



## 4 Week Period Reporting Pack 08/09

**Project Title:**

Edinburgh Tram Project

**Reporting Period:**

Period 12 2008/09

**Transport Scotland Project Manager:**

John Ramsay

**Progress Meeting Date:**

Report authorised by: **Steven Bell**

Signature: [Redacted]

Date: 6 March 2009

For and on behalf of **tie Limited**



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# 1 Executive Summary

## HSQE



During the period there was one over-3-day reportable accident. A worker trapped / crushed their thumb between a road plate and tarmac whilst attempting to sling the plate. This has resulted in the 13-period rolling AFR rising to 0.33. Achieving the target of 0.24 is no longer possible by the end of Period 13.

Although the number of power strikes is still lower than average, there has been increase in the monthly frequency for Carillion and BSC service strikes. The 13-period strike frequency has fallen this period.

There have been eight safety tours carried out compared to the seven planned. There have been 12 Project Manager Inspections received to date against a planned 13.

## Commercial

**tie** entered into the formal dispute process with BSC in the period due to relation to works due to commence in Princes Street during weekend of 21/22 February. CEC and TS have been fully briefed on the specific issues and activity associated with the dispute. **tie** are working extremely hard to progress a resolution to this dispute with BSC. Daily reports are being provided to CEC and TS.

## Programme

Overall progress remains behind the master programme and the reasons for this have been explained in several previous reports and so will not be repeated in this Executive Summary.

Whilst an unmitigated straight import of the progressed programme into the master programme forecasts a potential revenue service slippage into Q2 2012, **tie** still considers that programme recovery can be achieved to deliver an open for revenue service date in Summer 2011 (within a range of July 2011 to March 2012). This does depend on the attitude of the contractor to work with **tie** proactively to identify, agree and implement recovery solutions and achieve early resolution to the above dispute.

**tie** has been working with BSC on the production of a recalibrated programme since before Christmas. A programme for this was agreed with BSC and so far, of the seven sections which should have been reviewed and delivered to **tie**, only four have been received. It is expected that the remainder will be delivered by the week commencing 9<sup>th</sup> March. **tie** has reviewed the sections provided so far and has noted some slight recovery. However, many of the opportunities suggested by **tie** have not yet been incorporated and so opportunity for further improvement is expected. Few examples of BSC identified improvement have surfaced to date.

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.

**tie** is integrating of the remaining utility diversions with tramworks where at all possible in order to mitigate the impact of any MUDFA programme delay.

#### Progress – Design

Good progress is being made in Prior and Technical Approvals with 89% and 84% of each being granted by CEC, respectively. Of the Prior Approvals required, only six remain to be granted and 13 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.

Seventy out of the 92 IFCs have been issued to date. The slippage is being addressed as part of the ongoing Approvals Taskforce, resulting in 13 packages being submitted in Period 12, and is incorporated into the re-calibration of programme

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

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 the integrated design programme incorporating all system activities is due on 6<sup>th</sup> March 2009.

#### Progress – MUDFA (Utilities)

Utility diversions are now complete in sections 5a, 5b and 6 (depot). BT cabling works are now underway. Utility diversions continue on a number of fronts throughout the city including Leith Walk, York Place, St Andrew's Sq, The Mound and Haymarket.

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	35,389	24,376	68.9%	67.1%
Off-street	11,969	9,452	8,938	7,614	85.1%	80.6%
<b>Total</b>	<b>52,594</b>	<b>45,760</b>	<b>44,327</b>	<b>31,990</b>	<b>72.1%</b>	<b>69.9%</b>

The following is of note:

- The pipe jacking of the second leg of the A8 sewer has been completed and final connections are underway;
- Physical work on the diversion of the high pressure gas main in the mound has commenced and is on programme;
- De-scoping is underway at Broughton St (Section 1c) to simplify the diversions required following the results of trial holes in January;
- Final commissioning of the 800mm watermain at Gogar has been completed and the Infracore contractor now has significant access to the depot;
- Utility diversions were carried out by BAA in the airport and are progressing well;
- 5.7% against a target of 5.5% of the plan was delivered in the period; and
- Incomplete utility diversions now have the potential to impact on construction works at Haymarket and are impacting works on Leith Walk. This is being addressed by integration as noted above.



### Progress – Infraco (including Tramco)

The traffic diversions associated with construction works on Princes Street were successfully implemented over the weekend of 21/22 February. Significant enabling works on the run-up to this date were delivered by BSC and this included civil and signal installations as well as significant lining and signing alterations. The diversions route all buses, cycles and taxis via George St and, as a consequence, significantly alter loading arrangements on this street. **tie**, CEC, Lothian Buses and Lothian and Borders Police monitored the traffic flows over the first few days and the success of the diversion resulted in the Princes Street site being completely handed over to the contractor on Monday 2<sup>nd</sup> March.

Disappointingly, this success was marred by the fact that **tie** entered the formal Dispute Resolution Process (DRP) with BSC during the period on two issues relating to the Princes Street works. As a result of this, works on Princes St have been limited to non-intrusive temporary works such as surveying and trial holes.

Work has continued at several other locations including Gogarburn, Edinburgh Park, Carricknowe and Leith Walk and, latterly, mobilisation at the depot. However, BSC have still not entered into formal contracts with any of their sub-contractors.

Good progress is being made with delivery of Tramco deliverables against the schedule. The production line is operational and fabrication of the second tram module is ahead of schedule.

### Progress – Other

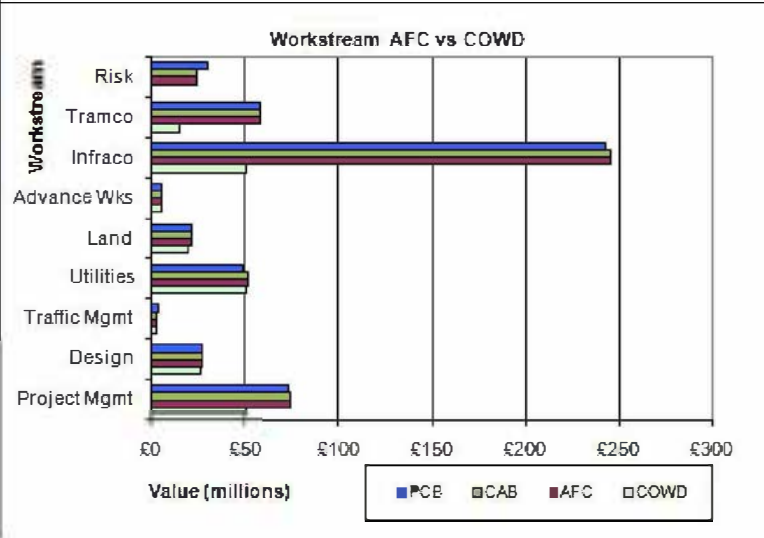
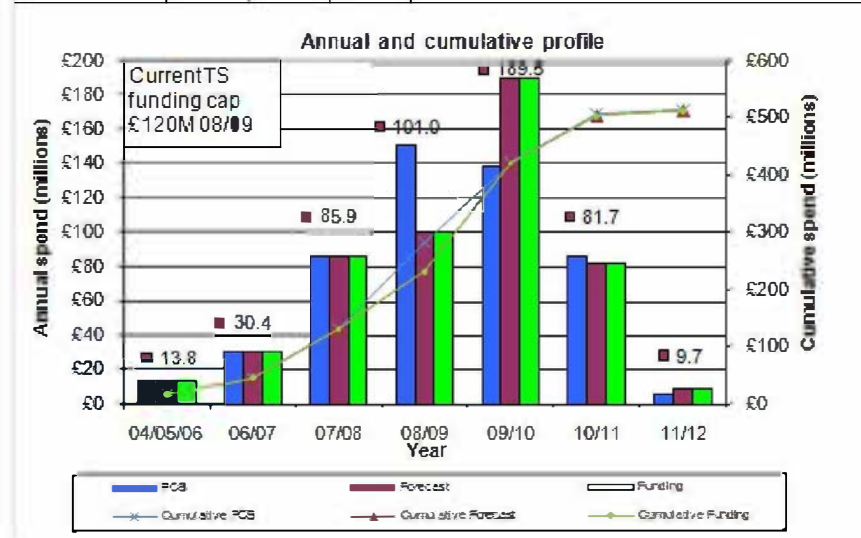
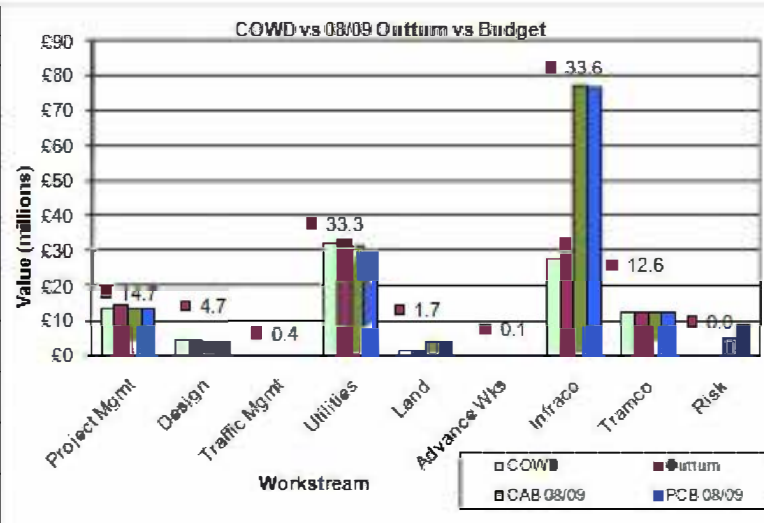
- Draft schedules for the TROs have been prepared and formal consultation will commence in May / June;
- Haymarket carpark compensation – **tie** have agreed compensation with NR and will settle this before the end of the current financial year. **tie** continue to discuss with TS the additional compensation 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 nine 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 apart from remaining snagging items;
- Frontline are progressing well with the alterations to the road adjacent to the guided busway and the TRO will be in place during April; and
- Procurement is complete for the removal and relocation of a number of monuments in Edinburgh, the most significant of which is the Hearts War Memorial at Haymarket.

### Cost

The 08/09 outturn forecast is £101.0m (TS share £92.6m), the reduction since last period being a consequence of further delays to Infraco works during Period 12 (£3.9m), delays to closing certain land agreements until 09/10 (£1.5m) and the elimination of the risk allowance reported last period less that drawn down (net £2.2m). Processes have been put in place to provide CEC and TS with very frequent updates on progress which may affect this outturn to any material degree.

As advised to both CEC and TS, **tie** are currently engaged in a comprehensive review of the costs and programme for the project, informed by the impacts of and potential consequences of the delays to Infraco mobilisation and developing commercial disputes. It is expected that **tie** will be able to brief on an updated range of possible outcomes in terms of programme and costs (and profile thereof), in relation to the £545m funding available, before the end of March 09.

Period 12 - 08/09 COWD (£000s)				
Workstream	F/cast	Act	Var	Comments
Project Mgmt	1,105	1,220	115	Increase in communications, TSS and Transdev activity in the period
Design	165	176	11	
Traffic Mgmt	32	22	(10)	
Utilities	2,875	2,146	(729)	
Land	851	27	(825)	Forth Ports land transfer and provision for Business Support enhanced payment moved to 09/10
Advance Wks	1	1	0	
Infraco	4,740	1,625	(3,115)	Poor progress (11/19 milestones achieved), Scottish Power connections moved to Period 13
Tramco	1,969	1,969	0	
Total	11,738	7,186	(4,552)	As above



During the period £0.8m 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 (to be funded by TS);
- 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.

### Risk

A total of seven separate risk reviews were held during the period. The QRA was reduced in the period following the drawdown of £0.8m from risk. The total unutilised risk and contingency included in the approved budget of £512m is now £24.2m.

Included in the top primary risks are:

- Failure of Infraco to commence work in line with programme;
- Delay to IFC drawings beyond V31;
- Tramway runs through area of previously unidentified contamination / unforeseen ground conditions;
- Amendments to design scope from current baseline and functional specification; and
- Unknown or abandoned assets impacts scope of Infraco 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 none were closed. Treatment plans are in place for each risk and are being monitored.

### Communications / Customer Service

The Princes Street communications plan was followed the weekend of 21/22 February and is ongoing. TCAs and logistics team were in place on Princes Street to support the implementation of traffic management and to help the local businesses and general public. Banners promoting the local shops and tram project were installed on the fencing and this will be ongoing throughout March with approximately 100 banners in place on Princes Street fencing by the middle of April.

The team responded rapidly to the Princes Street announcement on 20<sup>th</sup> February regarding contract issues. All MSPs, Councillors and 7,000 local businesses and residents were notified, the trams website was updated accordingly and the homepage dedicated to Princes Street works.

The tram mock-up has been a success since it was open to the public on 23 February. TCAs have been helping to man the exhibition, which had received 22,000 visitors by the 2<sup>nd</sup> March.



The tram website recorded 16,828 total visits to the site in February 2009, which is up from 8,699 visits in January. The most popular pages viewed were the homepage, local updates and the route map. The website continues to be updated in-house on a daily basis or as required.

The customer service team have been handling telephone and email requests for information including: traffic management; Princes Street works; information on tram mock-up; parking on George Street; Leith Walk works; requests for university projects.

## 2 Progress

### 2.1 Overall

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

- Finalisation of the agreement of change delaying the commencement of work. This is now being addressed through dispute resolution;
- Incomplete utility diversions caused in part by traffic management constraints (e.g. Manor Place);
- Slow mobilisation of Infraco;
- 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 v41 of the design programme);
- Design changes as a result of the Prior and Technical Approvals process; and
- Consortium integrated 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 (2008/09) and the commercial consequence of this continues to be discussed.

Whilst an unmitigated straight import of the progressed programme into the master programme forecasts a potential revenue service slippage into Q2 2012, **tie** still considers that programme recovery can be achieved to deliver an open for revenue service date in Summer 2011 (within a range of July 2011 to March 2012). This does depend on the attitude of the contractor to work with **tie** proactively to identify, agree and implement recovery solutions and achieve early resolution to the above dispute.

**tie** has been working with BSC on the production of a recalibrated programme since before Christmas. A programme for this was agreed with BSC and so far, of the seven sections which should have been reviewed and delivered to **tie**, only four have been received. It is expected that the remainder will be delivered by the week commencing 9<sup>th</sup> March. **tie** has reviewed the sections provided so far and has noted some slight recovery. However, many of the opportunities suggested by **tie** have not yet been incorporated and so opportunity for further improvement is expected. Few examples of BSC identified improvement have surfaced to date.

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 both structures in parallel and structures and track 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

### IFC Design

The design is progressing as follows:

- IFCs – Phase 1a 70 issued out of 92, the slippage is being addressed as part of the ongoing Approvals Taskforce, resulting in 13 packages being delivered in Period 12, and is incorporated into the re-calibration of programme;
- Prior Approvals are progressing well with 89% granted, four left to be submitted (including the RBS Gogarburn tramstop) and six left to be granted;
- Technical approvals also progress well with 84% granted, 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 one area outstanding for Technical Approval in Phase 1a;
- Scottish Water are now making good progress with drainage outfall consents resolved for three of the four on-street sections and approved, and approval now in place for Sections 2, 5 and 6 off-street; and
- Although progress is being made, all road close reports are outstanding. These are pendant on SW approval.

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 the integrated design programme is due on 6<sup>th</sup> March 2009.

Phase 1a only	Number required		Number	
	v31	v41	Submitted	Granted
Prior approvals	49	54	50 (93%)	48 (89%)
Technical approvals	71	80	70 (88%)	67 (84%)

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.

### AFC Design

Following receipt of SDS IFC design the consortium has to process and review this design through the Integrated Design process to assure compatibility with track and systems design. This process is developing and BSC are due to submit the Consortium Integrated Design programme to **tie** during Week 1 of Period 13. A summary of progress on Phase 1a is shown in the table below.

Number IFC required		Number issued		
v31	v41	IFC	Partial AFC	Full AFC
81	92	70 (76%)	12 (13%)	0 (0%)

### 2.3 Utility works (MUDFA)

Period 12 has seen MUDFA progress as follows

Rev.07.09 Figures	Period		Delta	Cumulative		Delta
	Plan	Actual		Plan	Actual	
<b>MUDFA PERIOD 12 PROGRESS</b>						
Section 1a Newhaven to Foot of the Walk	6.5%	0.6%	-6.0%	94.1%	42.5%	-51.5%
Section 1b Foot of the Walk to McDonald Road	0.0%	1.0%	1.0%	100.0%	99.4%	-0.6%
Section 1c McDonald Road to Princes Street west	8.4%	6.6%	-1.8%	97.7%	58.8%	-39.0%
Section 1d Princes Street west to Haymarket	0.6%	3.2%	2.6%	100.0%	79.6%	-20.4%
Combined Sections 1A-1B-1C-1D (On-street) Newhaven Road to Haymarket	4.5%	2.8%	-1.8%	97.5%	66.6%	-30.9%
Section 2 Haymarket to Roseburn Junction	0.0%	12.4%	12.4%	100.0%	73.2%	-26.8%
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%	1.6%	1.6%	100.0%	99.5%	0.5%
Section 6 Gogar Depot	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
Section 7 Gogarburn to Edinburgh Airport	21.7%	16.6%	-5.1%	78.5%	32.9%	-45.6%
Combined Sections 2A-5A-5B-5C-6A-7A (Off-street) Haymarket to Edinburgh Airport	5.5%	5.7%	0.2%	94.6%	80.6%	-14.0%
<b>FULL ROUTE PHASE 1A NEWHAVEN ROAD TO EDINBURGH AIRPORT</b>	<b>4.7%</b>	<b>3.4%</b>	<b>-1.3%</b>	<b>96.9%</b>	<b>69.5%</b>	<b>-27.4%</b>

Section	MUDFA Commentary
Section 1a Newhaven to Foot of the Walk	Works continue to design Lindsay Road utility diversions. Programmes in Baltic Street and Constitution Street are under review.
Section 1b Foot of the Walk to McDonald Road	Works re-started following embargo. Completion expected including BT / SGN by mid to end June 09.
Section 1c McDonald Road to Princes Street west	Integrated programme reviews continue. Utilities through the Broughton – York Place section are expected to continue until end July 09 with telecoms continuing until end August 09. Works re-commenced on St Andrew Square on 5 <sup>th</sup> January 2009 and are programmed to be complete early April in south / mid sections and late April in the north section. Works commenced on The Mound on 26 <sup>th</sup> January 2009 with completion expected by the end of May. Trial holes at Broughton Street were completed as programmed.
Section 1d Princes Street west to Haymarket	TM in place and enabling works continue. Haymarket works continued in the period through the agreed phasing. Completion is expected by June 09.
Section 2 Haymarket to Roseburn Junction	Works continue in Haymarket Yards - expected completion in Lower Yards by 6 <sup>th</sup> March 09. Upper Yards and works associated with Haymarket Terrace sewer expect to complete by 8 <sup>th</sup> April 09. BT will continue for 2-3 weeks afterwards.
Section 5a Roseburn Junction to Balgreen Road	COMPLETE
Section 5b Balgreen Road to Edinburgh Park Central	COMPLETE
Section 5c Edinburgh Park Central to Gogarburn	1,500mm Sewer diversion on programme and affects only Phase 3 of A8 underpass. Remaining telecoms diversions in this section are forecast to complete mid March 09.
Section 6 Gogar depot	800mm water main test complete and site ready for handover to Infracore Monday 2 <sup>nd</sup> February 09 - COMPLETE
Section 7a Gogarburn to IPR	COMPLETE
Section 7b IPR to Airport	690m of diversions were complete in two out of four sections in the airport area. These were undertaken by Kier on behalf of BAA. The balance of this is expected to be complete in early Period 13. This leaves two sections totalling 1,100m and tie is in discussions about the procurement route for this piece of 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. All BSC sub-contractors continue to operate with Limited Letters of Intent whilst awaiting conclusion of the full sub-contracts.

It is expected that the remaining package contractors will be in place before the end of Period 13. However, work has continued on a number of worksites including the Edinburgh Park viaduct, the Carrick Knowe bridge, the A8 underpass, the Gogarburn bridge, Gogar culvert 2 and the new access road at Verity House. The depot package contractor has mobilised and site surveying has been completed in this period.

Section 1B: MUDFA completion is delaying BSC on required length. BSC have recommenced with a limited scope of works started 23<sup>rd</sup> February.

Section 1D: Princes Street enabling works were completed and agreed limited activities on the major works have commenced (site survey, ground conditions survey, dilapidation survey and remaining fencing works carried out). The main Princes Street works are on hold due to the dispute between tie and BSC. The full width of Princes Street was handed over to BSC on 2<sup>nd</sup> March 2009.

Section 2A: Verity House access road works commenced

Section 5B: Carricknowe Bridge. Although now resolved, the blinding to the base slab has been on hold until the temporary works design was completed. This is now planned for w/c 02/03/09.

Section 5C: A8 Underpass Phase 1 – BSC are currently working on temporary works design for carriageway protection. Start date continually slipping. This is now planned to re-commence (piling) 05/03/09.

Section 6: Package contractor now mobilised.

Section 7: Works progressing to programme.

### Progress against Contract Programme

Summary milestones against the agreed Infraco contract and the short term programme milestones are shown in the table below (number of milestones).

	Period 12			Cumulative (short term)			Cumulative (contract programme)		
	Planned	Achieved	%	Planned	Achieved	%	Planned	Achieved	%
Prelims	3	3	100%	33	33	100%	33	33	100%
Construction	19	11	58%	28	24	70%	308	24	8%
<b>Total</b>	<b>22</b>	<b>14</b>	<b>64%</b>	<b>50</b>	<b>44</b>	<b>88%</b>	<b>341</b>	<b>57</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 12 progress</b>						
Section 1a Newhaven to Foot of the Walk	2.6%	0.0%	-2.6%	8.1%	0.0%	-8.1%
Section 1b Foot of the Walk to McDonald Road	4.4%	0.0%	-4.4%	24.0%	1.4%	-22.6%
Section 1c McDonald Road to Princes Street west	1.8%	0.0%	-1.8%	3.7%	0.0%	-3.7%
Section 1d Princes Street west to Haymarket	11.6%	0.0%	-11.6%	14.2%	0.6%	-13.6%
Combined Sections 1A-1B-1C-1D (on-street) Newhaven Road to Haymarket	4.7%	0.0%	-4.7%	10.9%	0.4%	-10.6%
Section 2 Haymarket to Roseburn Junction	5.1%	1.6%	-3.5%	61.1%	12.6%	-48.5%
Section 5a Roseburn Junction to Balgreen Road	3.2%	0.0%	-3.2%	40.0%	2.9%	-37.1%
Section 5b Balgreen Road to Edinburgh Park Central	9.8%	2.2%	-7.6%	64.4%	3.8%	-60.7%
Section 5c Edinburgh Park Central to Gogarburn	4.2%	0.0%	-4.2%	42.4%	1.6%	-40.8%
Section 6 Gogar depot	6.1%	0.0%	-6.1%	56.0%	0.0%	-56.0%
Section 7a Gogarburn to Edinburgh Airport	2.3%	0.7%	-1.6%	40.9%	2.3%	-38.6%
Combined Sections 2A-5A-5B-5C-6A-7A (off-street) Haymarket to Edinburgh Airport	5.9%	0.9%	-5.0%	52.2%	3.1%	-49.2%
<b>FULL ROUTE PHASE 1A NEWHAVEN ROAD TO EDINBURGH AIRPORT</b>	<b>5.4%</b>	<b>0.5%</b>	<b>-4.9%</b>	<b>36.0%</b>	<b>2.0%</b>	<b>-33.9%</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 delayed awaiting MUDFA completion.
Section 1c McDonald Road to Princes Street west	Roadworks due to commence post Leith embargo delayed awaiting MUDFA completion.
Section 1d Princes Street west to Haymarket	Final enabling works completed. Princes Street enabling works were completed and agreed limited activities on the major works have commenced. The main Princes Street works are on hold due to the dispute between tie and BSC. Works in Haymarket are dependent on MUDFA completion.
Section 2 Haymarket to Roseburn Junction	Haymarket viaduct temporary works design resolved although contractor has not yet mobilised following Christmas break. Verity House access rd has commenced.
Section 5a Roseburn Junction to Balgreen Road	Temporary and permanent works re-design delaying various structures.
Section 5b Balgreen Road to Edinburgh Park Central	Outstanding Scottish Water consents resolved Week 4 of Period 12. All IFCs should be re-issued by the end of Week 1 of Period 13 allowing track civil works to commence.
Section 5c Edinburgh Park Central to Gogarburn	A8 Underpass has been on hold since 16 <sup>th</sup> January 09 due to BSC approvals issues for temporary piling. Piling due to re-start from Thursday 5 <sup>th</sup> March 09.
Section 6 Gogar depot	Depot handed over from MUDFA to Infraco 9 February 09
Section 7a Gogarburn to Edinburgh Airport	Gogarburn underbridge east abutment continues. Casting of culverts underway

## 2.5 Tram construction (Tramco)

Good progress continues to be made with the progress of deliverables against the schedule. The production line is has commenced during 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 12 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 programme maintains approximately two months ahead of schedule.

## 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.

A liaison meeting is arranged with HMRI and the ICP in Period 1 09/10.

## 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 TS 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.

**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 March which, following meetings with CEC and TS, would allow a complete instruction to be given by the end of March. 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 have developed an integrated programme which is updated and reviewed periodically.
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	2011	2016	Downgraded to amber as commencement of this project is now indicated towards the completion of Tramworks and therefore interfaces should diminish.
Haymarket Interchange		Haymarket Accessibility Project (planned for 2009-10).	Potential Interface with Haymarket viaduct and future Infraco works at Haymarket junction commencing May 2009 particularly Haymarket Tramstop.	May-09	Apr-10	TBA	TBA	Installation of lifts will proceed in late 2009 / early 2010 (Form A's with NR currently).
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	Apr-09	Sep-09	Utility Diversions in South and mid St Andrew Square will be complete early April. Main demolition to commence late April following Traffic Management changeover. Telecoms works will continue on the east side. Infraco TM being managed. Project being reviewed periodically.
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	Nov-09	Early 2009	Jun-11	Currently in planning stage. CEC is managing the developer within the tram constraints. Contractors programme being sought.
Waverley Steps	Transport Scotland	Refurbishment of existing Waverley Steps with	Reviewed with both TS and Waverley Steps project team. Potential TM conflict being	Nov-09	Mar-10	Oct-09	Mar-11	Although the main construction works will be complete by end Mar-10 this area will be re-



External Project	Promoter	Project Description	Potential Conflict	Tram contract		Project dates		Comments
				Start	Finish	Start	Finish	
		inclusion of new escalators and elevators.	managed.					visited in Q4 2010 for OHL installation. Potential impact on tram TM
National Portrait Gallery		Major building construction and refurbishment.	Interface with both Utilities and Infraco works on St Andrew Street / York Place.	Now	Jul-11	Apr-09	Nov-11	Negotiations continue between tie Logistics team and Gallery Management. Timetable of Gallery movements received.
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	Jun-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 Infraco.	Design and consents not in place in a timely manner to allow Infraco to build to programme.	Jun-10	Sep-10	TBA	TBA	Design and approvals progressing to programme.
New Hotel in Haymarket	Tiger Developments	New build hotel.	Utility diversions and potential interface with infraco works.	Jan-09	Apr-10	Nov-08	2012	Risk has diminished. Manageable conflict.
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. Bridge to be installed from Haymarket terrace to Platform 0 to comply with DDA which will interface with viaduct / tramstop.	Now	Apr-10	Oct-09 (TBC)	TBA	NR / Edinburgh Tram Project Delivery Group Meeting 09 Buchanan House, Edinburgh 11 February 2009 noted that the £30M scheme for Haymarket station has been shelved. No conflict.
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.
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	No conflict.

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 TS 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 TS projects was carried out late February 2009 with TS. A further session will be arranged for Week 4 in Period 13.

## 2.8 Other

### Temporary traffic regulation orders (TTROs)

- The implementation of the Princes Street diversions were successfully implemented on 21<sup>st</sup> February. Traffic was monitored over the following week and the contingency west bound lane handed over to the Infraco contractor on Monday 2<sup>nd</sup> March;
- Baltic Street TM was removed on 27<sup>th</sup> February; and
- Weekly visual summary being produced of all tram TM throughout city.

### 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.

### 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. A 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 has been made to progress with option 1 and develop to Approval in Principle the design for option 3 as a contingency;
- 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
- The contractor is preparing the possession plan according to the look-ahead programme.

### Third party interfaces

- NR – the Bridge Agreements are not yet concluded. 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. It is currently anticipated that this will happen by mid April 2009;
- 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 nine fixings where matters remain unresolved and CEC have committed to pursue these through Sheriff Court action. Dates for hearings are to be established. The building fixing construction programme will commence in Spring 2010; and
- Interfaces are being managed to ensure that the SRU accommodation works and events are cohesive.



Fastlink modifications (Front Line)

- Completion of the civil works slipped by three weeks due to tie-in with new surfacing works (single visit rather than multiple visits);
- TRO process due to be complete by end of April;
- New lay-by (90% completed) full completion by 19 March 09;
- Signage (85% completed) full completion by mid April 09;
- New Crossing (40% completed) full completion by early March 09;
- Street Lighting (50% completed) full completion by early March 09; and
- Move bus stops (60% completed) full completion by 16 March 09.

Murray field pitch relocation (Souters)

- Agreed additional paving works at pitch boundaries 75% completed and the remaining works to be completed by mid March;
- Maintenance ongoing; and
- Final accounts agreed in principle, subject to final measurements.

Ancient Monuments (Land Engineering)

- Method statement submitted to CEC and await approval; and
- Pre-start meeting held with the contractor on 25/2/09. Formal contract to be issued shortly.

BAA - Burnside road (BAA)

- Burnside Road Confirmation given to BAA to continue to 70% complete for scheme design; and
- Tramstop / kiosk interface with BAA has been agreed and change order submitted to include additional design work including canopy at kiosk. Awaiting feedback from BSC.

## 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	7.186	12.195	-5.009	92.139	140.362	-48.223	100.971	150.851	-49.880	222.179	289.838	512.017
Other Funding	0.593	10.348	-9.755	7.039	20.362	-13.323	7.768	30.852	-23.083	18.345	23.932	42.276
Demand on TS	6.593	1.847	4.746	85.100	120.000	-34.900	93.203	120.000	-26.797	203.834	265.906	469.740

- Year to date COWD is £48.2m lower than 'budget' (Period 11 £43.2m) as the delays to mobilisation by Infraco and commencement of works across a range of activities continue;
- The Infraco contractor and **tie** have now entered a Dispute Resolution Process (DRP) which is aimed at minimising further programme damage whilst resolving principle areas of disagreement as soon as possible. The first items referred to DRP are in respect of the Princes Street works and are anticipated to extend to disputes affecting other areas with a view to precipitating a broader commercial resolution and programme review in the coming periods;
- The reported full year FY08/09 expenditure has been reduced to £101m (Period 11 £109.6m) and is profiled in the table below. This is principally a result of:
  - Significantly less work done by Infraco in Period 12 than was anticipated, a significant element of which was due to the emerging commercial disputes and the contractors reluctance to proceed at full pace whilst these are ongoing - £3.9m;
  - Delay in the incidence of certain land and compensation costs in relation to the Haymarket car park and Forth Ports estate which will now be in 09/10 - £1.5m; and
  - Deletion of the risk allowance included in the P11 forecast less risk / contingency drawn down – net effect £2.2m; and
- There are remaining sensitivities around this outturn including the completion of utilities and ramp-up of infrastructure works on-street (including Princes St) and at the depot in the next four weeks. Processes have been put in place to provide CEC and TS with very frequent updates on progress.

#### Reforecast profile for FY08/09

£m	YTD	P13	Total FY08/09
Infrastructure and vehicles	40.0	6.1	46.1
Utilities diversions	32.0	1.3	33.3
Design	4.5	0.1	4.6
Land and compensation	1.2	0.1	1.3
Resources and insurance	14.4	1.3	15.7
<b>Base costs</b>	<b>92.1</b>	<b>8.9</b>	<b>101.0</b>
Risk allowance	0.0	0.0	0.0
<b>Total Phase 1a</b>	<b>92.1</b>	<b>8.9</b>	<b>101.0</b>

- 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 £92.6m; 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 £189.5m (Period 11 £181.2m). The increase is primarily due to the re-profiling of the Infraco works which have been delayed from 08/09 to 09/10. This is because most of the acceleration measures identified to achieve the scheduled opening date in 2011 would relate to activities in the next financial year. As explained at 3.3 below, **tie** are currently

engaged in a comprehensive review of the costs and programme for the project informed by the impacts of and potential consequences the delays to Infraco mobilisation and developing commercial disputes. This will impact upon the profiled expenditure for FY09/10.

### 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	46.1	162.5	68.8	308.1
Utilities diversions	18.4	33.3	0.0	0.0	51.7
Design	21.4	4.6	0.9	0.1	27.0
Land and compensation	16.8	1.3	1.6	0.9	20.6
Resources and insurance	42.7	15.7	9.3	12.7	80.4
<b>Base costs</b>	<b>130.0</b>	<b>101.0</b>	<b>174.3</b>	<b>82.5</b>	<b>487.8</b>
Risk Allowance	0.0	0.0	15.2	9.0	24.2
<b>Total Phase 1a</b>	<b>130.0</b>	<b>101.0</b>	<b>189.5</b>	<b>91.5</b>	<b>512.0</b>
Phase 1b	3.0	0.0	33.0	51.3	87.3

- The approved cost estimate for delivery of Phase 1a of the project remains at £512m with a risk allowance of £24.2m and this is profiled in the table above consistent with a programme to deliver opening of Phase 1a of the project in July 2011. Approved funding remains at £545m;
- As advised to both CEC and TS, **tie** are currently engaged in a comprehensive review of the costs and programme for the project, informed by the impacts of and potential consequences the delays to Infraco mobilisation and developing commercial disputes. It is expected that **tie** will be able to brief on an updated range of possible outcomes in terms of programme and outturn costs (and profile thereof) in relation to the £545m funding available before the end of March 09;
- There have been a further three draw downs on the risk and contingency provision (details provided under Section 5), in P12 totalling £0.8m; 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. In April 09 CEC will consider a recommendation whether or not to proceed with Phase 1b in accordance with the contractual option to commence construction in July 2009.

### 3.4 Change control

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

<b>BASE ESTIMATE</b>	498.10	87.30	585.40
<b>APPROVED CHANGES - to Financial Close</b>	13.91	0.00	13.91
<b>CONTROL BUDGET - Baseline</b>	<b>512.02</b>	<b>87.30</b>	<b>599.32</b>
<b>APPROVED CHANGES - post Financial Close</b>	0.00	0.00	0.00
<b>REVISED CONTROL BUDGET</b>	<b>512.02</b>	<b>87.30</b>	<b>599.32</b>
<b>ANTICIPATED CHANGES</b>	0.00	0.00	0.00
<b>CURRENT AFC</b>	<b>512.02</b>	<b>87.30</b>	<b>599.32</b>
<b>PREVIOUS AFC</b>	<b>512.02</b>	<b>87.30</b>	<b>599.32</b>

- 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 2008;
- 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 (to be funded by TS);
  - 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 second 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 Summer 2011 (with a range of July 2011 to March 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-Mar-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	Aug 2009
Haymarket viaduct complete	08-Dec-08	07-Sep-09
Roseburn viaduct commences	20-Jan-09	29-Mar-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-09A
Roseburn viaduct complete	20-Apr-10	04-Mar-11
Carrick Knowe bridge complete	11-May-09	05-Jan-10
All consents and approvals granted	18-May-09	07-Aug-09
Edinburgh Park viaduct complete	24-May-09	21-Aug-09
A8 underpass complete	14-Jul-09	04-Feb-10
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	23-Apr-10
Commission Section 2 (Haymarket to Roseburn junction)	11-Jan-10	08-Sep-10
Commission Section 6 (depot)	25-Mar-10	02-Nov-10
1 <sup>st</sup> Tram delivered	09-Apr-10	09-Apr-10
Test track complete	23-Apr-10	15-Mar-11
1 <sup>st</sup> section (other than depot) complete ready for energisation	25-June-10	22-Jul-10
Commission Section 7 (Gogar to Edinburgh Airport)	25-June-10	31-Mar-11
Driver recruitment commences	July 2010	Oct 2010
Commission Section 5 (Roseburn junction to Gogar)	09-Nov-10	19-Sep-11
Driver training commences (depot only)	Dec-10	Jan-11
Driver training commences (excludes depot)	Nov 2010	Oct-11



System testing complete off street	09-Dec-10	Oct-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	Nov-11
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	Jun-12
Letter of "no objection" from Independent Competent Person to commence revenue service	July 2011	Jun-12
Open for revenue service	July 2011	Jun-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.
Blue:	Dependent on outcome of Princes Street dispute.

**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 Dec 10	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, 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</b> – open for revenue service	16 July 11	22 May 12	As above

A wide range of detailed specific programme issues is being examined to achieve the recovery required.

#### 4.3 12-week look-ahead

Milestones	Actual / current forecast date
1B Roadworks Foot of the Walk – Balfour Street	16-Oct-08A
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	23-Apr-09
S20 Russell Road bridge	27-Apr-09
W3/W4 Russell Road retaining walls	12-May-09
S23 Carrick Knowe bridge	20-Oct-08A
5B Trackworks Saughton Road North to Bankhead	30-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-Mar-09
Gogar depot building foundations	05-May-09
S29 Gogar underbridge	13-Oct-08A
S30 Gogarburn culvert No.1	01-Dec-08A
S32 Gogarburn culvert No.2	12-Jan-09A

\*\* Dependent on outcome of Princes Street dispute.

## 5 Risk and opportunity

### 5.1 Review of risk register

The following reviews took place in the period:

Date	Format of review	Attendees	Comments
19/02/09	Risk Register Review with Siemens	Project Risk Manager BSC Commercial Director Siemens Finance and Commercial Manager	First draft Siemens Risk Register presented and discussed
23/02/09	MUDFA Risk Review	MUDFA Construction Director Project Risk Manager	All risks and treatment plans reviewed
24/02/09	Structures Risk Review	Project Manager Project Risk Manager	All risks and treatment plans reviewed
24/02/09	Network Rail Risk Review	Project Manager Project Risk Manager	All risks and treatment plans reviewed
24/2/09	Roads and drainage Risk Review	Project Managers Project Risk Manager	All risks and treatment plans reviewed
24/2/09	Depot Risk Review	Project Manager Project Risk Manager	All risks and treatment plans reviewed
26/02/09	Princes Street Risk Review	Project Managers 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.

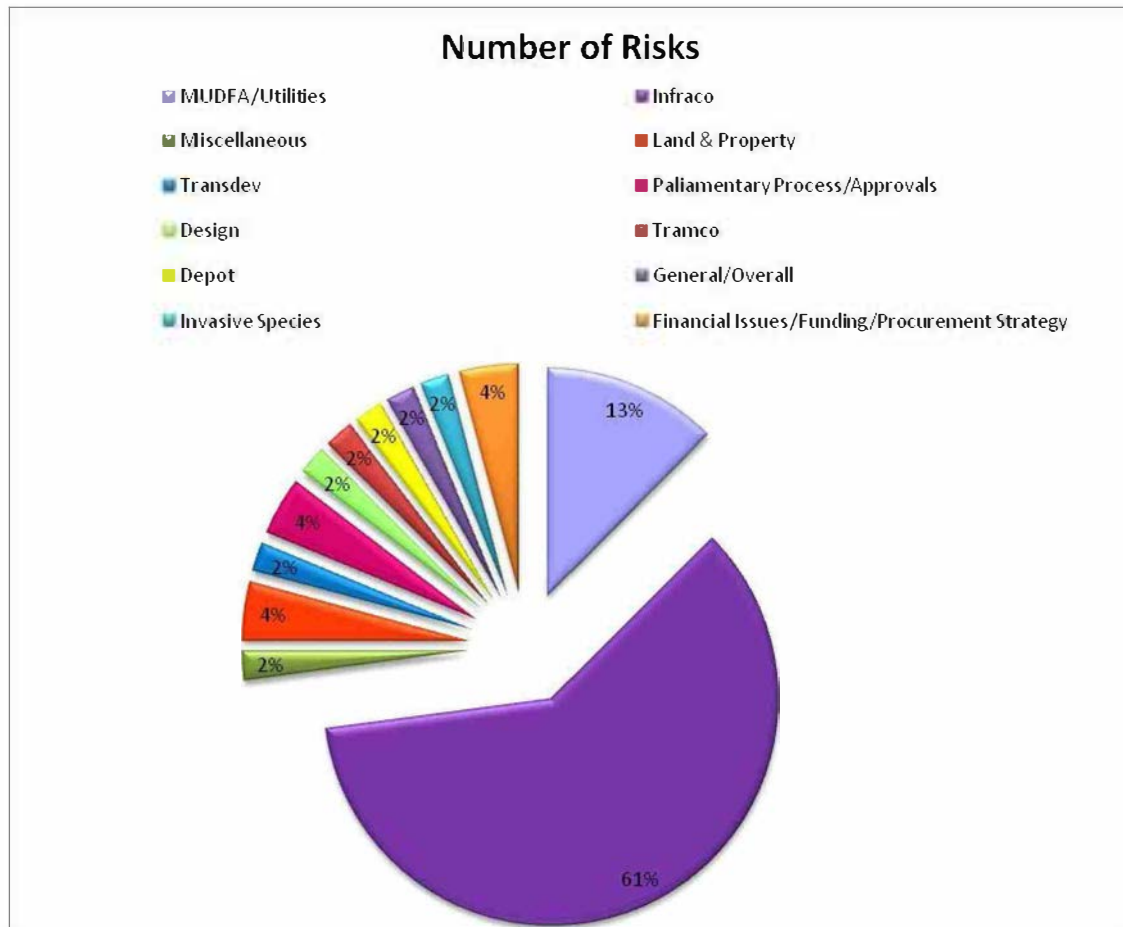
Top 5 Risks - Period 12

ARM Risk ID	Cause	Risk Description Event	Effect	Risk Owner	Significance	Black Flag	Treatment Strategy	Previous Status	Current Status	Due Date	Action Owner
1016	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
1009		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
1077	Lack of visibility of design changes	Tramworks price based on a design which may have been altered. Unclear who authorised design	Dispute with contractor regarding changes. Potential delay and additional costs.	S Bell			Establish a process which will act as a control mechanism for design changes.	On Programme	On Programme	31-Mar-09	T Glazebrook
							Escalate to Infracore German parent companies if still unresolved.	Complete	Complete	31-Dec-08	S Bell
							Identify potential threat/response to BSC positioning to encourage engagement and coordinate to resolve programme challenges and delays	On Programme	On Programme	31-Mar-09	S Bell
							Utilise DRP processes if appropriate.	On Programme	On Programme	31-Mar-09	S Bell

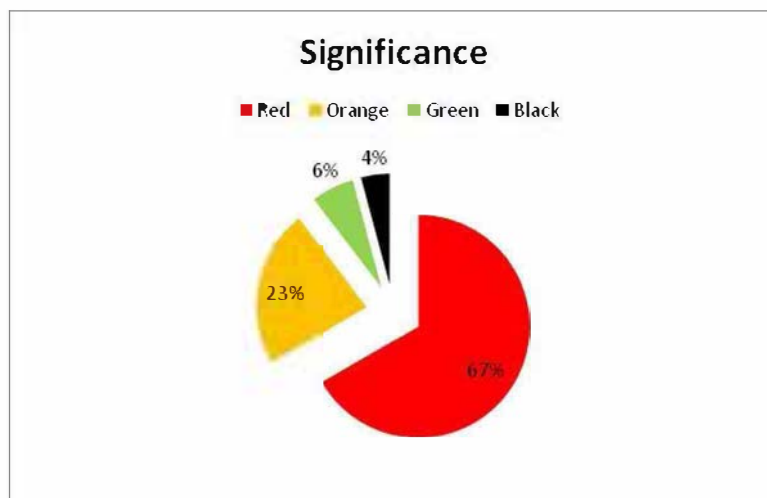


144	SDS contractor does not deliver the required prior and technical approval consents in line with SDS V31	Delay to IFC drawings beyond V31 Programme	Delay to programme with additional resource costs and delay to infraco. Impact upon risk balance.	D Sharp		Evaluation of prior approval programme	Complete	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
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		Weekly Meetings of Approvals Task Force	On Programme	On Programme	31-Mar-09	D Sharp
						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 and concerns

There were no new risks added to the Project Risk Register or the Infraco Concerns Register during the period.

The following items on the Infraco Concerns Register were closed in the period:

Discipline	Risk description			
	Risk Number	Cause	Risk Event	Impact
Structures	71	Foundations of retaining wall have been found to be more shallow than expected following the demolition of the CAH.	Haymarket retaining wall requires additional temporary works to support the wall during Utilities works on Haymarket Terrace	Delay to Utilities programme at Haymarket junction. Additional cost for delay and disruption to Trameworks.
Section 1D	55	Utilities works are not complete at Haymarket	Impact upon TM arrangements and road closures	Delay to programme, extension of time claim. Additional cost.
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
Depot	67	Delay in full Carillion mobilisation due to reconciliation of liability with supply-chain	Late completion of remedial works to water main	Further delay to critical depot building works

Risk No 67 was closed as the water main was handed to Scottish Water on 17 February.

Risk No 71 was closed as temporary work plans are now in place. However, Grahams have not attended site due to the contractual dispute with BSC.

Risk No 55 was closed as the works are not adversely impacting upon TM arrangements.

Risk No 82 was closed as the TM arrangements in place appear to be working well. However, they will continue to be closely monitored by the Project Managers.

### Reassessed and closed risks

There were no risks reassessed or closed in the period.

## 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	931	605	MUDFA trial holes to verify GPR surveys	30/04/2009	Yes	No	No	Period 2
A Richards	901	170	Infraco/Tranco/operator to establish, implement, and train staff in safe systems of work under the Case of Safety	31/03/2009	Yes	No	No	Period 13
A Richards	901	171	Properly define tram/depot interfaces and ensure correct commissioning and training	31/03/2009	Yes	No	No	Period 13
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 13
D Sharp	44	467	Weekly Meetings of Approvals Task Force	31/03/2009	Yes	No	No	Period 13
D Sharp	279	634	Weekly Meetings of Approvals Task Force	31/03/2009	Yes	No	No	Period 13
D Sharp	279	635	Monitoring and tracking through the 3rd party rep	31/03/2009	Yes	No	No	Period 13
D Sharp	271	559	Assure the quality and timing of submissions	31/03/2009	Yes	No	No	Period 13
D Sharp	271	637	Weekly Meetings of Approvals Task Force	31/03/2009	Yes	No	No	Period 13
D Sharp	1033	632	Pressure from Approvals Task Force to ensure Technical and Prior Approvals are delivered	30/04/2009	Yes	No	No	Period 2
G Barclay	1084	654	Assess TM implications to minimise enabling works and additional cost	30/04/2009	Yes	No	No	Period 2
G Barclay	1085	653	Examine VE opportunity to reduce costs with SUCs and SDS	31/03/2009	Yes	No	No	Period 13
G Murray	10	547	Identify wayleave requirements based on emerging design	30/04/2009	Yes	No	No	Period 2
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 13
J McAloon	318	407	Re-programme Infraco to start on sections completed	31/03/2009	Yes	No	No	Period 13
M Blake	911	628	Liase with Scottish Power to agree and approve method of crossing tunnel	31/03/2009	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 13
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 13
R Bell	1079	648	Ongoing review of BSC resources and formal review at 4-weekly meetings. Objectives to be set for BSC at monthly meetings in order to monitor progress.	31/03/2009	Yes	No	No	Period 13
R Bell	1081	650	Production of robust programme to mitigate losses	31/03/2009	Yes	No	No	Period 13
R Bell	1082	651	Review of remedial works programme with Carillion and SDS. Involvement of senior management	31/03/2009	Yes	No	No	Period 13
T Glazebrook	44	601	Informal consultation prior to statutory consultation	31/03/2009	Yes	No	No	Period 13
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 13
W Biggins	115	505	Book contingency possessions	31/03/2009	Yes	No	No	Period 13



**5.3 Cost Quantative Risk Analysis**

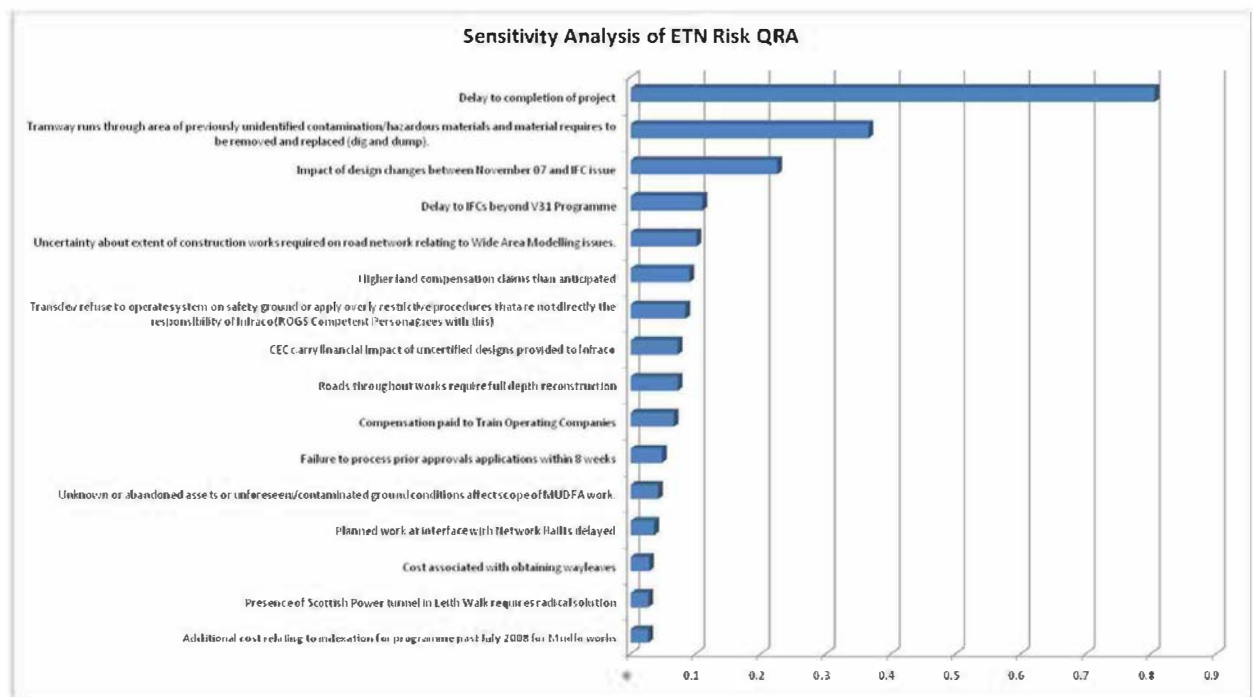
The Project Risk Allocation has reduced by £372,540 in the period and the Project Contingency has reduced by £408,845. All draw-downs are shown in the table below.

The following table illustrates the drawdown applications on the project risk and contingency allocations approved in Period 12.

The current Project Risk Allocation is £23,655,903 and the Project Contingency is £634,762.

Description	Owner	Value from risk (£)	Value from contingency (£)
Various Infraco changes	Mike Paterson	0	-37,787
Instructions arising from track development workshop	Mike Paterson	0	-371,058
Road construction details - construction methodology	Mike Paterson	-372,540	0
<b>Total Drawdown in Period 11</b>		<b>-372,540</b>	<b>-408,845</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.

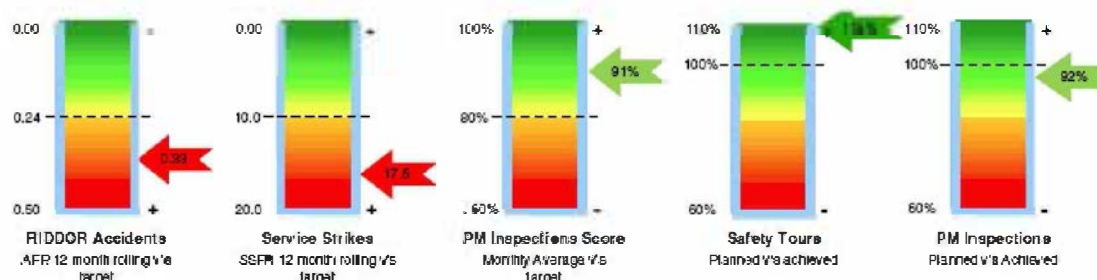
**5.4 Schedule QRA**

**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 12	105,645	1	0	2	23	17	0	1	4	0.95	16.09
Year to date	1,158,532	1	3	26	140	200	3	13	75	0.35	17.26
13 period rolling	1,207,188	1	3	30	148	211	3	13	76	0.33	17.48



During the period there was an over-3-day reportable accident. A worker trapped / crushed their thumb between a road plate and tarmac whilst attempting to sling the plate. This has resulted in the 13-period rolling AFR rising to 0.33. Achieving the target of 0.24 is no longer possible by the end of Period 13.

Although the number of power strikes is still lower than average, there has been increase in the monthly frequency for Carillion and BSC service strikes. The 13-period strike frequency has fallen this period.

There have been eight safety tours carried out compared to the seven planned. There have been 12 Project Manager Inspections received to date against a planned 13.

Two near misses were formally reported during the Successful implementation of the Princes St traffic diversion and pedestrian management and some improvements made as a result. Three incidents were reported regarding the tram mock-up, unsafe work at height on top of the mock up during installation, a member of public fell between the pedestrian walkway and the fencing and graffiti spray to the side of the tram. Unloading of the Rhino barrier was stopped in Princes Street due to a lack of segregation and protection to the public. The area was secured prior to the restart of the operation. Further information is required from BSC.

The tram bus has been used to deliver safety talks and survey the workforce at various locations including Edinburgh Park, Leith Walk and Princess Street. Carillion and BSC operatives have taken part. Scottish Power and Speedy Hire provided the information and speakers for these events whilst **tie** facilitated the workforce survey. Phase one of the school visits have been completed successfully and Phase 2 will commence within Period 13.

### 6.2 Environment

There have been no environmental incidents reported during Period 12.

### 6.3 Quality

One audit has been carried out by **tie**. Land Engineering were audited to measure the appropriateness of their HSQE systems prior to engagement. Two internal audits were carried

out by Carillion resulting in six NCR's and nine observations, more information is available upon request. Thirteen NCRs were issued to Carillion by **tie** during Period 12. Reasons for issue include non compliance with Scottish Water DOMS procedure, poor reinstatement (5), construction of chamber and placement of ducts directly over gas main, BT issues (3), installation of services at wrong depth / location / within DKE (3). All 13 NCRs remain open and are being actioned by Carillion. **tie** are holding four-weekly quality meetings to develop a more structured approach to the management of site inspectors and monitoring trends of NCRs and major quality issues. Carillion have recruited their own site inspectors to assist with inspection and assurance.

## **7 Stakeholder and communication**

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

tie, CEC and other key parties continue to work closely together to enhance the ongoing communications strategy. The key priority remains the closure of Princes Street and the communications and media plan is updated on a regular basis. All parties continue to meet regularly.

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

The Princes Street communications plan was followed the weekend of 21/22 February and is ongoing. TCAs and logistics team were in place on Princes Street to support the implementation of traffic management and to help the local businesses and general public. Banners promoting the local shops and tram project were installed on the fencing and this will be ongoing throughout March with approximately 100 banners in place on Princes Street fencing by the middle of April.

The team responded rapidly to the Princes Street announcement on 20<sup>th</sup> February regarding contract issues. All MSPs, Councillors and 7,000 local businesses and residents were notified, the trams website was updated accordingly and the homepage dedicated to Princes Street works.

The tram mock-up has been a success since it was open to the public on 23 February. TCAs have been helping to man the exhibition, which had received 22,000 visitors by the 2<sup>nd</sup> March. Two VIP visits were held on 27 February and 4 March, which were jointly organised by CEC and tie and led by Council Leader Jenny Dawe. Communications support for the mock-up has included the production of external vinyls, fact cards, fact sheets and posters. Feedback forms were designed and are being analysed and early results suggest a positive response.

Media enquiries this period have included: a news release on Princes Street contract issues, photo-shoot and release on the tram mock-up arrival on Princes Street and enquiries on project status due to contract issues.

27,000 February 2009 fact sheets and 20,000 tram fact cards were designed and printed and are being distributed on a regular basis. By the end of February, 15,000 fact sheets had been distributed. Two Leith Walk updates were distributed and these were supported by face to face engagement.

The tram website recorded 16,828 visits to the site in February 2009, which is up from 8,699 in January. The most popular pages viewed were the homepage, local updates and the route map. The website continues to be updated in-house on a daily basis or as required.

Events this month included six Princes Street surgeries, held in advance of the works, two VIP mock-up visits and a presentation to the Light Rail Forum by Mike Connelly on 27 February. The Schools Programme is ongoing and the health and safety visits to schools came to an end in February. A tram / cycling leaflet was designed and printed by the team for cycling groups, such as SPOKES.

The customer service team have been handling telephone and email requests for information including traffic management, Princes Street works, information on tram mock-up, parking on George Street, Leith Walk works and requests for university projects.

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

Notifications will be distributed to local businesses and residents regarding upcoming works in Constitution Street, Haymarket and Leith Walk. The Princes Street tram works will be supported by ongoing face to face engagement, website updates and banner / signage



installation. All tram works will be supported by face to face engagement and website updates.

Media activity next period will be focused on the above works, an update on contract issues and ongoing coverage on the tram mock-up. Other activities in Period 13 will include the Labour Party Conference, at which **tie** is participating in a Dragon's Den Fringe Event, a presentation to the Leith Chamber of Commerce on 16 March and sponsorship and exhibition at ETAG Conference on 17 March.

The team will be working closely with the health and safety team to produce a health and safety video. This will be used for contractor safety briefings and will reiterate **tie**'s commitment to health and safety.

### 7.4 Customer service trends and analysis

Over the past several months, **tie** has been implementing a new customer service approach and building up data on trends and **tie**'s response times in terms of reacting to incoming enquiries and notification of works. The following gives an overview of this data.

Incoming enquiry trends

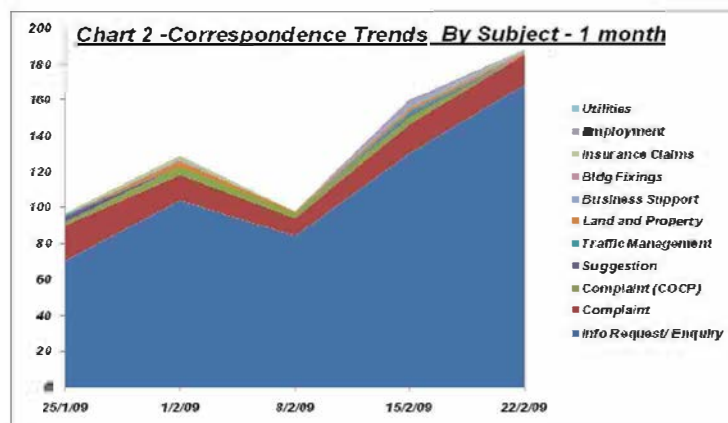
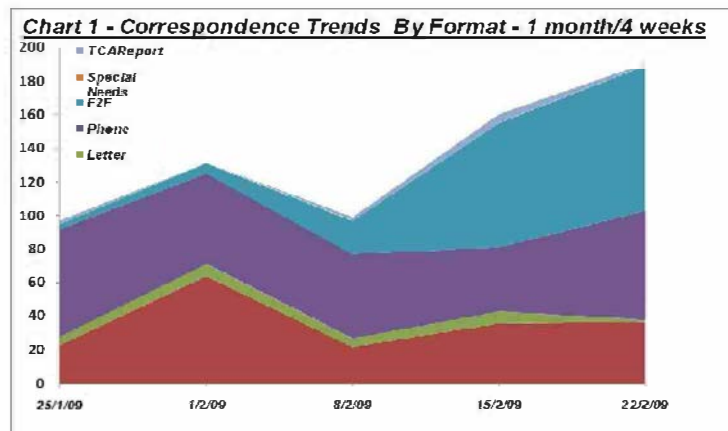


Chart 2 clearly shows a sharp rise in information requests during the last 4 weeks.

## Monthly Customer Service Report 19/01/2009 - 20/02/09

Item	Volume Month	Volume (cumulative from 21/11/08)	Performance (month)	Performance (cumulative)	Target Performance
Telephone response	339	753	99	96	90% in 30 seconds
Telephone Same day resolution	333	725	98	96	Info only
Email acknowledgement	180	403	100		100% acknowledged within 24 hours
Email response			100	97	90% resolution in 7 days
Email same day resolution	164	344	91	85	Info only
Letter acknowledgement	13	36	100		100% acknowledgement within 24 hours
Letter response			95	84	100% resolution in 7 days
Total Enquiry Volumes	532	1192			
Website update	141	158	100	100	Weekly

## Monthly Notifications Performance (19/01/09 to 21/02/2009 and Cumulative from 1st September 2008)

Notification Type	Work Site		Utilities	Tram works	Total	% in Standard
	Month	Notifications				
Major works	Month	Notifications	0	1	1	
		In Standard	N/A	N/A	N/A	N/A
	Cumulative	Notifications	5	3	8	
		In Standard	0	1	1	13
Minor Works	Month	Notifications	2	2	4	
		In Standard	3	N/A	3	N/A
	Cumulative	Notifications	8	12	20	
		In Standard	3	3	6	30
Emergency	Month	Notifications	2	0	2	
		In Standard	2	N/A	2	100
	Cumulative	Notifications	13	0	13	
		In Standard	13	0	13	100

## Appendix 'A' Detailed cost report

# FY 08/09: Demand on TS 93.203

**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.

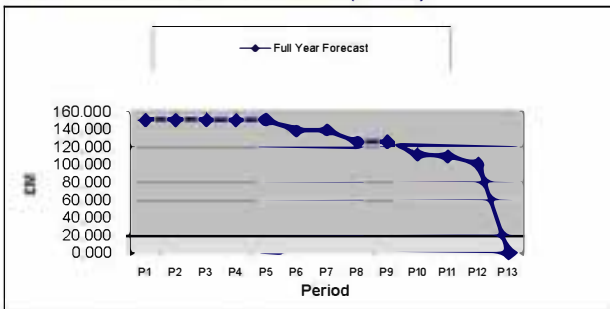
**AFC:**

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

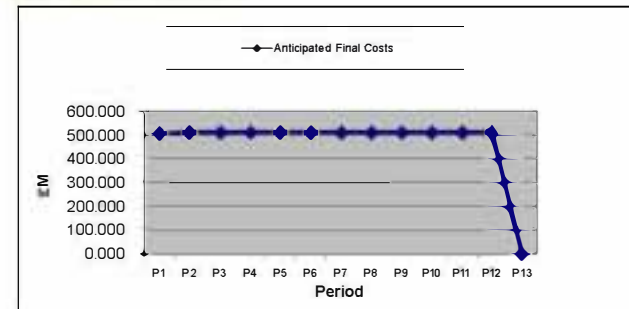
**2: SUMMARY**

	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	7.186	12.195	-5.009	92.139	140.362	-48.223	100.971	150.851	-49.880	222.179	289.838	512.017
Other Funding	0.593	10.348	-9.755	7.039	20.362	-13.323	7.768	30.852	-23.083	18.345	23.932	42.276
Demand on TS	<b>6.593</b>	<b>1.847</b>	<b>4.746</b>	<b>85.100</b>	<b>120.000</b>	<b>-34.900</b>	<b>93.203</b>	<b>120.000</b>	<b>-26.797</b>	<b>203.834</b>	<b>265.906</b>	<b>469.740</b>

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	28.900	23.325	5.575	28.900	0.000
Procurement Consultant	68.126	68.126	70.070	49.337	20.734	70.070	0.000
Design	23.683	23.683	26.953	25.926	1.027	26.953	0.000
Financial Issues/Funding/Procurement Strategy	2.258	2.258	2.630	2.246	0.384	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	300.703	105.732	194.971	300.703	0.000
Testing & Commissioning	1.984	1.984	0.000	0.000	0.000	0.000	0.000
Handing Over & Service Operations	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NOP/Rail Projects Interface (Promoters View)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Interfacing Developments	0.000	0.000	0.000	0.000	0.000	0.000	0.000
TRAMS, Vehicles (Edinburgh TRAMS Use Only)	51.370	51.370	58.152	15.295	42.857	58.152	0.000
Risk	48.974	48.974	24.291	0.000	24.291	24.291	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>222.179</b>	<b>289.838</b>	<b>512.017</b>	<b>0.000</b>



6: Current Year 08/09 - Baseline Budget

	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	Total
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

7: Current Year 08/09 - Actuals (Updated 4 weekly)

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	7.186	8.832	100.971
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	0.593	0.729	7.768
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	6.593	8.103	93.203

8: Variance tracker

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	-5.009	-1.657	-49.880
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	-9.755	-9.761	-23.083
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	4.746	8.103	-26.797

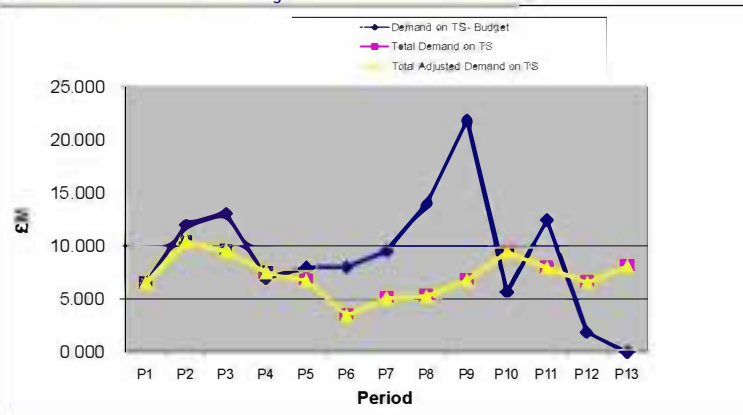
9: Next Year 09/10 - Forecast (Updated 4 weekly)

	Q1	Q2	Q3	Q4	Total	Financial Commentary - FY 09/10 Onwards
16 Total Project COWD	39.352	45.140	49.006	56.046	189.545	All costs are for Phase 1a only. See section 3 of the TS report.
19 Other Funding	3.249	3.727	4.046	4.628	15.650	
22 Total Demand on TS	36.103	41.413	44.959	51.419	173.894	

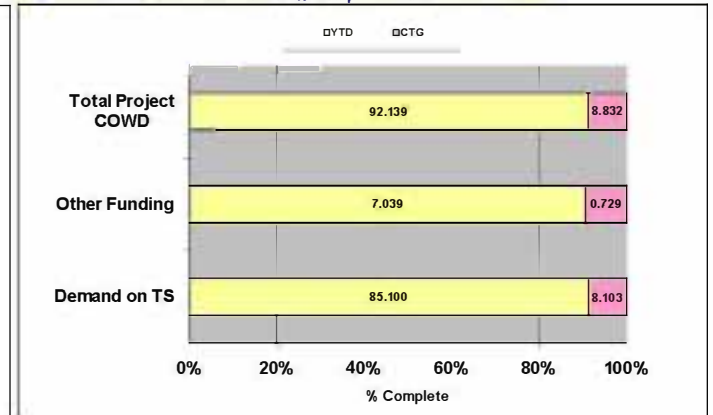
10: All Years (Escalated) (Updated 4 weekly)

	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
24 Total Project COWD	0.000	3.093	10.664	30.431	85.852	100.971	189.545	81.738	9.723	0.000	0.000			512.017
27 Other Funding	0.000	0.000	1.000	0.019	10.287	7.768	15.650	6.749	0.803	0.000	0.000			42.276
30 Total Demand on TS	0.000	3.093	9.664	30.412	75.565	93.203	173.894	74.989	8.920	0.000	0.000	0.000	0.000	469.740

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



11: Other Funding

	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	Total
<b>Budget (Current Year 08/09)</b>														
CEC	-0.036	1.080	1.178	0.633	0.717	0.724	0.858	1.257	1.970	0.512	1.120	10.348	10.490	30.852
Other Funding Stream														0.000
Other Funding Stream														0.000
Other Funding Stream														0.000
Other Funding Stream														0.000
<b>Total Budget Other Funding</b>	-0.036	1.080	1.178	0.633	0.717	0.724	0.858	1.257	1.970	0.512	1.120	10.348	10.490	30.852
<b>Actual (Current Year 08/09)</b>														
CEC	-0.036	0.932	0.855	0.674	0.609	0.309	0.457	0.475	0.609	0.848	0.714	0.593	0.729	7.768
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	0.593	0.729	7.768

12: Promoter Full Year Forecast Run Rate

Period Trend of Full Year Forecast (Current Year 08/09)	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13
Full Year Forecast	150.851	150.851	150.984	150.537	150.647	138.759	138.792	126.104	126.104	111.658	109.555	100.971	

13: Promoter AFC Run Rate

Period Trend of AFC	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13
Anticipated Final Cost	508.017	512.017	512.017	512.017	512.017	512.017	512.017	512.017	512.017	512.017	512.017	512.017	

## **Appendix 'B' Change control register**

**(Register and other information as volunteered or requested from delivery organisation / promoter – There are none to report on at this point)**

## Appendix 'C' Programme information

To be sent separately to TS by CD:

- **Milestone Schedule Summary (progress against baseline)**
- **Full Detailed Time Schedule (progress against baseline)**
- **Critical Path**
- **12 Week Look Ahead Extract from Schedule**




## Appendix 'D' Primary risk register



Period 12 2008/09 - 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 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/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 - 20.00		Issue containation 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
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 - 23.00		Close working relationship with CEC and stakeholders	On Programme	On Programme	31-Jan-11	D Sharp
							Weekly critical issues meeting	Complete	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 - 23.00		All Site Staff to get CSCS or equivalent	On Programme	On Programme	30-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	B Cummins
							Safety Induction to be carried out for all site staff	On Programme	On Programme	31-Dec-10	B Cummins

Risk Description

ARM Risk ID	Cause	Event	Effect	Risk Owner	Significance	Black Flag	Treatment Strategy	Previous Status	Current Status	Due Date	Action Owner
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 Infraco work	Re-design and delay as investigation takes place and solution implemented; Increase in Capex cost as a result of additional works.	D Sharp			Site Supervisors to be appointed by tie	Complete	Complete	28-Feb-07	S Clark
							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 TTRO to construct Infraco.	Requirement to start construction using TTROs	A Sim			Use of TTROs to undertake construction of permanent works in advance of permanent TROs being approved.	On Programme	On Programme	30-Jan-11	A Sim
105	Encountering archaeological finds/burials/munitions during construction	Exhumation of archaeological finds/burials	Delay in construction programme	R Bell			Agree protocol	Complete	Complete	20-Apr-07	T Condie
							AMIS to re-programme works accounting for hot-spots	Complete	Complete	30-Apr-07	S Clark
							Assess Infraco programme to determine if float contained within the high risk areas	Complete	Complete	28-Aug-07	T Hickman
							Carry out advanced archaeological works in advance of Infraco	Complete	Complete	31-Mar-08	P Douglas
							Check to ensure that AMIS programme has adequate float	Complete	Complete	14-May-07	J McAloon
							Identify hotspots	Complete	Complete	28-Feb-07	S Clark
							Meet Archaeologist	Complete	Complete	28-Feb-07	S Clark
Review Infraco programme regarding archaeological hotspots and ensure adequate programme float	Complete	Complete	31-Jul-07	T Hickman							

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. CEC does not follow agreed procedures.	Failure to process prior approvals applications within 8 weeks	Delay and disruption to Infracore programme	D Sharp	High 19.00		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 Infracore to mobilise in time to commence work in line with programme.	Delay to programme. Cost overruns. Negative publicity. Criticism from stakeholders	S Bell	High 20.00		Continued focus at Infracore progress meetings as well as programme workshops to mitigate the impacts of any delay	Complete	Complete	1-Oct-08	S Bell
							Implementation of Advanced Works programme in order to mitigate potential future issues during construction	Complete	Complete	1-Aug-08	R Bell
							Infracore given instructions to proceed at risk	Complete	Complete	1-Aug-08	R Bell
							Put plan in place to agree revised programme	Complete	Complete	14-Nov-08	S Clark
							Pressure from Approvals Task Force to ensure Technical and Prior Approvals are delivered	On Programme	On Programme	31-Jul-09	D Sharp
							Utilise Dispute Resolution Process if appropriate	On Programme	Complete	19-Feb-09	S Bell
							Identify, evaluate and agree on plan to recover lost time. Accelerated review agreed re programme with BSC	On Programme	On Programme	31-Mar-09	S Clark

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 RISK		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.	On Programme	On Programme	31-Jul-09	R Bell
							Integrated programme of Infraco and MUDFA works at a detailed level	On Programme	On Programme	31-Jul-09	S Clark
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 RISK		Engagement between tie and BSC at different levels. Regular review of BSC management of third parties as per Employers Requirements.	On Programme	On Programme	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	F McFadden	HIGH RISK		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.	On Programme	On Programme	31-Mar-09	F McFadden



## Appendix 'E' Resource information

(Updated Organisation Charts, Notifying Changes of Key Personnel –  
N/A)