced by AMIS and which were, apparently, discussed at length during the meeting.

(1) What was your understanding of that matter?

I was not at the meeting and not party to the correspondence however AMIS had insufficient resources of the quality required with the requisite capabilities to undertake the utility diversion however AMIS sought to use design issues and other items as excuses rather than accept their issues.

(2) Were AMIS experiencing resources shortages? If so, why? Did that cause delay in carrying out the MUDFA works? What steps were taken to address that?

Yes the reason is unknown; when they sold their capability to Tie during tender and in the Contract documentation it confirms AMIS will use their own in house experienced labour to undertake the majority if not all of the utility diversion at MUDFA but they used labour only subcontractors and supervisors instead who often did not have the appropriate certifications/qualifications – these individuals were instructed to be removed whenever discovered by Tie. See CEC01145983 "AMIS/Carillion Project Director admitted Carillion do not have the requisite quality of staff on the job and supportive of (Jim McEwan of Tie) raising this within Carillion Senior Management".

44. By letter dated 3 March 2008 (CEC01521318) Mr Malkin expressed a number of concerns in relation to the MUDFA works and Revision 06 of the MUDFA Programme.

Graeme Barclay replied by letter dated 5 March 2008 (CEC01530317).  
Mr Malkin, in turn, replied by letter dated 6 March 2008 (CEC01532028).

(1) What was your awareness of, and views on, the main issues in these letters?

AMIS were not and did not follow the contract or contractual entitlement they instead submitted spurious unsupported global claims values however the limited value, in relation to AMIS claims values submitted, of actual settlement figures agreed and accepted by AMIS covering all the items / issues they raised demonstrate the extent and nature of their spurious claims. Tie valued the works fairly and reasonably in accordance with the MUDFA agreement and associated contractual entitlement.

45. By letter dated 11 March 2008 (CAR00003591) Carillion set out certain concerns in relation to the suitability and integrity of the MUDFA Schedule Four Rates and Prices on the basis that ten items listed in the letter had not been administered, managed and/or completed in accordance with the MUDFA contract terms and conditions.

It was further noted that these items *"will, if not comprehensively and proactively managed by tie Limited, result in Revision 06 of the Programme being compromised, rendering it unsustainable in the immediate future"*.

(1) What was your understanding of the purpose of that letter?

AMIS seeking to change the contract Schedule 4 rates and prices process to a cost reimbursable/cost plus basis as discussed previously.

(2) What were your views on the matters in that letter?

The Schedule Rates and prices could be applied to the works undertaken and Tie administered the Contract in accordance with the MUDFA agreement there was no requirement or need to change the commercial / contractual basis.

(3) What were your views around that time in relation to whether Revision 06 of the MUDFA Programme would require to be revised?

Did your views in that regard change at any time (and, if so, when and why)? See previous comment re programmes.

46. By e-mail dated 11 March 2008 (CEC01454004) you sent a draft covering letter for a "Settlement Agreement" (CEC01454005), "Appendix A – Principles of MUDFA Commercial Agreement" (CEC01454008), "Appendix B - MUDFA Contractor Incentivisation Proposal" (CEC01454009) and "notes and assumptions for Rev 06 Programme Appendix C" (CEC01454006).

The draft covering letter (CEC01454005) stated that Carillion were entitled to a settlement sum of £991,142 up to 30 September 2007 through being unable to meet their contractual obligations as a result of:

- Interpretation issue related to the application of PCS and progressing to Construction Services.



- Political delay to the commencement of the works.
- Delay in Issue for Construction (IFC) designs from tie/SDS provider.

The draft covering letter noted (page 2, last bullet point) that the existing incentivisation mechanism within the MUDFA agreement was inappropriate and that a revised incentivisation agreement had been reached which would be formally incorporated within the MUDFA contract as a replacement for the existing clause 48 mechanism.

- (1) For the avoidance of doubt, what was the "interpretation issue" relating to the application of PCS and progressing to Construction Services?

Covered previously

- (2) Broadly, to what extent did each of the three factors noted in the bullet points above cause or contribute to the delay and difficulties up to 30 September 2007 e.g. were all three factors of equal importance or did one or more have a greater effect?

Covered previously

47. 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 (Foot of the Walk to McDonald Road), 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) Did that accord with your general understanding at that time? Do you have any further comments?

I was not present at the meeting but the report provides the position at that point in time – AMIS resource and management an issue for AMIS as well as the availability of materials within AMIS and the extent of utility diversions works being re done a number of times due to quality issues.

48. By letter dated 19 March 2008 (**CEC01526804**) TIE sought to instruct certain MUDFA works.

In his reply dated 28 March 2008 (CEC01533381), Mr Malkin noted that the purported instruction did not comply with the requirements of the contract and stated that *"This level of ambiguity, confusion and consistent change frustrates the ability of AMIS MUDFA to manage and discharge their obligations under the MUDFA terms and conditions, in accordance with the set provisions"*.

(1) What were your views on these matters?

The response at the time covers the points made by AMIS and irrespective under the MUDFA agreement the works could and should have commenced with any changes/ variances being measured/valued and administered in accordance with the MUDFA contract.

49. An e-mail dated 1 April 2008 from Graeme Barclay (CEC01456006) included a draft summary for reporting purposes and noted slippage in the MUDFA Rev 06 Programme.

Mr Barclay stated, *"Works are now progressing on 6no front, these being Constitution (enabling), Leith Walk (Foot of the Walk to McDonald rd), St Andrew square (East side), Princes st, Shandwick Place and Gyle ... Progression of the works has not been in line with the rev 06 programme, but a significant reduction in previous slippage has been achieved in this period ... However, proposed recovery programme demands an increasing output, in excess of current requirements of rev 06. This still needs to be addressed by AMIS and action plan to identify contingency measures requires further review by MUDFA team. Sections of concern are at Foot of Walk and St Andrews square, where outputs are noticeably below other areas and programme needs ... [a deficiency of personnel was noted] ... Discussions with AMIS ongoing to develop recovery programme as a matter of urgency. Continual review of resource demands essential as increasing number of work fronts commence ... Overall programme slippage is 4 weeks from current rev 06 completion date"*.

(1) Did that accord with your general understanding at the time? Do you have any further comments?

Yes.

50. 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**).

See also TIE's MUDFA Contract Review Report dated 24 April 2008 (**CEC01293830**) which (under Period Progress, page 2) stated that peak demand was within the months of May through July, that output demand indicated a required increase of 40% of the present average output of 64% and that *"This being achieved, completion date (excluding the Mound) will be maintained as mid December 2008"*.

The Contract Review Report also noted (para 1.1 Commercial, page 18) that a joint review had confirmed an anticipated increase measured quantity of 10,550m of utility diversions from the originally assessed measured works quantity.

(1) Did that accord with your general understanding of matters around that time?

Yes

(2) What were the main elements of the recovery plan for the utilities works?

I do not recall the exact details but details contained in reports to Tie Management Committee, Tram Project Board and CEC.

(3) Are you aware how, and by whom, a two weeks delay in the MUDFA programme had been arrived at?

No

(4) To what extent was that two weeks delay dependent on the recovery plan for the MUDFA works being successful?

See (2) above

(5) What was the likely delay in the MUDFA programme if the recovery plan was not successful i.e. if the output continued as before?

See (2) above

(6) How confident were you and others in TIE, around this time that the utilities diversion works would be completed in accordance with the revised programme?

See (2) above

(7) With the benefit of hindsight, do you consider that any belief around this time that the works would be completed in accordance with the revised programme (i.e. by the end of 2008) was reasonable given (i) the delays and difficulties experienced to date, (ii) the fact there had been no recovery of the previously reported

slippage, (iii) the recognition that an increase in the anticipated measured quantities of utilities diversions would be required, (iv) the fact that utility diversions in the more difficult sections had only just begun or were just about to begin, and (v) the success of the proposed recovery plan was unknown?

See (2) above and previous comments re programmes.

51. A letter dated 9 April 2008 from Mr Barclay to Mr Malkin (CEC00217639) noted that an agreement had been reached to settle AMIS' claim for delay and disruption up to 30 September 2007 at £991,142.95.

The letter included Appendix A – Principles of MUDFA Commercial Agreement, Appendix B – MUDFA Contractor Incentivisation Proposal and Appendix C – Programme Rev 06 Final Notes and Assumptions.

(1) Is our understanding of matters as set out above correct? Do you have any comments on the agreement or the matters in the appendices?

Understanding correct and covered previously

(2) Appendix C, Notes/Assumptions to Programme Rev 06 Final, item 8, stated that the construction duration had been derived from an estimated total of 35,365 linear metres of utilities diversions. How and by whom had that estimate been arrived at? How confident were you that it was accurate?

The summary was based upon the best and most accurate information available at the time from a number of sources including SDS, SUC's, trial hole excavations, AMIS/Carillion, a view of the projected unknowns based on lesson from works already undertaken/completed etc the risk/opportunity remained that the actual final figure could be greater or smaller.

52. A letter dated 14 April 2008 from Mr Malkin (CEC01520586) noted a number of problems (34 in total).

The letter stated (bottom of page 1) that these matters would increase the costs of the MUDFA works and that only a provisional assessment could be provided at that time, given that *"the events and circumstances are known in a limited area and their impact on the balance of the Works is not known or readily identifiable"*.

(1) What was your understanding of, and views on, the main points in that letter?

Tie responded and set out the position – all issues, both time and money, dealt with and administered in accordance with the MUDFA agreement. See also CEC00100005 which validates Tie contractual assessment of AMIS value/claims.

53. In an e-mail dated 14 May 2008 (TIE00141437) you noted that while TIE could terminate the MUDFA contract (CAR00000300) under clause 57 (Default of the MUDFA Contractor) you were unaware of any material event which would justify the use of that clause.

(1) Was consideration being given by TIE to terminating the MUDFA contract around

that time and, if so, why?

CEC requested information/position and as per e-mail of 14/5/08 @ 13.32 reply provided giving a view under the MUDFA contract under a termination event.

- (2) Were you ever of the view that TIE had good grounds for terminating the MUDFA contract due to Carillion's default (and, if so, when and why)?

An argument re failure to meet their contractual obligations due to lack of progress/resources etc and specific limited events may have provided grounds but none of these was considered material and despite their poor performance they were also affected by what was actually discovered and required to divert utilities, there were a number of issues and not all of them were AMIS's fault.

54. 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 12421 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) Did that accord with your general understanding at that time?

Do you have any further comments? Yes

- (2) Did these matters cause concern within TIE? Were they reported to senior management? How were any such concerns addressed?

They were reported to Tie Senior Management, Tram Project Board and CEC and periodically to Transport Scotland.

55. Infraco contract close took place on 14 and 15 May 2008, as part of which a number of contracts were signed.

What was your understanding of the following matters at that time:

- (1) When the utilities diversions would be completed?

Utility diversion would be on-going in conjunction with Infraco with the potential for Infraco to undertake utility diversions a head of the tram slab and re-divert previously diverted utilities to accommodate the final Infraco design details. All the potential utility diversions required including all clashes in DKE, abandoned services, road gulleys, street furniture removal/reinstatement, manholes, utility connections etc which Infraco may encounter or may have to divert/protect etc

along the route and potential programme delays/impacts of utility diversions to Infraco were compiled in registers, presented and discussed with both Tie Infraco representatives and the prospective Infraco contractor Project Director for incorporation/consideration in the Infraco contract before the contract was signed/executed.

- (2) Whether the utilities diversions would be completed before the infrastructure works commenced?

Detailed current and expected as (1) above before Infraco contract executed.

- (3) If the utilities diversions were not completed before the infrastructure works commenced, what problems that could cause and how any such problems would be addressed?

Detailed all elements current and expected as (1) above before Infraco contract executed.

- (4) To what extent were the above matters discussed within TIE (and between whom) prior to Infraco contract close?

As above, in addition DLA piper provided a formal note of the registers and the associated issues to the Tie Infraco negotiation team recommending incorporation of the information into the Infraco contract prior to the Infraco contract being completed/executed.

56. By letter dated 2 June 2008 (**CEC01366117**) David Smith, MUDFA Carillion Project Director, advised that Grontmij Ltd were to provide design services in relation to Section 7B (Edinburgh Airport).

- (1) What did that design relate to?

As detailed in the scope letter CEC01366117

- (2) Why was it instructed relatively late in the MUDFA works? (we note, for example, a reference in AMIS's Monthly Progress Report for sections 7A & B dated September 2007 that there had been a delay caused by cancellation of the EARL project, **CEC01686017**, Executive Summary)?

The cancellation of the EARL project affected the interface and the provision/finalisation of required redesign of the airport infrastructure by Edinburgh Airport Authority (EAA) re the location / details of the tram station and the relocation of hire car facilities etc. Once Edinburgh Airport Authority provided details of their requirements/plans the utility diversion works could then be investigated and designed.

- (3) What, if any difficulties were experienced in the utilities design and construction works for that section?

Getting EAA design approval for the proposed utility diversion design re the proposed designed location and protection/diversion proposals for the utilities.

57. 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 15288 metres (against a planned 24322 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 was not aware of any issue with the reporting, MUDFA produced a report every month which was issued and presented to the Tie Management in this instance Utilities sub-committee, I do not know why the MUDFA Construction Directors report was not subsequently included in the reports produced by the Tie Management and issued to the Tram Project Board.

(2) Did you have concerns, at any stage, in relation to whether the difficulties and delays with the MUDFA works were properly reported within TIE and to others (including e.g. the TPB and CEC)?

No real concerns as every month MUDFA produced a detailed Construction Directors report which was issued to Tie management and then presented in a formal monthly meeting, which I attended with the MUDFA Construction Director, at every one of these meetings a representative of CEC was present and the attending members of the Tie Management and CEC representatives also attended the Tram Project Board. All of these monthly TIE construction progress meetings had a formal pack of papers etc and were minuted including listing the attendees etc. In addition MUDFA works including the commercial implications/programmes/risks etc were also independently audited on a number of occasions by both CEC and Transport Scotland. As a result of the above I

believe representatives from all parties including Tram Board, CEC, Transport Scotland were aware of all the issues, risks and programmes.

- (3) Who within TIE was responsible for ensuring that the risk of delays to the MUDFA works resulting in delay and increased cost to the infrastructure works was properly reported and taken into account in decision making?

The risks for all the Tram contracts ie MUDFA, SDS, Infraco etc were coordinated centrally by the risk team who were directed by Susan Clark, it was the responsibility of the Tie Senior Management team to ensure all aspects, including risk, were taken into consideration in their decision making.

- (4) Did you, or others in TIE, have any concerns, at any stage, in relation to whether the risk of delays to the MUDFA works resulting in delay and increased cost to the infrastructure works was properly reported and taken into account in decision making?

I had concerns which were raised at the time with Tie Senior Management these resulted in the production of schedules of all utility issues which could potentially affect Infraco – as detailed previously these were issued and presented to both Tie Infraco team and the proposed Infraco Contractors Project Director prior to finalising/execution of the contract and a DLA also produced a recommendation re the schedules' inclusion in the Infraco Contract before it was signed/executed.

58. The Tram Project Board met on 4 June 2008 (**USB00000005** at page 5). The minutes noted (page 7) that Steven Bell appraised the Board of current MUDFA progress *“including the close out programmes, the current two week impact on the Infraco critical path and Revision 7 of the programme”* (slides presented to the meeting, **CEC01312258** at page 6, noted that Revision 7 of the Programme was being finalised to enable any impact to be mitigated).

David Mackay raised a concern over the *“ongoing issue of Carillion resource and supervision”*. Willie Gallagher explained that *“both tie and Carillion had underestimated the complexity of managing so many worksites”* and that areas that affect the Infraco critical path were being prioritised (page 7).

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

Yes, in addition, and in fairness to Carillion, there was also a significant level of additional unknown/unexpected issues and utility diversions undertaken which extended the duration of the works.

59. An e-mail dated 5 June 2008 from Willie Gallagher (**CEC01343888**) noted that he had “walked the job” from Haymarket to Constitution Street that morning and was disappointed and puzzled at the lack of visible productivity and lack of site supervisors (from both TIE and Carillion).

- (1) Do you have any comments on that e-mail?

Nothing to add, as stated previously the level and competency of the resources



and management of those resources was subject to considerable challenge by Tie MUDFA and accepted by the Carillion Project Director CEC01145983.

(2) How often did you “walk the job”?

What were your impressions when you did? I was onsite at the various work section locations on a regular basis, impression was lack of competent/capable resources and/or very poor management/supervision of resources.

60. By letter dated 16 June 2008 (**CAR00000022**) Graeme Barclay formally granted Carillion an Extension of Time of the substantial completion date to 28 November 2008.

(1) How confident were you around that time that the MUDFA works would be substantially complete by that date?

The extension of time was a contractual entitlement in relation to LD's under the contract and did not necessarily relate to the actual progress or completion date of the project as the actual progress was affected by a number of AMIS issues as detailed previously.

61. An e-mail dated 19 June 2008 (**TIE00141448**) from Roddy Aves, Carillion, noted his concerns that TIE were expecting Carillion to commence the enabling works in many locations the following week but TIE had not issued the necessary paperwork to allow that to happen.

An e-mail dated 25 June 2008 from Steve Hudson, Commercial Director; Carillion (**CEC01346377**) noted that the draft of Rev 07 of the Programme, *“has moved from the draft a few weeks ago due to late receipt of Enabling works details and then the growth in scope shown therein. This results in a further programme slippage in certain key areas, namely, Haymarket”*.

(1) What Enabling works still required to be carried out and where around that time? Why had these works not been carried out earlier?

TM, relocating/removing street furniture/bus shelters/phone boxes/street lights, bins, benches, street signs, traffic lights etc – until you have the design and no what it is you are diverting/where etc you only have a educated view/estimate for the programme etc and do not know what will be required. In addition the TMRO process resulted in additional requirements which were advised/approved, in best case, one to two weeks before works commenced.

(2) Did TIE delay in providing Carillion with necessary paperwork in relation to the Enabling Works (and, if so, why)?

We were unable to provide a fully detailed package four to six weeks in advance of the works commencing but Tie did not delay the paperwork or cause Carillion delays as the requirements and scope were agreed, recorded before the works began and as issues arose they were dealt with at the time.

(3) Did any delay in carrying out the Enabling Works delay the carrying out and/or

completion of the MUDFA works?

From a contractual liability/entitlement perspective they did impact delivery but it is considered minimal / limited as any delay ran concurrently with AMIS productivity issues, AMIS quality issues, AMIS lack of resources etc.

62. E-mails between Steven Bell and Steve Hudson in June 2008 noted discussions in relation to a MUDFA Rev 07 Programme.

Mr Hudson's e-mail dated 25 June 2008 (CEC01346377) noted that there were a number of programme risks remaining, including "delay in drawing issue, growth in work scope and TM restrictions".

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".

Steve Hudson  
should be  
Keith Gourlay

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

Limited contractual basis to AMIS claims as the majority of the issues raised are actually covered by the Contract Schedule 4 rates and prices. I do agree that the extent of unknown utilities, unexpected obstructions, TM amendments, TM restrictions, CEC restrictions etc resulted in Tie MUDFA being reactive as issues materialised but it did not 'delay in cost terms' as AMIS paid agreed rates and prices for all works undertaken. As previously detailed AMIS confirmed they were an experienced contractor with 30 years' experience within Edinburgh with utilities and gas mains etc and were aware of all the issues which they had considered and included within their Schedule 4 rates and prices.

63. The Tram Project Board met on 30 July 2008.

The minutes (CEC01053601) noted that Susan Clark gave an update on the MUDFA works and that the team was still working to get MUDFA finished by the end of 2008 (page 6, para 2.5).

Willie Gallagher was noted as stating that "rather than being design driven, the MUDFA delay is driven by poor logistics and management and that the Board should not be unduly worried about progress" (page 6, para 2.5).

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

See previous comments re resources etc Carillion also 'manned up' in an attempt to address the lack of resource issue.

(2) Were you worried about progress?

Yes

64. The Tram Project Board met on 27 August 2008.

The minutes (CEC01053637) noted, under MUDFA, that “SB acknowledged that productivity was increasing but was still not at the level expected. He added that Carillion had finally accepted that changes were needed, both in personnel and delivery and that these were being implemented” (page 6, para 2.6).

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

See (1) to Question 63.

65. An e-mail dated 8 September 2008 from Damian Sharp, Project Manager; TIE (CEC01139932) noted certain outstanding utilities design.

(1) Did that accord with your understanding around that time of the outstanding utilities design?

I agree with the response from Graeme Barclay within the e-mail chain.

(2) Why was utilities design still outstanding in these areas?

SDS not delivering their scope and design issue with SDS seeking change orders etc claiming it was all additional works rather than delivering the design, there appeared to be an inability of the Tie SDS team to manage SDS and the delivery of the SDS scope within the SDS Contract.

(3) Were there any other areas of outstanding utilities design?

Yes – in as number of areas across the work sections hence the adoption of the RATS process by MUDFA.

66. By e-mail dated 9 September 2008 (CEC01139799) Graham Christie, Carillion, sent a draft proposal for demonstrating the adequacy of the previous Works completed to date (CEC01139800). The draft proposal noted that the quality assurance system previously set up on the MUDFA contract was largely based on a monitoring regime which did not require written evidence of inspections carried out and that a new regime had been instigated which required documented evidence of inspections going forward.

It was also noted that, in the past, frequent inspections of the works had been completed by Carillion and TIE staff, with random inspections by SUCs and CEC, however, only a limited amount of these inspections had been documented and, generally, the inspections were completed without a record being kept.

(1) Were you aware that, in general, written records were not kept of inspections? Was that usual in the utilities industry?

Formal written inspection carried out as part of the process for completion/handover. Before works complete and final inspection carried out it is not unusual not to formally record inspections unless and Non Conformance Report (NCR) issued/required. Inspectors kept daily diary sheets/logs and noted all issues including NCR's for items identified or considered out with specification. Carillion staff held SOC qualifications/certificates, NRSWA

qualifications and CSCS cards see also CEC01139800

Did that cause any problems?

Sometimes, including the interpretation and application of the specifications standards.

(2) Were written records of inspections introduced?

As per (1) above records already existed but all Tie MUDFA inspections from this date formally recorded and issued thereafter.

67. We note a Proposed Plan for Achieving Contract Completion dated September 2008 (CAR00000250).

(1) What was the purpose of the plan? Was it implemented? If so, was it successful?

To improve delivery, reduce delays and resolve technical and commercial issues asap; it was implemented and with exception of commercial issues helped to improve project issues/delivery. The claims made had little contractual entitlement and Carillion continually trying to change commercial basis of the contract to cost plus.

68. TIE's MUDFA Contract Review Report for period 6 (18.8.08 to 14.9.08) (CEC01068356) contained an Appendix 3, Performance Measures (page 32) which noted delay in completing the planned metreage in the various sections.

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).

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) By way of overview, what utilities diversion works (and in which sections) were being undertaken around this time?

No areas as detailed in period progress report CEC01068356 pages 2 to 20.

(2) What were the main reasons for the slow progress?

Detailed in period progress report CEC01068356 pages 2 to 20

- (3) To what extent could and should these difficulties have been foreseen prior to Infraco contract close in May 2008?

All foreseen and advised to Tie Infraco team re issues and potential impacts prior to May 2008 including anticipated consequences to Infraco contractor.

69. An e-mail dated 22 October 2008 from Alisdair Dickinson, MUDFA Assistant Project Manager, TIE (CEC01120509) noted that the Dynamic Kinetic Envelope (DKE) at Haymarket had been revised.

- (1) Why was the DKE at Haymarket revised?

To accommodate utilities alignment and the findings of the Infraco/SDS design safety audit undertaken Sept/Oct 2008.

- (2) What problems, if any, did that cause for the MUDFA works?

Re divert previously diverted utilities and redesign the whole Haymarket area, this stopped and delayed the works during the actual diversion of utility in a fully excavated area. In addition the outputs from the Infraco/SDS design safety audit undertaken Sept/Oct 2008 had significant additional implications and issues along the whole tram route.

70. 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 TM 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 are your comments on these matters including, in particular, what was noted in relation to the design being incomplete and there being many utilities that were unforeseen, congested and at shallower depths than permitted etc?

IFC designs issued but unforeseen services/utilities encountered, in addition the Infraco/SDS design safety audit undertaken Sept/Oct 2008 identified a significant number of additional works including a number of previously diverted utilities to be re-diverted and a significant number of existing manhole entries had to be repositioned or side entries constructed for safe SUC access/egress adjacent to the tram; Infraco tram slab depth / cover depth increased which also resulted in previously diverted utilities being rediverted into what little remaining limited space available to accommodate utility diversions or diversions into side streets off the tram route (this also required further designs and approvals from SUC's). These were coupled with TM restrictions and embargoes imposed by CEC.

- (2) Why had a five week programme slippage reported to the TPB in April 2008 (CEC00079902, page 5, para 3.1) become a slippage of almost one year?

The majority of the high risks marked red within the CEC00079902 reports pages

17-19 inclusive were realised despite mitigation measures impacted delivery. See also (1) above.

- (3) With the benefit of hindsight, why had the estimated slippage reported in April 2008 been so far out?

We had not anticipated Infraco contract changing the basis of the MUDFA design re tram slab depth and DKE; we hadn't anticipated that SDS had not carried out a design safety audit or had to change their own SDS design safety audit in Sept/Oct 2008 as part of their design responsibility under the contract which identified and required significant unexpected additional works; we had anticipated the extent of Carillion's failure to perform; CEC imposed additional significant embargos/restrictions/TM restrictions/TM signage requirements; we had not anticipated losing 9 – 10 weeks of productivity for the removal and reinstatement etc to accommodate a 3.5 week Christmas embargo; hadn't anticipated the extent of the utility diversions at Gogar; no one anticipated the full extent of the quantity of utilities to be diverted from the original circa 27,000m to circa 59,000m under MUDFA.

71. A version of the Risk Register dated 7 November 2008 (**CEC01198911**) appears to show (for risks 139 and 164) that trial excavations to confirm the locations of the utilities were due by 30 November 2008 (see also (i) a version of the Risk Register for period 9 in 2008/09 which showed a due date for these trial excavations of 30 January 2009, **CEC01199091** and (ii) a version of the Risk Register for period 10 in 2008/09 which showed a due date for these trial excavations of 30 April 2009).

- (1) Why were trial holes still being undertaken around that time?

As detailed in CEC01140099 above dated 22/10/2008 see answers to Questions 69 and 70 -. Trial holes required to inform the design/solutions etc to accommodate the issues etc identified.

- (2) Could and should they have been undertaken earlier?

SDS should have identified a significant element of the issues as part of their obligations prior to the works commencing but failed and SDS should have completed their safety audit and coordinated designs etc between MUDFA/Infraco works to reduce prevent clashes and the extent of the re-work required.

72. An e-mail dated 25 November 2008 from Steve Hudson, Carillion (**CEC01162082**) noted that significant delays to programme continued to be experienced as a consequence of:

- Delays in design issue.
- TM and Stakeholder restrictions.
- Growth and change in work scope.
- Delay in TQ resolution.
- Inadequate tie leadership and project management.

Mr Hudson further noted that Carillion had made changes to their team to improve delivery and requested that you and your commercial team be removed and replaced with an "independent" team to administer the commercial framework of the contract.

(1) What are your views on the matters in this e-mail?

The assertions re the commercial team are unfounded and incorrect – Carillion did not like the fact the Tie MUDFA team administered the contract correctly and reasonably (this is validated by the findings of the independent experts report CEC00100005). At this stage in the project Carillion were on to their 3rd or 4th Project Director and their incumbent Project Director at the time "admitted Carillion do not have the requisite quality of staff on the job and (he the Carillion Project Director) supportive of Tie raising within Carillion Senior Management" see CEC01145983.

73. TIE's MUDFA Contract Review Report for period 9 (10.11.08 to 7.12.08) (CEC01147736) noted (para 2, Progress, page 2) ongoing delays. 80.3% of the on-street works (sections 1A, 1B, 1C and 1D) were planned to have been undertaken, and 56.1% had been undertaken. 75.7% of the off-street works (sections 2A, 5A, 5C, 6A and 7A) were planned to have been undertaken and 63.6% had been undertaken. Of the full route of phase 1A, 79.3% of works were planned to have been undertaken and 57.6% had actually been undertaken. By letter dated 8 December 2008 (CEC01200503) Steve Beattie, Project Director, Carillion, enclosed a high level overview of draft Programme Rev 08, with a revised completion date of 16 October 2009, and sought an Extension of Time (EOT). See also Graeme Barclay's letters dated 17 December (CEC01126645) and 19 December 2008 (CEC01126703) (Extension of Time for Completion) and 16 December 2008 (Weekly Progress Reports) (CAR00000558).

(1) What were your views around that time as to why a further EOT was necessary?

I drafted both letters issued by Tie ie CEC01126645 and CEC01126703 rejecting EOT as it did not comply with the contract and there little/no contractual entitlement as delays ran concurrently with Carillion's own issues. I did have some sympathy with elements of delay however there was no contractual entitlement.

(2) How confident were you that the MUDFA works would be completed by the suggested new completion date?

See previous comments re programmes, in addition it was difficult to fully accept or fully trust programmes because of the extent of unforeseen changes and issues and the poor performance by Carillion including the high extent of reworks required due to quality issues.

## Events in 2009

74. By e-mail dated 7 January 2009 (CEC01119012) you sought advice from DLA in relation to possible claims by TIE against Carillion (see also the Initial Opinion

prepared by DLA, CEC01119013).

- (1) It would be helpful if, by way of overview, you could explain the matters in your e-mail? What was the approximate value of the claims? How were matters resolved?

BT duct remedial works July/August 2008 and were still ongoing in Jan 2009 from memory this was circa 15,000m to 20,000m in total being redone as the installed ducts failed the tests and inspections under the contract; BO back fill works did not meet the specification standards; Gogar depot incorrect gaskets installed in the pipe which resulted in significant leaks in the pressurised clean water supply pipe. The costs of the above and the associated costs amounted to between circa £600k and £1.2m. Refer also to spreadsheet CEC00589696 which details all the potential Tie claim deductions from Carillion with a summary of issues and ranges of potential cost recovery.

75. On 7 January 2009 the SDS Provider, Parsons Brinckerhoff, produced a Report on As-Built Drawings for the MUDFA Contract (CEC01119469) showing a scope shortfall in these drawings.

- (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-builts record where utilities etc are actually located for safety and operation/maintenance purposes for the SUC's records, CEC records, Susie phone etc they also show / record any structures/obstructions/cellars, abandoned utilities, protected utilities etc. Requirement was missed from the SDS scope and included in MUDFA scope but scope was not detailed/defined or prescriptive. Carillion provided their contractual obligation in this respect. Tie MUDFA appointed a specialist survey company L&M Surveys to produce fully detailed 'as-builts' for hand over to SDS/Infraco, SUC's etc.

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

Limited as red line drawings available and issued and all potential conflicts or information required by Infraco provided in schedule to Tie Infraco team and Infraco contractor.

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

Additional cost paying L&M surveys to provide. No other additional costs should have been incurred and should have been no delay to Infraco as they have obligations under CDM & NRSWA to take all measures and locate utilities etc in addition schedule provided by MUDFA detailed abandoned utilities which could be excavated through.

76. By letter dated 27 January 2009 (CAR00000073) (Weekly Progress Reports) Steve Beattie, Carillion, made a number of points including:



- The failings throughout the PCS phase had led to the inability of Carillion to provide a programme as contemplated in PCS (page 1).
- There had been in excess of 2,046 items of change to date (excluding re-measurable TQ's and TQ's raised in cost recoverable works such as the Enabling works), *"predominantly due to inadequate tie utility diversions and traffic management design and process"* (page 2, last para).

(1) What was your understanding of, and views on, the matters noted above?

As previously stated PCS was dealt with under a settlement agreement in 2008. Unknown/unexpected utilities, design changes, street furniture, TM required, TM changes to be managed also discussed previously. I had sympathy with some of the issues/items but there was limited/no contractual entitlement coupled with significant concurrency of delay with AMIS productivity, quality issues.

(2) Do you have any other comments on Mr Beattie's letter?

It appears to be a draft rather than an actual issued letter was it actually issued? If so Tie reply would provide view at the time however it is an attempt re-interpret the MUDFA contract in order to justify costs recovery rather than contractual entitlement view as per content of CEC01126645 and CEC1126703.

77. By e-mail dated 28 January 2009 (**CEC01145982**) Jim McEwan, TIE, sent a short note (**CEC01145983**) setting out what he considered to be the key problems and issues emerging from the MUDFA works.

(1) What were your views on the matters in Mr McEwan's note?

Agree, complexity and extent underestimated ie originally circa 27,000m expected but actual under taken under MUDFA circa 59,000m. Relationship and communication at time was not the best with some of this resulting from Carillion not having the requisite quality of staff/supervision on the job as accepted by Carillion Project Director see CEC01145983.

78. An e-mail exchange in February 2009 between Dennis Murray, TIE, and Steve Hudson, Carillion, set out parties' different views on Carillion's claim for delay and disruption (**CEC00941273**).

(1) What were your views on the matters in that exchange of e-mails?

See CEC00100146 which details my view. Tie valued and assessed payment reasonably in accordance with the contract and Tie remained open to reaching fair and reasonable settlements in a number of ways but Carillion at all times did not comply with the contract and set aside the whole work order pricing using schedule 4 rates and prices for global unsubstantiated and unjustifiable cost recovery claims. Carillion were unable to provide supporting details or any contractual entitlement and failed to take into account Carillion own issues, inefficiencies etc and very few of the records provided could actually be applied due to duplication, incorrect records claiming the same resources (lab, plant) in

numerous different work sections at the same time etc. See also CEC00100005 which confirm these points.

79. An e-mail dated 5 March 2009 from Thomas Caldwell, TIE (CEC00956217) suggested that Carillion were losing money on the MUDFA contract because they were paying their sub-contractors more than they received from TIE under the contract.

(1) What was your understanding of that suggestion (including the basis for that suggestion)?

I agreed with comment.

(2) Was that suggestion ever discussed with anyone from AMIS/Carillion (and, if so, with whom and what was their response)?

Yes constantly with Steve Hudson, Keith Gourlay, Steve Beattie, Taryne Lowe, David Smith, Andy Malkin, Phil Kolon etc there was no comment but the price differential was included and stated in their claims again under the contract there is no entitlement for the difference between the rates they provided/tendered and the inflated rates they paid their resources. See also CEC00100005 which confirms issued raised by independent expert but Carillion failed to address.

80. By agreement dated 19 March 2009 (CAR00000243) TIE agreed to pay Carillion £1.2m in relation to delay and disruption between 1 October 2007 and 30 September 2008.

Appendix 3 set out the milestones which, if met, would result in additional payments totalling £800,000.

(1) Do you have any comments on that agreement?

My original assessment of the Carillion Entitlement was circa £650k but a commercial settlement of £1.2m was reached through discussions agreements see CEC01498075, CEC01498076, CEC01498550, CEC1498920 and CEC01498921.

CEC1498920  
should be  
CEC01498920

(2) Were the milestones met and were the additional payments made? (see e.g. a schedule Agreement of Contentious Items as at 16 December 2009 which suggests that an incentivisation payment of £680,000 was agreed, CEC00583586).

Only some of the milestones were met as CEC00583586.

81. By letter dated 24 March 2009 (CAR00000560) Steven Bell advised Steven Beattie, Carillion, that following agreement of the MUDFA Revision 7.9 Programme, TIE formally granted an extension of time to the substantial completion of the MUDFA works (to 1 April 2009) and the Longstop Date (to 3 August 2009).

(1) What was the purpose and effect of granting that extension of time?

Administration of the MUDFA contract in relation to Programme 7.9.

- (2) How confident were you at that time that the MUDFA works would be substantially complete by 1 April 2009 and fully complete by 3 August 2009?

See previous comments re programmes.

82. An e-mail dated 20 April 2009 from Thomas Caldwell, TIE (TIE00113920) noted that TIE were issuing a lot of instruction to Carillion without the need for an estimate prior to the works taking place (because *"there does not seem to be an awful lot of Change notices lately, but a lot of change orders"*).

- (1) What was your understanding of that matter? Why had it arisen? What problems did it cause?

Related to CVI's particularly for TM changes, street furniture etc and changes required to accommodate unchartered utilities, obstructions etc found during actual diversion works. This process was a quick and efficient way to administer/record as required by the contract and reduce delay and costs for both parties. Risks as stated that without programme & price Carillion valuation was a debate.

83. An e-mail dated 30 April 2009 from Graeme Barclay stated *"Another 800K down the pan!"*, in reply to your e-mail dated 29 April 2009 advising that, in response to a request from Dennis Murray, you had met with Taryne Low, Carillion, and had agreed that an additional £780,719 could be paid to Carillion on account (CEC00975701).

- (1) What were your views on whether it was appropriate to pay Carillion that additional sum on account?

As question 79 Tie looking to assist and administer the contract fairly and reasonably including considering Carillion cash flow position on an interim account basis, on account payment requested by Dennis to assist Carillion cash flow but only in respect of specific issues for which Carillion had a potential entitlement and as per the interim payment agreement payment made on account subject to Carillion substantiating and sustaining their claimed values and entitlement. The consisted two elements £200k in general on account allowances and £463k for the transfer of ownership of mass barrier to Tie; Carillion failed to transfer the mass barrier and failed to sustain their entitlement to the £200k on account payment so both items were deducted in future certificates.

- (2) What did you understand Mr Barclay to mean by his response?

Flippant comment / remark

84. A joint meeting of the Tram Project Board and the TIE Board took place on 3 June 2009 (the minutes are CEC00983221, page 5). Slides for the meeting (CEC01007729, page 6) noted that overall 77% of all diversions were complete, that

a strategy to close down the MUDFA contract by the end of August had been implemented and sections 1A (Newhaven Road to Haymarket) and 7 (Gogar to Edinburgh Airport) were out to tender.

In relation to utilities, all of the "off-road" section were now complete (i.e. from Haymarket to Gogar, with the exception of Gogar to the Airport), namely, sections: 2a (Haymarket to Roseburn Junction); 5a (Roseburn Junction to Balgreen Road); 5b (Balgreen Road to Edinburgh Park); 5c (Edinburgh Park to Gogarburn); and 6 (depot).

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

Reflected summary position at the time.

(2) Why had a strategy been developed to close down the MUDFA contract and transfer the remaining diversions to other utilities contractors?

See proposal options prepared for completion of MUDFA CEC00959119 and CEC00959120 for details.

85. An e-mail dated 9 June 2009 from Alisdair Dickinson, TIE (CEC00959704) noted (6<sup>th</sup> bullet point) that a number of technical difficulties were being encountered in the current phase of TM at Palmerston Place and that approximately 60% of the IFC design was unachievable due to space constrictions and TM availability.

(1) It would be helpful if you could explain, in general terms, how IFC design was affected by space constrictions and TM availability? What was the effect on progressing the utilities works? How were problems relating to the achievability of IFC design resolved and within what timescales?

IFC produced but unexpected utilities and basement structures encountered reducing the available space to accommodate / locate utility diversions etc. In addition TM issues ; delayed and looked at alternatives which resulted in a revised design of diversions undertaken as per red line drawings.

(2) Were space constrictions and TM availability a problem throughout the on-street work sections? Were some locations particularly bad (and, if so, which locations)?

Yes, detailed within reports/updates but I cannot remember the exact locations.

(3) Mr Dickinson noted in his e-mail that approximately 60% of IFC design at Palmerston Place was unachievable. Very broadly, approximately what overall percentage of the IFC utility design for (i) the on-street and (ii) the off-street works was found to be unachievable once works commenced?

Unable to recall exact number but the on street was significantly higher with the majority incurring issues which were compounded with limited space. See also CEC00788970 for details and issues and CEC00762214.

86. An e-mail dated 12 July 2009 from Stuart Robinson, Carillion (TIE00260816) advised that a number of issues were outstanding in York Place which, if they did not receive the urgent attention of all parties, would result in Carillion being forced to stop the majority of diversions in York Place (see also an e-mail dated 11 August 2009 by Michael Blake, TIE, on York Place Review Meeting Actions, TIE00260440).

(1) What was your understanding of, and views on, the matters in the e-mail?

Due to the issues actions taken to find resolution to issues in the work section/area

(2) Where the problems in York Place resolved (and, if so, when)?

Yes – resolved but continued for a period to complete actual works I do not recall exactly when the works finished but this will be detailed in programmes/monthly reports.

87. By e-mail dated 28 July 2009 (CEC00762213) Jim McEwan sent a Note (CEC00762214) setting out his views on MUDFA prolongation.

(1) What were your views on the matters in Mr McEwan's Note?

I agreed with the summary points made and the items in the attachment

(2) What were your views on the comment by Mr McEwan in his e-mail that an "inappropriate balance" was struck on the level of surveying carried out?

Agreed as per Question (5)

(3) What were your views on the comment by Mr McEwan in his e-mail that "it's time to fold the Mudfa programme and bring what's left of it under the main Infraco project"? (see e.g. your e-mail dated 7 August 2009 to Susan Clark in that regard, CEC00788970)

Agreed in principle but practicalities and works already underway also dictated / pointed to retaining MUDFA to complete the sections as listed.

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

Unlike the MUDFA contract which is valued paid under the Schedule 4 rates and prices the SUC's are entitled to be paid the reasonable costs incurred under the NRSWA for diverting/moving utilities to suit your requirements and are on a cost plus basis which does potentially cost more than a tendered price where the Contractor is competitively tendering and considering risk whereas SUC's are de-risked this was one of the drivers for the formation of MUDFA contract concept.

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

Actual costs reasonably incurred and audited for final cost as per NRSWA. SGN paid the legitimate and reasonable costs incurred and they did incur the similar issues as MUDFA re TM, restrictions due to other utilities and extent of temporary works not envisaged in original budget. See also TIE00771511 re potential contribution to cost from West Craigs as part of the land deal, I am unaware if this was progressed by others in Tie as it land purchase was not part of MUDFA works/scope.

89. The Tram Project Board met on 26 August 2009.

The minutes (**CEC00848256**, pages 6 and 7) provided an Overview of Current Progress with the Infraco and Utilities works.

In relation to utilities, Steven Bell provided a summary of the increased scope over and above the tendered utilities quantities (i.e. 46,575 metres and 295 chambers compared to an anticipated 27,188 metres and 190 chambers), it being noted that *"Most of these scope increases can be attributed to a combination of inaccurate utilities records, unknown apparatus, congestion/obstacles and resulting re-design and alternative routeing"*. While there were 'value for money' benefits arising from the increased scope, these would be tempered by programme impacts.

Carillion were at 96% completion (although challenging areas remained to be completed at Haymarket and York Place/Broughton). Farrans were undertaking the utilities diversion works to programme at the airport and were expected to be completed by the end of November 2009. Tenders for the section 1a (Newhaven Road to the Foot of the Walk) utilities were under review and a recommendation to award would be made in mid-September.

- (1) Did that accord with your general understanding around that time? Do you have any further comments?

Yes

90. By letter dated 25 August 2009 (**CEC00846312**) Carillion advised that due to *"numerous items of additional works and delaying events"* a Further Extension of Time for Completion was required to 14 December 2009.

By e-mail dated 4 September 2009 (**CEC00790176**) Philip Kolon of Carillion sent a "Schedule 4 Rates and Prices Submission Road Map" (**CEC00790177**) (in support of Carillion's claim for a further Extension of Time).

- (1) Do you have any comments on these documents including, for example, the comment in the Road Map (page 2) that with in excess of circa 1,600 technical Queries and 3,700 Change items raised to date, and based on projections, Carillion anticipated a Final Account Value in excess of £70 million?

Carillion details spurious and incorrect, Tie did not accept/agree interim and final Carillion position see CEC00100005 which affirms/validates Tie MUDFA position and actions. Tie administered the contract and valued the works using Schedule 4 rates and prices however Tie MUDFA assessment of entitlement was circa £650k with the Independent experts assessment was circa £695k as per CEC00348692.

91. An e-mail dated 8 September 2009 from Allan Ross, Contracts Manager; Scotia Gas Networks (**CEC00797890**) stated that "SGN has repeatedly highlighted to tie concerns regarding the lack of quality management being exercised on Carillion by Tie. This has resulted in a number of sections of pipes being re-laid or internal pigged to remove water and debris".

See also, by way of example, your e-mail dated 13 April 2010 requesting information on additional costs incurred by the SUCs as a result of Carillion's failures (**CEC00346278**).

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

Agreed with quality issue - see previous comments confirming significant quality issues with the works undertaken by Carillion.

- (2) More generally, to what extent did SUCs dispute whether the MUDFA works were of satisfactory quality? (see e.g. an e-mail dated 12 November 2009 from Jim McEwan which noted that claims would be coming from BT and Scottish Water in relation to the quality of the works done, **CEC00765029**)

Varying degrees of issues with all SUC's the worst quality/most issues raised were BT / telecom ducts, but quality was poor across the board with a considerable amount of rework to achieve the required standard – part of the quality issue being there was no incentive or penalty on the labour only resources who were paid by the hour irrespective of quantity of works done or the quality and they were not supervised or managed properly all of which is a record of considerable record.

- (3) Do you recall the approximate sum sought from, and agreed with, Carillion in respect of the additional costs incurred by TIE/the SUCs in respect of Carillion's failures? (see e.g. (i) e-mail dated 16 April 2010 from Mary Erskine, Scottish Water, advising of additional costs totalling between £3,170,000 and £5,010,000, **CEC00390636** and (ii) e-mail dated 14 April 2010 from Allan Ross of SGN advising of minimal additional costs, **CEC00390574**).

I was not involved in the final agreements with Carillion on these matters as I left Tie before conclusion of contract but I assume the contract charges were taken into consideration in the final settlement sum of circa £5,824,000 reached

November 2010.

- (4) Are you aware whether the SUCs made claims against TIE for these sums and how they were dealt with? Were they, for example, set-off against sums due by the SUCs to TIE for betterment?

Any legitimate claims where set off against payments due to Tie before I left Tie.

92. There was a joint meeting of the Tram Project Board and TIE Board on 23 September 2009.

Slides for the meeting (**CEC00849011**) gave an update on the Utilities work. The Carillion works were 97% complete (Haymarket was forecast to be complete at the end of November, excluding gas abandonments; York Place – Picardy Place required a technical solution; Leith Walk gas and water decommissioning was to be complete by November).

The Airport works by Farrans were well advanced with completion forecast by mid-October. In Tower Place – Newhaven, tenders had been returned and were under evaluation, with works expected to commence in October.

- (1) Did that accord with your understanding around that time? Do you have any further comments?

Yes in summary

93. In December 2009/January 2010 TIE and Carillion entered into a Minute of Agreement (the "Exit Agreement") (**CAR00000145** is a signed version; for a version with legible appendices, see **CAR00000429**).

- (1) To what extent, if at all, were you involved in negotiating or drafting that agreement?

I provided some of the schedules and some drafting agreement led and finalised by others in Tie

- (2) What, in general, were your views on the agreement?

An attempt to finalise and close MUDFA for Infracore works.

- (3) Did any of the provisions of the agreement cause problems or disputes later?

Not that I am aware of as I left Tie before all issues finalised.

- (4) How were any outstanding claims (by both Carillion and TIE) dealt with?

Resolved in a final settlement after I left Tie.



## Events in 2010

94. There were e-mail exchanges in early March 2010 with Steven Bell (TIE00103498) in relation to sums that could be recovered from Carillion (see also the spread sheet CEC00589696).

(1) Were sums recovered from Carillion (or offset against sums due to Carillion)?

On account sums were deducted as part of the monthly valuation process by Tie MUDFA during the currency of the project. I left Tie before the final extent of the offset was agreed.

(2) If so, approximately what sums were recovered from Carillion (e.g. were the sums recovered under or over £1m) and in respect of what failures on the part of Carillion?

Schedules provided with details of the potential sums which contained details and indicative ranges of value the total potential deduction when I left Tie ranged between circa £600k and £2.9m.

95. E-mails exchanged in 15 March 2010 between you and Taryne Low, Carillion (CEC00605494) attached a spread sheet showing parties' respective positions on the sums due (CEC00605495).

See also, by way of further example, a further schedule produced following a meeting on 8 July 2010 (CEC00331134).

(1) It would be helpful if you could explain, in general terms, the spread sheet and schedule?

The spreadsheet and schedule shows the variances from what Carillion submitted for payment as Application For Payment No 39 and what Tie actually certified for payment in respect of AFP 39 this allowed both parties to look at the variances and work through the circa £18m difference.

96. The Tram Project Board met on 14 April 2010.

The minutes (CEC00245907) noted (page 6, para 3.1) in relation to Utilities, that Clancy Docwra were expected to complete the utility works in Haymarket and at Lindsay Road by the end of April. Farrans works in Leith Walk were expected to be completed in mid-May. It was noted that the original estimated work scope was 27,000 metres of utility diversions, that the current volume completed was 46,000 metres (being 170% of the original scope), that 94% of the revised expected scope had been completed and that the expected final volume was 49,000 metres of diversions (i.e. 181% of original scope).

Does that accord with your general understanding at that time? Do you have any further comments? Yes in summary detail

97. An e-mail exchange in late April 2010 between Graeme Barclay and Graeme

Younger (CEC00390887) noted certain issues arising from defects in the works carried out by Carillion, including that the exit agreement with Carillion, and the fact that substantial completion had been granted, meant that Carillion were not, apparently, liable for any consequential losses arising from their remedial works.

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

Carillion remained responsible for rectifying defects but not consequential costs for losses as a result of the defect with the exception of any insurance claims under the OCIP insurance policy where Carillion remained liable for any excess under the insurance claims as a result of their actions/inaction/defect. The exception to this is Clause 14.1 within the "Exit Agreement" CAR0000429 which removes all liability for defects to reinstatement or surfacing works in areas where Infracore works take place or follow on from MUDFA.

CAR0000429  
should be  
CAR0000429

(2) Was it the case that Carillion were not liable for any consequential losses suffered by TIE as a result of Carillion's remedial works?

Carillion's obligation and liability under the MUDFA contract was to rectify the defect this was modified to exclude defects as Clause 14.1 of "Exit Agreement" CEC CAR0000429.

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98. By e-mail dated 4 May 2010 (TIE00682917) Steven Bell attached a table (TIE00682918) setting out the betterment sums forecast (£9,683,300) and the amounts agreed but not yet received (£2,333,500).

(1) How (including by whom and when) had the forecast betterment sums been arrived at?

Sums calculated based upon the age data provided by the SUC's and the total length/costs incurred in each work section (costs were all inclusive costs for all TM, temporary works) this was assessed and compiled by Thomas Caldwell, Iain Black and Lay San Kuak and I reviewed/issued.

(2) In general, were the forecast betterment sums recovered?

As per the table and detailed when I left Tie £5,659,880.00 had been formally agreed with £3,232,300 still to be agreed with the SUC's with the significant outstanding value of £2,400,000 to be agreed with BT alone – this recovery with BT was being pursued by Fiona Dunn and the telecoms lead within the Tie Infracore team.

99. A monthly project cost report for May 2010, in respect of the works carried out by Clancy Dowcra in sections 1C and 1D (CEC00329441) noted (page 3) similar problems as before i.e. there was an increase in the forecast of the cost of the works of £1.77 million as a result of various factors including an estimated increase in the programme duration of 15 weeks, a number of Compensation Events (i.e. 233, per para 1.3) and additional works being instructed outwith the main contract etc. It was noted that the programme had been extended "as a result of various stakeholder restraints, third party interfaces [and] technical restraints associated with both

*buildability and traffic management restrictions”.*

Key risks included (para 1.10), *“Works still being carried out in a sporadic nature based on what access we can afford; CUS installed apparatus fail necessary test then re tested by CD; Additional Diversion required due to inadequate design; Still no defined plan of to complete the works resulting in unproductive cost and the contractor unable to demobilise awaiting instruction on how to proceed”.*

- (1) Do you have any comments on why these problems were still occurring (and do not appear to have been anticipated when drawing up the forecast cost and programme for these works)?

*Matter of record on previous comments they encounter the same levels of unexpected utilities etc just changing the contractor did not remove all the physical issues encountered.*

100. The minutes of the TPB on 2 June 2010 (**CEC00223543**) noted (page 8) that utility diversions were now complete at Haymarket and cabling works were ongoing. There were final snagging and Scottish Water tie-ins at York Place (dependent on SW works at the Mound which was 2 weeks behind programme). The utility diversions continued at Newhaven and Leith Docks with scheduled completion during June and cabling complete in August. The procurement process for Baltic Street was ongoing.

The minutes of the TPB on 28 July 2010 (**CEC00013703**) noted (p9) that utility diversion works were complete, with diversion works scheduled for completion on York Place by 30.7.10. Utility diversions between Newhaven and Victoria Dock Bridge were completed in Period 4 (except minor snagging works) & Telecoms cabling works ongoing at localised manholes.

- (1) Did that accord with your general understanding at the time? Do you have any further comments?

*Yes, in summary it did.*

101. By e-mail dated 21 July 2010 (**CEC00385847**) you attached a Master Differences Schedule (**CEC00385848**).

- (1) It would be helpful if you could explain the Master Differences Schedule, including what the various items in the schedule related to, the main differences between the parties and how they were resolved?

*This is a summary schedule for the value of the utility diversions undertaken on Scottish Water assets which was issued gto Scottish Water representatives as part of the betterment calculations process.*

- (2) To what extent, if at all, did that schedule take account of any MUDFA work carried out by parties other than Carillion e.g. Clancy Dowcra, Farrans or the Bilfinger Siemens Consortium?

*The schedule was only for all Scottish Water utilities diverted along the whole*

tram route irrespective of which contractor undertook the works as it is used for the betterment calculation. Similar schedules were issued to each of the SUC's.

102. We understand that you left TIE in 2010.

(1) For completeness, please confirm when and why you left TIE?

August 2010 to join Scottish & Southern Energy procurement and commercial team

(2) What was your understanding when you left TIE of:

- the extent to which the utilities diversion works were complete

Carillion/MUDFA complete with some utility diversions transferred and being completed by Infracore

- the works (and in which sections) that were outstanding, and

as detailed in the programmes at the time.

- within approximately what timescale any outstanding utilities works would be completed (e.g. in months or years)?

I was not party to the Infracore programme.

## The Settlement Agreements between TIE and Carillion

103. We understand that various claims were made by Carillion for delay and disruption and that settlement agreements were entered into.

We are aware, for example, of the following settlement agreements:

- An agreement reached in December 2007, and formally executed in April 2008 (per Mr Barclay's letter dated 9 April 2008, **CEC00217639**) for £991,142.95 in relation to delay and disruption up to 30 September 2007 (which sum included an incentivisation payment for section 7 of £200,000).
- An agreement dated March 2009 for £1.2 million (**CAR00000243**) in respect of delay and disruption between 1 October 2007 and 30 September 2008.
- An agreement dated 10 November 2010 for £5,824,000 (**TIE00094413**) (which, presumably, included a sum in relation to delay and disruption from 1 October 2008 onwards).

•  
(1) Is our understanding of the main settlement agreements as set out above correct?

I was not involved or employed by Tie for the agreement of 10th November so cannot comment on this but your understanding of the other two settlements is correct.

(2) Do you have any comments on the agreements?

The final agreement appears to be a commercial settlement as the value range I calculated and advised to Tie was circa £695k to £1.2m this was also independently validated in CEC0010005 independent experts report which stated he could not see any entitlement above £1.2m.

CEC0010005  
should be  
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## Project Management

104. In relation to project management:

(1) Did you have any concerns, at any stage, in relation to TIE, either as an organisation or in relation to senior personnel within TIE?

Silo mentality within contracts was an issue particularly in relation to the management and delivery of the SDS obligations and the Infraco contract agreed which amended the tram slab depth and the tram alignment significantly after the utility diversion where undertaken by MUDFA.

(2) Did you have any concerns, at any stage, in relation to TIE's management of the MUDFA works?

With the exception of the commercial settlement of November 2010 no major issues/concerns.

(3) Did you have any concerns, at any stage, in relation to TIE's overall management of the tram project?

Sometimes too accommodating of CEC, stakeholders, councillors etc to the detriment of the project cost and programme.

(4) To what extent, if at all, do you consider that changing personnel (whether within TIE or the main contractors) caused or contributed to the problems that arose?

None – I agree however with the acceptance by Carillion's Project Director that Carillion did not have the requisite level of competency or capability employed on the MUDFA project and this adversely affected the programme and the cost.

(5) Do you have any views on whether any communication issues between the different parts of TIE (e.g. the design, utilities, Infraco, commercial and procurement teams) caused or contributed to the problems that arose?

Detailed within the questions and answers in this document.

## Final Thoughts

105. By way of final thoughts:

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

Apart from the non-contractual spurious claims and the approach adopted by Carillion

- (2) Do you have any comments, with the benefit of hindsight, on how the MUDFA difficulties and delays might have been avoided or reduced or on how the MUDFA contract and works could have been better managed?

No comment

- (3) 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?

No comment

I confirm that the facts to which I attest in the answers contained within this document, consisting of this and the preceding 131 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 signature...



Date of signing..... 28/7/17.....