



## **Transport Edinburgh**

**Edinburgh Trams**

**Lothian Buses**

**Tram Project Board**

**Report on Period 11**

**Papers for meeting 11<sup>th</sup> February 2008**

**10:00am – 1:00pm following the tie Board meeting**

**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

Jim McEwan

Donald McGougan

Graeme Bissett

Dave Anderson

Alastair Richards

Neil Scales

Peter Strachan

Elliot Scott (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

Dennis Murray

Ailie Wilson

Alasdair Sim

Susan Clark

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**

**11<sup>th</sup> February 2008 – 10.00am to 1.00pm following the tie Board meeting**

**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

Jim McEwan

Colin McLauchlan

Duncan Fraser

Donald McGougan

Graeme Bissett

Dave Anderson

Alastair Richards

Neil Scales

Peter Strachan

Elliot Scott (minutes)

Apologies:

- 1 Review of previous minutes and matters arising
- 2 Presentation
- 3 Project Director's progress report for Period 11
- 4 Health and safety – update
- 5 Change requests / risk drawdown
- 6 Risk
- 7 Network extensions
- 8 Date of next meeting
- 9 AOB

**Edinburgh Tram Network Minutes**

**Tram Project Board**

**22<sup>nd</sup> January 2009**

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

<b>Members:</b>			
David Mackay (Chair)	DJM	Bill Campbell	WWC
Cllr Phil Wheeler	PW	Donald McGougan	DMcG
Dave Anderson	DA		
<b>In Attendance:</b>			
Steven Bell	SB	Cllr Allan Jackson	AJ
Kenneth Hogg	KH	Cllr Gordon Mackenzie	GMac
Brian Cox	BC	Cllr Ian Perry	IP
Peter Strachan	PS	Stewart McGarrity	SMcG
Neil Scales	NS	Colin McLauchlan	CMcL
Duncan Fraser	DF	Alastair Richards	AR
Graeme Bissett	GB	Julie Thompson (minutes)	JT
Marshall Poulton	MP		

**Apologies:** Jim McEwan, Elliot Scott

<b>1.0</b>	<b>REVIEW OF PREVIOUS MINUTES</b>	
1.1	2.1 Now completed	
1.2	2.23 Discussed at the last meeting – extra cost to Princes Street. DMcG had highlighted that the paper required to address specific additional cost items within the paper to what is being proposed. SMcG and MP had already discussed this and numbers need to be incorporated. This will be finalised within the next 24 hours.	SB – updated paper 11/2/09
1.3	2.27 DA agreed to talk to several bodies about Tram Line 3. DA updated the Board on his recent talks. There is still a strong desire for Line 3 and it is seen as an essential part of the future connectivity of the city. The Government acknowledges this and the economic rationale behind it especially for the Edinburgh Bio Quarter which has been hit by the economic downturn.	
<b>2.0</b>	<b>Presentation and review of PD's report</b>	
2.1	<u>Overview</u> SB gave an overview of the current progress and issues arising.	
2.2	<u>Safety</u> SB outlined the current safety statistics. There were zero reportable accidents in the period. BSC and Carillion have re-inducted all operatives and re-checked competence for the start of the New Year.	

2.3	There were several areas of work which were stopped by <b>tie</b> PMs during the period. Meetings have been held with the contractors to discuss preventative measures going forward. Further active engagement with BSC and Carillion is being taken to improve performance.	
2.4	There was 100% planned inspections carried out during the period	
2.5	<u>Governance</u> GB presented his paper on Governance. DJM stressed on behalf of Tom Aitchison that the locus for governance and the final decision on the governance structure lay firmly with the CEC.	
2.6	DMcG advised the Board what the potentially difficulties are when discussing this issue. CEC welcomes the work being done by <b>tie</b> but the relevant Council officials have not yet got to the position where they have a recommendation to put to elected members. Concerns from CEC were that there may be a conflict of interest from the members of CEC and the Councillors who sit on the Board.	
2.7	There is a great need for this to be completed as quickly as possible and remove any possible conflicts. DMcG endorsed this.	
2.8	GB commented on the strength of the Board that they were able to take on board the changes required on governance.	
2.9	The preferred option needs to be identified and discussion with the Board needs to continue.	GB – in progress
2.10	The critical role of Lothian Buses would be maintained under all three options. There is an additional meeting of Lothian Buses Board next week to discuss their input into the process.	WWC
2.11	KH updated the Board on the findings of the recent internal audit. They were asked to review the internal governance within <b>tie</b> . They reported back with draft findings this morning. We were given the “green light” in terms of controls in place but improvements need to be made. The current governance framework gives ambiguity and we should look to rationalise the structures.	
2.12	BC stated that unless there were compelling reasons we would hope to avoid any risks to Infraco and that the assignation of contracts should be avoided at all costs.	
2.13	IP asked when the structure discussions would be resolved and is there a recommended option. He was advised that a single legal entity incorporating <b>tie</b> and TEL with arms-length control over both bus and tram operations would be the best outcome.	
2.14	DA outlined his views and how he thought this would best work for CEC.	
2.15	DJM asked if it would be helpful for the city if we produced some sort of wiring document and it was agreed that GB would produce this.	GB – complete and distributed

2.16	DA asked DJM what was the fundamental issues which were causing difficulty. DJM stated that more needs to be done on reducing overhead costs, etc which will be achieved by working as one team and also clarity on the Board's remit.	
2.17	KH asked what the timescales were and he was advised that it should be in place before the new <b>tie</b> Chief Executive takes up their post.	
2.18	DJM said that we have to let CEC know we have had a full and healthy debate on governance and would feedback our comments. DMcG said this would be most helpful.	
2.19	KH said that option A should be removed in terms of the risk of reassigning the contracts and option C does not add value. Between options B and D, he preferred option B and this was supported by PS and NS.	
2.20	DJM / GB to produce a note to ensure that the Board's views are accurately recorded and will be sent to Tom Aitchison.	DJM / GB – done
2.21	DJM said he would avoid asking the Board for a decision at present but the next stage was that he required a conversation with Tom Aitchison on the outcome of today's meeting.	DJM
2.22	CEC would then need to take this forward with some urgency and welcomed the support and assistance of GB.	DMcG
2.23	<u>Project delivery</u> SC updated the Board on the Princes Street preparedness.	
2.24	SB advised the Board that he was not confident to recommend that the earlier date of 13/14 February was achievable. DA asked what date he was confident with. SB advised once he had all the information required he would be able to confirm a date. The work would commence on a Saturday with Sunday to implement any changes needed. The current programme showed implementation commencing 21/2/09.	
2.25	MP felt it has a huge opportunity missed for both CEC and <b>tie</b> if we were unable to begin on 13/14 as there would be at least 1/5 <sup>th</sup> less traffic due to school holidays. He also asked if we had explored every option available with the contractors to see if we could commence on the earlier date. SB advised the Board that it was enabling work which could not be completed before 20 <sup>th</sup> February but he would be prepared to look again but the decision needed to be made no later than tomorrow (23 <sup>rd</sup> January).	SB – review undertaken, commences 21/2/09
2.26	DJM said everything we can do to meet the earlier date would be looked at but we must not trip up on the closure of Princes Street.	
2.27	PW asked if there was any way the traffic light management could be accelerated. SB said that they had already looked at this with the contractor but will undertake a final review.	SB – complete
2.28	MP asked if there was any way that the signals could be switched off and the traffic controlled by police traffic wardens. SB will discuss with the police and see what could be done.	SB – closed
2.29	MP said that a tremendous amount of work has been done and would like to acknowledge the contribution all the team had made.	

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2.30	DA added that there are three construction projects due to commence during the closure of Princes Street. These particular retailers and developers need to be advised of access procedures. SB said MP and DF had already had discussions on this and how these must not impact on the major tram works.	
2.31	Confirmation of the Senior Business Users meeting on 27 <sup>th</sup> January had now been received and all questions raised have been tabled and answers produced. A pre-meeting has been arranged for 23 <sup>rd</sup> January.	
2.32	<u>MUDFA</u> SB gave an update on the progress on MUDFA. The work is now 65% complete.	
2.33	<u>Infraco</u> SB gave an update on the progress on Infraco. The progress made to end December 2008 has been poor with several delays and slow mobilisation of package contractors. However, works are progressing well on Princes Street closure and the tram vehicle works.	
2.34	SB has a review meeting with Bilfinger Berger Siemens this evening.	SB – complete
2.35	Dr Keysberg of Bilfinger Berger is meeting with DJM and the management team on 9 <sup>th</sup> February to discuss the progress on Infraco.	
2.36	DA asked when the contract prices were agreed in Sterling last year what the exchange rate was. SMcG advised him that the Infraco prices were always in Sterling. The vehicle contract was in Euros and was fixed back at Christmas 2007 and CAF took out a currency hedge against exchange fluctuation.	
2.37	<u>Gogar interchange</u> SB updated the Board on Gogar interchange. There is a meeting with TS on 22 <sup>nd</sup> January. The final agreement should be within the next week or two. SB to arrange a meeting with TS to ensure the proposal is agreed with TS and CEC. PW updated the Board on his contacts with TS.	SB – liaison meetings in progress
2.38	A copy of the letter from TS to CEC to be provided to PW	SB – closed
<b>3.0</b>	<b>Cost review</b>	
3.1	SMcG and SB gave a presentation on the cost review exercise.	
3.2	AJ asked why there was an increase in the cost of the tram vehicle livery and AR advised him when the contract was signed in May 2008 a different livery had been chosen but a decision has now been made to upgrade the quality of the interior to match or better the standard of the Airport Bus Link. It is hoped that the tram will become the “flagship of the fleet” so it was felt in the longer term, the upgrade would be cost-effective as it required a lesser degree of maintenance.	
3.3	DMcG asked if some confidence levels could be attributed to the opportunities to reduce costs. SB stated that the opportunities identified were prudently evaluated and we would be able to realise this.	



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3.4	SB will have a further meeting with Bilfinger Berger Siemens prior to the meeting with Dr Keysberg.	SB – complete
3.5	DA asked about TS knowledge of the cost review. A meeting is being held on 3 <sup>rd</sup> February.	
3.6	PS asked if a Plan B had been devised. SB advised that we would need to look at the scope of the project and any changes required would need to go back to the Board for approval.	SB / SMcG – under review
3.7	GMac asked if in due course a briefing note could be prepared for local members of the Council to keep them updated of any programme changes. MP advised that Leanne Mabberley could produce this.	MP
<b>4.0</b>	<b>Network Extensions</b>	
4.1	SMcG said that <b>tie</b> are more than willing to assist CEC, TS or any other body on public transport in Edinburgh in any way we possibly could.	
<b>5.0</b>	<b>Change Control</b>	
5.1	The papers were taken as read on Manor Place	
5.2	PW expressed his thanks to the Chairman and the Tram Project Director in their handling of Manor Place.	
5.3	The Head of Transport for CEC is the person to make the final decision if the westbound lane of Princes Street needs to be reopened for the duration of works.	
5.4	DF stressed how important it will be at the initial implementation stage to get this right. DJM emphasised that this will be under the one-family approach.	
5.5	SB to produce a short flowchart confirming how the TPB and the <b>tie</b> Board would be consulted to enable efficient delegation of authority at the next Board.	SB – prepared for review
<b>6.0</b>	<b>HR and communications</b>	
6.1	The report was taken as read.	
6.2	SB asked CMcL to provide the Board with a brief on the Schools Programme.	CMcL
6.3	DMcG asked for a newsflash to be provided to the members of CEC etc to ensure they are kept up-to-date which any changes, events, etc to help answer questions from members of the public etc. CMcL agreed to provide this.	CMcL – done
6.4	The tram mock-up will be situated outside Jenners and will be open for public viewing w/c 23 <sup>rd</sup> February. It was confirmed that this would incorporate the latest seating livery.	

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<b>7.0</b>	<b>AOB</b>	
7.1	<u>Network extensions</u> There may be an opportunity to ask CEC to provide funds from the Capital City supplement to carry out a feasibility study on Tram Line 3 in conjunction with like support from TS.	
7.2	DMcG will factor this into the budget proposals to be presented to the Council and DJM will seek a further meeting with John Swinney to progress this.	DMcG / DJM
<b>8.0</b>	<b>Date of Next Meeting</b>	
8.1	The date of the next meeting will be Wednesday 11 <sup>th</sup> February. It was agreed that the <b>tie</b> Board will now precede the Tram Project Board on the same dates. JT agreed to reissue dates to the Board members.	JT – closed

Prepared by Julie Thompson 26<sup>th</sup> January 2009.

## Project Directors report

### HSQE



There were no reportable accidents during Period 11. The 13 period rolling AFR is now **0.26** which is above the target of **0.24**. The 13 period frequency of service damages fell for Period 11. 100% of the planned health and safety tours and project manager inspections were achieved in Period 11.

Both BSC and Carillion re-inducted all operatives during the period and a safety seminar with **tie**, Infraco and their supply chain was held on the 8<sup>th</sup> of January. Re-checks on competence of operatives was also made as sites restarted for the New Year.

The number of near misses / unsafe conditions being reported has increased by almost 40% over the period. Near miss reporting is encouraged and recent re-briefings may have driven the number of reports. However, it is not clear as to whether the reports are from the contractor or **tie** / 3<sup>rd</sup> parties. A further study will be undertaken to identify if the contractor has managed to increase awareness regarding near miss reporting.

### Programme

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

- Incomplete utility diversions caused in part by traffic management constraints (e.g. Manor Place);
- Slow mobilisation of Infraco;
- Finalisation of the agreement of change appears to be delaying the commencement of work;
- Failure of Infraco to submit preparatory paperwork in a timely manner;
- Requirement for re-design of temporary works;
- Design slippage since novation of design to Infraco (now recorded in v40 of the design programme);
- Design changes as a result of the Prior and Technical Approvals process; 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 Q2 2012, **tie** considers that programme recovery can be achieved to deliver an open for revenue service date in July 2011 (within a range of July 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 are or can be taken to improve the programmed end date.

**tie** is now working with BSC on the production of a recalibrated programme and this is expected to be completed during March. Opportunities are being identified and the programme recalibrated on a

section by section basis before integrating the whole programme. The process will also identify any potential additional “blockers” so that these can be captured and mitigated without delay.

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 structures in parallel rather than sequentially;
- Removing embedded project logic which is no longer relevant; and
- Better use of integrated traffic management.

#### Progress – Design

Good progress is being made in Prior and Technical Approvals with 91% of each being granted by CEC. Of the original Prior Approvals required, only four remain to be granted and only six of the original Technical Approvals remain to be granted. The areas that are receiving focussed attention are the incorporation of CEC comments into road designs and gaining Scottish Water consents.

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.

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.

#### Progress – MUDFA (Utilities)

Work re-commenced in the city centre on 5<sup>th</sup> January and in Leith Walk / Constitution St on 19<sup>th</sup> January following the Christmas embargos. Additionally, the delayed traffic management switch at Haymarket (closure of Manor Place) went ahead successfully on 10<sup>th</sup> January. Re-introduction of the Mound closure also went ahead successfully on 24<sup>th</sup> January to allow for the continuation of utility diversions.

Carillion related diversions are now complete in Sections 5A and 5B other than for final BT cabling and transfer of service. The BT programme for the cabling and jointing works is being finalised.

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	33,741	23,365	69.2%	64.3%
Off-street	11,969	9,452	8,421	7,085	84.1%	75.0%
<b>Total</b>	<b>52,594</b>	<b>45,760</b>	<b>42,162</b>	<b>30,450</b>	<b>72.2%</b>	<b>66.5%</b>

The following is of note:

- The pipe jacking of the second leg of the A8 sewer has commenced and good progress is being made;
- Good progress is being made with the design of The Mound gas diversion and agreement has been reached with SGN;
- Final commissioning of the 800mm watermain at Gogar has progressed well and this is due for completion in the week ending 7<sup>th</sup> February;
- Disappointing progress was made against the plan during the period albeit the additional Leith Walk embargo did have an impact on this; and
- Incomplete utility diversions are now delaying construction works at Haymarket and Leith Walk.

Progress – Infraco (including Tramco)

Work commenced at several locations following the Christmas break and embargos. However, 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. Package contractors Farrans and Barrs are on site working under letters of intent and sub-contractors on site include Mackenzies, Crummocks and Expanded.

A revised three-month look-ahead is now in place to manage progress through the first quarter until the recalibrated programme is agreed.

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 during the period.

The Princes Street diversion will be implemented from Saturday 21<sup>st</sup> February.

Good progress is being made with delivery of Tramco deliverables against the schedule. The production line is due to be operational from Q1 2009 with the delivery of the first tram still on schedule for April 2010.

Progress – Other

- Draft schedules for the TROs have been prepared and formal consultation will commence in May / June;
- Haymarket carpark compensation – **tie** have agreed compensation with NR and will settle this before the end of the current financial year. **tie** continue to discuss with TS the additional compensation payable to First Scotrail, as a result of the extension of the FSR franchise from Nov 2011 to Nov 2014, as it is believed to be a TS cost;
- 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 March. CEC are leading the legal process, supported by the project team;
- The Murrayfield pitch works are completed; and
- Frontline are progressing well with the alterations to the road adjacent to the guided busway.

Cost

The AFC for Phase 1a of the project remains unchanged from last period at £512m, (including a risk allowance of £25.0m). 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 P11 08/09) on Phase 1a is £214.9m. Expenditure to date for 08/09 (£85.0m), is £43.2m lower than the 'budget'. 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 12) and profiled risk which has not been utilised to this point.

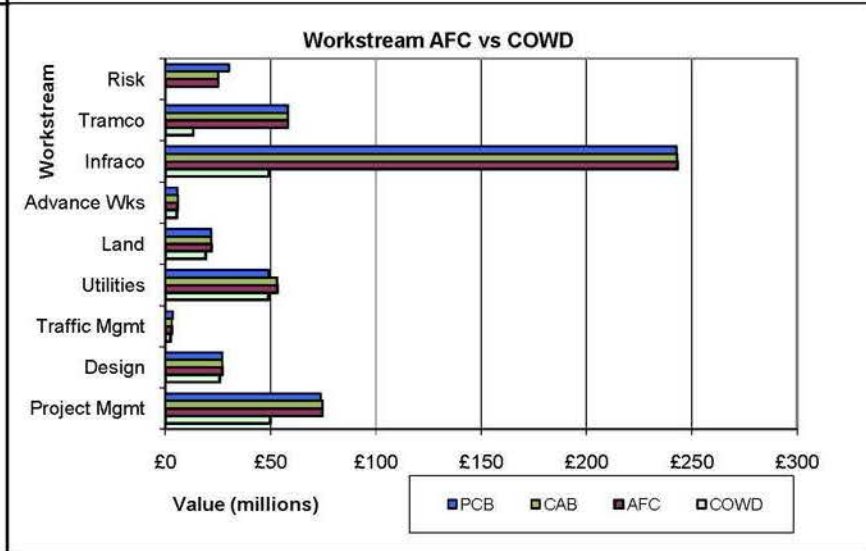
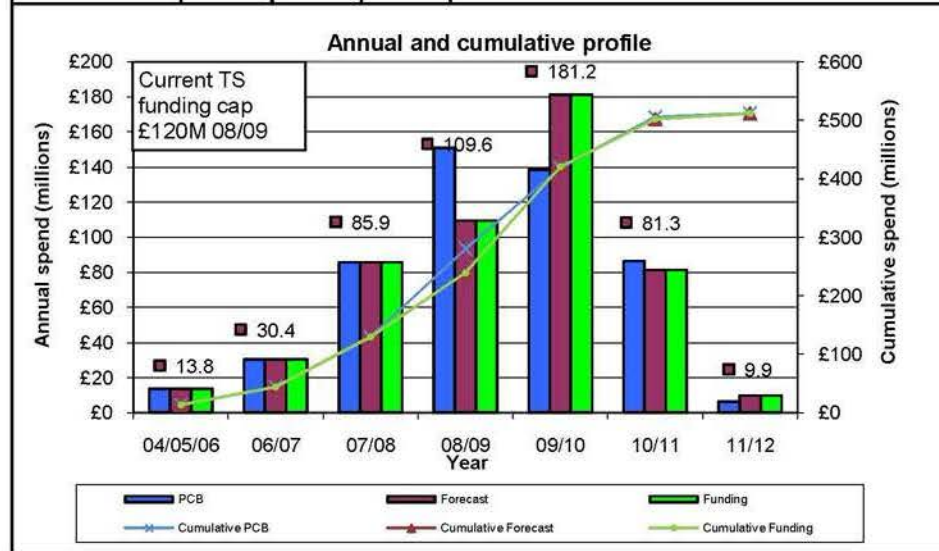
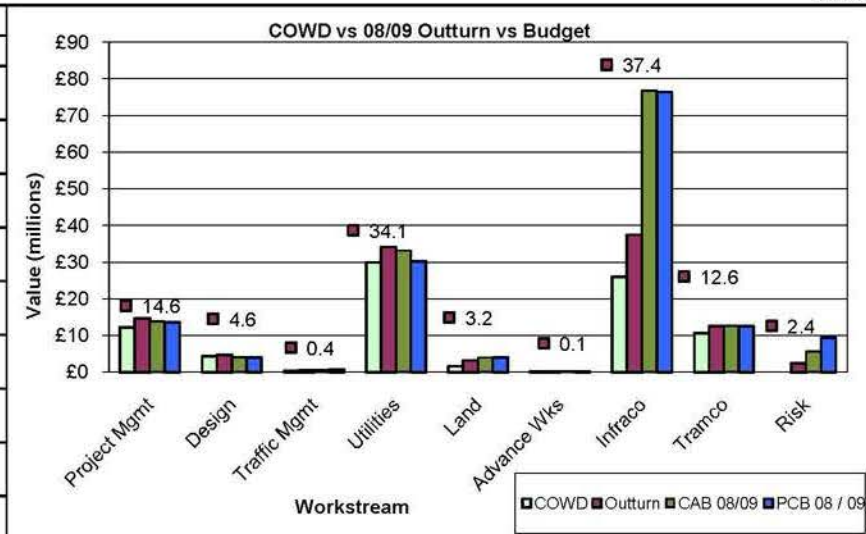
The 08/09 outturn forecast is £109.6m (TS share £101.1m). The forecast for 08/09 has been reduced by £2.1m (TS share £1.9m) following a comprehensive review in Period 11 of the most likely value of work which to be completed (£22.2m) and a robust assessment of any risk expenditure likely to crystallise in the next two periods (£2.4m). 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.

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Period 08/09 - 11 COWD (£000s)				
Workstream	F/cast	Act	Var	Comments
Project Mgmt	1,114	1,107	(7)	
Design	160	282	122	Princes St design impacting period COWD
Traffic Mgmt	32	45	13	
Utilities	3,046	2,951	(96)	includes £1,700 forecast and actual from risk allowance
Land	29	(8)	(37)	
Advance Wks	38	0	(38)	
Infraco	3,808	4,271	463	Provisional sums spend profile offsetting delayed milestone completion
Tramco	1,969	0	(1,969)	Approval of detailed design milestone shifted to Period 12
Total	10,195	8,648	(1,547)	As above



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During the period £3.9m was drawn down from risk and contingency all of which has been approved in line with the project delegated authorities and the Change Panel.

#### Potential changes

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

- Conclusion of the programme re-calibration;
- 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 – additional contingency measures to keep the city moving, communications and the tram mock-up;
- Manor Place – consequence of delaying the Manor Place closure until after the festive embargo;
- Picardy Place – CEC change funded via developer under consideration.

The impact of such items, including the identification of ranges of risk and opportunity, is subject to review with the Tram Project Board. There have been additional specific briefings with CEC and TS.

#### Risk

A total of eight separate risk reviews were held during the period. The QRA was reduced in the period following the drawdown of £3.9m from risk and contingency. The total risk and contingency for the project is now £25.0m.

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

- Late Prior Approval consents;
- Tramway runs through area of previously unidentified contamination and material requires to be removed;
- Amendments to design scope from current baseline and functional specification;
- Safety incident during construction; and
- Unknown or abandoned assets impacts scope of Infracore work.

In addition, the potential risks identified in regard to programme slippage are being reviewed and will form part of the updated QRA and budget challenge.

There are 48 risks in the risk register. There were no new risks identified in the period and six risks were closed. Treatment plans are in place for each risk and are being monitored.

There were nine risk and contingency drawdown applications approved in Period 11 totalling £3.9m. The two most significant will be for £1,700k and £1,060k. The first is to fund the settlement of the contractual, commercial and scope issues as agreed with Carillion up to 30 September 2008. The second is for Prelim costs associated with Rev 7.9 of the MUDFA programme.

#### Communications

The team has been working closely with stakeholders, informing them of works in the city centre (including the Princes St closure and contingency route), Haymarket, Leith Walk, and Carrick Knowe. This has been achieved through regular notifications, face to face engagement and website updates. Information surgeries will be held on 11, 12 and 13 February for the upcoming works in Princes Street. The tram mock up exhibition will be held from February and led by **tie** and CEC.

The new tram website went fully live the week commencing 12 January 2009 and by the end of January it had reported 8,699 visits to the site. The website is now systematically updated in-house.

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The Schools Programme activities have included the commencement of health and safety visits to schools – the first one receiving coverage from STV, distribution of a health and safety leaflet to schools and affiliated centres and local primary school engagement.

Preparation for the updated tram film has begun and filming of the route will take place in the week commencing 9 February.



Period 11 - 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
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-Mar-09	T Glazebrook
							Integrate CEC into tie organisation/accomodation (office move)	Complete	Complete	4-Jun-07	T Glazebrook
							Weekly Meetings of Approvals Task Force	On Programme	On Programme	31-Mar-09	D Sharp
173	Uncertainty over extent of contaminated land on route	Tramway runs through area of previously unidentified contamination/unforseen ground conditions.	Increase in costs to remove material to special and other tip.	R Bell	High - 23.00		Issue containment and gi report to Infraco 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	30-Apr-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 Infraco 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-Mar-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-Mar-09	D Sharp
									Where appropriate increase case officer resource to cope with programme compression	Complete	Complete	31-Oct-08	D Fraser
1033			Failure of Infraco 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 Infraco 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
									Infraco 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	28-Feb-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-Mar-09	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-Mar-09	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-Mar-09	R Bell

Paper to: TPB

Meeting date: 11/02/09

Subject: Project change control update – Period 11, 2008/09

Preparer: E Scott

## Summary

This paper is intended to update the Tram Project Board with the current status regarding approved project change orders and their implications on the overall Tram Project Budget. The table below summarises the approved project changes that have financially impacted the project risk allowance since Financial Close in May 2008.

Description	Base cost	Risk	Contingency	Total
<b>Position at Financial Close (PCB)</b>	<b>481,680,811</b>	<b>30,336,196</b>	<b>0</b>	<b>512,017,007</b>
Changes to end Period 10	1,386,228	-3,241,608	1,855,380	0
<b>Position at end Period 10</b>	<b>483,067,039</b>	<b>27,094,588</b>	<b>1,855,380</b>	<b>512,017,007</b>
Period 11 changes	3,877,918	-3,066,145	-811,773	0
<b>Position at end Period 11 (CAB)</b>	<b>486,944,957</b>	<b>24,028,443</b>	<b>1,043,607</b>	<b>512,017,007</b>

## Changes in Period 11

### Edinburgh Park office rental (COP037), £167k

Incomplete diversionary work at the Gogar depot, where the Infraco office was intended to be situated prevented the location of the office in this area. As a result there is a requirement to pay land rental and property management costs for the project duration. This has been funded from contingency.

### TSS budget update for 08/09 (COP045), £347k

When the budget was approved late in 2007, there was a high degree of uncertainty in several key areas which directly affected the TSS provision (especially SDS design and the full resource profile). This change aligns the budget with the TSS requirement until the end of March 2009.

### Drawdown from risk for design changes relating to utility works (COP049), £75k

As a result of design changes to accommodate the main Infraco works, there are a number of known approved changes to the utility design. £75k has been drawn down against risk id 990 to cover the changes to date.

### Transfer from risk to contingency for Risk id 10 (COP052), £103k

The impact of the risk was decreased with the resultant P80 risk allocation reducing by £103k to £25k.

### Traffic management signals monitoring (COP054), £400k

There was no allowance in the Infraco budget for traffic modelling and engineering assessment in relation to traffic signals works required to facilitate traffic and pedestrian management during construction. This has been funded from contingency.

Drawdown from risk for asbestos found during demolition and excavation (COP062), £31k

A drawdown £31k is required to fund the change instructed to BSC to remove the asbestos encountered within the Caledonian Ale House and Plots 75, 77, 92, 103 and 150. This work was excluded from the Infraco works contract and is funded from risk id 865.

Drawdown from risk for additional excavation at Carrick Knowe (COP063), £83k

A drawdown of £83k is required to fund the required additional excavation at Carrick Knowe to achieve a firm and solid base. This work falls outwith the Earthworks Outline (specified exclusion from the Infraco lump sum tender price) and is funded from risk id 173.

Drawdown from risk for archaeological survey at the Caledonian Ale House (COP064), £5k

A drawdown of £5k is required to cover the cost of an archeological survey which was required at the site of the Caledonian Ale House. This survey was excluded from the Infraco works contract and is funded from risk id 105.

These eight have all been approved by the project change panel and are all within the delegated authority of the Tram project Director.

Risk drawdown for MUDFA scope claim (COP053), (£1.7M)

As previously reviewed and agreed in principal by the TPB at meetings on 19<sup>th</sup> November and 17<sup>th</sup> December 2008 and accepted by the Tram Monitoring Officer this change is for the settlement of the contractual, commercial and scope issues as agreed up to 30/09/08 of up to £2.0M. There is £0.3M already included within the budget, therefore £1.7M is required to bridge the gap. This has been drawn down against risk ids 164 and 139.

Risk drawdown for MUDFA prelims (COP050), (£1.069M)

The scope of the utility diversions has increased to accommodate the tram from that originally anticipated. This is the result of a number of issues including the extent of unidentified and abandoned utilities encountered which have resulted in an increased programme duration and the associated increase in the MUDFA contractors prelim costs. The costs associated with the actual utility diversion works for the above are accommodated within the provisional and prime cost sums and the anticipated measured works final account value. This has been drawn down against risk ids 164 and 1085.

**Decision(s) / support required**

1. The TPB is requested to note the Project Change Control status at Period 11; and
2. The TPB is requested to formally approve the risk drawdown for the MUDFA scope claim of £1.7m and prelim costs of £1.069m.

**Transport Edinburgh**

**Edinburgh Trams**

**Lothian Buses**

FOISA exempt

Yes

No

**Proposed**

Name: Elliot Scott  
Title: Reporting Manager

Date: 04/02/09

**Recommended**

Name: Steven Bell  
Title: Tram Project Director

Date: 04/02/09

**Approved**

..... Date: .....  
David Mackay on behalf of the Tram Project Board

## **Period 11 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:

- Incomplete utility diversions caused in part by traffic management constraints (e.g. Manor Place);
- Slow mobilisation of Infraco;
- Finalisation of the agreement of change appears to be delaying the commencement of work;
- Failure of Infraco to submit preparatory paperwork in a timely manner;
- Requirement for re-design of temporary works;
- Design slippage since novation of design to Infraco (now recorded in v40 of the design programme);
- Design changes as a result of the Prior and Technical Approvals process; 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 Q2 2012, **tie** considers that programme recovery can be achieved to deliver an open for revenue service date in July 2011 (within a range of July 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 are or can be taken to improve the programmed end date.

**tie** is now working with BSC on the production of a recalibrated programme and this is expected to be completed during March. Opportunities are being identified and the programme recalibrated on a section by section basis before integrating the whole programme. The process will also identify any potential additional “blockers” so that these can be captured and mitigated without delay.

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 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 92, the slippage is being addressed as part of the ongoing Approvals Taskforce and is incorporated into the re-calibration of programme;
- Prior Approvals are progressing well – approvals are now 89% granted with five left to be submitted (including the RBS Gogarburn tramstop) and six left to be granted;
- Technical approvals also progress well with 84% granted with ten remaining to be submitted and 13 left to be granted;
- Structures approvals are progressing well – one structure from v31 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 with three of the four on-street sections approved. 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)	54	49	54	48	89%
Technical approvals (80)	80	70	80	67	84%
IFC (submitted to tie) (92)			92	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.07.9 Figures	Period		Delta	Cumulative		Delta
	Plan	Actual		Plan	Actual	
<b>MUDFA PERIOD 10 PROGRESS</b>						
Section 1a Newhaven to Foot of the Walk	12.7%	0.1%	-12.6%	87.5%	42.0%	-45.6%
Section 1b Foot of the Walk to McDonald Road	0.0%	0.1%	0.1%	100.0%	98.4%	-1.6%
Section 1c McDonald Road to Princes Street west	10.8%	1.9%	-8.9%	89.3%	52.2%	-37.1%
Section 1d Princes Street west to Haymarket	7.5%	2.9%	-4.7%	99.4%	79.6%	-19.8%
Combined Sections 1A-1B-1C-1D (on-street) Newhaven Road to Haymarket	8.3%	1.1%	-7.2%	92.9%	64.3%	-28.6%
Section 2 Haymarket to Roseburn Junction	0.0%	26.5%	26.5%	100.0%	60.8%	-39.2%
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%	0.0%	0.0%	100.0%	100.0%	0.0%
Section 5c Edinburgh Park Central to Gogarburn	0.0%	0.9%	0.9%	100.0%	98.9%	-1.1%
Section 6 Gogar depot	0.0%	2.4%	2.4%	100.0%	100.0%	0.0%
Section 7a Gogarburn to Edinburgh Airport	16.1%	0.0%	-16.1%	56.9%	16.3%	-40.6%
Combined Sections 2A-5A-5B-5C-6A-7A (off-street) Haymarket to Edinburgh Airport	4.1%	3.3%	-0.8%	89.1%	75.0%	-14.1%
<b>FULL ROUTE PHASE 1A NEWHAVEN ROAD TO EDINBURGH AIRPORT</b>	<b>7.4%</b>	<b>1.5%</b>	<b>-5.9%</b>	<b>92.1%</b>	<b>66.5%</b>	<b>-25.6%</b>

Section	MUDFA commentary
Section 1a Newhaven to Foot of the Walk	Side entry manhole at Casino completed in period. Baltic Street junction TM put in place for commencement of works on 26 <sup>th</sup> January 2009. Design packages are outstanding in this area.
Section 1b Foot of the Walk to McDonald Road	Works re-commenced post embargo on 19 <sup>th</sup> Jan 2009. Progress has been slower than planned due to additional BT remedial work requirements in the Jane Street area.
Section 1c McDonald Road to Princes Street west	Works re-commenced post embargo on 19 <sup>th</sup> Jan 2009 at Annandale Street. Works re-commenced on St Andrew Square on 05 <sup>th</sup> Jan 2009. Works commenced on The Mound on 26 <sup>th</sup> Jan 2009. Trial holes at Broughton Street completed as programmed.
Section 1d Princes Street west to Haymarket	Trial holes commenced at Lothian Road on 5 January 2009 and completed on 23 January 2009 as planned – early indications would suggest the connection for water main to be adjacent to the western footpath.

	Haymarket works continued in the period with the closure of Manor Place implemented over the weekend of 10/11 January 2009.
Section 2 Haymarket to Roseburn Junction	Works are programmed to complete early March 2009.
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. Remaining utility diversions in this section are forecast to complete mid Feb 2009.
Section 6 Gogar depot	Gogar depot 800 water main installation complete and successfully pressure tested. The final transfer is being undertaken.
Section 7a Gogarburn to Edinburgh Airport	No works were undertaken in the period in section 7B – (Ingliston P&R to Airport). Agreement has reached with EAL over implementation of the diversions. The collateral warranty issue has resulted in a revised approach to undertake this work.

## 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 the remaining package contractors will be in place before the end of Period 12. Work has continued however on a number of worksites including the Edinburgh Park viaduct, the Carrick Knowe bridge, the A8 underpass and the Gogarburn bridge. The on-street works with roadworks on Leith Walk using sub-contractor resources (Crummock) had been on hold due to the Leith Walk embargo but were re-established during Period 11.

Princess Street enabling works were started 5<sup>th</sup> January 09 and continue with contingency route works necessary for the main Princes Street works in late February 09. The works are currently progressing on schedule.

tie is now working with BSC on the production of a recalibrated programme and this is expected to be completed during March. Opportunities are being identified and the programme recalibrated on a section by section basis before integrating the whole programme. The process will also identify any potential additional “blockers” so that these can be captured and mitigated without delay.

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 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 milestones against the agreed Infraco contract and the previous 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	10	3	30%	20	14	70%	235	14	5%
<b>Total</b>	<b>13</b>	<b>6</b>	<b>46%</b>	<b>50</b>	<b>44</b>	<b>88%</b>	<b>265</b>	<b>44</b>	<b>17%</b>

Progress is recorded against the contract programme as in the table below. In the contract 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 11 PROGRESS</b>	<b>Plan</b>	<b>Actual</b>		<b>Plan</b>	<b>Actual</b>	
Section 1a Newhaven to Foot of the Walk	2.2%	0.0%	-2.2%	5.5%	0.0%	-5.5%
Section 1b Foot of the Walk to McDonald Road	4.6%	0.0%	-4.6%	19.6%	1.4%	-18.2%
Section 1c McDonald Road to Princes Street west	1.0%	0.0%	-1.0%	2.0%	0.0%	-2.0%
Section 1d Princes Street west to Haymarket	2.6%	0.0%	-2.6%	2.6%	0.6%	-2.0%
Combined Sections 1A-1B-1C-1D (on-street) Newhaven Road to Haymarket	2.4%	0.0%	-2.4%	6.2%	0.4%	-5.9%
Section 2 Haymarket to Roseburn Junction	4.6%	0.1%	-4.5%	56.0%	11.0%	-45.0%
Section 5a Roseburn Junction to Balgreen Road	4.8%	0.8%	-4.0%	36.8%	2.9%	-33.9%
Section 5b Balgreen Road to Edinburgh Park Central	8.6%	0.9%	-7.7%	54.7%	1.6%	-53.1%
Section 5c Edinburgh Park Central to Gogarburn	6.9%	0.3%	-6.6%	38.2%	1.6%	-36.6%
Section 6 Gogar depot	6.6%	0.0%	-6.6%	49.9%	0.0%	-49.9%
Section 7a Gogarburn to Edinburgh Airport	4.4%	0.4%	-4.0%	38.6%	1.6%	-37.0%
Combined Sections 2A-5A-5B-5C-6A-7A (off-street) Haymarket to Edinburgh Airport	6.5%	0.5%	-6.0%	46.4%	2.2%	-44.2%
<b>FULL ROUTE PHASE 1A NEWHAVEN ROAD TO EDINBURGH AIRPORT</b>	<b>4.9%</b>	<b>0.3%</b>	<b>-4.6%</b>	<b>30.5%</b>	<b>1.5%</b>	<b>-29.0%</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 due to commence post Leith embargo partially delayed to allow MUDFA to complete. Integration programme being produced.
Section 1c McDonald Road to Princes Street west	Roadworks due to commence post Leith embargo delayed to allow MUDFA to complete. Integration programme being produced.
Section 1d Princes Street west to Haymarket	Final enabling works underway for Princes Street closure 21Feb.
Section 2 Haymarket to Roseburn Junction	Haymarket viaduct temporary works design resolved. Verity House access rd awaited.
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	800mm water main test complete. Depot handover from MUDFA to Infraco due 2 Feb.
Section 7a Gogarburn to Edinburgh Airport	Gogarburn underbridge earthworks commenced. Casting of culverts underway.

## 2.5 Tram construction (Tramco)

Good progress is being made with delivery of deliverables against the schedule. The production line is due to be operational from Q1 2009 with the delivery of the first tram still on schedule for April 2010.

The CAF contract programme is incorporated in the Master Tram Project Programme and the Period 11 update confirmed the following milestone dates:

- Mock-up finished – Delivered
- 1<sup>st</sup> Tram delivery – 09-Apr-10
- 5<sup>th</sup> Tram delivery – 10-May-10

- 27<sup>th</sup> Tram delivery – 17-Jan-11

The fabrication of the 1<sup>st</sup> tram body-shell is approximately two months ahead of programme.

## 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	Ten of the 37 inspection and test plans have been submitted. A workshop will be held with BSC for each, to allow tie comments to be incorporated prior to formal issue.
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.

This section will be expanded in greater detail for Period 12.

## 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 both internally and in conjunction with Transport Scotland 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 was expected from TS to confirm the preferred option and associated scope for the Gogar interchange on 5<sup>th</sup> January 2009. The letter / instruction was not complete to allow design to commence. **tie** has requested an estimate of cost and programme for the design of the tram works for the interchange. That estimate is due from BSC by 13 February which would allow a complete instruction to be given by the end of February, following meetings with CEC and TS. This will have a delay on the programme which **tie** is attempting to mitigate as effectively as possible, eg through participation in the handover meetings with Mott MacDonald.

External Project	Promoter	Project Description	Potential Conflict	Tram contract		Project dates		Comments
				Start	Finish	Start	Finish	
Gogar Surface Station	Transport Scotland	New mainline station to the east of the Gogar depot.	Unknown as yet but expected to include 1. Re-design impacts 2. Approvals and consents 3. Tram alignment issues 4. Traffic management clashes 5. Potential site access issues.	Aug-08	Nov-10	Oct-09	Mar-11	All works with the exception of track installation between Gyle Centre and the depot stop and E&M Installations will be complete by July 2010. <b>tie</b> and TS are developing an integrated programme.
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.	Nov-10	Oct-11	TBA	TBA	
Haymarket Interchange		Haymarket Accessibility Project (planned for 2009-10).	Utility diversions continue until May 2009 Potential Interface with Infraco works at Haymarket junction commencing May 2009.	May-09	Apr-10	TBA	TBA	Integrated programme review underway.
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	Apr-10	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.	Nov-09	Mar-10	Oct-08	Jul-09	CEC were advised 10/9/8 that this development should be delayed to a more suitable commencement date. Following discussions with developer access issues are now resolved.
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 the traffic diversions.	Jan-09	Jul-09	Early 2009	Jun-11	Currently in planning stage. CEC is managing the developer within the tram constraints.

External Project	Promoter	Project Description	Potential Conflict	Tram contract		Project dates		Comments
				Start	Finish	Start	Finish	
New Hotel in Haymarket	Tiger Developments	New build hotel.	Utility diversions and potential interface with Infracore works.	Jan-09	Apr-10	Nov-08	2012	Risk has diminished. Manageable conflict.
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-10	Oct-10	Apr-08	Mar-09	PP project completion has been delayed by six months to Q2 2009. 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 Infracore.	Design and consents not in place in a timely manner to allow Infracore to build to programme.	Jun-10	Sep-10	TBA	TBA	Design and approvals progressing to programme.
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. No conflict.	Nov-09	Mar-10	Sep-09	Mar-11	Although the main construction works will be complete by end Mar-10 this area will be revisited in 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	Nov-09	Apr-10	Apr-14	Although the main construction works will be complete by end Nov-09 this area will be revisited in 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	Apr-10	ASAP	ASAP	CEC will not issue scaffold permits until all tram TM is removed.
National Portrait Gallery		Major building construction and refurbishment.	Interface with Infracore works on St Andrew Street / York Place.	Mar-11	Jul-11	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	Jul-11	TBA	2010	

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 late January 2009 with Transport Scotland. A further session has been arranged for week 4 in Period 12.

## 2.8 Other

### Temporary traffic regulation orders (TTROs)

- Both the city centre embargo and the Leith Walk embargo have ended with works recommencing in both areas;
- The Mound diversion was implemented successfully on 24<sup>th</sup> January to allow utility diversion works;
- Manor Place closure and Baltic Street diversions took place during the period; and
- Work is progressing well for the traffic management arrangements associated with the full Princes Street diversion.

### Traffic regulation orders (TROs)

A TRO programme is in place to ensure that the required TROs for the project are in place by September 2010. 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.

### 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 was due in January 09. However, Infraco has verbally confirmed in January 09 that they will progress option 1 and develop to Approval in Principle the design for option 3 as a contingency. Written confirmation of that is expected in February 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 pollution prevention project at Haymarket depot is reported to be significantly over-running and not due to be completed until June. 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 are ongoing at Carrick Knowe and Edinburgh Park to coincide with NR possessions (March). Any further required possessions will be at "rules of the route" and the contractor is preparing the possession plan according to the look-ahead programme.

### Third party interfaces

- NR – the Bridge Agreements are not yet concluded but are expected by mid February. 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 have delivered agreement plans and **tie** / CEC will finalise the commercial arrangements with Forth Ports to conclude the agreement;
- Haymarket carpark compensation – **tie** have agreed compensation with NR and will settle this before the end of the current financial year. **tie** continue to discuss with TS the additional compensation payable to First Scotrail, as a result of the extension of the FSR franchise from Nov 2011 to Nov 2014, as it is believed to be a TS cost;



- 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. Meetings scheduled for first week of Period 12 to review. There remains a possibility that these relevant owners may have to be referred to the Sheriff for resolution in March. CEC are leading the legal process, supported by the project team;
- Interfaces are being managed to ensure that the SRU accommodation works and events are cohesive.

#### Fastlink modifications

- Build out removals works are 95% completed and the remaining scope will be completed by the end of Period 12;
- Installation of signage is 85% completed and progressing to be completed by mid Feb 09;
- New crossing works commenced; and
- The TRO process is due to be complete by end of May 09.

#### Murrayfield Pitches

- The floodlighting sub-contractor has now completed the wiring of the floodlight system and is now testing for lux spread and adjusting the lights;
- The synthetic pitch is completed and now being used by SRU; and
- Additional works agreed with SRU on 15-Jan-09 have now started on site. Phase 1 is 85% completed and due for completion by 04/02/09. Phase 2 is 25% completed and is due for completion prior to the 14<sup>th</sup> March 2009.

## 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	8.648	13.563	-4.915	84.952	128.167	-43.214	109.555	150.851	-41.296	214.993	297.024	512.017
Other Funding	0.714	1.120	-0.406	6.446	10.014	-3.568	8.477	30.852	-22.375	17.751	24.525	42.276
Demand on TS	7.934	12.443	-4.509	78.507	118.153	-39.646	101.078	120.000	-18.922	197.241	272.499	469.741

- Year to date COWD is £43.2m lower than 'budget' (Period 10 £38.3m) due to:
  - Delayed award of Infraco and Tramco (which was four weeks later than anticipated when the budget was established), continued slow mobilisation of the infrastructure works compared to the contractual programme and the deferment of the initial Tramco milestones to programme - £37.4m; and
  - £4.1m of profiled risk to P11 which has not been utilised to this point.
- The 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.
- The reported full year FY08/09 expenditure has been reduced to £109.6m (Period 10 £111.7m) and is profiled in the table below. This follows a comprehensive review in Period 11 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 and timely ramp up of infrastructure works on-street and at the depot in early 2009.

#### Reforecast profile for FY08/09

£m	YTD	P12-13	Total FY08/09
Infrastructure and vehicles	36.4	13.6	50.0
Utilities diversions	29.9	4.2	34.1
Design	4.3	0.3	4.6
Land and compensation	1.3	1.5	2.8
Resources and insurance	13.1	2.6	15.7
<b>Base costs</b>	<b>85.0</b>	<b>22.2</b>	<b>107.2</b>
Risk allowance	0.0	2.4	2.4
<b>Total Phase 1a</b>	<b>85.0</b>	<b>24.6</b>	<b>109.6</b>
Phase 1b	0.0	0.0	0.0

- The profile above reflects a very significant increase in activity by the Infrastructure contractor in Periods 12 and 13. Work has now commenced on the relatively high value structures. In addition, construction is scheduled to start in earnest on-street and at the depot in February 09;
- Tramco costs forecast for Period 12 (total £1.9m) reflect the milestones for completion of design and commencement of tram construction. There are currently no circumstances foreseen which might give rise to these costs being delayed;
- 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
  - Utilisation of the remaining £2.4m risk allowance. This is a revised assessment of risk included in the forecast, pending resolution of a updated programme with Infraco (lest that should have an impact on the current year);
- The Phase1b costs in FY0809 (provided for information only in previous periods and which represented the commencement of utility diversions) are now assumed to be expended in FY0910. A decision (by CEC and Transport Scotland) on whether to exercise the option to construct the Phase 1b infrastructure is expected prior to the end of the financial year;

- Based on the outturn above, the TS share of Phase 1a costs in FY08/09 at 91.7% of cumulative costs to date (500/545) would be between £98.9m of Base Costs excluding risk allowance or £101.1m of the total costs including risk allowance. This should be viewed in light of the principal downside sensitivities described above. The 08/09 outturn is being kept under review in the context of FY0809 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 FY09/10 is shown in the table at 3.3 below and is now £181.2m (Period 10 £178.3m). The increase is primarily due to the re-profiling of the Infraco works at the depot and Edinburgh Park which has reduced the current year forecast and increased FY09/10 accordingly. The amount is also sensitive to the extent of call on the risk allowance profiled to that year of £15.1m. Greater certainty with regard to the FY09/10 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 FY07/08	FY08/09	FY09/10	Balance	AFC
Infrastructure and vehicles	30.7	49.9	156.4	68.6	305.6
Utilities diversions	18.4	34.1	0.0	0.0	52.5
Design	21.4	4.6	0.8	0.1	26.9
Land and compensation	16.8	2.8	0.0	1.0	20.6
Resources and insurance	42.7	15.7	8.9	14.0	81.3
<b>Base costs</b>	<b>130.0</b>	<b>107.1</b>	<b>166.1</b>	<b>83.7</b>	<b>486.9</b>
Risk Allowance	0.0	2.4	15.1	7.6	25.0
<b>Total Phase 1a</b>	<b>130.0</b>	<b>109.5</b>	<b>181.2</b>	<b>91.3</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 £25.0m.
- There have been a further eight draw downs on the risk and contingency provision in P11 totalling £3.9m (the two major risks drawn down are £1.1m for an extension in Prelims, and £1.7m for a MUDFA scope claim both of which full provisions were 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, and profiled into the MUDFA forecast in 08/09 and 09/10;
- 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 FY07/08 also include £3m incurred on Phase 1b design, meaning that total costs to the end of FY07/08 were £133m. The full estimate for Phase1b is subject to finalisation in accordance with a value engineered and approved / consented design and programme. 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. Infraco are currently formally estimating the final price.

### 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:
  - Conclusion of the programme re-calibration;
  - 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 – additional contingency measures to keep the city moving, communications and the tram mock-up;
  - Manor Place – consequence of delaying the Manor Place closure until after the festive embargo;
  - Picardy Place – CEC change funded via developer under consideration.

The impact of such items, including the identification of ranges of risk and opportunity, is subject to review with the Tram Project Board. There have been additional specific briefings with CEC and TS.

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 July 2011 to January 2012).

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	13-Feb-09
Tram mock-up delivered	Oct 2008	Nov 2008A
First track installation commences – on street	03-Nov-08	Apr 2009
MUDFA works complete	Nov 2008	Jul 2009
Haymarket viaduct complete	08-Dec-08	08-Jul-09
Roseburn viaduct commences	20-Jan-09	28-Jan-10
Design assurance complete	20-Jan-09	21-Jul-09
All Issue for Construction (IFC) drawings delivered	21-Jan-09	07-Aug-09
Princes Street closed	03-Feb-09	22-Feb-09
Roseburn viaduct complete	20-Apr-10	03-Mar-11
Carrick Knowe bridge complete	11-May-09	19-Aug-09
All consents and approvals granted	18-May-09	07-Aug-09
Edinburgh Park viaduct complete	24-May-09	05-Aug-09
A8 underpass complete	14-Jul-09	07-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	Sep-10
1 <sup>st</sup> OHL installed (Commence Section 2)	11-Dec-09	25-Mar-10
Commission Section 2 (Haymarket to Roseburn junction)	11-Jan-10	29-Oct-10
Commission Section 6 (depot)	25-Mar-10	13-Dec-10
1 <sup>st</sup> Tram delivered	09-Apr-10	09-Apr-10
Test track complete	23-Apr-10	09-Mar-11
1 <sup>st</sup> section (other than depot) complete ready for energisation	25-June-10	29-Oct-10
Commission Section 7 (Gogar to Edinburgh Airport)	25-June-10	25-Mar-11
Driver recruitment commences	July 2010	Oct 2010
Commission Section 5 (Roseburn junction to Gogar)	09-Nov-10	25-Nov-11
Driver training commences (depot only)	Dec-10	Jan-11
Driver training commences (excludes depot)	Nov 2010	Dec 2011

System testing complete off street	09-Dec-10	Dec-11
Final tram delivered	17-Jan-11	17-Jan-11
Construction Line 1a complete	17-Jan-11	Nov-11
System testing complete on street	16-Feb-11	Dec-11
Commission Section 1 (Newhaven to Haymarket)	11-Mar-11	Jan-12
Letter of "no objection" from Independent Competent Person to commence tram running	17-Apr-11	Jan-12
Shadow running starts	18-Apr-11	Feb-12
Shadow running complete	July 2011	May-12
Letter of "no objection" from Independent Competent Person to commence revenue service	July 2011	May-12
Open for revenue service	July 2011	May-12

**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	10 Dec10	BSC have commenced. BARR Construction took will take-over depot site from 2 <sup>nd</sup> February 2009. Steelwork fabrication slot pre-booked.
<b>Section B</b> – Test track	23 April 10	29 Mar 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	23 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 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 to the forecast Open for Revenue Service date. Reduced access constraints, including embargos.

<b>Section D – open for revenue service</b>	16 July 11	22 May 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
1B Trackworks Foot of the Walk – Balfour Street	30-Apr-09
1B Roadworks Balfour Street – McDonald Rd	13-Apr-09
1C Roadworks McDonald Road to Picardy Place	15-May-09
1D Roadworks – Enabling Works	05-Jan-09A
1D Roadworks and trackworks Princes Street	23-Feb-09
1D Roadworks Lothian Road junction	29-Jan-09
S19 Haymarket viaduct	01-Sep-08A
2A Trackworks Haymarket to Roseburn junction	11-Mar-09
S20 Russell Road bridge	27-Mar-09
W3/W4 Russell Road retaining walls	13-Apr-09
S23 Carrick Knowe bridge	20-Oct-08A
5B Trackworks Balgreen Road to Saughton Road North	27-Apr-09
S26 South Gyle Access bridge	27-Apr-09
5B Trackworks Saughton Road North to Bankhead	02-Mar-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	27-Feb-09
Gogar depot building foundations	03-Apr-09
Gogar depot access roads	27-Apr-09
S29 Gogar underbridge	13-Oct-08A
S30 Gogarburn culvert No.1	01-Dec-08A
S32 Gogarburn culvert No.2	12-Jan-09A

## 5 Risk and opportunity

### 5.1 Review of risk register

The following reviews took place in the period:

Date	Format of review	Attendees	Comments
22/01/09	Murrayfield pitches and invasive species risk review	Project Manager Project Risk Manager	All risks and treatment plans reviewed
23/01/09	High-level Infraco risk review	Infraco Director Project Risk Manager	High-level risks reviewed
26/01/09	Princes Street risk review	Project Managers Project Risk Manager	All risks and treatment plans reviewed
26/01/09	Roads and drainage risk review	Project Managers Project Risk Manager	All risks and treatment plans reviewed
27/01/09	Depot risk review	Project Manager Project Risk Manager	All risks and treatment plans reviewed
27/01/09	Structures risk review	Project Manager Project Risk Manager	All risks and treatment plans reviewed
27/01/09	Princes Street and The Mound risk review	Various tie and CUS Operatives	Risk management Plan being produced for works at The Mound
27/01/09	MUDFA risk review	MUDFA Constriction Director Project Risk Manager	All risks and treatment plans 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.

In addition, the potential risks identified in regard to programme slippage are being reviewed and will form part of the updated QRA and budget challenge.

There are currently 48 risks in the Project Risk Register. The top five project risks are listed on the following pages.



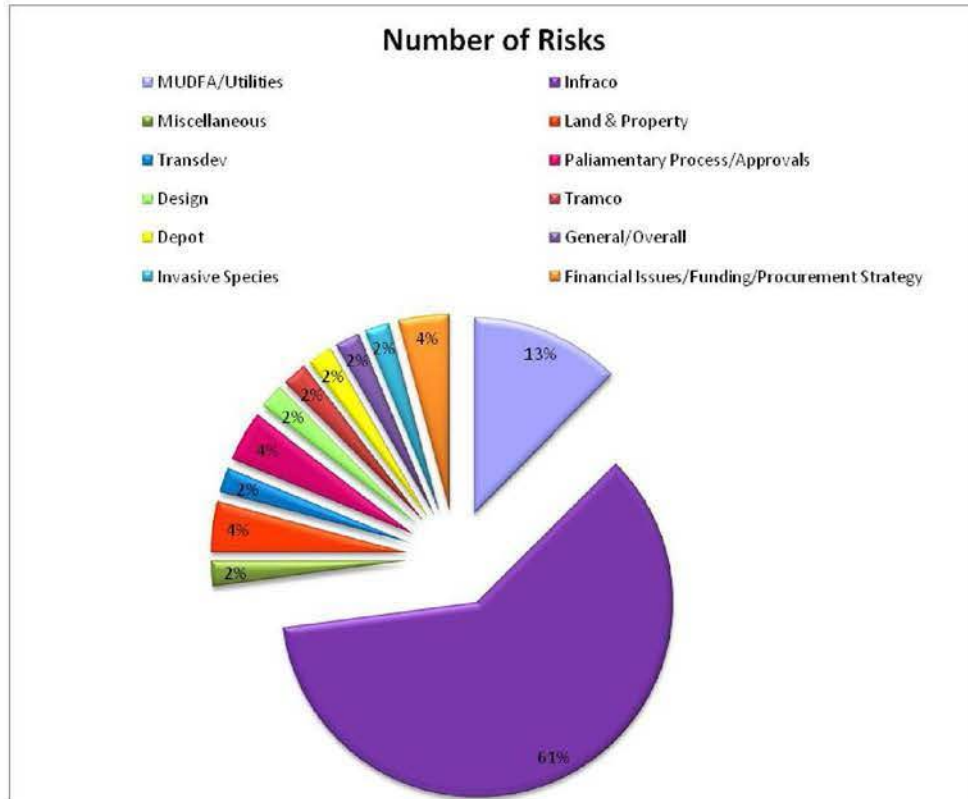
Top 5 Risks - Period 11

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 McGarrity	NIL - 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 comfort to CEC	CEC withdraw support for FBC and project fails	G Bissett	NIL - 0.00	Project	Negotiate the terms of Government commitment to concessionary fare support to level which is satisfactory to CEC	Complete	Complete	31-Jan-08	G Bissett
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 over contractual obligations regarding essential TRO works.	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	High - 3.00	Project	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 McLauchlan
							Finalise boundaries of Tram responsibility for WAM requirements	Complete	Complete	31-May-07	A Sim
							Obtain design and quantify construction cost for inclusion in base estimate	Complete	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

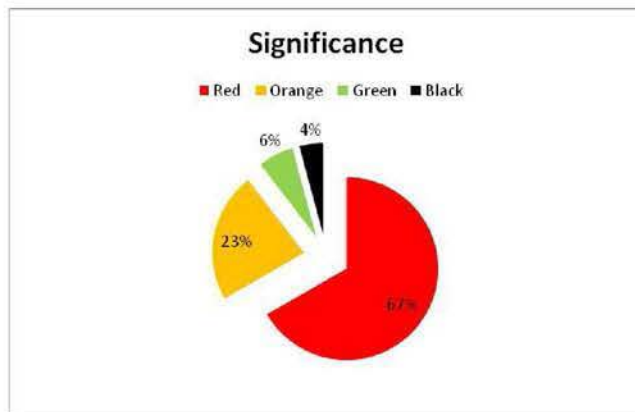
**Top 5 Risks - Period 11 (cont'd)**

44	SDS contractor does not deliver the required prior and technical approval consents in line with SDS V31	Delay to IFC drawings beyond V31 Programme	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-Mar-09	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-Mar-09	D Sharp
173	Uncertainty over extent of contaminated land on route	Tramway runs through area of previously unidentified contamination/unforeseen ground conditions.	Increase in costs to remove material to special and other tip.	R Bell	High - 23.00	Issue containment and gi report to Infraco 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

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 risk added to the Infraco Concerns Register by the Infraco Director (Id 80), two risks added by the Princes Street Project Managers (Ids 81 and 82) and one risk added by the Depot Project Manager (Id 83).

Discipline	Risk description			
	Risk Number	Cause	Risk Event	Effect
General	80	Lack of agreement over design changes between Nov 07 and May 08	Commercial dispute prevents progress of critical works	Delay to programme, extension of time claim. Additional costs.
Section 1D	81		Failure of BSC sub-contractor to complete works to programme and spec	Delay to programme. Unable to re-open Princes St in line with programme
Section 1D	82		Analysis which informed the approved TM arrangements proves to be incorrect/flawed when implemented on site	Unacceptable delays/congestion in city centre
Section 7	83	Commercial dispute with BSC regarding design changes at Edinburgh Airport	Unable to achieve BAA approval for design at Edinburgh Airport	Delay to critical works.

Risk Id 80 is currently being managed through ongoing negotiations aimed at resolving the dispute. If necessary, it will revert to the Dispute Resolution Process.

Risk Id 81 will be managed by the Princes Street Project Managers who will be responsible for ensuring BSC are managing their sub-contractors effectively.

Risk Id 82 will also be managed by the Princes Street Project Managers who will Monitor effectiveness of arrangements on site and, if necessary, implement contingency arrangements.

Risk Id 83 is related to Risk Id 80 in that it relates to the ongoing commercial dispute and needs to be resolved if works are to progress at Edinburgh Airport.

### Reassessed and closed risks

There were no risks reassessed in the period.

The table below shows the six risks closed in the period. These risks were identified as no longer being valid or have been transferred to Infraco.

WBS	Risk ID	Risk Event	Owner	Period closed
Badger Relocation	894	Roseburn Badger Proposals for closure of old setts not approved by SNH	D Burns	Period 11
Badger Relocation	1026	Badgers construct new setts along route of Line 1a	D Burns	Period 11
TEL	60	Poor handback condition	A Richards	Period 11
TEL	892	Maintenance costs of Tram Network are higher than TEL Business Case during Infraco maintenance period	A Richards	Period 11
Tramco	902	Vandalism levels higher than expected	A Richards	Period 11
Tramco	908	Wheel/Rail interface incompatibility	R Bell	Period 11
Tramco	909	RSPG and Case for Safety requirements not met	A Richards	Period 11

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

The following treatment plans are due for completion in the next three periods.

Action Owner	Risk ID	Action ID	Action Name	Due	Active	Complete	Late	Next 3 periods
A Hill	164	42	In conjunction with MUDFA, undertake trial excavations to confirm locations of Utilities and inform designer. Complete with the exception of 7B (which will be complete April 09)	30/04/2009	Yes	No	No	Period 1
A Hill	931	605	MUDFA trial holes to verify GPR surveys	30/04/2009	Yes	No	No	Period 1
A Hill	139	42	In conjunction with MUDFA, undertake trial excavations to confirm locations of Utilities and inform designer. Complete with the exception of 7B (which will be complete April 09)	30/04/2009	Yes	No	No	Period 1
A Richards	901	170	Infraco/Tramco/operator to establish, implement, and train staff in safe systems of work under the Case of Safety	31/03/2009	Yes	No	No	Period 14
A Richards	901	171	Properly define tram/depot interfaces and ensure correct commissioning and training	31/03/2009	Yes	No	No	Period 14
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	30/03/2009	Yes	No	No	Period 14
D Sharp	44	467	Weekly Meetings of Approvals Task Force	31/03/2009	Yes	No	No	Period 14
D Sharp	279	634	Weekly Meetings of Approvals Task Force	31/03/2009	Yes	No	No	Period 14
D Sharp	279	635	Monitoring and tracking through the 3rd party rep	31/03/2009	Yes	No	No	Period 14
D Sharp	271	559	Assure the quality and timing of submissions	31/03/2009	Yes	No	No	Period 14
D Sharp	271	637	Weekly Meetings of Approvals Task Force	31/03/2009	Yes	No	No	Period 14
D Sharp	1033	632	Pressue from Approvals Task Force to ensure Technical and Prior Approvals are delivered	28/02/2009	Yes	No	No	Period 12
G Barclay	1084	654	Assess TM implications to minimise enabling works and additional cost	30/04/2009	Yes	No	No	Period 1
G Barclay	1085	653	Examine VE opportunity to reduce costs with SUCs and SDS	31/03/2009	Yes	No	No	Period 14
G Murray	10	547	Identify wayleave requirements based on emerging design	30/04/2009	Yes	No	No	Period 1
I Clark	914	573	SDS to obtain consent for design in accordance with programme requirements - Scottish Water and all Telecoms. Complete with the exception of section 1A1.	30/03/2009	Yes	No	No	Period 14
J McAloon	318	407	Re-programme Infraco to start on sections completed	31/03/2009	Yes	No	No	Period 14
M Blake	911	628	Liase with Scottish Power to agree and approve method of crossing tunnel	28/02/2009	Yes	No	No	Period 13
M Blake	914	557	SDS to obtain consent for design in accordance with programme requirements - SGN and Scottish Power. Complete with the exception of section 1A1	30/03/2009	Yes	No	No	Period 14
R Bell	1078	647	Engagement between tie and BSC at different levels. Regular review of BSC management of third parties as per Employers Requirements	31/03/2009	Yes	No	No	Period 14
R Bell	1079	648	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.	31/03/2009	Yes	No	No	Period 14
R Bell	1081	650	Production of robust programme to mitigate losses	31/03/2009	Yes	No	No	Period 14
R Bell	1082	651	Review of remedial works programme with Carillion and SDS. Involvement of senior management	31/03/2009	Yes	No	No	Period 14
T Glazebrook	44	601	Informal consultation prior to statutory consultation	31/03/2009	Yes	No	No	Period 14
T Glazebrook	1077	646	Establish a process which will act as a control mechanism for design changes. (if one exists already then ensure process is complied with)	31/03/2009	Yes	No	No	Period 14
W Biggins	115	505	Book contingency possessions	31/03/2009	Yes	No	No	Period 14

### 5.3 Cost Quantative Risk Analysis

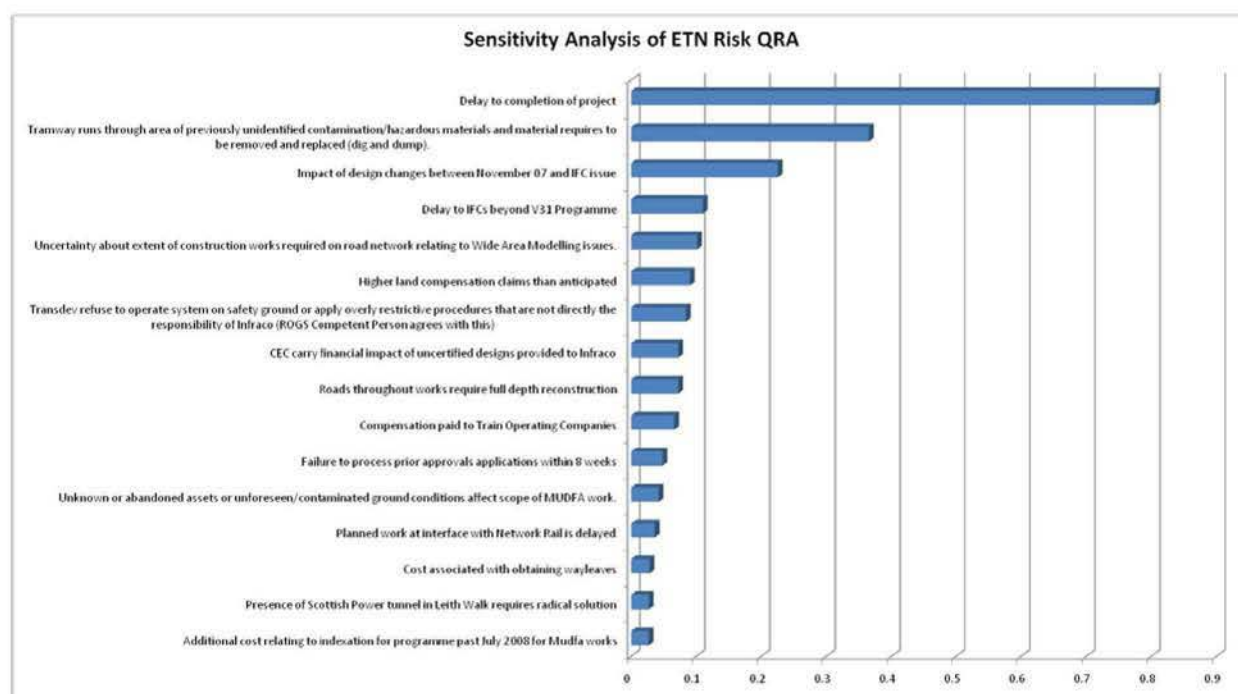
The Project Risk Allocation has reduced by £3,066,145 in the period and the Project Contingency has reduced by £811,773. All draw-downs are shown in the table below.

The current Project Risk Allocation is £24,028,443 and the Project Contingency is £1,043,607.

The following table illustrates the drawdown applications on the project risk and contingency allocations approved in Period 11.

Description	Owner	Value from Risk (£)	Value from Contingency (£)
Edinburgh Park Office rental	Frank McFadden	0	-167,373
TSS Budget Update to Apr08 Report for F/Y 2008/09	David Carnegie	0	-347,000
Drawdown from Risk - Design changes relating to Utility Works.	Damian Sharp	-75,000	0
MUDFA prelim risk drawdown	John Casserly	-1,069,000	0
Risk Drawdown for MUDFA scope claim	John Casserly	-1,700,000	
Contingency drawdown for TM - signals monitoring	Alasdair Sim	0	-400,000
Asbestos found during demolition and excavations	Mike Paterson	-31,316	0
Additional excavation at Carrick Knowe to achieve firm base	Mike Paterson	-83,028	0
Archaeological survey at CAH	Mike Paterson	-5,201	0
Transfer from risk to contingency	Mark Hamill	-102,600	102,600
<b>Total Drawdown in Period 11</b>		<b>-3,066,145</b>	<b>-811,773</b>

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.

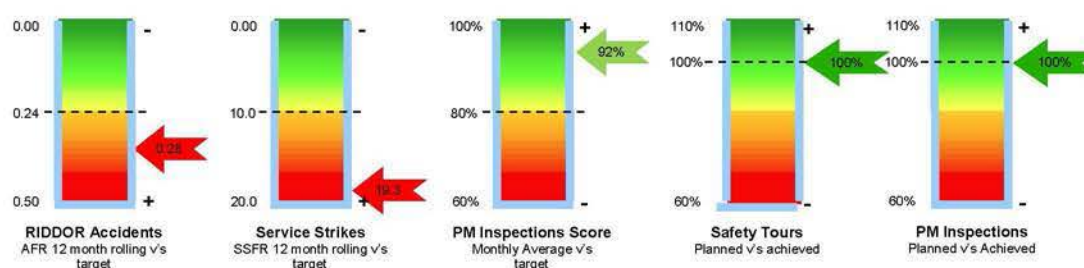
#### 5.4 Schedule QRA

**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 11	113,639	0	0	1	26	14	1	0	4	0.00	12.32
Year to date	1,051,946	0	3	24	115	187	4	11	68	0.29	17.78
13 period rolling	1,147,943	0	3	30	126	210	4	11	70	0.26	18.29



There were no reportable accidents during Period 11. The 13 period rolling AFR is now **0.26** which is above the target of **0.24**. The 13 period frequency of service damages fell for Period 11. There were no power cable strikes during this period. However, there was a significant water strike, a number of smaller water strikes and damages to gas services.

100% of the planned health and safety tours and project manager inspections were achieved in Period 11. However, there were no formal inspections in MUDFA until week 4. This will be rectified next month with a more equal spread.

Both BSC and Carillion re-inducted all operatives during the period and a safety seminar with **tie**, Infracore and their supply chain was held on the 8<sup>th</sup> of January. Re-checks on competence of operatives was also made as sites restarted for the New Year.

There were noted problems over two weekends to the Haymarket Yards area including poor temporary reinstatement and poor pedestrian management. Immediate action was taken and preventative measures discussed with Carillion, Carillion have instigated management checks of temporary reinstated areas.

There was an alleged serious accident involving a member of the public at MacDonald Rd, Leith where the M.O.P. fell when he tripped on uneven ground and required hospital treatment for his injuries, after investigation this appears to be a CEC accident as the uneven road was not connected to the Tram works. The speed which information was gathered however was not acceptable.

New traffic and pedestrian management has been implemented relatively successfully in Princes St as part of the Mound diversion, however there have been a small number of pedestrian / RTA incidents. Local modifications and improvements have been made as a result.

There have been a number of incidents involving heras fence blowing over in high winds. CUS have been instructed to look at measures to increase stability of fencing in certain areas such as Haymarket Junction.

The number of near misses / unsafe conditions being reported has increased by almost 40% over the period. Near miss reporting is encouraged and recent re-briefings may have driven

the number of reports. However, it is not clear as to whether the reports are from the contractor or **tie** / 3<sup>rd</sup> parties. A further study will be undertaken to identify if the contractor has managed to increase awareness regarding near miss reporting.

## **6.2 Environment**

There was one environmental incident during Period 11 where a parked machine (mini excavator) leaked fuel onto the road. The spill was contained and there was no contamination of water courses.

## **6.3 Quality**

An audit was undertaken of BSC during Period 11. The audit was based on integrated design using section 2 as an example. There were a number of observations and NCR's raised. The formal report is being compiled at present and further information will be available up request. The report will detail recommendations and actions where appropriate.



## **7 Stakeholder and communication**

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

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

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

Media enquiries this period have included the new tram website launch, The Mound closure, Princes Street closure, photo-shoot held on school visits and enquiries regarding the Leith embargo.

The team has been working closely with stakeholders, informing them of works in the city centre (including the Princes St closure and contingency route), Haymarket, Leith Walk, and Carrick Knowe. This has been achieved through regular notifications, face to face engagement and website updates.

The new tram website went fully live the week commencing 12 January 2009 and by the end of January it had reported 8,699 visits to the site. The website is now updated in-house on a daily basis or as required.

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

The Schools Programme activities have included the commencement of health and safety visits to schools – the first one receiving coverage from STV, distribution of a health and safety leaflet to schools and affiliated centres and local primary school engagement.

Work completed on the independent review of the design consultation process.

The customer service team have been handling telephone and email requests for information including the new website, the Princes Street contingency route, road closures and parking, site housekeeping and traffic management.

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

Communications will be sent to local businesses and residents regarding ongoing works on Princes Street, updates on the Leith Walk works, the next phase of Haymarket and Constitution St work. These works will also be supported by face to face engagement, fact sheets and website updates.

Information surgeries will be held on 11, 12 and 13 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, Princes Street, St Andrews Square and Leith Walk, as well as coverage on the tram mock up exhibitions.

Preparation for the updated tram film has begun and filming of the route will take place in the week commencing 9 February.

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 101.078

**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.

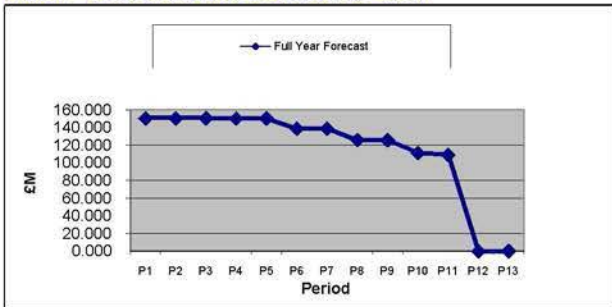
**AFC:**

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

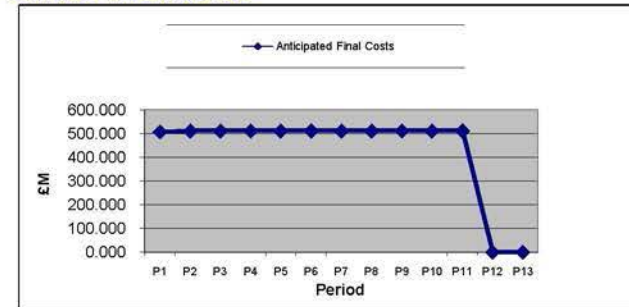
**2: SUMMARY**

	FY 08/09			FY 08/09			FY 08/09			COWD To Date	Costs To Go	Total AFC
	Actual	Budget	Variance	Actual	Budget	Variance	Forecast	Budget	Variance			
Total Project COWD	8.648	13.563	-4.915	84.952	128.167	-43.214	109.555	150.851	-41.296	214.993	297.024	512.017
Other Funding	0.714	1.120	-0.406	6.446	10.014	-3.568	8.477	30.852	-22.375	17.751	24.525	42.276
Demand on TS	7.934	12.443	-4.509	78.507	118.153	-39.646	101.078	120.000	-18.922	197.241	272.499	469.741

GRAPH 1 - Period Trend of Full Year Forecast (FY 08/09)



GRAPH 2 - Period Trend of AFC



**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**

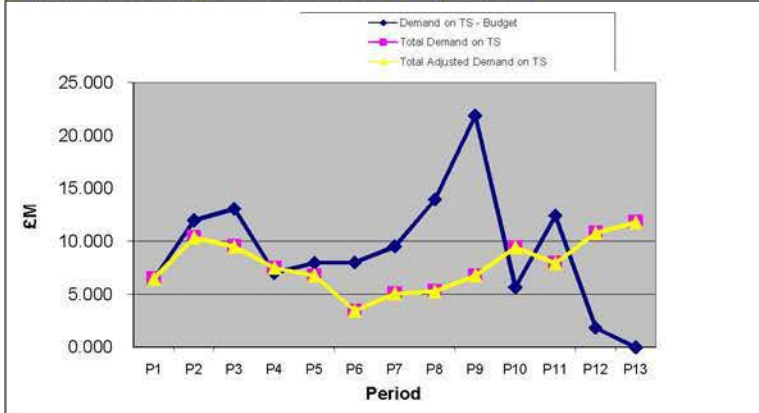
	Estimated Cost			Actual Cost/Forecast			Variance
	Original Estimate	Escalated Original Estimate	Escalated Latest Estimate	Cost Of Work Done (COWD)	Forecast to Completion	Anticipated Final Costs (AFC)	
General Overall	28.233	28.233	28.899	23.199	5.701	28.899	0.000
Procurement Consultant	68.126	68.126	70.070	48.196	21.873	70.070	0.000
Design	23.683	23.683	26.903	25.749	1.153	26.903	0.000
Financial Issues/Funding/Procurement Strategy	2.258	2.258	2.630	2.224	0.406	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	299.972	101.980	197.992	299.972	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	58.153	13.326	44.827	58.153	0.000
Risk	48.974	48.974	25.072	0.000	25.072	25.072	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>214.993</b>	<b>297.024</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	8.648	11.738	12.865	109.555
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	0.714	0.969	1.062	8.477
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	7.934	10.769	11.803	101.078
<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	-4.915	-0.457	2.375	-41.296
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	-0.406	-9.379	-9.428	-22.375
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	-4.509	8.922	11.803	-18.922

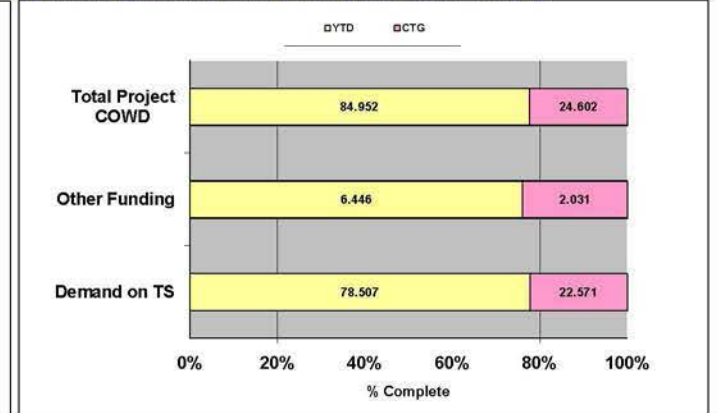
	Q1	Q2	Q3	Q4	Total	Financial Commentary - FY 09/10 Onwards
<b>9: Next Year 09/10 - Forecast (Updated 4 weekly)</b>						All costs are for Phase 1a only. See section 3 of the TS report.
16 Total Project COWD	39.062	44.178	45.341	52.630	181.211	
19 Other Funding	3.225	3.648	3.744	4.346	14.962	
22 Total Demand on TS	35.836	40.530	41.598	48.285	166.249	

	FY 03/04	FY 04/05	FY 05/06	FY 06/07	FY 07/08	FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FUTURE	TOTAL
<b>10: All Years (Escalated) (Updated 4 weekly)</b>														
24 Total Project COWD	0.000	3.093	10.664	30.431	85.852	109.555	181.211	81.345	9.865	0.000	0.000			512.017
27 Other Funding	0.000	0.000	1.000	0.019	10.287	8.477	14.962	6.717	0.815	0.000	0.000			42.276
30 Total Demand on TS	0.000	3.093	9.664	30.412	75.565	101.078	166.249	74.629	9.051	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



	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	Total
<b>11: Other Funding</b>														
<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	0.714	0.969	1.062	8.477
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	0.714	0.969	1.062	8.477

	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13
<b>12: Promoter Full Year Forecast Run Rate</b>													
Period Trend of Full Year Forecast (Current Year 08/09)	150.851	150.851	150.984	150.537	150.647	138.759	138.792	126.104	126.104	111.658	109.555		
Full Year Forecast													

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