



4 Week Period Reporting Pack 08/09


Project Title:
Edinburgh Tram Project

Reporting Period:
Period 10 2008/09

Transport Scotland Project Manager:
John Ramsay

Progress Meeting Date:

Report authorised by: **Steven Bell**

Signature: 

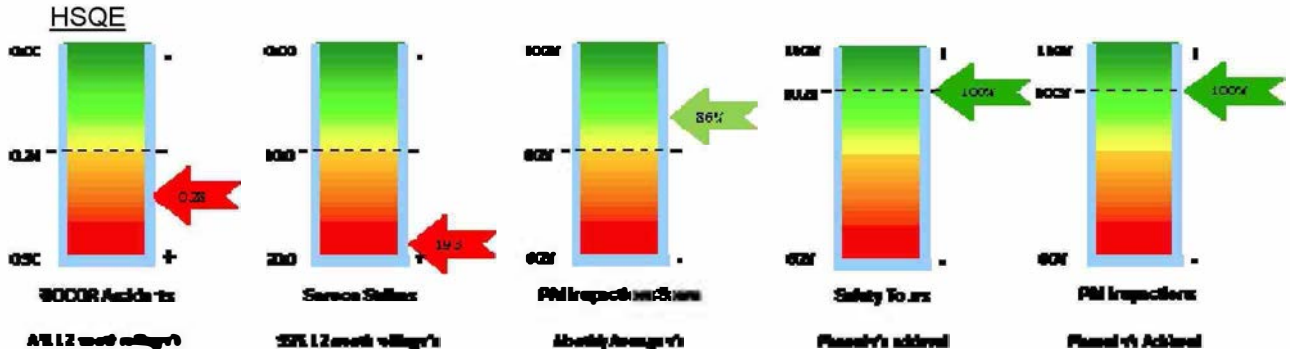
Date: 09/11/09

For and on behalf of **tie Limited**

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1 Executive Summary

1.1 Key issues



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

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

Programme

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

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

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

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

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

proposals for recovering the effects of their slow mobilisation will be included within the revised programme.

Opportunities for improvement include:

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

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

Progress – Design

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

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

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

Progress – MUDFA (Utilities)

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

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

Cumulative progress to date is as follows:

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

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

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

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

Progress – Infraco (including Tramco)

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

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

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

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

Progress – Other

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

Cost

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

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

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

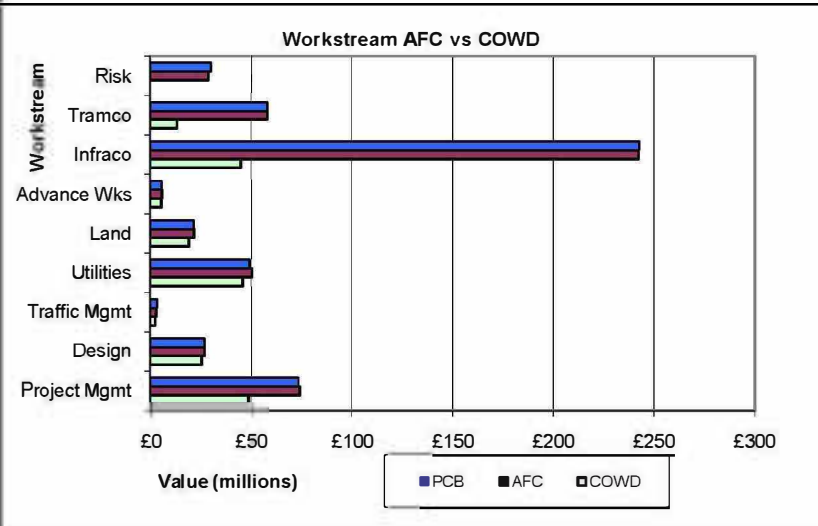
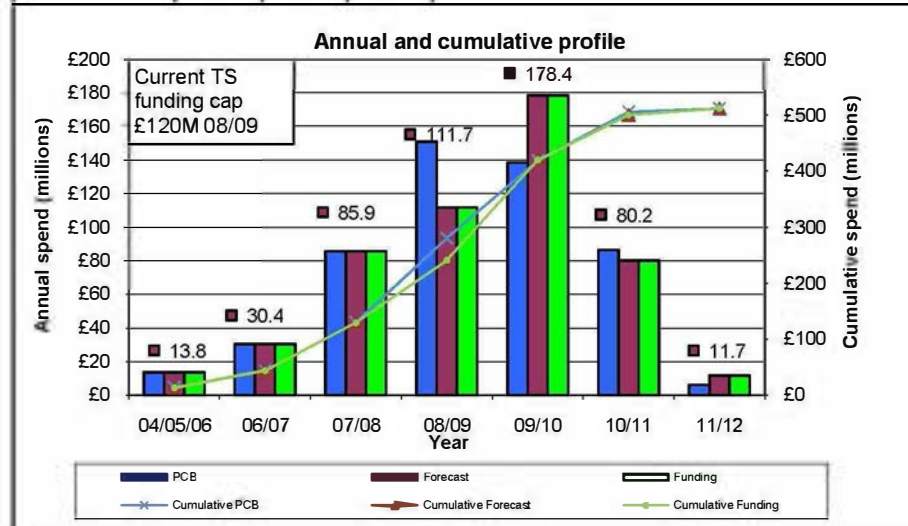
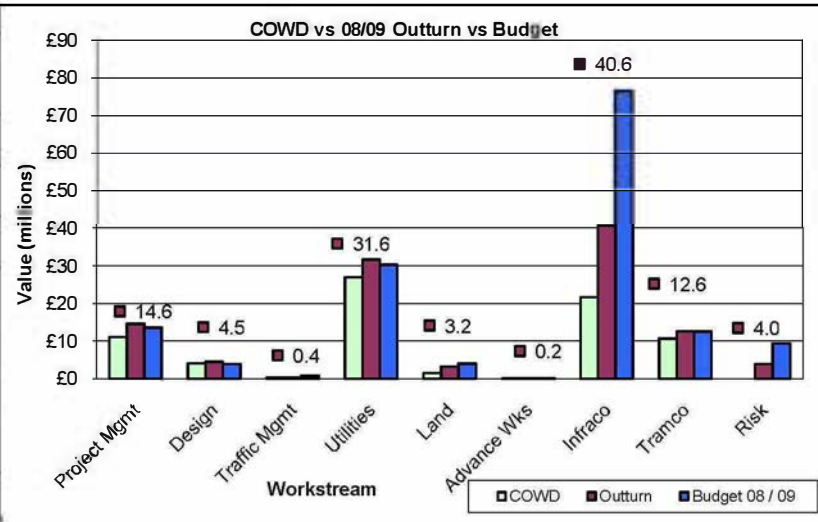
An updated estimate for Phase 1b was received in Period 10 and is currently being checked for accuracy and will be reported on in Period 11.

Potential changes

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

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

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



Risk

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

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

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

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

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

Communications

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

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

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

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

2 Progress

2.1 Overall

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

- Constraints imposed by the additional embargo in Leith Walk and Constitution St;
- Incomplete utility diversions caused in part by traffic management constraints (e.g. Manor Place);
- Slow mobilisation of Infraco;
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Opportunities for improvement include:

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

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

2.2 Design

The design is progressing as follows:

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

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

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

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

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

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

2.3 Utility works (MUDFA)

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

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

2.4 Tramworks (Infraco)

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

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Opportunities for improvement include

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

Progress against Contract Programme

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

Milestone progress

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

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

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

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

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

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

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

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

2.5 Tram construction (Tramco)

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

2.6 Testing and commissioning

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

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

2.7 Interface with other projects

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

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

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

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

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

Colour code

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

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

2.8 Other

Temporary traffic regulation orders (TTROs)

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

Traffic regulation orders (TROs)

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

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

Network Rail

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

Third party interfaces

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

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

Murrayfield pitches relocation

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

Fastlink

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

3 Headline cost report

3.1 Current financial year

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

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

Reforecast profile for FY08/09

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

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

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

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

3.2 Next financial year

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

3.3 Total project anticipated forecast cost

Phase 1a AFC and profiling

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

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

3.4 Change control

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

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

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

Risks to this position are described in Section 5 below.

4 Time schedule report

4.1 Report against key milestones

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

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

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

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

Guidance for Completion:

Legend for colouring of Actual / forecast date text

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

4.2 Key issues affecting schedule

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

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

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

4.3 12-week look-ahead

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

5 Risk and opportunity

5.1 Review of risk register

Reviews

The following reviews took place in the period:

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

Risk Register

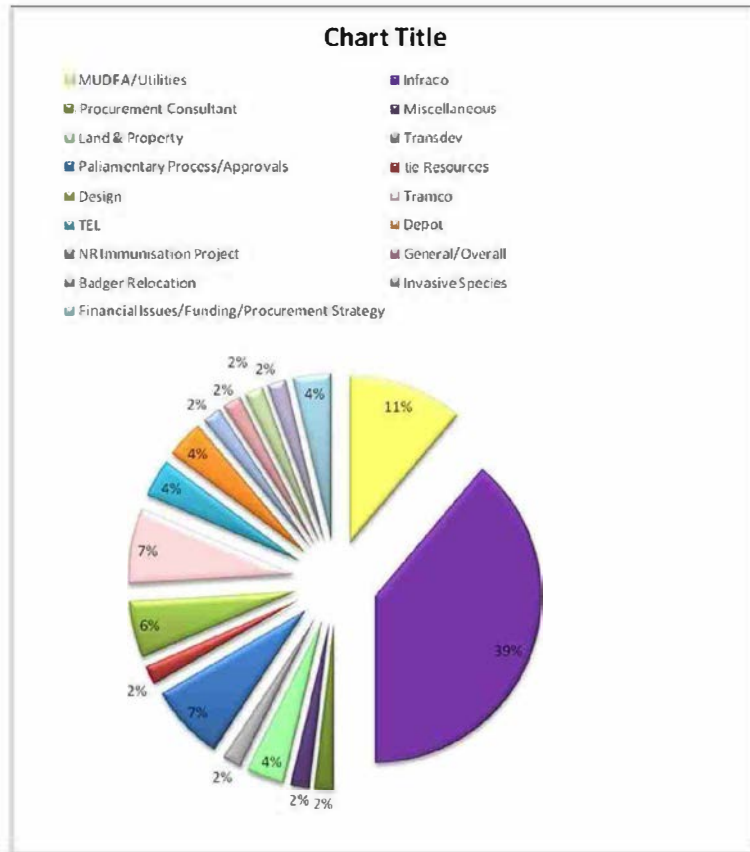
The Primary Risk Register is attached at Appendix D. The Primary Risk Register contains those high impact risks which are impacting (or have the potential to impact) the project at this moment in time.

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

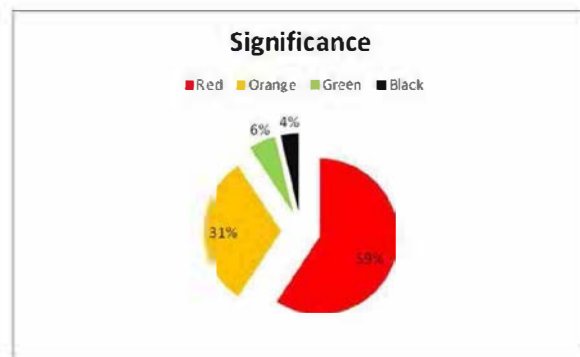
Top 5 Risks - Period 10

ARM Risk ID	Cause	Event	Effect	Risk Owner	Significance	Black Flag	Treatment Strategy	Previous Status	Current Status	Due Date	Action Owner
916	CEC do not achieve capability to deliver	CEC are unable to honour their funding commitment	Potential showstopper to project if contribution not reached; Line 1B may depend on incremental funding from CEC	S McGarity	NIL-000	Project	CEC has formed a multi discipline Tram Contributions Group to monitor identified sources of £45m contribution including critically developers contributions. We 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	MacKay
999		Extent of concessionary fare support commitment from TS provides inadequate comfort to CEC	CEC withdraw support for FBC and project fails	G Bissett	NIL-000	Project	Negotiate the terms of Government commitment to concessionary fare support to level which is satisfactory to CEC	On Programme	Complete	31-Jan-08	G Bissett
139	Utilities diversion outlines specification only from plans	Uncertainty of Utilities location and consequently required diversions may not be fully defined within LoB	Increase in MUDFA costs or delays as a result of carrying out more diversions than estimate	G Barclay			Carry out GPR & diens survey	Complete	Complete	31-Oct-07	J Casserly
							Identify suitable resources (contractors) to carry out diversions programme to meet required timescales	Complete	Complete	23-Nov-07	J McAloon
							In conjunction with MUDFA, undertake trial excavations to confirm locations of Utilities and inform designer	On Programme	On Programme	30-Apr-09	A Hill
154	Utilities assets uncovered during construction that were not previously accounted for unidentified abandoned utilities assets; asbestos found in excavation for utilities services, unknown cables and equipment; utility infrastructure; other physical infrastructure; other contaminated soil	Unknown or abandoned assets or unforeseen/contaminated ground conditions affect scope of MUDFA work	Additional activity in excavation/other areas and additional programme, increase in Capex cost as a result of additional works	I Clark			Carry out GPR & diens survey	Complete	Complete	31-Oct-07	J Casserly
							Identify increase in services diversions MUDFA to resource programme to meet required timescales	Complete	Complete	23-Nov-07	J McAloon
							Coordinate with MUDFA, undertake trial excavations to confirm locations of Utilities and inform designer	On Programme	On Programme	30-Apr-09	A Hill
952	Scope of works relating to Wide Area Modelling (WAM) have not been agreed with SDS because they consider this to be out with the scope of their contract	Uncertainty about extent of construction works required on road network relating to Wide Area Modelling issues	Potential claim from SDS to deal with additional design work; Potential construction costs to deal with WAM issues (difficult to quantify without design) over and above those already included	K Rimmer			Agree design requirements relating to WAM with SDS	Complete	Complete	31-May-07	T Glazebrook
							Employ further traffic management resources	Complete	Complete	31-Jan-07	C McLaughlan
							Finalise boundaries of Tram responsibility for WAM requirements	Complete	Complete	31-May-07	A Sm
							Obtain design and quantify construction cost for inclusion in base estimate	On Programme	Complete	31-Jul-07	T Glazebrook
							Provision of £500k in Draft Final Business Case estimate to deal with WAM requirements	Complete	Complete	31-Jan-07	G Gilbert

The risks within the Project Risk Register are categorised below:



The ratings of the risks are illustrated below:



New risks

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

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

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

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

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

Reassessed and closed risks

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

There were no risks closed in the period.

5.2 Risk action plan for next 2 periods

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

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

5.3 Cost Quantative Risk Analysis

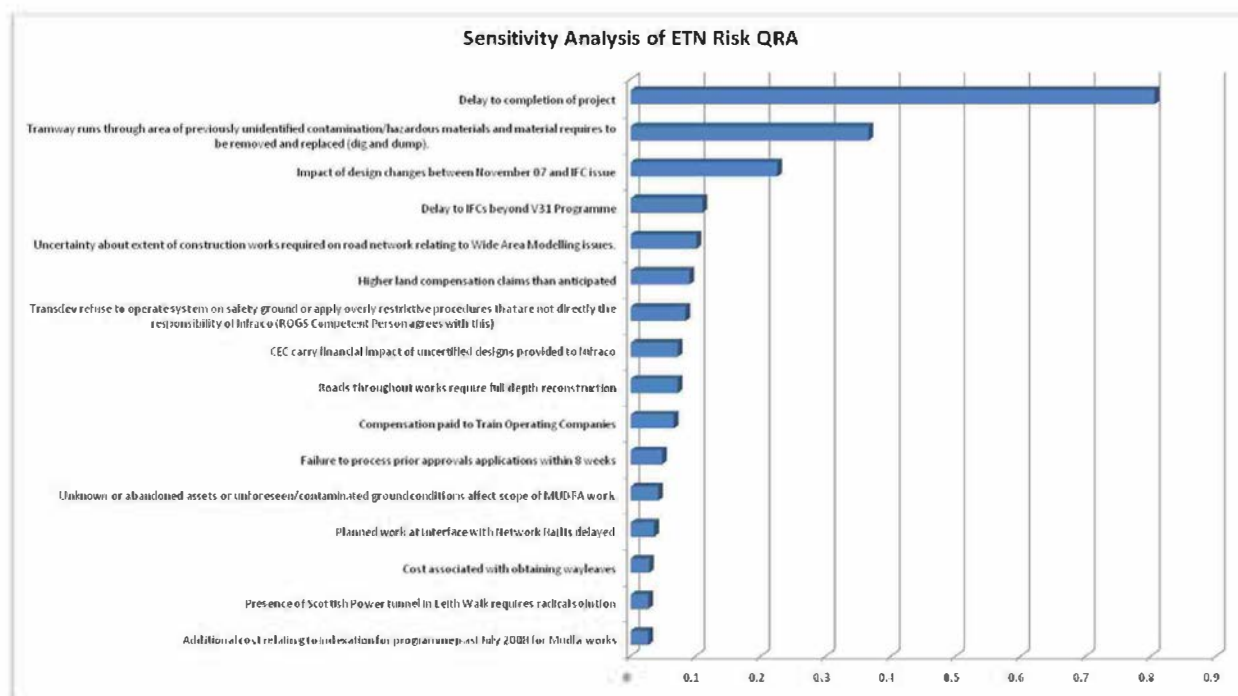
The cost QRA has remained unchanged in the period and the current P80 figure is £23,577k. In addition to this figure is £5,372k which constitutes risk allowances for specific items and contingency. The total project risk allocation is therefore £28,949k. This will be reviewed in Periods 10/11 in line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

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

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

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

Sensitivity analysis of cost QRA:



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

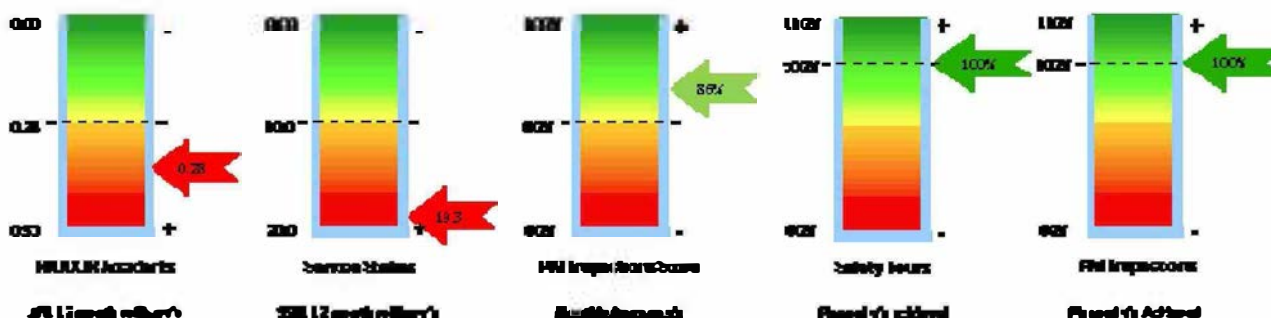
5.4 Schedule QRA

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

6 Health, safety, quality and environment

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

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



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

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

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

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

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

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

6.2 Environment

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

6.3 Quality

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

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

7 Stakeholder and communication

7.1 Stakeholder / communication strategy / plan

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

7.2 Stakeholder / communication update

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

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

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

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

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

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

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

7.3 Communication and stakeholder action plan for next period

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

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

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

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

Appendix 'A' Detailed cost report

FY 08/09: Demand on TS 103.008

1: HEADLINE FINANCIAL COMMENTARY

PERIOD RESULTS:

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

YTD RESULTS:

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

FULL YEAR FORECAST:

FY 0809 is for Phase 1a only. See Section 3 of the TS report.

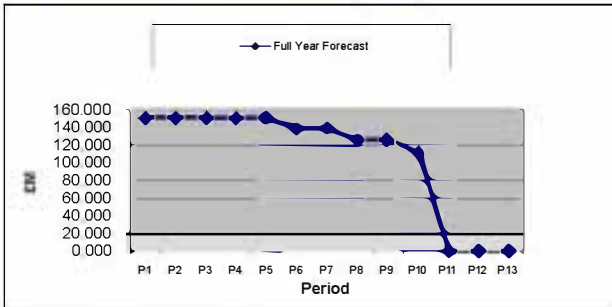
AFC:

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

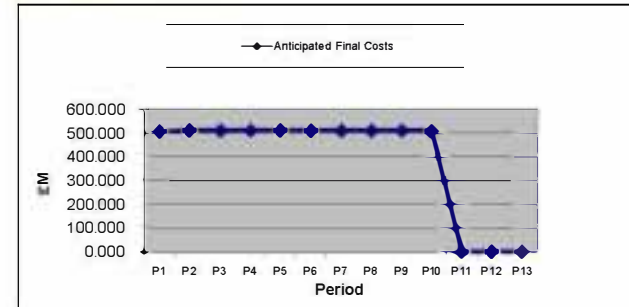
2: SUMMARY

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

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



GRAPH 2 - Period Trend of AFC



3: RISK AND OPPORTUNITIES TO:

FULL YEAR FORECAST:

See Section 3 of the TS report

AFC:

See Section 3 of the TS report

4: ACCRUALS COMMENTARY

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

PLANNED/EMERGING/FORECAST

Allocated in accordance with standard WBS. Values relevant to

business case or other agreed baseline date to be known as original estimate

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

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

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	10.195	14.508	10.650	111.658
7 Other Funding + Revised Forecast	-0.036	0.932	0.855	0.674	0.609	0.309	0.457	0.475	0.609	0.848	0.842	1.198	0.879	8.651
10 Total Demand on TS	6.493	10.355	9.505	7.488	6.762	3.435	5.074	5.275	6.768	9.418	9.353	13.310	9.771	103.008

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	-3.368	2.313	0.161	-39.193
13 Variance Line 2 to Line 7 - Oth Funding Actual vs Budget	0.000	-0.148	-0.322	0.041	-0.109	-0.414	-0.402	-0.782	-1.361	0.336	-0.278	-9.150	-9.610	-22.201
14 Variance Line 3 to Line 10 - Demand on TS vs Budget	0.000	-1.650	-3.583	0.454	-1.209	-4.604	-4.463	-8.690	-15.125	3.732	-3.089	11.463	9.771	-16.992

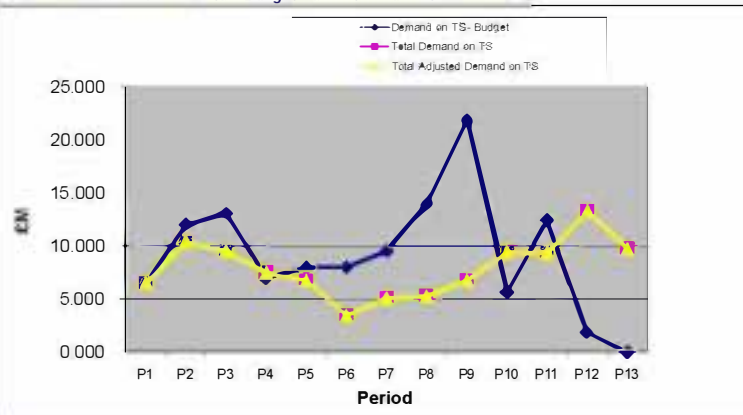
9: Next Year 09/10 - Forecast (Updated 4 weekly)

	Q1	Q2	Q3	Q4	Total	Financial Commentary - FY 09/10 Onwards
16 Total Project COWD	46.825	37.245	41.966	52.316	178.351	All costs are for Phase 1a only. See section 3 of the TS report.
19 Other Funding	3.866	3.075	3.465	4.320	14.726	
22 Total Demand on TS	42.959	34.170	38.501	47.996	163.625	

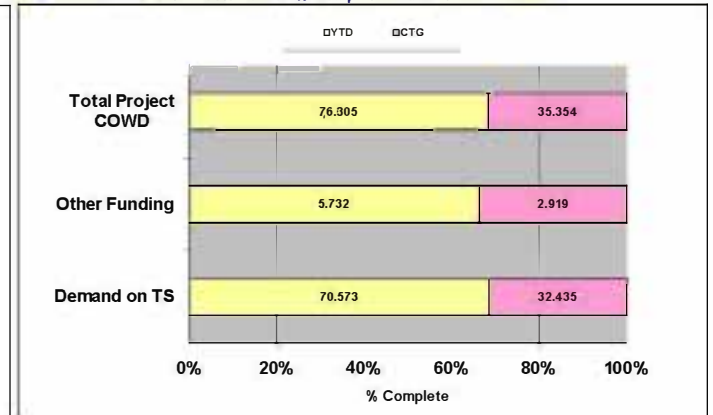
10: All Years (Escalated) (Updated 4 weekly)

	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	111.658	178.351	80.247	11.720	0.000	0.000			512.017
27 Other Funding	0.000	0.000	1.000	0.019	10.287	8.651	14.726	6.626	0.968	0.000	0.000			42.276
30 Total Demand on TS	0.000	3.093	9.664	30.412	75.565	103.008	163.625	73.621	10.752	0.000	0.000	0.000	0.000	469.741

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



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



11: Other Funding

	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	Total
Budget (Current Year 08/09)														
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
Total Budget Other Funding	-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
Actual (Current Year 08/09)														
CEC	-0.036	0.932	0.855	0.674	0.609	0.309	0.457	0.475	0.609	0.848	0.842	1.198	0.879	8.651
Other Funding Stream														0.000
Other Funding Stream														0.000
Other Funding Stream														0.000
Other Funding Stream														0.000
Total Actual Other Funding	-0.036	0.932	0.855	0.674	0.609	0.309	0.457	0.475	0.609	0.848	0.842	1.198	0.879	8.651

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			

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			

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 10 - 2008/009 Primary Risk Register

Risk Description											
ARM Risk ID	Cause	Event	Effect	Risk Owner	Significance	Black Flag	Treatment Strategy	Previous Status	Current Status	Due Date	Action Owner
139	Utilities diversion outline specification only from plans	Uncertainty of Utilities location and consequently required diversion work/ unforeseen utility services within LoD	Increase in MUDFA costs or delays as a result of carrying out more diversions than estimated	G Barclay	High - 25.05		Carry out GPR Adien survey	Complete	Complete	31-Oct-07	J Casserly
							Identify increase in services diversions. MUDFA to resource/re-programme to meet required timescales.	Complete	Complete	23-Nov-07	J McAloon
							In conjunction with MUDFA, undertake trial excavations to confirm locations of Utilities and inform designer	On Programme	On Programme	30-Apr-09	A Hill
164	Utilities assets uncovered during construction that were not previously accounted for; unidentified abandoned utilities assets; asbestos found in excavation for utilities diversion; unknown cellars and basements intrude into works area; other physical obstructions; other contaminated land	Unknown or abandoned assets or unforeseen/contaminated ground conditions affect scope of MUDFA work.	Re-design and delay as investigation takes place and solution implemented; Increase in Capex cost as a result of additional works.	I Clark	High - 25.05		Carry out GPR Adien survey	Complete	Complete	31-Oct-07	J Casserly
							Identify increase in services diversions. MUDFA to resource/re-programme to meet required timescales.	Complete	Complete	23-Nov-07	J McAloon
							In conjunction with MUDFA, undertake trial excavations to confirm locations of Utilities and inform designer	On Programme	On Programme	30-Apr-09	A Hill
44	SDS contractor does not deliver the required prior approval consents in line with SDS V31	Late prior approval consents	Delay to programme with additional resource costs and delay to infraco. Impact upon risk balance.	D Sharp	High - 25.05		Evaluation of prior approval programme	Complete	Complete	31-Oct-08	D Sharp
							Hold fortnightly Roads Design Group	Complete	Complete	31-Dec-07	T Glazebrook
							Informal consultation prior to statutory consultation	On Programme	On Programme	31-Dec-08	T Glazebrook
							Integrate CEC into tie organisation/accommodation (office move)	Complete	Complete	4-Jun-07	T Glazebrook
							Weekly Meetings of Approvals Task Force	On Programme	On Programme	31-May-09	D Sharp
173	Uncertainty over extent of contaminated land on route	Tramway runs through area of previously unidentified contamination and material requires to be removed and replaced (dig and dump).	Increase in costs to remove material to special and other tip.	R Bell	High - 25.05		Issue containment and gi report to Infracco bidders	Complete	Complete	2-Mar-07	B Dawson
							tie to obtain ground investigation and contamination reports from SDS	Complete	Complete	30-Mar-07	A McGregor

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

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

		Risk Description									
ARM Risk ID	Cause	Event	Effect	Risk Owner	Significance	Black Flag	Treatment Strategy	Previous Status	Current Status	Due Date	Action Owner
1076	Utilities do not finish diversion works prior to Tramworks commencing work	Tramworks are unable to commence work or work is delayed/disrupted	Delay and disruption claims from BSC.	R Bell	High - 16 00		Tramworks PMs attendance at Traffic Management meetings. Weekly meetings between tie Tramworks and Utilities PMs. 4-weekly tie Tramworks/Utilities management meetings. Identification of programme clashes between Tramworks and Utilities works tracked	N/A	On Programme	31-Jul-09	R Bell
1077	Lack of visibility of design changes between November 2007 and May 2008	Tramworks price based on a design which may have been altered. Unclear who authorised design change.		R Bell	High - 11 00		Establish a process which will act as a control mechanism for design changes. (If one exists already then ensure process is complied with)	N/A	On Programme	31-Dec-08	T Glazebrook
1078	Lack of effective engagement from BSC leaders towards tie and third parties (NR, BAA, Forth Ports) and the Tram project as a whole.	Failure of partnership approach between tie and BSC. Failure to maintain effective third party relationships with key third parties.		R Bell	High - 11 00		Engagement between tie and BSC at different levels. Regular review of BSC management of third parties as per Employers Requirements.	N/A	Complete	31-Dec-08	R Bell
1079	Failure of BSC to effectively resource up for project	Lack of competent resources within BSC to safely and effectively deliver Tram project	Delay to programme and additional cost	R Bell	High - 11 00		Ongoing review of BSC resources and formal review at 4-weekly meeting. Objectives to be set for BSC at monthly meetings in order to monitor progress.	N/A	On Programme	31-Jan-09	R Bell
1080	TPB have agreed a 5 week embargo on Leith Walk from 12 Dec 08 to 19 Jan 09.	Leith Walk embargo causes delay to construction and utility diversion works.	Delay to programme, extension of time claim. Additional costs.	R Bell	High - 11 00		Minimise contractors exposure by identifying other work scopes outside the embargo area.	N/A	On Programme	31-Jan-09	R Bell
1081	Traffic modelling has shown that one lane needs to be kept open on Princes Street during works	Princes Street works take longer than programmed due to one lane being kept open.	Delay to programme, extension of time claim. Additional costs.	R Bell	High - 11 00		Production of robust programme to mitigate losses	N/A	On Programme	31-Jan-09	R Bell

Appendix 'E' Resource information

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