

## **Transport Edinburgh**

**Edinburgh Trams**

**Lothian Buses**

### **Tram Project Board Report on Period 10 Papers for meeting 22<sup>nd</sup> January 2008**

**10:30am – 1:00pm**

#### **Distribution:**

#### **Members and attendees**

David Mackay (Chair)  
Marshall Poulton  
Bill Campbell  
Steven Bell  
Kenneth Hogg  
Cllr Ian Perry  
Brian Cox

Cllr Phil Wheeler  
Stewart McGarrity  
Cllr Allan Jackson  
Cllr Gordon Mackenzie  
Colin McLauchlan  
Duncan Fraser  
Susan Clark

Donald McGougan  
Graeme Bissett  
Dave Anderson  
Alastair Richards  
Neil Scales  
Peter Strachan  
Julie Thompson (minutes)

#### **In addition – for information only**

Cllr Maggie Chapman  
Keith Rimmer  
Norman Strachan  
Iain Coupar  
Gill Lindsay

Cllr Tom Buchanan  
Frank McFadden  
Alan Coyle  
Gregor Roberts  
Jim McEwan

Dennis Murray  
Ailie Wilson  
Alasdair Sim  
Elliot Scott

TRAM PROJECT BOARD

**Transport Edinburgh**

**Edinburgh Trams**

**Lothian Buses**

FOISA exempt  
 Yes  
 No

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**Agenda Joint Tram Project Board / tie Board**

**Brunel Suite – Citypoint, 2<sup>nd</sup> Floor**

**22<sup>nd</sup> January 2008 – 10.30am to 1.00pm**

**Attendees:**

David Mackay (Chair)

Marshall Poulton

Bill Campbell

Steven Bell

Kenneth Hogg

Cllr Ian Perry

Brian Cox

Cllr Phil Wheeler

Stewart McGarrity

Cllr Allan Jackson

Cllr Gordon Mackenzie

Susan Clark

Colin McLauchlan

Duncan Fraser

Donald McGougan

Graeme Bissett

Dave Anderson

Alastair Richards

Neil Scales

Peter Strachan

Julie Thompson (minutes)

Apologies: Jim McEwan

- 1 Review of previous minutes and matters arising
- 2 Presentation
- 3 Project Director's progress report for Period 10
- 4 Health and safety – update
- 5 Change requests / risk drawdown
  - Manor Place
- 6 Risk
- 7 Network extensions
- 8 Date of next meeting
- 9 AOB

**Edinburgh Tram Network Minutes**

**Tram Project Board**

**17<sup>th</sup> December 2008**

**tie offices – Citypoint II, Brunel Suite**

<b>Members:</b>			
David Mackay (Chair)	DJM	Donald McGougan	DMcG
Bill Campbell	WWC	Cllr Phil Wheeler	PW
Cllr Gordon MacKenzie	GMcK	Cllr Allan Jackson	AJ
Kenneth Hogg	KH	Cllr Ian Perry	IP
Peter Strachan	PS	Brian Cox	BC
Dave Anderson	DA		
<b>In Attendance:</b>			
Steven Bell	SB	Stewart McGarrity	SMcG
Graeme Bissett	GB	Alastair Richards	AR
Marshall Poulton (part)	MP	Elliot Scott (minutes)	ES
Duncan Fraser	DF		

**Apologies:** Colin McLauchlan, Neil Scales, Jim McEwan

<b>1.0</b>	<b>REVIEW OF PREVIOUS MINUTES</b>	
1.1	2.4. West end tramstop - DJM noted that any further changes to the design in Princes St would have substantial time and cost implications to the tram project. An additional tram stop could be considered further, if necessary, post revenue commencement.	
1.2	3.20. The minute was amended to read: "NR added that, as most buses traverse the city to the bus station or run from the east to terminate at Haymarket, there is a considerable traffic flow across the city centre. While LB could be prevailed upon to terminate some services at either side of the city centre, this did not apply to other operators."	
1.3	3.21/3.22. PW added that he had also written to Malcolm Reed regarding the Gogar interchange. SB updated that he is meeting with TS on the 22 <sup>nd</sup> December and that an instruction to CEC on the chosen option was expected to be received on the 5 <sup>th</sup> January 2009 (see 2.25 below).	
<b>2.0</b>	<b>Presentation and review of PD's report</b>	
2.1	<u>Governance – tie / TEL</u> GB noted that a review of the governance is underway and he outlined the options for tie / TEL / Lothian buses. An update on progress will be provided to the January TPB. DJM added that CEC will vote at the Council meeting on 18 <sup>th</sup> December on a proposal to continue with the review and to report again in March 2009.	GB
2.2	IP raised the question of whether the minority shareholders in Lothian Buses could stop any proposed re-organisation of the structure and shareholding. DMcG replied that they cannot act unreasonably, but that	

	the Council would try to construct a structure that was fair and that he had had initial discussions with the Heads of Finance of the Councils concerned and there was no adverse feedback. DJM also added that it was important to take the other Councils along with the proposed new structure.	
2.3	PS asked whether a change in governance is perceived as being a problem in relation to the contracts with Infraco. DA was also concerned over the timing and the litigious nature of BSC. DJM and GB replied that it was a challenge the team had to face and that the opportunity to streamline was now. KH added that from his point of view there are issues with the current structure. He is concerned that, at times, the <b>tie</b> Board cannot discharge their responsibilities fully.	
2.4	<u>Governance – TMPG sub-committee</u> GB noted the desire of the Council to have a city-wide traffic management group and pointed out that any change to the current Traffic Management Peer Group would require to go through the TPB. DA added that the TMPG is focusing on keeping the city moving during construction, while a city-wide group would have an overview of the integration of projects throughout the city during and past the construction phase of the tram. MP also added that he was happy with the challenge that the TMPG was giving the project, especially with the input from the emergency services (Lothian and Borders Police Superintendent Alan Duncan was noted as a TMPG member). He also confirmed that the TMPG would report through the TPB.	
2.5	<u>Governance – Finance, Commercial and Legal (FCL) sub-committee</u> The TPB approved the remit and the appointment of Stewart McGarrity as chair of the FCL sub-committee.	
2.6	DA expressed his concern that he perceived a communication gap between board meetings. IP questioned whether there were decisions that were being left to the next meeting, rather than being dealt with in a timeous fashion. DJM replied that, as far as he was concerned, the communication between meetings was comprehensive. He added that any urgent decisions required could be made over the phone and that bureaucracy did not prevent decision making. SB also noted that there is a weekly progress review with project managers and directors and that this is summarised weekly to the <b>tie</b> executive and that this feeds into the TS and TPB reports. He added DA was welcome to attend one of these meetings and / or the information could be provided ( <i>later agreed that DF would attend these Tuesday morning sessions</i> ).	
2.7	GM raised the issue of whether additional CEC resource would be required for the sub-committee. DMcG added that he would review CEC resource to ensure that they were on “the front foot”. DJM re-iterated the one-family approach and the desire to discontinue man-marking to rationalise and improve the approach.	
2.8	<u>Governance – Communiactions sub-committee</u> DJM appraised the boards that he had agreed with Tom Aitchison that messages from the project family needed to be short, direct and come from one voice. It was approved that DJM chair the sub-committee in the	

	short-term.	
2.9	<p><u>Overview</u>                  SB gave an overview of the current progress and issues. He urged the Board members to visit the mock-up as it reinforced the “end product” for the project.</p>	
2.10	<p><u>Safety</u>                  SB outlined the current safety statistics. There was one RIDDOR accident in the period involving a BSC staff member who fell and injured her shoulder. He noted that, although the 13-period rolling AFR is now 0.29, this could reduce to be within the target of 0.24 by the end of Period 13. He also noted the 100% safety tour and inspection target had been met and that the scores were improving. PS was encouraged that the target had been met for the first time in two years. SB also noted the dissatisfaction of the HSE with the contractors progress on Occupational Health Management and that they would review this in April 2009.</p>	
2.11	<p><u>MUDFA</u>                  SB gave an update on the progress on the MUDFA works as well as the commercial negotiations held with Carillion. He noted that Carillion performance was slower than anticipated and that the commercial agreement with Carillion had been finalised with no change to the parameters previously outlined to the Boards.</p>	
2.12	<p>In response to DMcG’s question relating to the risk allowance remaining, SB noted that there would be very little left after the anticipated foreseeable drawdown. SMG added that he considered the amounts allocated were conservative. DMcG noted that it was important to ensure all the requirements of the Tram Monitoring Officer were met to avoid any potential delay. SB agreed to run through the draft paper with MP to ensure there was no impediment to concluding the agreement with Carillion.</p>	SB / MP - complete
2.13	<p><u>Tramco</u>                  AR briefly updated that the tram mock-up was being used for consultations with disability groups and was available for stakeholders to make bookings to view. Feedback was being gathered and any changes would be incorporated before it went on public display. DA added that it would be good to get the public’s perception of the internal colour scheme.</p>	
2.14	<p>GM queried whether it would be able to be used as an opportunity to get interest groups, for example taxi drivers, along to view the mock-up. AR stated that the current location does not allow for people to “drop in”, but that it will be available for the public in Princes St in February 2009. Both PS and IP noted that it must be stressed that by that stage it will be used for information, not consultation.</p>	
2.15	<p><u>Infraco</u>                  SB summarised progress in ongoing discussions with BSC. He stated that collectively there had been insufficient progress, but that a proposal had been agreed to give BSC comfort in areas where they perceive they are exposed. Although there are access issues at Haymarket and at Leith, BSC confirmed their support for the Princes Street closure and agreed there were no impediments to work at the depot and airport. DJM added</p>	

	that there will be a weekly report on progress until the next meeting on 9 <sup>th</sup> Feb 09. Furthermore, as a show of good faith, <b>tie</b> would release some of the money that was legitimately due to BSC, while at the same time it was reinforced that BSC will be held to the contract and for every £1 spent, at least £1 of value must be received.	
2.16	In response to PS query regarding BSCs motivation, SB explained that it was three-fold: <ul style="list-style-type: none"> <li>• They are very risk averse and that approach colours their speed in implementing works;</li> <li>• They feel that they have a strong likelihood of being disrupted and they have a concern that it will not all be able to be recovered; and</li> <li>• They have cost pressures and have to find a way to bridge the gap.</li> </ul> DJM stressed that both sides need to work toward a resolution as the current situation was not getting the tramline built.	
2.17	SB noted that the team were very close to finalising the Forth Ports agreement and that the final design should be received in January. Both DMcG and DA offered their support to help finalise the agreement.	
2.18	<u>Princes St</u> DA was concerned about the reputation of <b>tie</b> and CEC with regard to the Prince St works, especially considering the disappointing mobilisation to date. SB replied that, although he was confident that the works on Princes Street would go ahead as planned, as the subcontractor had been involved for a month, he would feel a lot more comfortable if the Council agreed on the Princes Street Closure on 18 <sup>th</sup> December. A range of options for road reconstruction are being designed depending on the outcome of trial holes currently being undertaken. He noted that there is now a lot more resource available and that <b>tie</b> were monitoring BSC's assessment of their subcontractors' competency.	
2.19	KH noted that he was pleased at the solution arrived at for the closure of Princes St. He asked for an explanation on the process taken to reach this outcome and what had changed since the last board meeting. MP replied that detailed modelling had been undertaken on the two proposals and that while the complete closure could work, there was cause for concern at two or three critical junctions that would be close to capacity and that there is no scope for the displaced traffic if there was a major interruption. However, he was happy with the contingencies in place for emergencies and the process for using these and for the decision on the closure of Princes St once the TM was proven to work was currently being defined. He added that there were a number of variable message signs that would be utilised and that work was underway with an external traffic information provider. SB added that there would be no right or left turns off George St, enhanced signage, fewer buses and enabling works completed (but not enacted unless necessary) for the contingency along Heriot Row.	
2.20	IP stated that it was the response to any issue that arose that was important, not the issue itself. DA stated that the TMPG had been focussed on planning and contingencies and that the one team approach would help with responses to any issues. WWC added that the implementation of the Mound diversion was mid-week while this closure	

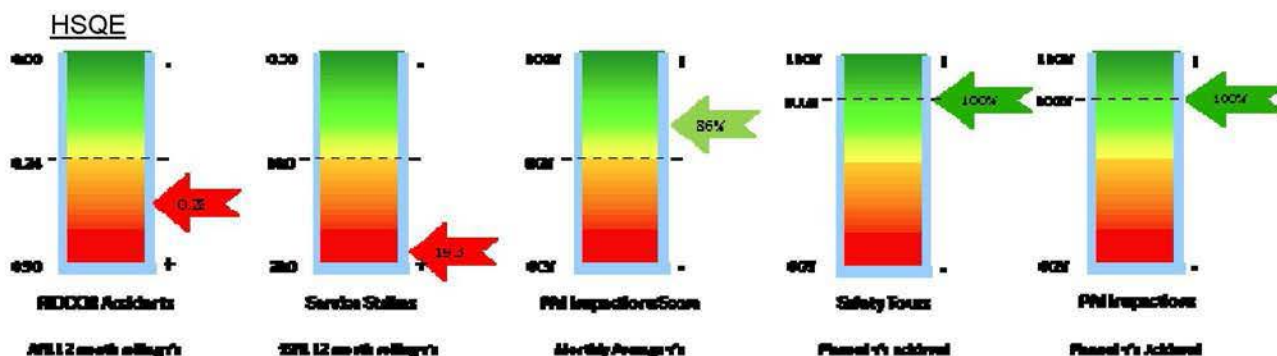


	would be implemented on a Saturday, hopefully in the week of the February school holidays.	
2.21	BC asked WWC about the financial impact of the Princes St closure on LB. WWC replied that there would be a slight revenue risk for the routes diverted and that any cost would probably not be any worse than the current ongoing costs. He could not quantify the effect of moving buses from Princes St altogether.	
2.22	<u>Finance</u> SMcG confirmed the current financial position – outturn for 08/09 of £126M and AFC of £512M.	
2.23	Both KH and PS questioned whether costs associated with the current Princes St strategy would be covered within the £512 budget and risk allowance. SB, SMG and DJM all agreed that the additional cost of the measures (having one lane available for a period of time, additional TM, contingency enabling works and breakdown vehicle), as well as the diversions at the Mound not being complete were an extra cost, as BSC had priced on having full access to Princes St and the additional contingency had not specifically been allowed for in the budget or risk allowance.	
2.24	DMcG asked the board when the updated budget would be available. DJM noted that a “first cut” would be available for the January TPB and that he preferred to work to a range rather than an exact figure. DA noted that it was important for his next meeting with TS that a range in costs was available with the revised programme to give them confidence. SMG added that he had regular dialogue with TS. He also stated that any figures given to the January TPB would be <b>tie</b> 's best estimate of the cost and would not be contractually agreed. As such it must be kept confidential to the attendees of the meeting. Furthermore, any changes would go through the project change control process.	
2.25	<u>Gogar interchange</u> SB and SMG updated on the status of the Gogar interchange discussions with TS and the basis that <b>tie</b> would be prepared to accept the change. SB noted that TS were aware that any delay to the decision would have time and cost implications.	
2.26	Following KH's concerns, discussion then centred on the reputational impact on <b>tie</b> and the tram project if a “sub-optimal” option was chosen and whether <b>tie</b> was obliged to do the work. The main points are outlined below: <ul style="list-style-type: none"> <li>• DJM noted that John Swinney, Stuart Stevenson and officials at TS were all aware that the proposed option was sub-optimal. However, he stated that CEC and <b>tie</b> are one family and that, in terms of time and cost, it was the right thing to do. Furthermore, it would do nothing for the relationship between CEC and TS if <b>tie</b> / CEC refused to do the work;</li> <li>• AR added that while the preferred option may be sub-optimal, it does provide a link between the tram and the heavy rail at Gogar and that there are positive points;</li> <li>• KH countered that the right thing may be to do nothing in the short term</li> </ul>	

	and wait until the other option can be implemented. However, as CEC and <b>tie</b> will be held responsible in the public view, they should have their arguments prepared.	
2.27	<u>Network extensions</u> SMG noted that the Line 1b price update will be available on 19 <sup>th</sup> Dec, the Business case had been re-assessed and a status report was being discussed at the Council meeting on 18 <sup>th</sup> December. He also noted that it would be difficult to initiate a TAWS application for the SE tramline as it was not in the STPR. DA agreed to speak with TS regarding <b>tie</b> completing the prequalification for the Edinburgh Bio Quarter Transport assessment consultancy.	DA
<b>3.0</b>	<b>Change</b>	
3.1	SB outlined the change update paper, including the building fixing change approved under his delegated authority requiring £50k funding from CEC and potential future changes. The change paper was noted by the Boards.	
<b>4.0</b>	<b>Risk</b>	
4.1	SB outlined the current risk position and undertook to give more visibility to the Board on the progress on completing treatment plans.	SB
<b>5.0</b>	<b>HR and communications</b>	
5.1	DJM noted that the spirit of working as one team was infectious. He added that it is imperative that the project invests in positive, tangible and visible communication, especially at the worksites.	
<b>6.0</b>	<b>DARs and SRO</b>	
6.1	The Boards noted the revision to the DARs and the appointment of Stewart McGarrity as the interim SRO of the project, replacing Neil Renilson.	
<b>7.0</b>	<b>AOB</b>	
7.1	DJM noted that feedback was expected imminently from Deloitte regarding the project governance. He also noted that there was likely to be an "OGC style" Peer Review next spring.	
7.2	DJM wished everyone a merry Christmas and a happy and prosperous New Year.	
7.3	The date of the next meeting (joint TPB and <b>tie</b> Board) will be 22 <sup>nd</sup> January 2009 at 10.30, with <b>tie</b> Board specific business (including the audit committee) to be dealt with at 9am, prior to the combined meeting.	

Prepared by Elliot Scott 18<sup>th</sup> December 2008.

## Project Directors report



There were no reportable accidents during Period 10. The 13-Period rolling AFR is now 0.28 which is above the target of 0.24. If there are no further reportable accidents within the next three periods the 13-period rolling figure at the end of Period 13 should be 0.24 (based on 125,000 hours). There was 100% compliance with safety tours and inspections in the period.

Both BSC and Carillion are re-inducting all operatives during the first week of January (Period 11) and a safety seminar with **tie**, Infraco and their supply chain is planned for the 8<sup>th</sup> of January. Re-checks on competence of operatives will also be made as sites restart for the New Year.

### Programme

Overall progress remains behind both the four-month look-ahead and the master programme primarily due to:

- Constraints imposed by the additional embargo in Leith Walk and Constitution St;
- Incomplete utility diversions caused in part by traffic management constraints (e.g. Manor Place);
- Slow mobilisation of Infraco;
- Requirement for re-design of temporary works;
- Design slippage since novation of design to Infraco (now recorded in v39 of the design programme);
- Design changes as a result of the Prior and Technical Approvals process;
- Design slippages between v26 / v31 at the time of Financial Close; and
- Consortium design programme and validation.

The time impact (38 days) of the v26 / v31 design programmes at the time of Financial Close was agreed in Period 8 and the commercial consequence of this is now being discussed.

Whilst an unmitigated straight import of the progressed programme into the master programme forecasts a potential revenue service slippage into April 2012, **tie** is confident that sufficient float and false logic constraints exist in the programme, along with construction methodology improvements, to maintain the open for revenue service date currently as July 2011 (with a range of May 2011 to January 2012). The table in section 4.2 identifies the geographic areas of slippage in the current programme and the types of action that can be taken to improve the programmed end date.

**tie** has agreed with BSC a process to create a re-calibrated programme. Much of the required data has now been amassed and, following meetings towards the end of 2008 between **tie** and BSC, this process has now commenced with the data collection phase expected to be complete by mid Period 11. It is anticipated that a revised Infraco contract programme and overall revision to the Tram Master Project Programme will be ready during Q1 2009. Infraco proposals for recovering the effects of their slow mobilisation will be included within the revised programme.

Opportunities for improvement include:

- Reduced access constraints such as embargos;
- The use of additional resources;
- Improved productivity particularly in track and OHL installation;
- The use of alternative technology for OLE installation and track-laying;
- Constructing the structures in parallel rather than sequentially;
- Removing embedded project logic which is no longer relevant; and
- Better use of integrated traffic management.

A process has been put in place to identify and manage all issues which are barriers to the construction programme. A consolidated sub-section by sub-section map of the route has identified owners for each barrier and progress is reviewed weekly.

#### Progress – Design

Good progress is generally being made in Prior and Technical Approvals with 85% of each being granted by CEC. The main areas of concern which are receiving focussed attention are the incorporation of CEC comments into road designs and gaining Scottish Water consents. Changes to the design programme and any impact on construction will be addressed as part of the overall programme re-calibration exercise. There are also a number of re-designs underway as a result of the Prior / Technical Approvals process, the impact of which is recorded in the programme.

Reasons for design slippage are being reviewed and recorded each week at the design taskforce meeting which is focused on resolving outstanding design issues. This slippage will be addressed as part of the re-calibration of the programme. **tie** are identifying and implementing opportunities to mitigate the impacts of this slippage.

Although there is evidence of better management of SDS by BSC, this has not yet resulted in improved design performance.

#### Progress – MUDFA (Utilities)

Carillion related diversions are now complete in Sections 5A and 5B other than for final BT cabling and transfer of service. The programme impacts of the revised programme were agreed with Carillion in Period 8 and will be included in the recalibration exercise.

During the period the city centre embargo was in effect from Picardy Place to Shandwick Place. The Leith Walk embargo was implemented on 12<sup>th</sup> December and is ongoing until 19<sup>th</sup> January. This closed worksites on Leith Walk, Constitution St, Picardy Place, York Place and St Andrew's Sq. Neither the Leith Walk embargo, nor the deferment of Manor Place diversions was included in Rev 7.9 of the MUDFA programme.

Cumulative progress to date is as follows:

	Rev 7.9 total (m)	Revised total (m)	Plan to date (m)	Completed to date (m)	% of plan completed	% of total completed
On-street	40,625	36,308	30,373	22,337	73.5%	61.5%
Off-street	11,969	9,452	7,827	7,078	90.4%	74.9%
<b>Total</b>	<b>52,594</b>	<b>45,760</b>	<b>38,200</b>	<b>29,415</b>	<b>77.0%</b>	<b>64.3%</b>

**tie** have agreed de-scoping which is forecast to bring final volume of required diversions to 45,760m. Of the remaining diversion to be completed large volumes are in areas which are significantly less complex than the likes of Leith Walk and therefore productivity is expected to improve.

Work progressed in a number of locations up to Christmas and the following is of note:

- The pipe jacking of the first leg of the A8 sewer was completed and preparatory works for the second leg commenced. This work is expected to be completed late in Period 12;
- Progress was made with design of the mound gas diversion and submissions made to SGN's technical advisor for review – technical review on January 13<sup>th</sup> with SGN;
- Inspection of remaining section of the Gogar depot 800mm watermain to confirm correct installation of gaskets. Commissioning is now expected 24-26 February; and
- BT – The first section (5B) is now signed over for completion. P11 will confirm the detailed programming and transfer timings.

#### Progress – Infraco (including Tramco)

The project continues to experience problems with slow mobilisation and, in particular, appointment of direct BSC resource and final appointment of the main package contractors. It is expected that more package contractor resources will be in place from January 09. However, work has continued on a number of worksites including the Haymarket and Edinburgh Park viaducts, Carrick Knowe bridge and the A8 underpass. Significantly, the on-street works also continued with roadworks on Leith Walk using sub-contractor resources (Crummock) until the implementation of the additional Christmas embargo on Leith Walk and Constitution St on 12<sup>th</sup> December 2008. Temporary sheet piling work has been progressed during the Christmas and New Year NR possession period at Carrick Knowe bridge.

Infraco achieved a disappointing 15% of the four-month programme work content by Christmas 2008. However, resources, plans and process are now in place to ensure progress improves in 2009. There were a few other works which were outwith the four-month look-ahead programme contents such as temporary works and sheet piling that were carried out during the Christmas and New Year NR possession.

Planning for the full closure of Princes St, including traffic management, enabling works and construction methodology as well as work package plans, has progressed well and MacKenzie Construction were appointed during the period. The CEC full council meeting on 18<sup>th</sup> December approved the closure of Princes Street to allow construction of the tramworks, subject to traffic handling the agreed diversions. A contingency relief route has also been agreed and work is progressing on documenting the detailed contingency arrangements.

The tram mock-up is being used in consultation with special interest groups to fine-tune the design.

#### Progress – Other

- Draft schedules for the TROs have been prepared and formal consultation will commence in May;
- Haymarket carpark compensation – **tie** have agreed compensation with NR and will seek to settle this before the end of the current financial year. **tie** await confirmation from TS that the additional compensation payable to First Scotrail as a result of the extension of the FSR franchise from Nov 2011 to Nov 2014 will be funded by TS as a change;
- Building fixings – deemed consent has been obtained from 306 owners as well as 66 consents with the owners' agreement. There are 12 fixings where matters remain unresolved and negotiations remain ongoing. However, there remains a possibility that these relevant owners may have to be referred to the Sheriff for resolution in February. CEC are leading the legal process, supported by the project team;
- Construction works for the relocation of the Murrayfield training pitches is due for completion in Period 12. The completion of this project provides unrestricted access to the structures to be built between the north side of the existing railway embankment and the south perimeter of Murrayfield; and
- A contract has been awarded to Frontline Construction for the roadworks required to take buses off the guided busway and works have commenced. The TRO process has commenced and the statutory consultation has been completed.

Cost

The AFC for Phase 1a of the project remains unchanged from last period at £512m, including a risk allowance of £29m. The adequacy of this risk allowance is kept under constant review and as such will be critically assessed as discussions with Infraco regarding the re-calibrated master programme and the commercial impacts thereof. Funding available remains at £545m.

Cumulative expenditure to date (end of P10 08/09) on Phase 1a is £206.3m. Expenditure to date for 08/09, at £76.3m, is £38.3m lower than the 'budget' for the year to date. This is primarily due to protracted closure of the Infraco contract suite, slow Infraco mobilisation, deferment of the initial Tramco milestones (now forecast in Period 11) and profiled risk which has not been utilised to this point.

The 08/09 outturn forecast is £111.7m (TS share £103.0m). The forecast for 08/09 has been reduced by £14.4m (TS share £13.3M) following a comprehensive review in Period 10 of the most likely value of work which to be completed (-£9.3M) and a robust assessment of any risk expenditure likely to crystallise in the next three periods (-£4.0M). Remaining sensitivities to the outturn forecast include the completion of utilities works as programmed and timely ramp-up of infrastructure works on-street and at the depot in early 2009. Greater certainty with regard to the 09/10 forecast will be gained when an updated programme for the infrastructure works is agreed with the Infraco contractor.

An updated estimate for Phase 1b was received in Period 10 and is currently being checked for accuracy and will be reported on in Period 11.

Potential changes

The following potential changes which will impact cost, programme or risk have been identified:

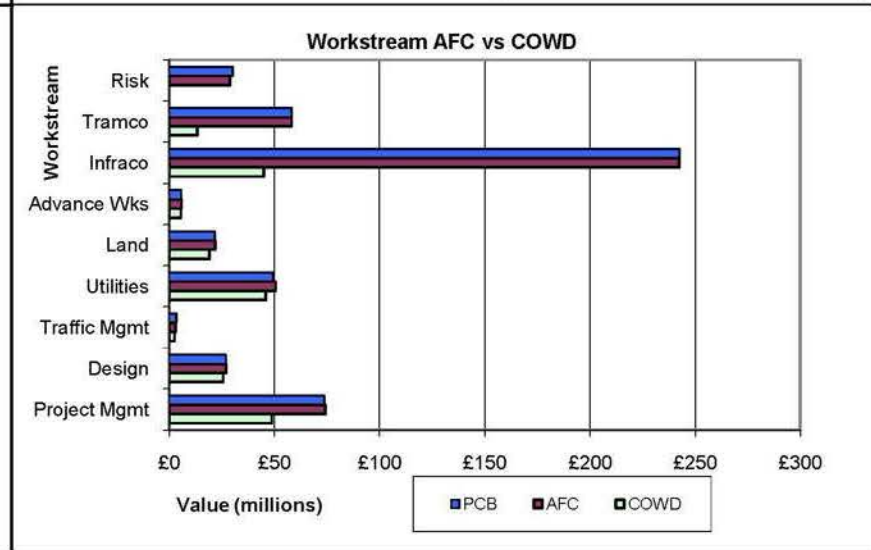
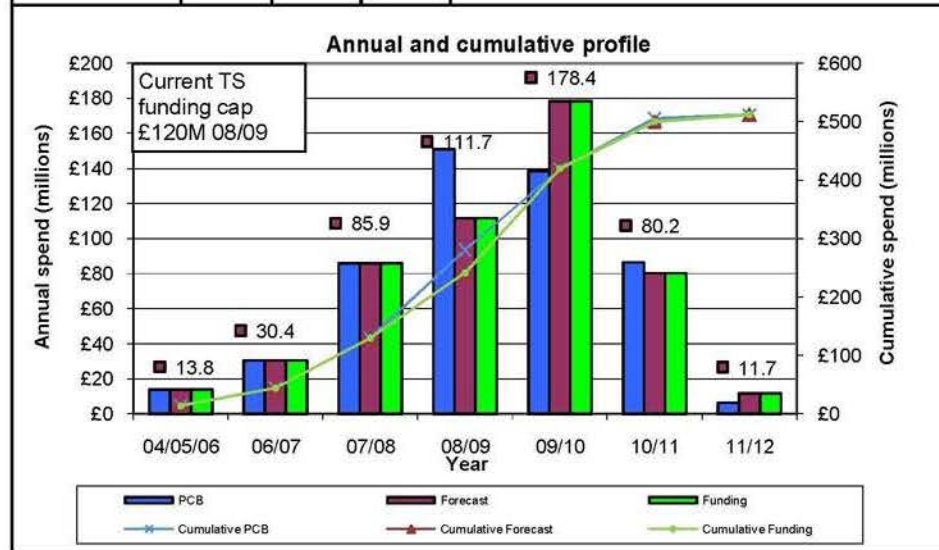
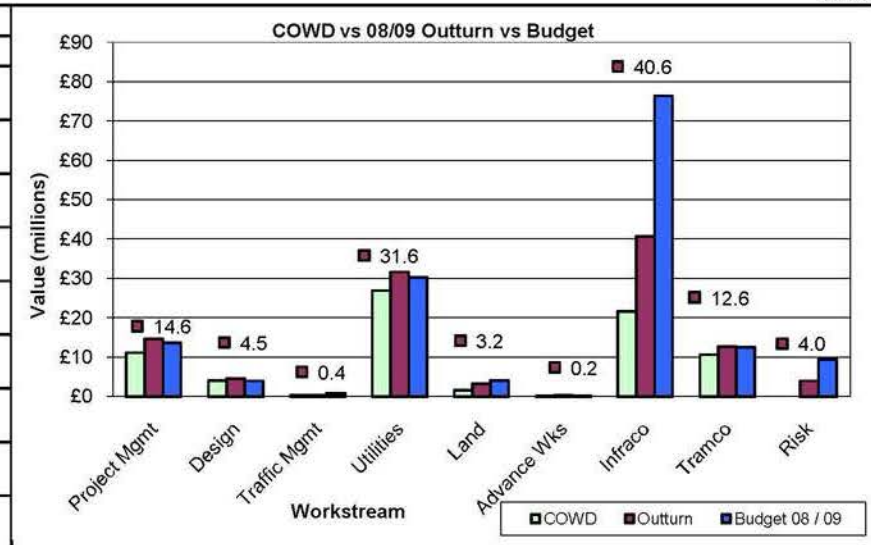
- Conclusion of the programme re-calibration;
- Carillion settlement / impact of Rev 7.9 of the programme;
- Gogar interchange – impact of changes to facilitate the provision of the Gogar interchange station;
- Additional embargo imposed in Leith Walk and Constitution St;
- Princes St traffic management – additional contingency measures to keep the city moving; and
- Manor Place – consequence of delaying the Manor Place closure until after the festive embargo.

**Transport Edinburgh**  
**Edinburgh Trams**  
**Lothian Buses**

FOISA exempt

Yes  
 No

Period 08/09 - 10 COWD (£000s)				
Workstream	F/cast	Act	Var	Comments
Project Mgmt	1,075	998	(78)	
Design	175	175	0	
Traffic Mgmt	23	50	27	
Utilities	105	(3,352)	(3,457)	Risk drawdown (proposed) realigned with COWD
Land	1,242	(11)	(1,253)	Delay in finalising Forth Ports agreement and compensation for First Scot Rail
Advance Wks	24	24	0	
Infraco	3,242	2,695	(547)	Fewer construction milestones achieved than forecast (7/16 planned milestones achieved).
Tramco	9,687	9,687	0	
Total	15,574	10,265	(5,308)	As above



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Risk

A total of seven separate risk reviews were held during the period. The QRA was reviewed in the period and the total risk and contingency for the project remains at £28.9m.

The top five primary (most current and relevant) risks are:

- Uncertainty of utilities location and consequential required diversions / unforeseen utility services within LoD;
- Unknown or abandoned assets or unforeseen / contaminated ground conditions affect scope of MUDFA work;
- Late Prior Approval consents;
- Tramway runs through area of previously unidentified contamination and material requires to be removed; and
- Amendments to design scope from current baseline and functional specification.

There are 54 risks in the risk register. There were no new risks identified in the period and no risks were closed. Treatment plans are in place for each risk and are being monitored.

There were no risk drawdown applications approved in Period 10. However, a number of drawdown applications will be processed in Period 11 the most significant will be for £1,700k. This is to fund the settlement of contractual, commercial and scope issues as agreed with Carillion up to 30 September 2008.

Communications

Through the new Edinburgh Trams Communications Group, **tie**, CEC and other key parties have been working closely together to enhance the ongoing communications strategy. The key priority is preparing for the closure of Princes Street, which is the key construction related activity for 2009.

Media enquiries this period have included city centre works; city centre and Leith embargoes and the CEC full Council meeting on 18<sup>th</sup> December.

The new tram website will go fully live the week commencing 12 January 2009. This period the team have been focused on content management, user group testing and technical trouble shooting.

Preparation is ongoing with CEC to host a tram mock up exhibition on Princes Street from late February for approximately six weeks.



Period 10 - 2008/009 Primary Risk Register

Risk Description											
ARM Risk ID	Cause	Event	Effect	Risk Owner	Significance	Black Flag	Treatment Strategy	Previous Status	Current Status	Due Date	Action Owner
139	Utilities diversion outline specification only from plans	Uncertainty of Utilities location and consequently required diversion work/ unforeseen utility services within LoD	Increase in MUDFA costs or delays as a result of carrying out more diversions than estimated	G Barclay	High - 25.00		Carry out GPR Adien survey	Complete	Complete	31-Oct-07	J Casserly
							Identify increase in services diversions. MUDFA to resource/re-programme to meet required timescales.	Complete	Complete	23-Nov-07	J McAloon
							In conjunction with MUDFA, undertake trial excavations to confirm locations of Utilities and inform designer	On Programme	On Programme	30-Apr-09	A Hill
164	Utilities assets uncovered during construction that were not previously accounted for; unidentified abandoned utilities assets; asbestos found in excavation for utilities diversion; unknown cellars and basements intrude into works area; other physical obstructions; other contaminated land	Unknown or abandoned assets or unforeseen/contaminated ground conditions affect scope of MUDFA work.	Re-design and delay as investigation takes place and solution implemented; Increase in Capex cost as a result of additional works.	I Clark	High - 25.00		Carry out GPR Adien survey	Complete	Complete	31-Oct-07	J Casserly
							Identify increase in services diversions. MUDFA to resource/re-programme to meet required timescales.	Complete	Complete	23-Nov-07	J McAloon
							In conjunction with MUDFA, undertake trial excavations to confirm locations of Utilities and inform designer	On Programme	On Programme	30-Apr-09	A Hill
44	SDS contractor does not deliver the required prior approval consents in line with SDS V31	Late prior approval consents	Delay to programme with additional resource costs and delay to infraco. Impact upon risk balance.	D Sharp	High - 23.00		Evaluation of prior approval programme	Complete	Complete	31-Oct-08	D Sharp
							Hold fortnightly Roads Design Group	Complete	Complete	31-Dec-07	T Glazebrook
							Informal consultation prior to statutory consultation	On Programme	On Programme	31-Dec-08	T Glazebrook
							Integrate CEC into tie organisation/accommodation (office move)	Complete	Complete	4-Jun-07	T Glazebrook
							Weekly Meetings of Approvals Task Force	On Programme	On Programme	31-May-09	D Sharp
173	Uncertainty over extent of contaminated land on route	Tramway runs through area of previously unidentified contamination and material requires to be removed and replaced (dig and dump).	Increase in costs to remove material to special and other tip.	R Bell	High - 25.00		Issue containment and gi report to Infracco bidders	Complete	Complete	2-Mar-07	B Dawson
							tie to obtain ground investigation and contamination reports from SDS	Complete	Complete	30-Mar-07	A McGregor

		Risk Description									
ARM Risk ID	Cause	Event	Effect	Risk Owner	Significance	Black Flag	Treatment Strategy	Previous Status	Current Status	Due Date	Action Owner
52	Political and/or Stakeholder objectives change or require design developments that constitute a change of scope; Planning Department requires scope over and above baseline scope in order to give approval (may be as a result of lack of agreement over interpretation of planning legal requirements).	Amendments to design scope from current baseline and functional specification.	Programme delay as a result of re-work; Programme delay due late receipt of change requirements and lack of resolution; Scope/cost creep (dealt with through change process); Project ultimately could become unaffordable.	D Sharp	High - 32.00		Close working relationship with CEC and stakeholders	On Programme	On Programme	31-Jan-11	L Murphy
							Weekly critical issues meeting	On Programme	Complete	31-Jul-08	T Glazebrook
928	Major single safety incident (including a dangerous occurrence) during construction	Safety incident during construction	Delay (potentially critical) due to HSE investigation and rework. PR risk to tie and stakeholders.	S Clark	High - 31.00		All Site Staff to get CSCS or equivalent	On Programme	On Programme	31-Jan-11	C McLauchlan
							Develop and Implement Incident Management Processes	Complete	Complete	27-Apr-07	T Condie
							HSQE Audits, site inspections and Management Safety Tours to be carried out	On Programme	On Programme	31-Dec-10	T Condie
							Safety Induction to be carried out for all site staff	On Programme	On Programme	31-Dec-10	T Condie
							Site Supervisors to be appointed by tie	Complete	Complete	28-Feb-07	S Clark
931	Utilities assets uncovered during construction that were not previously accounted for; unidentified abandoned utilities assets; known redundant utilities; unknown live utilities; unknown redundant utilities.	Unknown or abandoned assets impacts scope of Infracore work	Re-design and delay as investigation takes place and solution implemented; Increase in Capex cost as a result of additional works.	D Sharp	High - 30.00		GPR surveys in areas where there are likely to be services	Complete	Complete	1-Apr-07	T Glazebrook
							MUDFA trial holes to verify GPR surveys	On Programme	On Programme	31-Jan-09	A Hill
977	Legal challenge. Extension of statutory consultation process. Large number of objections. TRO process is subject to a public hearing process.	Delay in achievement of TRO(s) due to a large number of public objections and/or a legal challenge to using a TTR0 to construct Infracore.	Requirement to start construction using TTR0s	K Rimmer	High - 20.00		Use of TTR0s to undertake construction of permanent works in advance of permanent TROs being approved.	On Programme	On Programme	30-Jan-11	K Rimmer

Risk Description		ARM Risk ID	Cause	Event	Effect	Risk Owner	Significance	Black Flag	Treatment Strategy	Previous Status	Current Status	Due Date	Action Owner
271	Inadequate quality of submission of approval. Partial submission of package. Programme compression. Lack of CEC resources.		Failure to process prior approvals applications within 8 weeks	Delay and disruption to Infracore programme	D Sharp	High - 10.00			Agree approvals submission arrangements with CEC to align with SDS design programme and procurement programme.	Complete	Complete	31-Mar-08	T Glazebrook
									Assure the quality and timing of submissions	On Programme	On Programme	31-May-09	D Sharp
									Final agreement to be approved by Roads Authority, CEC Promoter, CEC in-house legal and tie	Complete	Complete	28-Feb-07	T Craggs
									Finalise alignments and gain agreement from CEC	Complete	Complete	29-Dec-06	T Craggs
									Weekly meetings of Approvals Task Force	On Programme	On Programme	31-May-09	D Sharp
									Where appropriate increase case officer resource to cope with programme compression	Complete	Complete	31-Oct-08	D Fraser
1033			Failure of Infracore to mobilise in time to commence work in line with programme.	Delay to programme. Cost overruns. Negative publicity. Criticism from stakeholders	S Bell	High - 18.00			Continued focus at Infracore progress meetings as well as programme workshops to mitigate the impacts of any delay	On Programme	On Programme	Complete	S Bell
									Implementation of Advanced Works programme in order to mitigate potential future issues during construction	On Programme	On Programme	Complete	R Bell
									Infracore given instructions to proceed at risk	On Programme	On Programme	Complete	R Bell
									Pressue from Approvals Task Force to ensure Technical and Prior Approvals are delivered	On Programme	On Programme	31-May-09	D Sharp

Risk Description											
ARM Risk ID	Cause	Event	Effect	Risk Owner	Significance	Black Flag	Treatment Strategy	Previous Status	Current Status	Due Date	Action Owner
1076	Utilities do not finish diversion works prior to Tramworks commencing work	Tramworks are unable to commence work or work is delayed/disrupted	Delay and disruption claims from BSC.	R Bell	High - 18.00		Tramworks PMs attendance at Traffic Management meetings. Weekly meetings between tie Tramworks and Utilities PMs. 4-weekly tie Tramworks/Utilities management meetings. Identification of programme clashes between Tramworks and Utilities works tracked	N/A	On Programme	31-Jul-09	R Bell
1077	Lack of visibility of design changes between November 2007 and May 2008	Tramworks price based on a design which may have been altered. Unclear who authorised design change.		R Bell	High - 18.00		Establish a process which will act as a control mechanism for design changes. (If one exists already then ensure process is complied with)	N/A	On Programme	31-Dec-08	T Glazebrook
1078	Lack of effective engagement from BSC leaders towards tie and third parties (NR, BAA, Forth Ports) and the Tram project as a whole.	Failure of partnership approach between tie and BSC. Failure to maintain effective third party relationships with key third parties.		R Bell	High - 18.00		Engagement between tie and BSC at different levels. Regular review of BSC management of third parties as per Employers Requirements.	N/A	Complete	31-Dec-08	R Bell
1079	Failure of BSC to effectively resource up for project	Lack of competent resources within BSC to safely and effectively deliver Tram project	Delay to programme and additional cost	R Bell	High - 18.00		Ongoing review of BSC resources and formal review at 4-weekly meeting. Objectives to be set for BSC at monthly meetings in order to monitor progress.	N/A	On Programme	31-Jan-09	R Bell
1080	TPB have agreed a 5 week embargo on Leith Walk from 12 Dec 08 to 19 Jan 09.	Leith Walk embargo causes delay to construction and utility diversion works.	Delay to programme, extension of time claim. Additional costs.	R Bell	High - 18.00		Minimise contractors exposure by identifying other work scopes outside the embargo area.	N/A	On Programme	31-Jan-09	R Bell
1081	Traffic modelling has shown that one lane needs to be kept open on Princes Street during works	Princes Street works take longer than programmed due to one lane being kept open.	Delay to programme, extension of time claim. Additional costs.	R Bell	High - 18.00		Production of robust programme to mitigate losses	N/A	On Programme	31-Jan-09	R Bell

**Paper to:** TPB **Meeting date:** 22/01/09  
**Subject:** Manor Place – Deferred traffic management closure: Change control  
**Preparer:** D Carnegy

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**Summary:**

This paper identifies the estimated impact to the tram works of deferring the proposed road closure and associated Traffic Management diversions at Manor Place for necessary utility diversions and Infrastructure works. It proposes the change control instruction required from CEC to address this impact.

**Introduction:**

To enable utility diversionary works to be carried out east of Haymarket, within work section 1D, it was agreed that a programmed closure at the junction at Manor Place was to be undertaken. This was laid out in the original Traffic Management Strategy communicated in August 2008. The detailed timing was relayed to all local businesses and residents, following approval at the TMRP on 17<sup>th</sup> November.

High level communication had taken place in early October 2008 with the city centre and West End businesses via the Tram Operating Group, where it was suggested that a relaxation on the Christmas Haymarket embargo would be sought via a proposal to the Tram Project Board. Subsequently, a paper covering embargo arrangements (including a new embargo at Leith Walk and relaxation request for Haymarket) was approved on 22/10/08 at the TPB.

Communication of the relaxation of the Haymarket embargo was not effective or co-ordinated at the November Tram Operating Group and this resulted in a strong adverse reaction from businesses and a meeting with Council Leaders and officials on 27 December. Following this, instructions from the CEC Transport Convenor, via the TPB Chairman and Project Director, resulted in suspension of the planned closure 24 hours prior to planned.

This work is now planned to commence in mid January, an anticipated six week delay to the utilities and the subsequent Infracore works in this section. Clearly all necessary action and challenges to mitigate the impact and cost of this delay will be taken

**Cost and programme impact - summary:**

The new closure date is planned for mid January 2009, which constitutes a six week delay to the programmed utility and subsequent Infracore works in this section. Following an initial review, the potential impact to the Tram Project is in the order of £350k. This would constitute an increase in approved budget for Phase 1a.

It is based on the assumption that the overall construction completion dates for MUDFA and Infraco are unaffected. Further investigation is underway on the critical activities in the Infraco programme and the revised co-ordination of traffic management necessary to confirm this.

At this point, **tie** has not involved either of its main contractors (Carillion & BSC) in the compilation of this paper. Detailed evaluation of the impact of this change is still to be agreed with the MUDFA and Infraco contractors. A high level review of the likely financial impacts is included below.

### **MUDFA – Utility diversions**

It is **tie's** initial view that the commercial impact on the MUDFA contract will be in the order of £100k. This includes the funding of Carillion's localised prelims over the delayed period and an anticipated claim for delay and disruption to the overall MUDFA programme. It is anticipated that MUDFA will undertake some peripheral works in this work section prior to the commencement of the reprogrammed works in order to alleviate critically programmed activities.

It is anticipated that this delayed work will not impact the overall completion date for the MUDFA contract.

### **Infraco**

Based on a six week delay, **tie's** interim assessment of the commercial impact on Infraco would be in the order of £200k – £250k. This would be on the basis of a prolongation claim consisting of the reimbursement of time related preliminaries attributable to the work content for this section only. It is anticipated that the delay in this section would not affect the overall Infraco completion date.

It is important to note that the impact stated is an initial assessment, with detailed work underway to confirm the full impact on the overall Infraco programme.

### **Other consequential costs**

Given that the overall completion dates for both MUDFA and Infraco are assumed to be unaffected by this delay, **tie** does not consider that there are any other additional costs that should be added to the construction impacts.

It should be noted, that if the overall completion dates slip and this incident is a contributory factor, there would be further costs in the form of over arching preliminaries i.e. office staff, in addition to time related project management costs.

### **Preventative measures**

To avoid repetition of this type of incident, action has been implemented including improved communications with stakeholders and a lookahead review as part of the Traffic Management Peer Review to effectively get the Tram construction message



## **Period 10 Transport Scotland report Sections 2-7**

On following pages are Sections 2-7 of the Transport Scotland report (Section 1 is the Project Directors report).



## 2 Progress

### 2.1 Overall

Overall progress remains behind both the four-month look-ahead and the master programme primarily due to:

- Constraints imposed by the additional embargo in Leith Walk and Constitution St;
- Incomplete utility diversions caused in part by traffic management constraints (e.g. Manor Place);
- Slow mobilisation of Infraco;
- Requirement for re-design of temporary works;
- Design slippage since novation of design to Infraco (now recorded in v39 of the design programme);
- Design changes as a result of the Prior and Technical Approvals process;
- Design slippages between v26 / v31 at the time of Financial Close; and
- Consortium design programme and validation.

The time impact (38 days) of the v26 / v31 design programmes at the time of Financial Close was agreed in Period 8 and the commercial consequence of this is now being discussed.

Whilst an unmitigated straight import of the progressed programme into the master programme forecasts a potential revenue service slippage into April 2012, **tie** is confident that sufficient float and false logic constraints exist in the programme, along with construction methodology improvements, to maintain the open for revenue service date currently as July 2011 (with a range of May 2011 to January 2012). The table in section 4.2 identifies the geographic areas of slippage in the current programme and the types of action that can be taken to improve the programmed end date.

**tie** has agreed with BSC a process to create a re-calibrated programme. Much of the required data has now been amassed and, following meetings towards the end of 2008 between **tie** and BSC, this process has now commenced with the data collection phase expected to be complete by mid Period 11. It is anticipated that a revised Infraco contract programme and overall revision to the Tram Master Project Programme will be ready during Q1 2009. Infraco proposals for recovering the effects of their slow mobilisation will be included within the revised programme.

Opportunities for improvement include:

- Reduced access constraints including embargos;
- The use of additional resources;
- Improved productivity particularly in track and OHL installation;
- The use of alternative technology for OLE installation and track-laying;
- Constructing the structures in parallel rather than sequentially;
- Removing embedded project logic which is no longer relevant; and
- Better use of integrated traffic management.

A process has been put in place to identify and manage all issues which are barriers to the construction programme. A consolidated sub-section by sub-section map of the route has identified owners for each barrier and progress is reviewed weekly.

### 2.2 Design

The design is progressing as follows:

- IFCs – Phase 1a 57 issued out of 81, the slippage is being addressed as part of the re-calibration of programme;
- Prior Approvals are progressing well – approvals are now over 85% granted with only one left to be submitted (Gogarburn tramstop);
- Technical approvals also progress well with 85% granted with nine remaining to be submitted;

- Structures approvals are progressing well – one structure remains to be approved (Balgreen Road NR access bridge);
- Roads and drainage approvals remain difficult although positive progress has been made to resolve CEC detailed comments with only four areas outstanding for Phase 1a; and
- Scottish Water are beginning to make some progress with drainage outfall consents, although these are still relatively slow. They are continuing to work to a prioritised order of consents.

The quantum of designs which are required to go through a re-design process as a result of either the approvals process or value engineering is captured in the programme analysis and will be reported on in future months.

Phase 1a only	Submitted to CEC		Granted by CEC		% Granted to date of total
	v31	Actual	v31	Actual	
Prior approvals (54)	53	53	51	46	85%
Technical approvals (80)	75	71	74	68	85%
IFC (submitted to tie) (92)			81	57	62%

Reasons for design slippage are being reviewed and recorded each week at the design taskforce meeting which is focused on resolving outstanding design issues. This slippage will be addressed as part of the re-calibration of the programme. **tie** are identifying and implementing opportunities to mitigate the impacts of this slippage.

Although there is evidence of better management of SDS by BSC, this has not yet resulted in improved design performance.

### 2.3 Utility works (MUDFA)

Rev.07 Figures	Period		Delta	Cumulative		Delta
	Plan	Actual		Plan	Actual	
<b>MUDFA PERIOD 10 PROGRESS</b>						
Section 1a Newhaven to Foot of the Walk	6.9%	0.0%	-6.7%	72.5%	56.0%	-16.5%
Section 1b Foot of the Walk to McDonald Road	0.0%	0.0%	0.0%	100.0%	98.3%	-1.7%
Section 1c McDonald Road to Princes Street West	0.0%	0.0%	0.0%	78.2%	59.8%	-18.4%
Section 1d Princes Street West to Haymarket	2.8%	0.5%	-2.3%	91.1%	81.6%	-9.5%
Combined Sections 1A-1B-1C-1D (On-Street) Newhaven Road to Haymarket	2.8%	0.1%	-2.7%	83.2%	61.3%	-21.9%
Section 2 Haymarket to Roseburn Junction	0.0%	4.9%	4.9%	100.0%	34.4%	-65.6%
Section 5a Roseburn Junction to Balgreen Road	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
Section 5b Balgreen Road to Edinburgh Park Central	0.0%	1.6%	1.6%	100.0%	100.0%	0.0%
Section 5c Edinburgh Park Central to Gogarburn	0.0%	5.4%	5.4%	100.0%	98.0%	-2.0%
Section 6 Gogar Depot	0.0%	0.0%	0.0%	100.0%	89.9%	-10.1%
Section 7a Gogarburn to Ingliston Park and Ride	12.7%	0.0%	-12.7%	36.5%	100%	63.5%
Section 7b Ingliston Park and Ride to Edinburgh Airport	15.0%	5.0%	-10.0%	25.0%	5.0%	-20.0%
Combined Sections 2A-5A-5B-5C-6A-7A (Off-Street) Haymarket to Edinburgh Airport	4.1%	0.4%	-3.7%	79.7%	74.2%	-5.5%
<b>FULL ROUTE PHASE 1A NEWHAVEN ROAD TO EDINBURGH AIRPORT</b>	<b>3.1%</b>	<b>0.1%</b>	<b>-3.0%</b>	<b>82.4%</b>	<b>65.3%</b>	<b>-18.1%</b>

Section	MUDFA Commentary
Section 1a Newhaven to Foot of the Walk	Proposals agreed with FPA regarding re-sequencing works
Section 1b Foot of the Walk to McDonald Road	All works on hold for embargo
Section 1c McDonald Road to Princes Street West	All works on hold for embargo
Section 1d Princes Street West to Haymarket	All works on hold for embargo TM preparations continue for post-embargo works
Section 2 Haymarket to Roseburn Junction	Works continue to 19 <sup>th</sup> December
Section 5a Roseburn Junction to Balgreen Road	COMPLETE other than for final BT cabling and transfer of service
Section 5b Balgreen Road to Edinburgh Park Central	COMPLETE other than for final BT cabling and transfer of service
Section 5c Edinburgh Park Central to Gogarburn	1,500mm Sewer diversion on programme
Section 6 Gogar Depot	800mm re-test required. Expected completion mid Jan09
Section 7a Gogarburn to Edinburgh Airport	Trial hole works commenced with BAA contractor. Completion programmed for 26/3/09

## 2.4 Tramworks (Infraco)

The project continues to experience problems with slow mobilisation and, in particular, appointment of direct BSC resource and final appointment of the main package contractors. It is expected that more package contractor resources will be in place from January 09. However, work has continued on a number of worksites including the Haymarket and Edinburgh Park viaducts, Carrick Knowe bridge and the A8 underpass. Significantly, the on-street works also continued with roadworks on Leith Walk using sub-contractor resources (Crummock) until the implementation of the additional Christmas embargo on Leith Walk and Constitution St on 12<sup>th</sup> December 2008. Temporary sheet piling work has been progressed during the Christmas and New Year NR possession period at Carrick Knowe bridge.

**tie** has agreed with BSC a process to create a re-calibrated programme. Much of the required data has now been amassed and, following meetings towards the end of 2008 between **tie** and BSC, this process has now commenced with the data collection phase expected to be complete by mid Period 11.

Opportunities for improvement include

- Reduced access constraints including embargos;
- The use of additional resources;
- Improved productivity particularly in track and OHL installation;
- The use of alternative technology for OLE installation and track-laying;
- Constructing the structures in parallel rather than sequentially;
- Removing embedded project logic which is no longer relevant; and
- Better use of integrated traffic management.

### Progress against Contract Programme

Summary against the agreed Infraco contract and four month look ahead (1 September to 31 December 2008) milestones are shown in the table below (number of milestones).

Milestone progress

	Period (4-month look-ahead)			Cumulative (4-month look-ahead)			Cumulative (contract programme)		
	Planned	Achieved	%	Planned	Achieved	%	Planned	Achieved	%
Prelims	3	3	100%	30	30	100%	30	30	100%
Construction	4	1	25%	20	8	40%	201	8	4%
<b>Total</b>	<b>7</b>	<b>4</b>	<b>57%</b>	<b>50</b>	<b>38</b>	<b>76%</b>	<b>231</b>	<b>38</b>	<b>17%</b>

Progress is also being recorded against the contract programme as in the table below. In both the contract and four-month programme progress, the common denominator is that every

activity in the programmes has a work content generated against it which translates into a weighting allowing accurate reporting of progress.

	Period		Delta	Cumulative		Delta
	Plan	Actual		Plan	Actual	
<b>INFRACO PERIOD 10 PROGRESS</b>						
Section 1a Newhaven to Foot of the Walk	0.9%	0.0%	-0.9%	3.3%	0.0%	-3.3%
Section 1b Foot of the Walk to McDonald Road	1.4%	0.5%	-0.9%	14.9%	1.4%	-13.5%
Section 1c McDonald Road to Princes Street West	0.0%	0.0%	0.0%	1.0%	0.0%	-1.0%
Section 1d Princes Street West to Haymarket	0.0%	0.6%	0.6%	0.0%	0.6%	0.6%
Combined Sections 1A-1B-1C-1D (On-Street) Newhaven Road to Haymarket	0.6%	0.2%	-0.4%	3.9%	0.3%	-3.5%
Section 2 Haymarket to Roseburn Junction	2.3%	2.9%	0.6%	51.4%	10.7%	-40.6%
Section 5a Roseburn Junction to Balgreen Road	2.4%	0.0%	-2.4%	32.0%	1.4%	-30.6%
Section 5b Balgreen Road to Edinburgh Park Central	4.6%	0.2%	-4.4%	46.1%	0.6%	-45.4%
Section 5c Edinburgh Park Central to Gogarburn	3.3%	0.0%	-3.3%	31.3%	1.2%	-30.1%
Section 6 Gogar Depot	3.4%	0.0%	-3.4%	43.3%	0.0%	-43.3%
Section 7a Gogarburn to Edinburgh Airport	2.4%	1.1%	-1.3%	34.2%	1.3%	-32.9%
Combined Sections 2A-5A-5B-5C-6A-7A (Off-Street) Haymarket to Edinburgh Airport	3.4%	0.4%	-3.0%	39.9%	1.5%	-38.4%
<b>FULL ROUTE PHASE 1A NEWHAVEN ROAD TO EDINBURGH AIRPORT</b>	<b>2.3%</b>	<b>0.3%</b>	<b>-1.9%</b>	<b>25.7%</b>	<b>1.0%</b>	<b>-24.6%</b>

Section	INFRACO commentary
Section 1a Newhaven to Foot of the Walk	Section 1A4 Lindsay Road under review
Section 1b Foot of the Walk to McDonald Road	Roadworks delayed as existing utilities exposed.
Section 1c McDonald Road to Princes Street West	Roadworks delayed between McDonald and London Roads to allow MUDFA to complete. Final preparations underway for Princes St closure.
Section 1d Princes Street West to Haymarket	Final preparations underway for post embargo works and Princes St closure.
Section 2 Haymarket to Roseburn Junction	Haymarket viaduct temporary works design resolved. Works recommenced.
Section 5a Roseburn Junction to Balgreen Road	Temporary works re-design delaying various structures.
Section 5b Balgreen Road to Edinburgh Park Central	Unforeseen ground conditions resulted in re-design of temporary works at Edinburgh Park viaduct
Section 5c Edinburgh Park Central to Gogarburn	A8 Underpass continues. Track awaiting design IFC
Section 6 Gogar depot	Await re-test of 800mm water main
Section 7a Gogarburn to Edinburgh Airport	Gogarburn underbridge earthworks commenced.

The progress is reported against a 16-week programme which concluded on 19<sup>th</sup> December 2008. Key reasons for slippage include:

- Leith Walk works being delayed due to utility works not being completed to programme – works commenced on 8 October;
- Reinstatement work on Leith walk for newly introduced Leith walk embargo;
- Haymarket viaduct re-design work at bankseat – now resolved and work has recommenced;
- Delay of the concrete pour at Edinburgh Park and Haymarket viaducts due to a lack of test and inspection plans – this is now resolved; and
- Re-design of temporary works required for various structures in the Network Rail corridor.

Infraco achieved less than 20% of the four-month programme work content by Christmas 2008. However, other works outwith the 4 month programme such as sheet piling and temporary works along the railway corridor were completed within the period.

## 2.5 Tram construction (Tramco)

The tram mock-up is being used in consultation with special interest groups to fine-tune the design. Good progress is being made with delivery of deliverables against the schedule. The production line due to be operational from Q1 2009 with the delivery of the first tram still on schedule for April 2010.

## 2.6 Testing and commissioning

The process for acceptance of the Edinburgh Tram Project is designed to ensure that it is delivered in an acceptably safe, compliant and efficient manner. The objectives of the process are to ensure that the system performance, integrity, reliability, availability and safety are rigorously tested and that throughout all stages of the delivery process the many sub-systems and the overall system are validated and verified against the requirements and applicable standards. To achieve these objectives there is a layered approach to the overall testing and commissioning as laid out in the table below.

What	Who	Status
Design assurance	BSC (SDS) / tie	Underway.
Quality	Infraco	Started - Inspection and test plans submitted as part of each work package plan.
Systems Safety	Infraco / Independent Competent Person(ICP) / TEL / Transdev	Started - Safety verification plan in place and process of verification already underway. The ICP has been appointed and has started his verification process.
Performance	Infraco / Transdev / TEL	Requirements set out in the employer's requirements and will be tested following completion of each section of the network.

## 2.7 Interface with other projects

The following table identifies the other projects ongoing within the city which may impact on the Tram project. This is reviewed on an ongoing basis to identify conflicts and mitigations. There are two specific interfaces of concern:

- 1) the Gogar interchange and
- 2) the re-development of the existing St. James shopping centre.

As previously indicated, an instruction is expected from TS to confirm the preferred option and associated scope for the Gogar interchange on 5<sup>th</sup> January 2009.

External Projects	Promoter	Project Description	Potential Conflict	Tram Contract Dates		Project Dates		Comments
				Start	Finish	Start	Finish	
Gogar Surface Station	Transport Scotland	New station to east of Gogar depot	Unknown as yet but expected to include 1. Re-design impacts 2. Tram alignment issues 3. Traffic Management clashes 4. Potential site access issues etc	Aug-08	Jul-10	Oct-09	Mar-11	All works with the exception of track installation between Gyle Centre and depot stop and E&M Installations will be complete by end of 2009
St. James Centre re-development	CEC / Henderson Global	Redevelopment of existing shopping centre.	Interface with Picardy Place junction re-construction and Cathedral Lane sub-station	Jan-10	Mar-11	TBA	TBA	Inclusive of E&M works. Track installation should be complete by October 2010 but civils and E&M will continue to Mar-11
Haymarket Interchange		Haymarket Accessibility Project (planned for 2009-10).	Utility diversions continue until Feb.2009. Potential Interface with Infraco works at Haymarket junction commencing Jan.2009	Jan-09	Nov-09	TBA	TBA	Haymarket junction re-construction is 6 phases due to complete Nov-09 although Shandwick Place will still be under construction to January 2010 with Torphichen to follow. Being monitored.
Haymarket Station re-furbishment	Network Rail / Scotrail	Main Building refurbishment works	Any external works could conflict with TM for either or both MUDFA and Infraco and could conflict with Infraco construction works	Now	Nov-09	Nov-08	2009	Require more detailed information
St. Andrew Square development	CEC	Demolition of existing buildings bordering South Side St. Andrew Square, South St David Street and Meuse Lane	Infraco programme	Sep-09	Nov-10	Oct-08	Jul-09	CEC Advised 10/9/8 that this development should be delayed to a more suitable commencement date.
Princes Street Hotel	Deramore Property Group	Redevelopment of existing buildings at 121 - 123 Princes Street to 80,000 square feet 3 floor of retail and 100 bedroom hotel	Direct clash with Infraco programmed works in Princes Street during blockade	Jan-09	Jul-09	Early 2009	Jun-11	Currently in planning stage.
New Hotel in	Tiger	New build hotel	Utility diversions and potential linterface	Jan-09	Nov-09	Nov-08	2012	Risk has diminished. Manageable conflict

External Projects	Promoter	Project Description	Potential Conflict	Tram Contract Dates		Project Dates		Comments
				Start	Finish	Start	Finish	
Haymarket	Developments		with Infraco works.					
Waverley Steps	Transport Scotland	Refurbishment of existing Waverley Steps with inclusion of new escalators and elevators	Reviewed with both TS and Waverley Steps project team. <b>No conflict</b>	Feb-09	Jul-09	Sep-09	Mar-11	Although the main construction works will be complete by end Jul-09 this area will be re-visited in Q3/Q4 2010 for OHL installation
Waverley Station re-roofing	Transport Scotland	New roof and general upgrade to station interior	May be Traffic Management issues	Feb-09	Jul-09	Apr-10	Apr-14	Although the main construction works will be complete by end Jul-09 this area will be re-visited in Q3/Q4 2010 for OHL installation
Haymarket Terrace	DTZ Surveyors	Common Repairs to buildings at 2-4-6-8-68 and 74 Haymarket Terrace	Scaffolding and external repairs	Now	Dec-09	ASAP	ASAP	CEC will not issue scaffold permits until all tram TM is removed.
National Portrait Gallery		Major building construction and refurbishment	Interface with Infraco works on St Andrew Street / York Place	Apr-10	Nov-10	Apr-09	Nov-11	Other than removal and return off artefacts all works are expected to be internal to Gallery
Baxter Place Development	Fitzpatrick Hotel Group	Conversion of existing building adjacent Greenside Lane and with frontage onto Leith Street	Proposal to divert existing utilities through basement of building. Also potential TM interface issues with Picardy Place construction.	Now	Mar-11	TBA	2010	
Pollution Prevention works	Network Rail / Scotrail	Re-location of existing diesel tanks at Haymarket Sprinter Depot	Interface with S21A Roseburn Street viaduct and associated track	Jan-09	Apr-10	Apr-08	Nov-08	PP project on target at end of period 6 to complete in Nov. VE design on Roseburn viaduct will see this structure re-programmed.
Airdrie - Bathgate	Transport Scotland	New track installation	Tram possessions mainly "piggy-backed" on A2B possessions which could be altered / cancelled.			Mar-09	Mar-10	Various possessions and RotR workings
RBS tramstop - Gogarburn	RBS	Design by RBS - Build by Infraco	Design and consents not in place in a timely manner to allow Infraco to build to programme	Jul-09	Oct-09	TBA	TBA	Design & approvals progressing to programme.

Colour code

Green	No conflict anticipated but being monitored
Amber	Managing any conflict
Red	Conflict which causes programme concern / unknown effect on tram programme

This has been sent to Transport Scotland for their input for projects they are sponsoring and will continue to be reviewed by **tie** to identify any potential impacts on the Tram programme as early as possible in order to manage them. A review of the Transport Scotland projects was carried out during early December 2008 with Transport Scotland. A further session will be arranged during Period 11.

## 2.8 Other

### Temporary traffic regulation orders (TTROs)

- The city centre embargo was implemented by 28<sup>th</sup> November which concludes on 5<sup>th</sup> January 2009 and the Leith Walk embargo was realised by 12<sup>th</sup> December 2008 which concludes on 19<sup>th</sup> January 2009
- Works implemented to progress and plan the Princes St blockade in early 2009. This will commence on 5<sup>th</sup> January with the start of enabling works before the full diversions are implemented in mid-end February. Contingency and emergency plans are being put in place to complement the diversions.

### Traffic regulation orders (TROs)

A TRO programme is in place to ensure that the required TROs for the project are in place by November 2009. The informal consultation process for this is underway and comments are being recycled into any required small design changes. A method for tracking these changes is being established.

Additionally the draft schedules and articles are under preparation and formal consultation due to start in May 2009.

### Network Rail

- Infraco has now delivered its EMC Management Plan and EMC Strategy for NR infrastructure assets and established the scope for the immunisation works. Programme for these works is being developed with Infraco;
- Following a successful trial for measurement of stray traction current between Nottingham Express Transit and NR, Infraco are currently considering three possible immunisation solutions:
  1. No additional measures required for ETN and no modification of NR infrastructure;
  2. Additional insulation measures on ETN and no modification of NR infrastructure; and
  3. No additional measures required for ETN and modify NR infrastructure with FETR.A decision for which solution to progress is due in January 09;
- Infraco will be developing the full assurance case for NR acceptance. Preliminary assurance case to enable traction power testing and commissioning will be completed by August 2009; Further assurance will be provided up to and including bringing into service;
- The lift and shift project scope is complete. Additional works identified are:
  - Scottish Power cable – mitigation is to work around the route of the cable; and
  - C&W cable at the Water of Leith bridge – SDS has designed a diversion and the works will be transferred into Infraco scope although the apparatus will be moved by C&W;
- The pollution prevention project at Haymarket depot is reported to be over-running by four weeks. A local agreement with First ScotRail has been reached to accommodate any potential overlap between completion of the pollution prevention activities and commencement of the Infraco works; and
- Works were ongoing through the Christmas period at Carrick Knowe and Edinburgh Park to coincide with NR possessions.

### Third party interfaces

- NR – the Bridge Agreements is not yet concluded but is expected by end of January. There is an outstanding issue on indemnities to close out. An Operating Agreement with NR is expected to be agreed by Q1 2009;
- Forth Ports – SDS will deliver agreement plans by early January and **tie** will finalise commercial arrangements with Forth Ports to conclude the agreement;



- Haymarket carpark compensation – **tie** have agreed compensation with NRand will seek to settle this before the end of the current financial year. **tie** await confirmation from TS that the additional compensation payable to First Scotrail as a result of the extension of the FSR franchise from Nov 2011 to Nov 2014 will be funded by TS as a change; and
- Building fixings – deemed consent has been obtained from 306 owners as well as 66 consents with the owners' agreement. There are 12 fixings where matters remain unresolved and negotiations remain ongoing. However, there remains a possibility that these relevant owners may have to be referred to the Sheriff for resolution in February. CEC are leading the legal process, supported by the project team.

#### Murrayfield pitches relocation

Construction works for the relocation of the Murrayfield training pitches is due for completion in Period 12. Flood lighting and tidy-up is ongoing. The completion of this project provides unrestricted access to the structures to be built between the north side of the existing railway embankment and the south perimeter of Murrayfield.

#### Fastlink

Competitive tenders for the roadworks required to take buses off the guided busway have been received and a contract has been awarded to Frontline Construction and works have commenced. The enabling works require to be completed to allow priority measures to be put in place for bus traffic that is displaced from the guided busway during tram works commencing mid January 2009. The TRO process has commenced and the statutory consultation has been completed.

## 3 Headline cost report

### 3.1 Current financial year

	FY 08/09 COWD Period			FY 08/09 COWD Year To Date			FY 08/09 COWD Full Year Forecast			COWD To Date Actual	Costs To Go Forecast	Total AFC Forecast
	Actual	Budget	Variance	Actual	Budget	Variance	Forecast	Budget	Variance			
Total Project COWD	10,265	6,198	4,068	76,305	114,604	-38,299	111,658	150,851	-39,193	206,345	305,672	512,017
Other Funding	0,848	0,512	0,336	5,732	8,894	-3,162	8,651	30,852	-22,201	17,037	25,239	42,276
Demand on TS	<b>9,418</b>	<b>5,686</b>	<b>3,732</b>	<b>70,573</b>	<b>105,710</b>	<b>-35,137</b>	<b>103,008</b>	<b>120,000</b>	<b>-16,992</b>	<b>189,308</b>	<b>280,433</b>	<b>469,741</b>

- Year to date COWD is £38.3m lower than 'budget' (Period 9 £42.4m) due to:
  - Delayed award of Infraco and Tramco (which was four weeks later than anticipated when the budget was established), slow mobilisation of the infrastructure works compared to the contractual programme and the deferment of the initial Tramco milestones to programme - £31.3m; and
  - £6.7m of profiled risk to P10 which has not been utilised to this point;
- Opportunities to mitigate the impact of slow mobilisation of the infrastructure works are being developed over a period of time with the Infraco contractor (as described in Section 2), with a view to managing any resultant conflicts between the utilities and infrastructure programmes and maintaining the scheduled opening date of the tram in July 2011;
- Reported full year 08/09 expenditure has been reduced to £111.7m (Period 9 £126.1m) and is profiled in the table below. This follows a comprehensive review in Period 10 of the most likely value of work which will be completed in the current financial year and anticipated risk expenditure. There are remaining sensitivities around this outturn, including the completion of utilities works as programmed and timely ramp-up of infrastructure works on-street and at the depot in early 2009.

#### Reforecast profile for FY08/09

£m	YTD	P10-13	Total 08/09
Infrastructure and vehicles	32.1	21.2	53.3
Utilities diversions	26.9	4.6	31.5
Design	4.0	0.5	4.5
Land and compensation	1.3	1.5	2.8
Resources and insurance	12.0	4.6	15.6
<b>Base costs</b>	<b>76.3</b>	<b>32.4</b>	<b>107.7</b>
Risk allowance	0.0	4.0	4.0
<b>Total Phase 1a</b>	<b>76.3</b>	<b>36.4</b>	<b>111.7</b>
Phase 1b	0.0	0.0	0.0

- The profile above reflects a significant ramp-up in activity by the infrastructure contractor in the last quarter of the year. Work has now commenced on the relatively high value structures, and further construction is scheduled to start in earnest on-street and at the depot in January 09;
- The principal downside sensitivities of this revised outturn forecast are as follows:
  - Commencement of on-street works and depot construction in early 2009 as planned – one period across the board delay equals c£3m; and
  - The risk allowance has been reduced following a review of the work activity for the remainder of 08/09 and likely crystallisation of specific risk items. The remaining risk allocation has been re-profiled to match MUDFA and Infraco activities in future periods;
- The Phase1b costs (provided for information only in previous periods and which represented the commencement of utility diversions) are assumed to be expended in 09/10. A decision (by CEC and Transport Scotland) on whether to exercise the option to construct the Phase 1b infrastructure at this time is expected prior to the end of the financial year;
- Based on the outturn above, the TS share of Phase 1a costs in 08/09 at 91.7% (500/545) would be between £98.8m of Base Costs excluding risk allowance or

£103.0m of the total costs, including risk allowance and this should be viewed in light of the principal downside sensitivities described above. This is being kept under review in the context of 08/09 funding allocated to the project by TS of £120m; and

- As previously reported and agreed with CEC and TS, initial milestones under the Infraco and Tramco contracts in the aggregate amount of £24.2m, in respect of advance material purchases, have been classified as prepayments and will be reclassified as expenditure against funding in the periods when the related materials are delivered to site and incorporated in the works.

### 3.2 Next financial year

- The forecast COWD for 1a for 09/10 is shown in the table at 3.3 below and is now £178.4m (Period 9 £160.3m). The increase is primarily due to the re-profiling of the Infraco works at the depot which has reduced the current year forecast and increased 09/10 accordingly. The amount is also sensitive to the extent of call on the risk allowance profiled to that year of £17.8m. Greater certainty with regard to the 09/10 forecast will be gained when an updated programme for the infrastructure works is agreed with the Infraco contractor.

### 3.3 Total project anticipated forecast cost

#### Phase 1a AFC and profiling

£m	Cum till end 07/08	08/09	09/10	Balance	AFC
Infrastructure and vehicles	30.7	53.3	151.0	69.9	304.9
Utilities diversions	18.4	31.5	0.0	0.0	49.9
Design	21.4	4.5	0.9	0.0	26.8
Land and compensation	16.8	2.8	0.1	0.9	20.6
Resources and insurance	42.7	15.6	8.6	14.0	80.9
<b>Base costs</b>	<b>130.0</b>	<b>107.7</b>	<b>160.6</b>	<b>84.8</b>	<b>483.1</b>
Risk Allowance	0.0	4.0	17.8	7.1	28.9
<b>Total Phase 1a</b>	<b>130.0</b>	<b>111.7</b>	<b>178.4</b>	<b>91.9</b>	<b>512.0</b>
Phase 1b	3.0	0.0	33.0	51.3	87.3

- The cost estimate for delivery of Phase1a of the project remains at £512m with a risk allowance of £28.9m;
- There has been only one significant drawdown against the risk allowance at Financial Close (the diversion of the A8 sewer and for which full provision was made in the risk allowance). The risk allowance has been assessed as providing adequate specific provision for any additional utility diversion costs up to completion of that element of the project;
- All primary risks being managed in relation to the infrastructure works are recognised and provided for in the risk allowance – including those related to the completion of outstanding design at Financial Close and a more general provision for delay or recovery of time on a complex project such as this. These provisions reflect the nature of the contract as a fixed price contract to deliver to a contractual programme;
- The adequacy of this risk allowance is kept under constant review and as such will be critically assessed as discussions with the Infraco with respect to an updated master programme and the commercial impacts thereof; and
- As previously agreed, cumulative costs incurred to the end of 07/08 also include £3m incurred on Phase 1b design, meaning that total costs to the end of 07/08 were £133m. The full estimate for Phase1b is subject to finalisation in accordance with a value engineered and approved / consented design and programme. An updated estimate for Phase 1b was received in Period 10 and is currently being checked for accuracy and will be reported on in Period 11. The finalised price will be valid if an option under the Infraco contract is exercised in sufficient time to allow construction of Phase 1b to commence in July 2009.

### 3.4 Change control

- The current change control position is summarised in the table below:

<b>BASE ESTIMATE</b>	498.10	87.30	585.40
<b>APPROVED CHANGES - to Financial Close</b>	13.91	0.00	13.91
<b>CONTROL BUDGET - Baseline</b>	<b>512.02</b>	<b>87.30</b>	<b>599.32</b>

<b>APPROVED CHANGES - post Financial Close</b>	0.00	0.00	0.00
<b>REVISED CONTROL BUDGET</b>	<b>512.02</b>	<b>87.30</b>	<b>599.32</b>

<b>ANTICIPATED CHANGES</b>	0.00	0.00	0.00
<b>CURRENT AFC</b>	<b>512.02</b>	<b>87.30</b>	<b>599.32</b>

<b>PREVIOUS AFC</b>	<b>512.02</b>	<b>87.30</b>	<b>599.32</b>
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- Base estimate – The position at Final Business Case (Oct 2007);
- Approved changes to Financial Close – The financial impact of the project control budget having been reset to reflect final Infraco and Tramco Contract Award levels and a consequential reappraisal of the risk allowance. This was approved at the Tram Project Board on 4<sup>th</sup> June;
- Control budget baseline (New Project Control Budget) – The baseline within which all future project change control will be reported against;
- Approved changes post Financial Close – Tram Project Board approved changes from this point on. There are none to report with financial effect on the Control Budget at this point. The funding for the utility (sewer) diversionary work at Gogar and the Infraco main site office rental costs have been met from a drawdown of funds from the project risk allowance; and
- Anticipated changes – Future potential changes that are work in progress prior to formal approval and will impact cost, programme or risk are work in progress prior to formal approval. These include:
  - The conclusion of the programme re-calibration;
  - Carillion settlement / impact of Rev 7.9 of the programme;
  - Gogar interchange (impact of changes to facilitate the provision of the Gogar interchange station);
  - Additional embargo imposed in Leith Walk and Constitution St.;
  - Princes St traffic management (additional contingency measures to keep the city moving); and
  - Manor Place (consequence of delaying the Manor Place closure until after the festive embargo).

Risks to this position are described in Section 5 below.

## 4 Time schedule report

### 4.1 Report against key milestones

Whilst an unmitigated straight import of the progressed programme into the master programme forecasts a potential revenue service slippage into the first quarter of 2012, **tie** is confident that sufficient float and false logic constraints exist in the programme, along with construction methodology improvements, to maintain the open for revenue service date as July 2011 (with a range of May 2011 to December 2011).

The agreed baseline programme reference for this project is that at Financial Close leading to revenue service in July 2011.

Milestones	Baseline programme date	Actual / current forecast date – unmitigated
Approval of DFBC by CEC	21 Dec 06A	21 Dec 06A
TRO process commences	14Dec07A	10-Dec-07A
MUDFA – commencement of utility diversions	02 Apr 07A	02 Apr 07A
Approval of FBC by TS – approval and funding for Infraco / Tramco	09 Jan 08	Dec 07A
Tramco / Infraco – award following CEC / TS approval and cooling off period and SDS novation.	28 Jan 08	14 May 08A
Construction commences	14-Apr-08	14-May-08A
Haymarket viaduct commences	08-May-08	01-Sep-08A
Edinburgh Park viaduct commences	06-Aug-08	01-Sep-08A
A8 underpass commences	08-Aug-08	28-Aug-08A
Carrick Knowe Bridge commences	21-Aug-08	19-Aug-08A
All demolition work complete	22-Aug-08	02-Feb-09
Tram mock-up delivered	Oct 2008	Nov 2008A
First track installation commences – on street	03-Nov-08	Feb 2009
MUDFA works complete	Nov 2008	Jun 2009
Haymarket viaduct complete	08-Dec-08	10-Jun-09
Roseburn viaduct commences	20-Jan-09	28-Jan-10
Design assurance complete	20-Jan-09	15-May-09
All Issue for Construction (IFC) drawings delivered	21-Jan-09	26-Jun-09
Princes Street closed	03-Feb-09	20-Feb-09
Roseburn viaduct complete	20-Apr-10	02-Mar-11
Carrick Knowe bridge complete	11-May-09	29-Jul-09
All consents and approvals granted	18-May-09	26-Jun-09
Edinburgh Park viaduct complete	24-May-09	25-Aug-09
A8 underpass complete	14-Jul-09	02-Dec-09
Princes Street re-opened	01-Aug-09	16-Nov-09
NR immunisation complete	Nov 2009	Nov 2009
TRO process complete	01-Dec-09	23-Apr-10
1 <sup>st</sup> OHL installed (Commence Section 2)	11-Dec-09	18-Jan-10
Commission Section 2 (Haymarket to Roseburn junction)	11-Jan-10	17-Nov-10
Commission Section 6 (depot)	25-Mar-10	13-Jan-11
1 <sup>st</sup> Tram delivered	09-Apr-10	09-Apr-10
Test track complete	23-Apr-10	30-Mar-11
1 <sup>st</sup> section (other than depot) complete ready for energisation	25-June-10	17-Nov-10
Commission Section 7 (Gogar to Edinburgh Airport)	25-June-10	18-Apr-10
Driver recruitment commences	July 2010	Nov 2010
Commission Section 5 (Roseburn junction to Gogar)	09-Nov-10	05-Oct-11
Driver training commences (excludes depot)	Nov 2010	Nov 2011
System testing complete off street	09-Dec-10	04-Nov-11

Final tram delivered	17-Jan-11	17-Jan-11
Construction Line 1a complete	17-Jan-11	14-Nov-11
System testing complete on street	16-Feb-11	01-Dec-11
Commission Section 1 (Newhaven to Haymarket)	11-Mar-11	14-Nov-11
Letter of "no objection" from Independent Competent Person to commence tram running	17-Apr-11	30-Jan-12
Shadow running starts	18-Apr-11	30-Jan-12
Shadow running complete	July 2011	Apr 2012
Letter of "no objection" from Independent Competent Person to commence revenue service	July 2011	Apr 2012
Open for revenue service	July 2011	Apr 2012

**Guidance for Completion:**

Legend for colouring of Actual / forecast date text

Green: Actual / forecast date is ahead or in line with baseline  
Yellow: Slight slippage – readily recoverable with action.  
Pink: Significant slippage but expect recovery can be achieved  
Red: Notable / significant slippage – difficult to recover, even with action.

**4.2 Key issues affecting schedule**

A number of specific areas are being examined to support July 2011 revenue service in line with the contract programme. Each area is being managed with full visibility and ownership by tie's project management team. The table below indicates the extent of unmitigated potential slippage and opportunities for recovery which will form the basis of discussions with BSC for a revised programme:

Section	Contract Programme Finish	Live Programme Finish	Opportunities
<b>Section A</b> – Depot commissioned and energised	25 Mar 10	02 Sep 10	BSC have commenced. BARR Construction commencing January 09 Steelwork fabrication slot pre-booked.
<b>Section B</b> – Test track	23 April 10	19 Apr 11	Test track can be completed with OLE whilst tramstop furniture is completed. Construction inter-dependability between structures has eased allowing parallel builds. Additional dedicated track and OHL gangs identified for test track.
<b>Section C</b> – construction works complete	17 Jan 11	01 Nov 11	Track installation logic can be re-sequenced to allow earlier commencement. Additional track resources. Parallel installation of track and OLE and improved productivity. Construction inter-dependability between structures has eased allowing parallel builds. Integrated MUDFA and Infracore worksites utilising combined traffic management. Additional dedicated track and OHL gangs identified for depot and test track. The easing of the construction inter-dependability will see circa 3-4 months improvement in the off-street section although this does not improve the route Open for Revenue Service date. The introduction of one additional track gang and one additional OHL gang could see an improvement of circa three months to the forecast Open for Revenue Service date.

<b>Section D –</b> open for revenue service	16 July 11	29 Apr 12	As above
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A wide range of detailed specific programme issues is being examined to achieve the recovery required.

#### **4.3 12-week look-ahead**

<b>Milestones</b>	<b>Actual / current forecast date</b>
1B Roadworks Foot of the Walk – Balfour Street	16-Oct-08A
1C Roadworks McDonald Road to Picardy Place	20-Mar-09
1D Roadworks – Enabling Works	05-Jan-09
1D Roadworks and trackworks Princes Street	20-Feb-09
1D Roadworks Lothian Road junction	29-Jan-09
S19 Haymarket Viaduct	01-Sep-08A
2A Trackworks Haymarket to Roseburn junction	25Feb-09
S20 Russell Road bridge	25Feb-09
W3/W4 Russell Road retaining walls	04-Feb-09
S23 Carrick Knowe bridge	20-Oct-08A
5B Trackworks Balgreen Road to Saughton Road North	16-Mar-09
5B Trackworks Saughton Road North to Bankhead	16-Feb-09
5B Trackworks Bankhead to Edinburgh Park Station	12-Nov-08A
S27 Edinburgh Park viaduct	25-Aug-08A
5C Trackworks Edinburgh Park to Gyle	09-Oct-08A
W28 A8 underpass	01-Sep-08A
Gogar depot earthworks	19-Jan-09
Gogar depot building foundations	23-Feb-09
Gogar depot access roads	16-Mar-09
S29 Gogar underbridge	13-Oct-08A
S30 Gogarburn culvert No.1	01-Dec-08A

## 5 Risk and opportunity

### 5.1 Review of risk register

#### Reviews

The following reviews took place in the period:

Date	Format of review	Attendees	Comments
12/12/08	Infraco Risk Review	Infraco Project Managers Infraco Construction Director Project Risk Manager	General review of Infraco risk profile
15/12/08	Road and drainage Risk Review	Roads and Drainage PM Project Risk Manager	Each risk and treatment plan reviewed
17/12/08	Structures risk register review	Project Risk Manager Structures Project Manager	Each risk and treatment plan reviewed
17/12/08	MUDFA Risk Review	MUDFA Construction Director Project Risk Manager	Each risk and treatment plan reviewed
18/12/08	Depot risk register review	Project Risk Manager Depot Risk Manager	Each risk and treatment plan reviewed
18/12/08	Network Rail risk register review	Project Risk Manager NR Project Manager	Each risk and treatment plan reviewed.
18/12/08	Infraco high-level Risk Review	Infraco Director Infraco Construction Director Project Risk Manager	All high-level risks reviewed.

#### Risk Register

The Primary Risk Register is attached at Appendix D. The Primary Risk Register contains those high impact risks which are impacting (or have the potential to impact) the project at this moment in time.

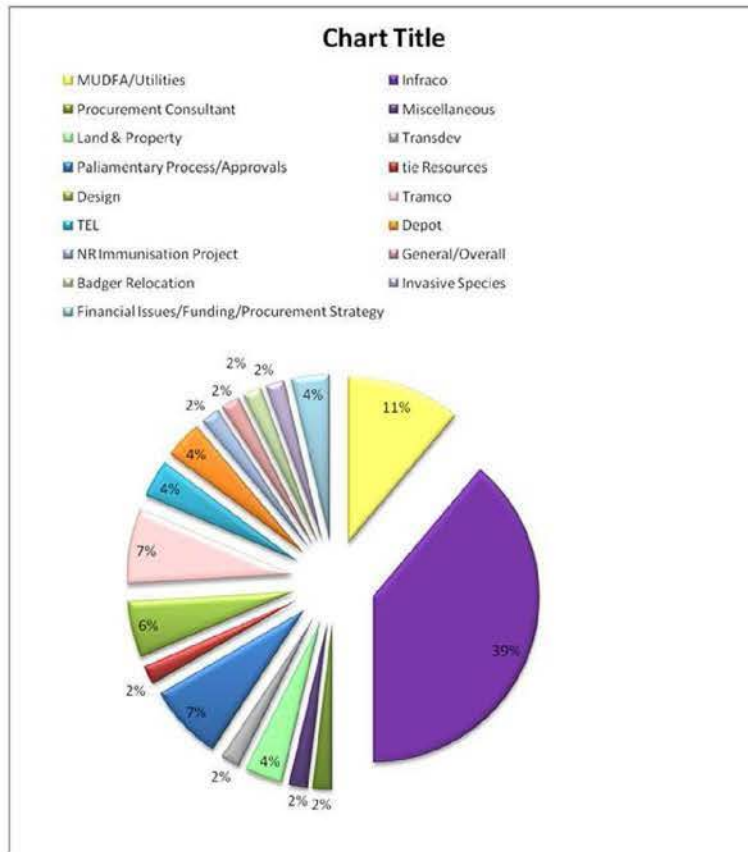
There are currently 54 risks in the Project Risk Register. The top five project risks are listed on the next page. It should be noted that as part of ongoing risk reviews, the significance of risk ids 139 and 164 will reduce in Period 11 as a drawdown on both of these risks will be completed in Period 11. Therefore they may not appear in the top five risks at that time.



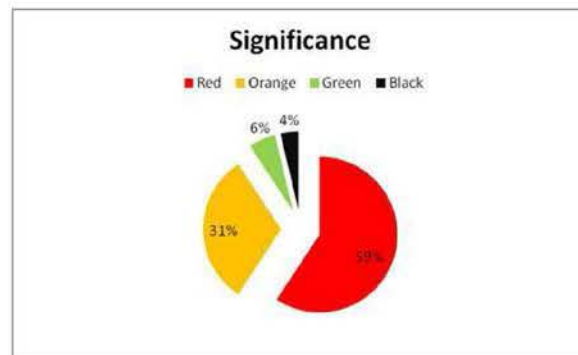
Top 5 Risks - Period 10

ARM Risk ID	Cause	Event	Effect	Risk Owner	Significance	Black Flag	Treatment Strategy	Previous Status	Current Status	Due Date	Action Owner
916	CEC do not achieve capability to deliver	CEC are unable to honour their funding commitment	Potential showstopper to project if contribution not reached. Line 1B may depend on incremental funding from CEC	S McGarity	NL - 0.00	Project	CEC has formed a multi discipline Tram Contributions Group to monitor identified sources of £45m contribution including critically developers contributions. Tie are invited to that group. (see add info)	On Programme	On Programme	31-Jul-11	CEC
							CEC to deliver necessary contributions for 1a	On Programme	On Programme	31-Jul-11	CEC
							Tram Project Board to monitor progress towards gaining contributions	On Programme	On Programme	31-Jul-11	D MacKay
999		Extent of concessionary fare support commitment from TS provides inadequate contribt to CEC	CEC withdraw support for PBC and project fails	G Bissett	NL - 0.00	Project	Negotiate the terms of Government commitment to concessionary fare support to level which is satisfactory to CEC	On Programme	Complete	31-Jan-08	G Bissett
139	Utilities diversion outline specification only from plans	Uncertainty of Utilities location and consequently required diversion work unforeseen utility services within LoD.	Increase in MUDFA costs or delays as a result of carrying out more diversions than estimated	G Barclay			Carry out GPR Aden survey	Complete	Complete	31-Oct-07	J Casserty
							Identify increase in services diversions. MUDFA to resource programme to meet required timescales.	Complete	Complete	23-Nov-07	J McAloon
							In conjunction with MUDFA, undertake trial excavations to confirm locations of Utilities and inform designer	On Programme	On Programme	30-Apr-09	A Hill
164	Utilities assets uncovered during construction that were not previously accounted for; unidentified abandoned utilities assets; asbestos found in excavation for utilities diversion; unknown cellars and basements intrude into works area; other physical obstructions; other contaminated land	Unknown or abandoned assets or unforeseen/contaminated ground conditions affect scope of MUDFA work	Re-design and delay as investigation takes place and solution implemented, Increase in Capex cost as a result of additional works	I Clark			Carry out GPR Aden survey	Complete	Complete	31-Oct-07	J Casserty
							Identify increase in services diversions. MUDFA to resource programme to meet required timescales.	Complete	Complete	23-Nov-07	J McAloon
							In conjunction with MUDFA, undertake trial excavations to confirm locations of Utilities and inform designer	On Programme	On Programme	30-Apr-09	A Hill
952	Scope of works relating to Wide Area Modelling (WAM) have not been agreed with SDS because they consider this to be out with the scope of their contract.	Uncertainty about extent of construction works required on road network relating to Wide Area Modelling issues	Potential claim from SDS to deal with additional design work, Potential construction costs to deal with WAM issues (difficult to quantify without design) over and above those already included.	K Rimmer			Agree design requirements relating to WAM with SDS	Complete	Complete	31-May-07	T Glazebrook
							Employ further traffic management expertise	Complete	Complete	31-Jan-07	C McLaughlan
							Finalise boundaries of Tram responsibility for WAM requirements	Complete	Complete	31-May-07	A Sm
							Obtain design and quantify construction cost for inclusion in base estimate	On Programme	Complete	31-Jul-07	T Glazebrook
							Provision of £500k in Draft Final Business Case estimate to deal with WAM requirements	Complete	Complete	31-Jan-07	G Gilbert

The risks within the Project Risk Register are categorised below:



The ratings of the risks are illustrated below:



## New risks

There were no new risks added to the Project Risk Register during the period

There was one high-level item added to the Infraco Concerns Register by the Infraco Director (Id 79) and one item added by the Project Manager for Structures (see below).

Discipline	Risk description			
	Risk Number	Cause	Risk Event	Effect
Structures	78	Late completion of utility diversions at Lindsay Rd	Delay to Tramworks construction of Lindsay Rd retaining wall	Delay to programme, extension of time claim. Additional costs.
General	79		Failure of SDS/CUS to supply 'as built' drawings to tie	Rework on existing designs. Delay to programme, additional costs

Concern Id 78 will be managed by the Structures PM and a Utilities/Tramworks meeting has been arranged to review utility workscope and agree mitigation measures

Concern Id 79 will be managed by the Infraco Director who will bring all parties (**tie**, SDS, CUS, CEC) together to agree way forward for production of as built drawings and resolution of historical issues.

## Reassessed and closed risks

Risk Id 10 was reassessed in the period. The impacts were reduced in view of the fact the risk is almost expired and the corresponding risk allocation within the Project QRA subsequently reduced by £102.5k. This sum will be transferred to contingency in Period 11.

There were no risks closed in the period.

## **5.2 Risk action plan for next 2 periods**

The following treatment plans are due for completion in Periods 11 and 12.

Action Owner	Risk ID	Action ID	Action Name	Due	Active	Complete	Late	Period 11/12
A Richards	901	170	Infraco/Tramco/operator to establish, implement and train staff in safe systems of work under the Case for Safety	31/01/2009	Yes	No	No	11
A Richards	104	165	Ensure Tram preferred bidders fully submit all required interface info to tie/SDS and sign off to it at TSA award	19/02/2009	Yes	No	No	12
D Sharp	1033	632	Pressure from Approvals Task Force to ensure Technical and Prior Approvals are delivered	28/02/2008	Yes	No	No	12
A Hill	931	605	MUDFA trial holes to verify GPR surveys	31/01/2009	Yes	No	No	11
Bob Bell	1081	650	Production of robust programme to mitigate losses	05/01/2009	Yes	No	No	11

### 5.3 Cost Quantative Risk Analysis

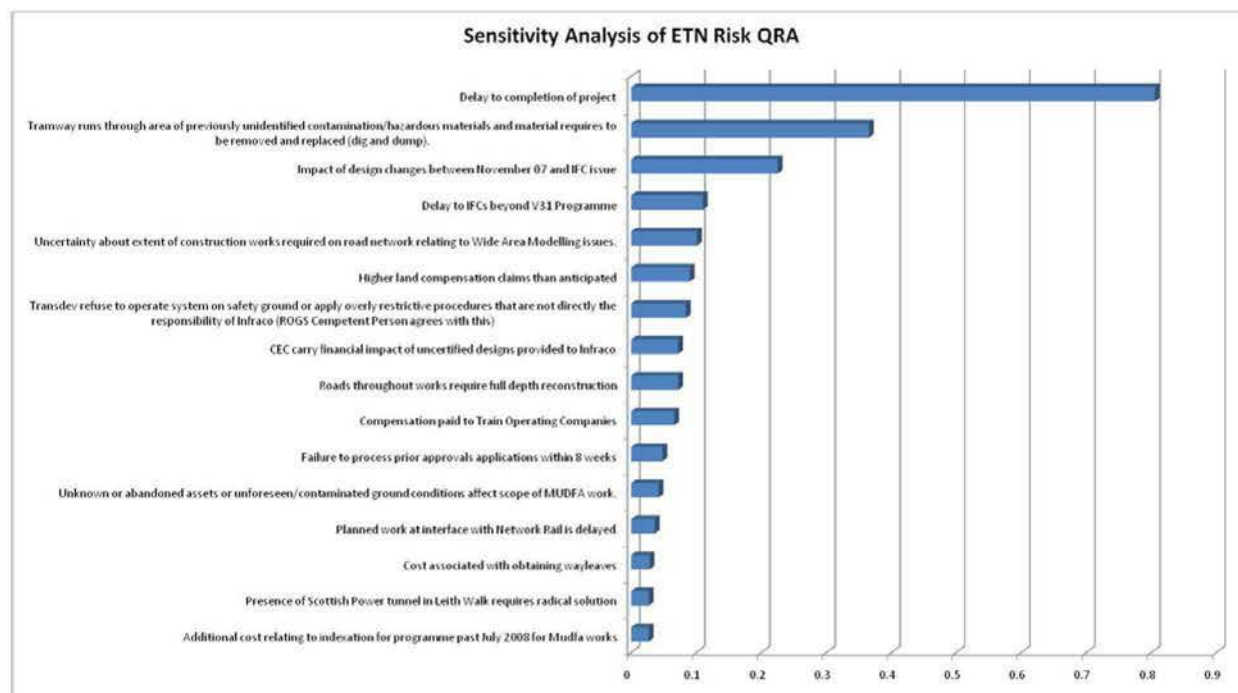
The cost QRA has remained unchanged in the period and the current P80 figure is £23,577k. In addition to this figure is £5,372k which constitutes risk allowances for specific items and contingency. The total project risk allocation is therefore £28,949k. This will be reviewed in Periods 10/11 in line with the programme re-calibration.

The following table illustrates what risk and contingency has been drawn down to date:

Item	Amount	Source of Funding	Notes
Sewer diversion at A8	£1,370,000	Contained within QRA	Risk Id 342
Seminar on Hearts Memorial monument relocation	£9,750	Contained within risk allowances	
Currency cost relating to Tramco at Financial Close	£6,478	Contained within risk allowances	

There were no risk drawdown applications approved in Period 10. However, a number of drawdown applications will be processed in Period 11 the most significant will be for £1,700k. This is to fund the settlement of contractual, commercial and scope issues as agreed with Carillion up to 30 September 2008.

Sensitivity analysis of cost QRA:



The above chart highlights those component risks which are correlated most closely with the overall risk allocation. These risks are the ones which, if changed in terms of probability or impact, would have the most significant effect on the final output.

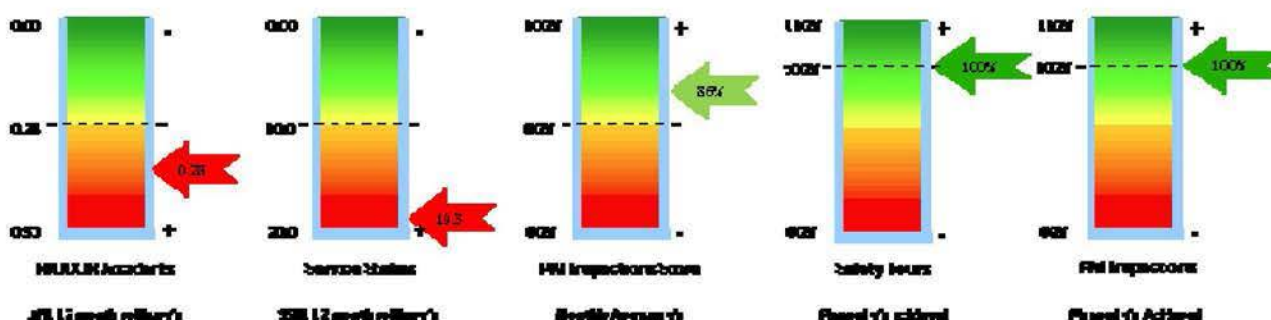
#### **5.4 Schedule QRA**

**tie** is currently working with the supplier of Active Risk Manager (ARM – the risk management software which **tie** uses) with a view to integrating Primavera and ARM so that a schedule risk analysis can be developed. A schedule QRA will be created in line with the recalibration of the overall programme.

## 6 Health, safety, quality and environment

### 6.1 H&S accidents and incidents, near misses, other or initiatives

HS&E ACCIDENTS and INCIDENTS SUMMARY											
Project Running Totals	Total Hours	>3 day	Major	Injury	NM / Unsafe Condition	Service Damage	ENV	RTA	MOP	AFR	SFR
Period 10	43,439	0	0	1	6	1	1	0	2	0.00	2.30
Year to Date	914,859	0	3	23	89	172	3	11	60	0.33	18.80
13 period rolling	1,053,658	0	3	29	105	203	3	11	63	0.28	19.27



There were no reportable accidents during Period 10. The 13-Period rolling AFR is now 0.28 which is above the target of 0.24. If there are no further reportable accidents within the next three periods the 13-period rolling figure at the end of Period 13 should be 0.24 (based on 125,000 hours).

Both BSC and Carillion are re-inducting all operatives during the first week of January (Period 11) and a safety seminar with **tie**, Infracore and their supply chain is planned for the 8<sup>th</sup> of January. Re-checks on competence of operatives will also be made as sites restart for the New Year.

The monthly frequency of service damages fell again for Period 10. This is mainly due to the current programme of works being reinstatement rather than excavation.

Five areas of construction works were stopped by **tie** Project Managers during Period 10 due to unsafe conditions or works outwith agreed work package plans. Immediate action was taken for each and further meetings have been held with the Principal Contractors to discuss future preventative measures.

Effective arrangements were made for the holiday period including the removal of plant and materials where possible, pre-holiday site inspections, site security checks and comprehensive on-call preparations. There were no reported incidents over the holiday period.

100% of planned **tie** Project Management Health and Safety inspections and Director Safety tours were achieved in Period 10. Inspections carried out by Project Managers scored on average 86% (target 80%). Three inspections fell below compliance and are being addressed with Carillion.

### 6.2 Environment

There was one environmental incident during Period 10 where BSC allowed the burning of wood on site at Carrick Knowe. This is also a breach of the COCP. The contractor was instructed to put the fire out and re-brief operatives on COCP requirements.

### **6.3 Quality**

A quality audit was undertaken at the premises of CAF inspecting the manufacturing of the Tram. The results were good and no major findings were observed. A full report will be issued.

A joint audit was undertaken between **tie** and Carillion on the implementation and completion of inspection and test plans. The audit highlighted some good practices, and although there were no major findings there were seven suggestions for improvement. The report will be made available and include a time scale for implementation of the improvements.

## **7 Stakeholder and communication**

### **7.1 Stakeholder / communication strategy / plan**

Through the new Edinburgh Trams Communications Group, **tie**, CEC and other key parties have been working closely together to enhance the ongoing communications strategy. The key priority is preparing for the closure of Princes Street, which is the key construction related activity for 2009.

### **7.2 Stakeholder / communication update**

Media enquiries this period have included: city centre works; city centre and Leith embargoes, CEC full Council meeting on Edinburgh Trams and the new governance arrangements for **tie** and TEL.

Continued preparation for post embargo works recommencing in January, the team has been working closely with stakeholders, informing them of works in the city centre, Haymarket, Leith Walk, and Carrick Knowe. This has been achieved through regular notifications, face-to-face engagement and website updates.

The new tram website will go fully live the week commencing 12 January 2009. This period the team have been focused on content management, user group testing and technical trouble shooting.

Preparation is ongoing with CEC to host a tram mock up exhibition on Princes Street from February for approximately six weeks.

The Schools Programme's activities have included: production of a health and safety leaflet being distributed to schools and affiliated centres at the end of January 2009; preparation for health and safety visits to primary schools with our dedicated tram bus at the end of January; local primary school engagement.

Work continues on the independent review of the design consultation process, with a full report ready for March 2009.

The customer service team have been handling telephone and email requests for information including: reports on utility outages, information on current work sites, enquiries on land and property and requests for support on university projects.

### **7.3 Communication and stakeholder action plan for next period**

Communications will be sent to local businesses and residents regarding the city centre works from 16 January until end February (including The Mound works); the closure of Princes Street and the infrastructure works involved; Leith Walk works in February; bridge and structure works taking place in the Russell Road and Balgreen area. These works will also be supported by face to face engagement, fact sheets and website updates.

Information surgeries will be held in February for the upcoming works in Princes Street. The tram mock up exhibition will be held from February and led by **tie** and CEC.

Media activity next period will be focused on works in: the city centre, The Mound, Princes Street, St Andrews Square and Leith Walk, as well as coverage on the tram mock-up exhibitions and upcoming works on bridges and structures.

Updates will be produced to support all key work areas, particularly for the city centre, Princes Street and Leith Walk.



## Appendix 'A' Detailed cost report

# FY 08/09: Demand on TS 103.008

**1: HEADLINE FINANCIAL COMMENTARY**

**PERIOD RESULTS:**  
Period is for Phase 1a only. See Section 3 of the TS report.

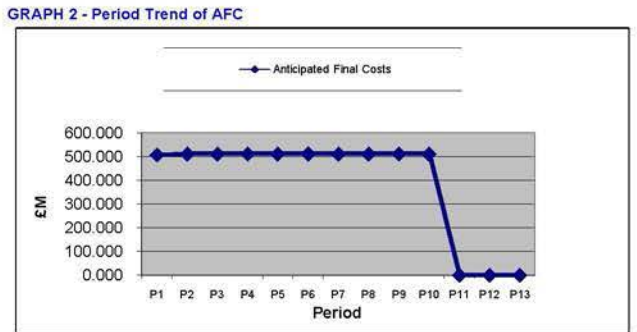
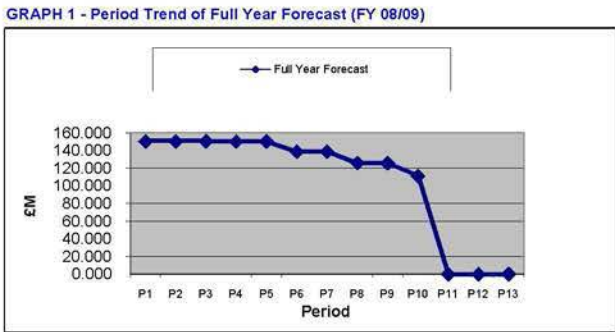
**YTD RESULTS:**  
YTD is for Phase 1a only. See Section 3 of the TS report.

**FULL YEAR FORECAST:**  
FY 0809 is for Phase 1a only. See Section 3 of the TS report.

**AFC:**  
AFC is for Phase 1a only. See Section 3 of the TS report.

**2: SUMMARY**

	FY 08/09			FY 08/09			FY 08/09			COWD To Date Actual	Costs To Go Forecast	Total AFC Forecast
	Actual	Budget	Variance	Actual	Budget	Variance	Forecast	Budget	Variance			
Total Project COWD	10.265	6.198	4.068	76.305	114.604	-38.299	111.658	150.851	-39.193	206.345	305.672	512.017
Other Funding	0.848	0.512	0.336	5.732	8.894	-3.162	8.651	30.852	-22.201	17.037	25.239	42.276
Demand on TS	<b>9.418</b>	<b>5.686</b>	<b>3.732</b>	<b>70.573</b>	<b>105.710</b>	<b>-35.137</b>	<b>103.008</b>	<b>120.000</b>	<b>-16.992</b>	<b>189.308</b>	<b>280.433</b>	<b>469.741</b>



**3: RISK AND OPPORTUNITIES TO:**

**FULL YEAR FORECAST:**  
See Section 3 of the TS report

**AFC:**  
See Section 3 of the TS report

**4: ACCRUALS COMMENTARY**

**5: TOTAL PROJECT ELEMENT SPEND BREAKDOWN (TS & 3rd Party Costs)**

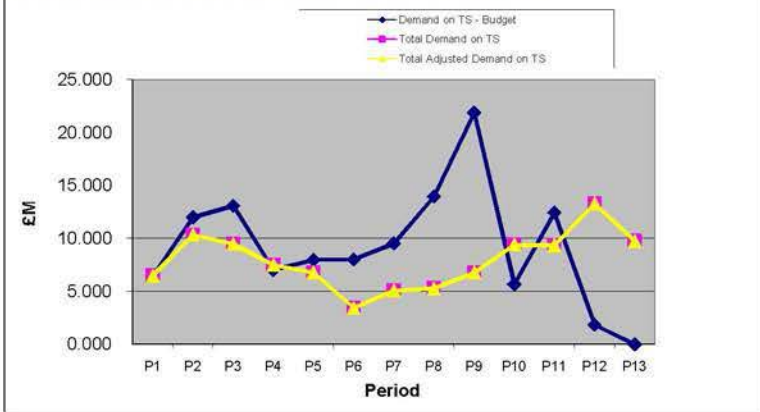
*PLANNED/EMERGING/FORECAST*  
Allocated in accordance with standard WBS. Values relevant to business case or other agreed baseline date to be known as original estimate.

Relevant Baseline date : **FBC 20/12/2007**

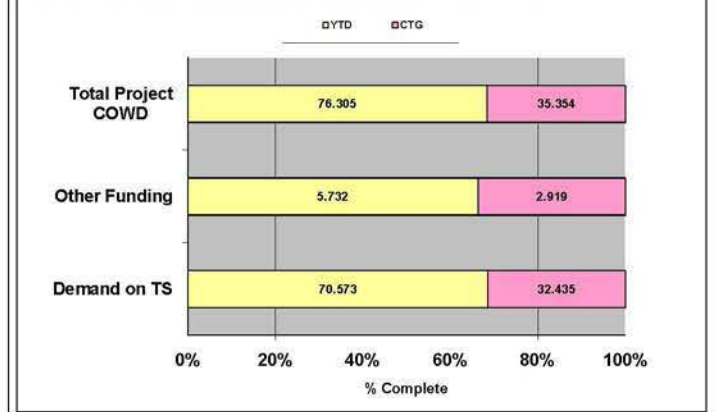
	Estimated Cost			Actual Cost/Forecast			Variance AFC v ELE
	Original Estimate	Escalated Original Estimate	Escalated Latest Estimate	Cost Of Work Done (COWD)	Forecast to Completion	Anticipated Final Costs (AFC)	
General Overall	28.233	28.233	28.847	23.056	5.791	28.847	0.000
Procurement Consultant	68.126	68.126	69.644	47.249	22.395	69.644	0.000
Design	23.683	23.683	26.828	25.467	1.360	26.828	0.000
Financial Issues/Funding/Procurement Strategy	2.258	2.258	2.630	2.174	0.456	2.630	0.000
Parliamentary Process/Approvals	0.329	0.329	0.319	0.319	0.000	0.319	0.000
Procurement Construction Works	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Construction Works	273.102	273.102	296.648	94.753	201.895	296.648	0.000
Testing & Commissioning	1.984	1.984	0.000	0.000	0.000	0.000	0.000
Handing Over & Service Operations	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NOP/Rail Projects Interface (Promoters View)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Interfacing Developments	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TRAMS, Vehicles (Edinburgh TRAMS Use Only)	51.370	51.370	58.152	13.326	44.826	58.152	0.000
Risk	48.974	48.974	28.950	0.000	28.950	28.950	0.000
Opportunity (Negative Value)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
OB/Contingency	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>Total</b>	<b>498.060</b>	<b>498.060</b>	<b>512.017</b>	<b>206.345</b>	<b>305.672</b>	<b>512.017</b>	<b>0.000</b>

		P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	Total
<b>6: Current Year 08/09 - Baseline Budget</b>															
1	Total Project COWD - Budget	6.457	13.085	14.265	7.667	8.688	8.763	10.395	15.222	23.863	6.198	13.563	12.195	10.490	150.851
2	Other Funding - Budget	-0.036	1.080	1.178	0.633	0.717	0.724	0.858	1.257	1.970	0.512	1.120	10.348	10.490	30.852
3	Demand on TS - Budget	6.493	12.005	13.088	7.034	7.971	8.039	9.537	13.965	21.893	5.686	12.443	1.847	0.000	120.000
<b>7: Current Year 08/09 - Actuals (Updated 4 weekly)</b>															
4	Total Project COWD + Revised Forecast	6.457	11.287	10.360	8.162	7.371	3.744	5.531	5.750	7.377	10.265	10.195	14.508	10.650	111.658
7	Other Funding + Revised Forecast	-0.036	0.932	0.855	0.674	0.609	0.309	0.457	0.475	0.609	0.848	0.842	1.198	0.879	8.651
10	Total Demand on TS	6.493	10.355	9.505	7.488	6.762	3.435	5.074	5.275	6.768	9.418	9.353	13.310	9.771	103.008
<b>8: Variance tracker</b>															
12	Variance Line 1 to Line 4 - Project Actual vs Budget	0.000	-1.798	-3.905	0.495	-1.318	-5.018	-4.864	-9.472	-16.487	4.068	-3.368	2.313	0.161	-39.193
13	Variance Line 2 to Line 7 - Oth Funding Actual vs Budget	0.000	-0.148	-0.322	0.041	-0.109	-0.414	-0.402	-0.782	-1.361	0.336	-0.278	-9.150	-9.610	-22.201
14	Variance Line 3 to Line 10 - Demand on TS vs Budget	0.000	-1.650	-3.583	0.454	-1.209	-4.604	-4.463	-8.690	-15.125	3.732	-3.089	11.463	9.771	-16.992
<b>9: Next Year 09/10 - Forecast (Updated 4 weekly)</b>															
16	Total Project COWD	46.825	37.245	41.966	52.316	178.351	Financial Commentary - FY 09/10 Onwards All costs are for Phase 1a only. See section 3 of the TS report.								
19	Other Funding	3.866	3.075	3.465	4.320	14.726									
22	Total Demand on TS	42.959	34.170	38.501	47.996	163.625									
<b>10: All Years (Escalated) (Updated 4 weekly)</b>															
24	Total Project COWD	0.000	3.093	10.664	30.431	85.852	111.658	178.351	80.247	11.720	0.000	0.000			512.017
27	Other Funding	0.000	0.000	1.000	0.019	10.287	8.651	14.726	6.626	0.968	0.000	0.000			42.276
30	Total Demand on TS	0.000	3.093	9.664	30.412	75.565	103.008	163.625	73.621	10.752	0.000	0.000	0.000	0.000	469.741

GRAPH 3 - Demand on TS: Actual/Budget Run Rate - Current Year FY 08/09



GRAPH 4 - Year To Date/ Costs To Go - % Complete - Current Year FY 08/09



<b>11: Other Funding</b>		P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	Total
<b>Budget (Current Year 08/09)</b>															
	CEC	-0.036	1.080	1.178	0.633	0.717	0.724	0.858	1.257	1.970	0.512	1.120	10.348	10.490	30.852
	Other Funding Stream														0.000
	Other Funding Stream														0.000
	Other Funding Stream														0.000
	Other Funding Stream														0.000
	<b>Total Budget Other Funding</b>	-0.036	1.080	1.178	0.633	0.717	0.724	0.858	1.257	1.970	0.512	1.120	10.348	10.490	30.852
<b>Actual (Current Year 08/09)</b>															
	CEC	-0.036	0.932	0.855	0.674	0.609	0.309	0.457	0.475	0.609	0.848	0.842	1.198	0.879	8.651
	Other Funding Stream														0.000
	Other Funding Stream														0.000
	Other Funding Stream														0.000
	Other Funding Stream														0.000
	<b>Total Actual Other Funding</b>	-0.036	0.932	0.855	0.674	0.609	0.309	0.457	0.475	0.609	0.848	0.842	1.198	0.879	8.651

<b>12: Promoter Full Year Forecast Run Rate</b>		P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13
<b>Period Trend of Full Year Forecast (Current Year 08/09)</b>														
	Full Year Forecast	150.851	150.851	150.984	150.537	150.647	138.759	138.792	126.104	126.104	111.658			

<b>13: Promoter AFC Run Rate</b>		P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13
<b>Period Trend of AFC</b>														
	Anticipated Final Cost	508.017	512.017	512.017	512.017	512.017	512.017	512.017	512.017	512.017	512.017			