

## **Transport Edinburgh**

**Edinburgh Trams** 

**Lothian Buses** 

Tram Project Board Report on Period 1 Papers for meeting 6<sup>th</sup> May 2009

## 10:00am - 1:00pm following the tie Board meeting

#### Distribution:

#### Members and attendees

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

Cllr Phil Wheeler Stewart McGarrity Cllr Allan Jackson Cllr Gordon Mackenzie Colin McLauchlan Peter Strachan Donald McGougan Richard Jeffrey Dave Anderson Graeme Bissett Alastair Richards Neil Scales Elliot Scott (minutes)

#### In addition - for information only

Cllr Maggie Chapman Andy Conway Norman Strachan Iain Coupar Susan Clark Cllr Tom Buchanan Frank McFadden Alan Coyle Gregor Roberts Jim McEwan

Dennis Murray Ailie Wilson Alasdair Sim Gill Lindsay

## **Transport Edinburgh**

#### **Edinburgh Trams**

#### **Lothian Buses**

Lothian Buses	FOISA exempt ☐ Yes
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FOISA exempt
☐ Yes
☐ No

## Agenda Joint Tram Project Board / tie Board Brunel Suite – Citypoint, 2<sup>nd</sup> Floor

6<sup>th</sup> May 2009 – 10.00am to 1.00pm following the tie Board meeting

#### Attendees:

David Mackay (Chair)	Cllr Phil Wheeler	Donald McGougan
Marshall Poulton	Richard Jeffrey	Dave Anderson
Bill Campbell	Stewart McGarrity	Graeme Bissett
Steven Bell	Cllr Allan Jackson	Alastair Richards
Kenneth Hogg	Cllr Gordon Mackenzie	Neil Scales
Cllr Ian Perry	Colin McLauchlan	Elliot Scott (minutes)

Brian Cox

Apologies: Peter Strachan, Jim McEwan

- 1 Review of previous minutes and matters arising
- 2 Presentation
- 3 Project Director's progress report for Period 01
  - Utility strategy to completion
  - Procurement strategy at Burnside Road
- 4 Change requests / risk drawdown
  - Period 1 changes
  - Depot risk drawdown
  - · MUDFA risk drawdown
- 5 Traffic Management Peer Group and Finance, Commercial and Legal subcommittee verbal updates
- 6 Health and safety update
- 7 Risk
- 8 Date of next meeting 3<sup>rd</sup> June 2009
- 9 AOB

FOISA exempt ☐ Yes ☐ No

#### **Edinburgh Tram Network Minutes**

#### STRICTLY PRIVATE & CONFIDENTIAL

#### **Tram Project Board**

#### 15th April 2009

#### tie offices - Citypoint II, Brunel Suite

Members:			
David Mackay (Chair)	DJM	Bill Campbell	WWC
Cllr Phil Wheeler	PW	Donald McGougan	DMcG
Dave Anderson	DA		
In Attendance:			
Susan Clark	SC	Clir Allan Jackson	AJ
Kenneth Hogg	KH	Cllr Gordon Mackenzie	GMac
Graeme Bissett	GB	Cllr Ian Perry	IP
Marshall Poulton	MP	Stewart McGarrity	SMcG
Neil Scales	NS	Alastair Richards	AR
Andy Conway	AC	Elliot Scott (minutes)	ES

Apologies: Peter Strachan, Brian Cox, Steven Bell, Jim McEwan

1.0	Previous meeting	
1.1	The minutes of the previous meeting were taken as read. There were no	
	outstanding actions.	
2.0	Presentation	
2.1	<u>Overview</u>	
	DJM welcomed everyone to the meeting. SC gave an overview of progress to	
	date, especially the work completed on the strategic options.	
2.2	<u>HSQE</u>	
	SC updated the Boards on the current safety performance and noted that the	
	AFR had risen to 0.38 due to an accident involving a Carillion operative	
	jumping into a trench. On a positive note, the number of inspections and tours	
	being completed is continuing to meet or exceed the targets.	
2.3	Strategic Options	
	SMG presented the Boards with a paper on the progress to date on the	
	strategic options for Infraco. Specific points of note, discussion and questions	
	are summarised below.	
2.4	SMG noted that the PMP has been established and BSC delivery impetus has	
	improved. He noted that BSC were over-achieving against the programmes	
	they had set for Princes Street and the depot excavation. The key for continued	
	progress will be to continue positively with a spirit of co-operation.	
2.5	AR outlined the progress in the first two PMP meetings and noted that it will be	
	a good forum for resolving issues. He noted that Martin Foerder believed that	
	the BSC attendees had the responsibility and authority to make decisions on	
	behalf of the consortium. In addition BSC were coming forward with well	

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	□ NO	
	thought out proposals and that there was good engagement with all members of the consortium. He believed that demonstrating early achievement of	
	milestones against a lower baseline was good for confidence building as long	
	as there is scope for bringing forward future activities.	
2.6	SMG outlined the next steps to pursue assurance and confidence regarding	
	programme and cost for the stakeholders and the workstreams that will be in	
	place to achieve. Key points included:	
	The remit of the PMP includes an objective to deliver a commercially	
	agreed updated programme by June 09;	
	SMG noted that a 2011 opening date is still achievable but that this needed	
	to be agreed with BSC (current <b>tie</b> baseline programme shows Feb 2012);	
	The current risk allowance is sufficient to complete the remaining utility	
	diversions;	
	There is a challenge relating to the resource costs (tie / TEL / CEC)	
	required for the revised end date. <b>tie</b> senior management will clarify this by	
	Period 2;	
	There will be a Peer Review addressing contract management by the	
	members of the OGC team in May;	
	The need for expediency in implementing the proposed changes in	
	governance; and	
	The review of "safety valves" including changes in scope and funding.	
2.7	In response to a question from GMac regarding the cost and availability of	
#EL199	additional resources, SMG stated as well as taking external advice, an	
	additional two commercial positions were being advertised and people had	
	been seconded from CEC and other people have been repositioned internally.	
	He repeated that it is still a challenge to manage the resource costs across the	
	project. DJM noted that streamlining the governance structure would present	
	opportunities and the sooner it is completed, the better for the project.	
2.8	SMG noted that DLA were confident of tie's position with regard to the principle	
	areas of contractual disagreement with BSC and this is to be supplemented by	
	reinforcing technical analysis and legal opinion. DJM expressed his desire to	
	be sure of <b>tie</b> 's position and pointed out that this brings confidence in	
	negotiation.	
2.9	IP raised the issue of the risk of unforeseen ground conditions. SMG replied	
The second second	that there are two uncertainties; what is below ground and soft ground. He	
	noted that <b>tie</b> 's risk is those that are <u>unforeseen</u> and that the risk allowance for	
	this is being reviewed.	
2.10	SMG stated that the critical success factors include continued support for tie	
9.0000000	senior management from the TPB and CEC. He also noted that any further	
	design changes or programme restrictions (e.g. traffic management) imposed	
	by us will make certainty more difficult to deliver.	
2.11	SMG stressed to all present the commercial sensitivity of the information	
	shared at the meeting. DJM assured the Councillors and CEC staff that the	
	content of the report to the full council could be managed without	
	compromising <b>tie</b> 's position. DMcG noted that a draft paper would be circulated	
	by cob on 15 <sup>th</sup> April 2009 and that it would state that there is not currently full	
	agreement on commercial and programme issues.	
2.12	DMcG stated that the Financial, Commercial and Legal committee should be	
AN CONTRACTOR OF THE PROPERTY	The state of the s	

FOISA exempt ☐ Yes ☐ No

the forum that such issues are debated. SMG and DJM agreed as the nimportant issues at the moment are the commercial ones, but noted that attendees did not have the authority to make decisions and that, as it is committee of the TPB, TPB members should attend. MP agreed to lead review of CEC attendees and SMG agreed to take up within tie.  2.13 The Board approved the workstreams and milestones recommended in paper.  3.0 Project delivery  3.1 SC outlined current progress and highlighted that significantly better productivity was being achieved than BSC had planned, both at the depon Princes Street. This is tempered by continued slow progress at the CK Knowe and Haymarket viaducts. In addition the subcontractors are all sworking under letters of intent and as a result the collateral warranties a outstanding.  3.2 DMcG noted that there is a meeting with Princes Street businesses on April and that a key issue will be the Festival embargo. He stated that his that work should continue through the embargo to reduce the risk of fine intent and as a result to reduce the risk of fine that work should continue through the embargo to reduce the risk of fine intent and as a result to reduce the risk of fine that work should continue through the embargo to reduce the risk of fine intent and as a result to reduce the risk of fine that work should continue through the embargo to reduce the risk of fine intent and as a result to reduce the risk of fine intent and as a result to reduce the risk of fine intent and as a result the collateral warranties and the reduced that the reduced that the reduced that the reduced the risk of fine intent and as a result to reduce the risk of fine intent and as a result the collateral warranties and reduced the reduced that the reduced that the reduced the reduced that the reduced the reduced that the reduced the reduced that the reduced that the reduced that t	at many s a sub- d a MP SMG  The  pot and Carrick still
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April and that a key issue will be the Festival embargo. He stated that h is that work should continue through the embargo to reduce the risk of f	
delay. He noted that it would be the policy and strategy committee that make this decision on behalf of the Council. DJM added that Dr Keysbe stated in a discussion that he "could see no reason that BSC couldn't can on Princes Street".  In addition, DMcG raised the issue of working evenings and weekends a Princes Street. SC and MP agreed that this should be explored at the mon the 28th as BSC will have gained some momentum by then.	nis view further would erg had atch up on
In relation to the Utility works, SC relayed to the Board that Carillion ma difficult to substantiate their delay and disruption claim and that there wis significant negotiation required to resolve this issue. In addition, tie is considering removing the outstanding utility work from Carillion's scope tendering it.	rill be
3.4 SC noted that there would be a dedication service for the Hearts war may prior to its removal for storage. DJM noted that, as he would be unavailable attend, it is important that there is senior project representation at the set The stakeholders have since decided that there will not be a dedication service.	able to ervice.
4.0 Finance	
4.1 SMG presented the headline financial position, including a forecast out to 09/10 of £150m (TS have allocated £149m for their share) and an unappear AFC of £527.1m. Allowing for Phase 1b postponement, this leaves £11. headroom against total approved funding of £545m. SMG noted that the strategic options workstreams will clarify whether or not the headroom is to be sufficient over the coming period.	oproved .7m e
5.0 HR / Communications	
5.1 SC briefly outlined the communications activity during the period and protection the "programme storyboard". SC agreed to consider making the storyboard accessible on the website and also making it even simpler as well as promote detail for specific areas such as Princes Street.	oard SC
5.2 DA noted that the communications need to be targeted to the specific	

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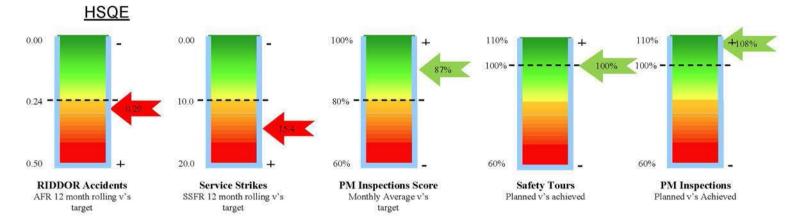
FOISA exempt ☐ Yes ☐ No

5.3	WWC noted that, from a LB point of view, the east to west flow of transport was working better than the north to south flow. He followed by saying that the key lesson is the careful planning and co-operation of key parties was critical to the successful implementation of the diversions.	
6.0	Change	
6.1	The Board formally approved the Princes Street change order (£1.13m increase in budget) and the MUDFA risk drawdown (£1.03m).	
7.0	Risk	
7.1	SC outlined the current risk position and noted that the treatment plans were being focused on the mitigate risks as necessary.	
8.0	AOB	
8.1	DJM noted that Richard Jeffrey would be starting on the 27 <sup>th</sup> April ( <i>he started on the 22<sup>nd</sup> April</i> ). He stated that it has been fun leading the team since November and that he was looking forward to introducing Richard to the Board.	
8.2	PW offered his thanks on behalf of the Boards to David for filling the dual role of Chief Executive and Chairman of tie.	
8.3	The date of the next meeting will be Wednesday 6 <sup>th</sup> May.	

Prepared by Elliot Scott on 15<sup>th</sup> April 2009.

### **Project Directors report**

**tie** provided Transport Scotland with a update summary of cost and programme on 26<sup>th</sup> March 2009. The relevant sections of this report have been updated to reflect these <u>unapproved</u> changes. These are subject to review by the Tram Project Board and CEC under the existing delegated authorities.



There were no reportable accidents during period and the project 13-period rolling AFR is 0.29 (target 0.24). The frequency of service damages has decreased during the period on the project and for Carillion but the BSC frequency has slightly increased. The percentage of power cable strikes has decreased during this period.

Although the score for **tie** health and safety inspections on the contractor fell slightly during period it is still above the 80% compliance level. The number of inspection carried by **tie** PM's was over 100% of those planned. All of the planned safety tours were carried out by **tie** senior management in the period. One safety tour resulted in a contractor being stopped due to a deficient lifting plan.

A successful meeting was held between **tie** the Health and Safety Executive, Carillion and BSC to discuss Occupational Health Management. This meeting was a follow up from a December meeting with the HSE.

#### Commercial

The Project Management Panel (PMP) set up as part of the solution to the disputes surrounding works on Princes Street has now met on three occasions and has been focusing on key priorities for the project which are impacting on programme and commercial issues. This is helping to build the relationships between both teams and some successes have been delivered through this process including:

- Agreement on preliminary costs for the works on Princes Street;
- Good progress on the physical works on Princes Street;
- Agreement being reached to allow excavation works to commence at the depot and significant progress has been made against the plan at this location; and
- Constructive discussions in relation to the movement between Base Date Design and IFC drawings

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Additionally, **tie** and BSC have entered into mediation over the one item referred to the dispute resolution process. The mediator has been agreed between **tie** and BSC and the date set for 18/19<sup>th</sup> May.

During the period **tie** commenced an independent forensic planning exercise to validate the work done by **tie** in capturing all reasons for delay to date. This exercise will review the contractual liability for delay and put **tie** in a strong position when BSC and **tie** seek to agree the recalibration of the programme and any potential acceleration costs, mitigation and recovery.

Last period it was reported that BSC had appointed a new Project Director (Martin Foerder). This has been supplemented this period by the appointment of a new Director from Siemens (Miguel Berrozpe).

Carillion and **tie** have continued robust discussions regarding potential additional delay and disruption costs seeking to agree a mechanism for substantiating any additional costs. To date, Carillion has not been able to provide demonstrable evidence that would allow **tie** to substantiate this and work continues to resolve this.

#### Programme

Last period **tie** presented an <u>unapproved</u> recalibrated baseline programme which reflects an Open for Revenue Service date of 23 Feb 2012. This is still a **tie** only view as, to date, a recalibrated programme has not been agreed with BSC.

The **tie** live programme currently predicts an Open for Revenue Service date of July 2012. This is earlier than last period due to a small logic change being made to track resources at one location. Next period **tie** will begin to use some of the productivity rates experienced on Princes Street and the depot to re-forecast the live programme and this is expected to generate some further time benefits. These may of course be offset by delays / impacts elsewhere.

The table below was reported last period and as well as the recalibrated baseline programme it also reflects a completely unmitigated programme as a control scenario only. This is an unapproved delay to the Open for Revenue Service date. On a section by section basis there are "swings and roundabouts" identified in terms of improvement / degradation of delivery dates. Integration of these sections by BSC is now underway and the re-baselined programme assumes the all logic changes will be accepted by BSC.

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☐ No

Area	Description	Unmitigated Finish	Re-baseline Finish
Section 1A	Newhaven Road to Foot of the Walk	03-MAY-12	08-SEP-11
Section 1B	Foot of the Walk to McDonald Road	10-JAN-12	09-SEP-11
Section 1C	McDonald Road to Princes Street west	28-MAR-12	06-SEP-11
Section 1D	Princes Street west to Haymarket	19-OCT-11	17-MAR-11
Section 2A	Haymarket to Roseburn junction	14-FEB-11	28-JUL-10
Section 5A	Roseburn Junction to Balgreen Road	20-MAR-12	17-JUN-11
Section 5B	Balgreen Road to Edinburgh Park central	23-JUN-11	04-FEB-11
Section 5C	Edinburgh Park Central to Gogarburn	24-OCT-11	20-JAN-11
Section 6A	Gogar depot	28-MAR-11	15-OCT-10
Section 7A	Gogarburn to Ingliston Park and Ride	07-JUL-11	11-MAR-11
Section 7B	Ingliston Park and Ride to Airport	26-JUL-11	11-MAR-11
Section A	Depot (ready to receive trams)	21-JAN-11	15-OCT-10
Section B	Test track	07-JUL-11	27-DEC-10
Section C	All construction complete	20-APR-12	27-AUG-11
Section D	Open for Revenue Service	17-OCT-12	23-FEB-12

Importantly, the re-baseline programme does not take account of any opportunities regarding:

- Improved productivity rates Princes Street will be an important test in this regard;
- 2. Embargo relaxations;
- 3. Alternative construction methodologies to recover time;
- Adjustments to the testing and commissioning phase (the original programme window has been held); or
- 5. Partial opening options.

The recalibration of the programme is one of the key priorities for the PMP in Period 1 with submission of a recalibrated programme expected from the consortium early in Period 2.

#### Progress - Design

Performance in the completion of the design is still slow with seventy six out of the 93 IFCs issued to date. This is being escalated within BSC and through the Approvals Taskforce and there are a number of initiatives underway.

Phase 1a only	Number required		Num	ber
50	v31 v44		Submitted	Granted
Prior Approvals	49	54	51 (94%)	49 (91%)
Technical Approvals	71 80		72 (90%)	68 (85%)

#### Progress - MUDFA (Utilities)

Due to the ongoing poor performance of Carillion, alternative delivery options have been considered for diversions in the Forth Ports estate and at Edinburgh Airport. This will accelerate the completion of the utility works and reduce overheads and will be presented to the Tram Project Board in Period 2 for formal approval. This allows a controlled closure of the Carillion utility works substantially by end July with residual works being transferred to BSC or other contractors.

Cumulative progress on utility diversions is shown in the table below.

	Rev 7.9	Revised	Plan to	Completed	%
	total (m)	total (m)	date (m)	to date (m)	completed
On-street	40,625	38,324	38,324	26,280	68.6%
Off-street	11,969	7,850	7,850	7,841	99.9%
Total	52,594	46,174	46,174	34,121	73.9%

#### The following is of note:

- Physical work on the diversion of the medium pressure gas main in the Mound is well underway and progressing to programme;
- Diversions are in the final stages between Foot of the Walk and MacDonald Road and will be complete in late May / early June;
- Utility diversion works are nearing completion in St. Andrews Square and will be completed by late May;
- Delays were experienced at Haymarket due to an unrelated SGN gas leak which impacted on the Tram traffic management and prevented work from progressing. Although it delayed works for approximately three weeks, this has now been resolved;
- Incomplete utility diversions are now impacting on construction works at Haymarket and Leith Walk. This is being addressed by integration and reviewing traffic management options to gain greater productivity; and
- Where sections are complete, this allows BT and SGN connection works to be undertaken. In the next period report these programmes will also be reported.

#### Progress – Infraco (including Tramco)

Good progress was made in Princes Street during the period and planning and concrete excavations were complete between South Charlotte Street and The Mound. Excavation at the depot during the period progressed better than planned and in three weeks 20% of the total spoil has been removed. Works continued at Edinburgh Park with the installation of bridge beams and at Gogarburn bridge and Verity House access road.





Beams being lifted into place at the Edinburgh Park viaduct on 8th April and beams in place on 21st April

Disappointingly, progress has continued to be slow or lacking at other locations where work could be ongoing, including the Carrick Knowe bridge and Haymarket viaduct. Additionally, tram construction work has been deferred on Leith Walk until utility diversions have been completed. This is expected to recommence in late summer and alternative traffic management access arrangements are being considered to recover some of the time lost. During the next period this will be discussed with the key stakeholders on Leith Walk. The sub-contractor has been redeployed to construct the Verity House access road and Princes Street.

BSC have still not entered into formal contracts with any of their sub-contractors and this appears to **tie** to be one reason for slow progress at a number of locations.

Good progress is being made with delivery of Tramco deliverables and internal fitout of the first modules commenced. It is anticipated that the first tram will be completed for Factory Acceptance Testing at end of July 2009.

#### Progress - Other

- Draft schedules for the TROs have been prepared and formal consultation will commence in May / June. tie are currently awaiting a set of TRO drawings to enable the statutory consultation process to commence (anticipated early summer 09);
- Forth Ports a target date to execute the FP agreement is set for 11/05/09. FP and CEC legal are currently reviewing the final draft;
- Haymarket carpark compensation tie have agreed compensation with NR and will settle this in Q1 09/10. 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. A meeting is arranged with TS to address this in Period 2;
- 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;

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- Front Line have completed all the civil works with the remaining signage erected to coincide with the new traffic regulation order which will be reviewed by CEC on 5/5;
- The removal and relocation of a number of the Hearts War Memorial monument will start on the 3<sup>rd</sup> May to tie in with the utilities traffic management; and
- An alternative procurement strategy is being pursued for the utility and construction works at Burnside Road.

#### Cost

The forecast outturn cost for 2009/10 is £150.1m. This is a significant increase from 2008/09 (£101.0m), and reflects the ramp-up in the Infraco construction works.

A full reforecast of the cost profile has been produced which links the re-baselined programme (opening 23<sup>rd</sup> February 2012) to Infraco constructions milestones resulting in the £150.1m forecast. In addition, £3.2m of costs have been budgeted in 2009/10 as a result of the postponement of Phase 1b construction. Funding available from TS for the project in 2009/10 is £149m. The TS share of this year's budget (£153.3m) is £140.6m, giving available TS funding headroom of £8.4m.

The AFC for Phase 1a reflects an as yet <u>unapproved</u> increase of £15.1m to the project risk allowance and total Phase 1a cost of £527.1m. The <u>approved</u> cost estimate remains at £512m. Allowing for Phase 1b postponement costs of £6.2m (which includes £3.0m of previous year costs) there is £11.7m of funding "headroom" within the £545m total funding available.

During the period £3.0 was drawn down from the risk allowance. This has been approved at the Change Panel in line with the project delegated authorities. Two of these risk drawdowns require TPB approval.

#### Potential changes

The following potential changes have been identified. These will impact cost, programme or risk and are outwith the <u>unapproved</u> £522-540m range given to TS on the 26<sup>th</sup> March:

- Gogar interchange impact of changes to facilitate the provision of the Gogar interchange station (to be funded by TS); and
- 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.

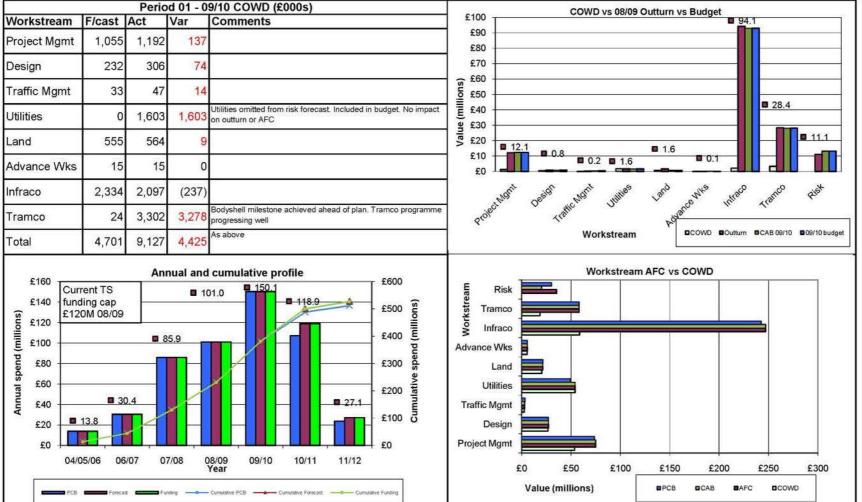
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#### Risk

A total of ten separate risk reviews were held during the period. The QRA was reduced in the period following the drawdown of £3.0m from risk. The total unutilised risk allowance included in the approved budget of £512m is now £20.2m.

Included in the top primary risks are:

- Tramworks based on a design that may have altered;
- Costs of works at Burnside Road exceed that allowed in the project budget;
- Excavation of soft, unsuitable material below the earthworks outline is required;
- Costs associated with additional works requested by CEC planners;
- Roads throughout the works require full depth reconstruction;
- Delay to IFC drawings beyond V31;
- Tramway runs through area of previously unidentified contamination / unforeseen ground conditions;

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

There are 47 risks in the risk register. There were four new risks added to the risk register in the period, one was split into two separate risks and five were closed. Treatment plans are in place for each risk and are being monitored.

The QRA which was in place at Financial Close is regularly reviewed. The programme and cost profile submitted to Transport Scotland on 26 March 2009 highlighted, amongst other issues, an <u>unapproved</u> increase in the Project Risk Allocation as a result of the updated QRA. The key drivers behind this increase were the amendment of an existing risk (Risk Id 343 – delay to completion of project) and the addition of the following four new risks:

- Over excavation at depot impact on cost and programme issues still to be finalised and agreed with Tramworks (subsequently included within existing Risk Id 974 – Increase in levels of spoil excavation);
- 2. Movement below track support zone;
- 3. Roads throughout works require full depth reconstruction; and
- 4. Tramworks price based on a design which may have been altered.

A further review of risks and the QRA took place in Period 1. Number 1 above was amalgamated into the existing risk while a further new risk was identified:

Cost of works at Burnside Road exceed that allowed on project budget.

All existing risks, as well as those recently added, are being reviewed to ensure the QRA output is as accurate as is reasonably possible. It is accepted that the additional risks and increase in QRA output are currently <u>unapproved</u>. These are within the <u>unapproved</u> range in costs provided to TS on 26<sup>th</sup> May. **tie** will continue to report on the risk allocation at Financial Close until a new budget (with an updated QRA) is approved.

FOISA exempt ☐ Yes ☐ No

#### Communications / Customer Service

During its five week stay on Princes Street the mock up had 73,939 visitors. The mock up has now been moved to Leith, at the top of Constitution Street for a similar timeframe. Similar to Princes Street, and as part of developing stakeholder relationships, **tie** produced a banner for the site fencing for five businesses on Leith Walk who were partially or fully obscured by work sites.

Media activity has included a news release for the appointment of Richard Jeffrey, a release on the removal of the Haymarket War Memorial and a release about **tie** sponsorship of Edinburgh Open Doors Day. The Cockburn Association is a key stakeholder who co-ordinates the Open Doors Day. Last year it attracted 80,000 visitors to over 75 buildings across Edinburgh; by partnering the event it gives **tie** an opportunity to raise the profile of Edinburgh trams.

Events that **tie** are involved with continue, enabling networking with key business leaders and give opportunities to raise the profile of Edinburgh's future need for tram. This period activities include a presentation to Leith Rotary Club and the CBI Lunch. In addition, as part of the STUC conference in Perth, **tie** organised a fringe event featuring Councillor Andrew Burns and Paul Tetlaw from Transform Scotland coinciding with the wider debate on transport infrastructure. As part of the ongoing commitment to work with the cycling community, **tie** also attended the Cycle forum.

In addition to responding to any ongoing issues surrounding the council's announcement about Line 1B, media activity next period will focus around the continued construction works. The team will also be working with Richard Jeffrey, the new Chief Executive, to look at how to raise his profile through the media in the forthcoming weeks.

Edinburgh Tram TV will also be launched on the trams for Edinburgh website. There will be a three minute slot updated fortnightly; the first one will feature Richard Jeffrey. Other key stakeholders and people involved in the project will feature as part of a new way of communicating relevant issues about the project on an ongoing basis.

# CEC00633071\_0018

	Risk Descr	ipuon									
ARM Risk ID	Cause	Event	Effect	Risk Owner	Significance	Black Flag	Treatment Strategy	Previous Status	Current Status	Due Date	Action Owner
1077	Lack of visibility of design changes between November 2007 and May 2008	Tramworks price based on a design which may have been altered.		F McFadden	High - 25.68		Establish a process which will act as a control mechanism for design changes. (If one exists already then ensure process is complied with)	On Programme	On Programme	31-May-09	T Glazebrook
1090	Initial costs for Burnside Road works higher than anticipated	Cost of works at Burnside Road exceed that allowed in project budget.	Additional Cost	F McFadden	High -25.00		Costs being reviewed and tender documents sent out April 09.	n/a	On Programme	30-Jun-09	M Butchert
1091		Excavation of soft, unsuitable material below Earthworks outline is required	Additional cost	F McFadden	High-Accord		Extent of soft ground being investigated	n/a	On Programme	30-Jul-09	M Patterson
1092		Costs associated with additional works requested by CEC planners	Additional cost	F McFadden	Hgti ± 60		Infraco commercial team reviewing	n/a	On Programme	31-Dec-10	M Patterson
1094		Roads throughout the works require full depth reconstruction	Programme impact plus additional costs. £1.5m cap applies to only 4 areas. Total exposure estimated at £3m	F McFadden	High 24 00		Carry out surveys to confirm extent of roads requiring full depth reconstruction	n/a	On Programme	30-Jun-09	C Neil
44	SDS contractor does not deliver the required prior and technical approval	Delay to IFC drawings beyond V31 Programme	Delay to programme with additional resource costs and delay to infraco. Impact upon risk	D Sharp	High = 33,00		Evaluation of prior approval programme Hold fortnightly Roads Design	Complete	Complete	31-Oct-08 31-Dec-07	D Sharp T Glazebrook
	consents in line with SDS V31		balance.				Group Informal consultation prior to statutory consultation	Complete	Complete		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-May-09	D Sharp
173	Uncertainty over extent of contaminated land on route	Tramway runs through area of previously unidentified contamination/unforseen	Increase in costs to remove material to special and other tip.	R Bell	High-35,00		Issue containation and gi report to Infraco bidders	Complete	Complete	2-Mar-07	B Dawson
		ground conditions.					tie to obtain ground investigation and contamination reports from SDS	Complete	Complete	30-Mar-07	A McGregor

	Risk Descr	ipaon									
ARM Risk ID	Cause	Event	Effect	Risk Owner	Significance	Black Flag	Treatment Strategy	Previous Status	Current Status	Due Date	Action Owner
279		Third party consents including Network Rail consent are denied or delayed	Delay to programme; Risk transfer response by bidders is to return risk to tie; Increased out-	D Sharp	High - 23.00		Additional EMC modelling to give better info to NR	Complete	Complete	31-Dec-07	C Kerr
			turn cost if transferred and also as a result of any delay due to inflation.				CEC Planning - mock application by SDS	Complete	Complete	31-Dec-07	T Glazebroo
							Draft depot and station change proposals to NR	Complete	Complete	31-Jan-08	A Sim
							Identify fallback options	Complete	Complete	31-Aug-07	T Glazebroo
							Monitoring and tracking through the 3rd party rep	On Programme	On Programme	31-May-09	D Sharp
							Monitoring of BBS - 12 week look ahead	On Programme	On Programme	14-Jul-11	R Bell
							Obtain critical consents prior to financial close	Complete	Complete	31-Jul-08	T Glazebroo
							Weekly meetings of Approvals Task Force	On Programme	On Programme	31-May-09	D Sharp
	objectives change or require design	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		Pigh - 22 to		Close working relationship with CEC and stakeholders	On Programme	On Programme	31-Jan-11	L Murphy
	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).		creep (dealt with through change process); Project ultimately could become unaffordable.				Weekly critical issues meeting	Complete	Complete	31-Jul-08	T Glazebrook
928	Major single safety incident (including a dangerous occurrence) during	Safety incident during construction	Delay (potentially critical) due to HSE investigation and rework. PR risk to tie and stakeholders.	F McFadden	High-21.00		All Site Staff to get CSCS or equivalent	On Programme	On Programme	30-Jan-11	C McLauchla
	construction		PATISK to the unit staken loaders.				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
							Site Supervisors to be			28-Feb-07	

# CEC00633071\_0020

	Risk Descr	iption									
ARM Risk ID	Cause	Event	Effect	Risk Owner	Significance	Black Flag	Treatment Strategy	Previous Status	Current Status	Due Date	Action Owner
during co were not	Utilities assets uncovered during construction that were not previously accounted for, unidentified	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	C Neil	High_30.00		GPR surveys in areas where there are likey to be services	Complete	Complete	1-Apr-07	T Glazebroo
	abandoned utilities assets; known redudant utilities; unknown live utilities;		additional works.				Infraco trial holes where applicable.	Undefined	Undefined	31-Jan-10	P Dobbin
unknown ive utilities; unknown redundant utilities						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.		Requirement to start construction using TTROs	D Fraser	High-20-00		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	Exhumation of archaeological finds/burials	Delay in construction programme	C Neil	High - 19.88		Agree protocol  AMIS to re-programme works accounting for hot-spots	Complete Complete	Complete Complete	20-Apr-07 30-Apr-07	T Condie S Clark
	during construction						Assess Infraco programme to determine if float contained	Complete	Complete	28-Aug-07	T Hickman
							within the high risk areas				
							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 Descr	iption									
ARM Risk ID	Cause	Event	Effect	Risk Owner	Significance	Black Flag	Treatment Strategy	Previous Status	Current Status	Due Date	Action Owner
	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 Infraco 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-May-09	D Sharp
							Final agreement to be approved by Roads Authority, CEC Promoter, CEC in-house legal and tie	Complete	Complete	28-Feb-07	T Craggs
							Finalise alignments and gain agreement from CEC	Complete	Complete	29-Dec-06	T Craggs
							Weekly meetings of Approvals Task Force	On Programme	On Programme	31-May-09	D Sharp
							Where appropriate increase case officer resource to cope with programme compression	Complete	Complete	31-Oct-08	D Fraser

## Transport Edinburgh Edinburgh Trams

**Lothian Buses** 

FOISA exempt

Paper to: TPB Meeting date: 6/5/09

Subject: Project change control update - Period 1, 2009/10

Preparer: E Scott

#### Summary

This paper is intended to update the Tram Project Board with the current status regarding approved project change orders and their implications on the overall Tram Project Budget. To the end of Period 13, £7.1m had been drawn down from the original risk allowance of £30.3 at Financial Close. In Period 1, and additional £3.0 has been drawn down and requires approval from the TPB. The table below summarises the approved project changes that have financially impacted the project risk allowance since Financial Close in May 2008.

Description	Base cost	Risk	Total
Position at Financial Close (PCB)	481,680,811	30,336,196	512,017,007
Changes to end Period 13	7,127,888	-7,127,888	0
Position at end Period 13	488,908,699	23,108,308	512,017,007
Period 1 changes	3,015,474	-3,015,474	0
Position at end Period 1 (CAB)	491,824,173	20,192,834	512,017,007

#### Changes in Period 1

#### Savings resulting from badger work (COP084), £62k

As a result of the works on Line 1b being postponed, the badger work previously approved by the Board has been halted. This has resulted in £62k returning to the risk allowance.

#### PWC strategic commercial advice (COP085), £9k

Following the contract dispute between **tie** and BSC in February / March strategic commercial advice was sought from PWC. Future changes can be expected to cover any further advice sought in the future. This has been funded from the risk allowance.

These have both been approved by the Project Change Panel and are within the delegated authority of the Tram Project Director.

#### Drawdown from risk for MUDFA (COP087), £1.64m

This was approved by the Project Change Panel (subject to TPB approval) and is covered in a separate paper.

<u>Drawdown from risk for additional excavation at the depot (COP082), £1.43m</u> This was approved by the Project Change Panel (subject to TPB approval) and is covered in a separate paper.

In addition two changes previously discussed and approved at the Tram Project Board were approved by the Change Panel.

#### Transport Edinburgh Edinburgh Trams

**Lothian Buses** 

FOISA exempt

Yes

No

#### Tramco internal layout changes (COP081), £0.34m

As advised to the TPB on  $22^{nd}$  January, this change is to include those items arrising that will be incorporated on the tram following the widespread consultation with key stakeholder and interest groups. It includes changes to handrails, seats, opening hopper windows, wheelchair bay button positions and wall and floor colouring. The total value of the change to the internal layout is offset by a rebate for testing no longer required (net increase of £0.34m based on £1 = €1.11). This change will be included in the CAB at the time the overall project budget revision is approved by the TPB and is included in the <u>unapproved</u> forecast AFC.

Princes Street additional contingency measures (COP058), up to £1.13m As advised to the TPB on 11<sup>th</sup> March, and formally approved by the TPB on 15<sup>th</sup> April, the change for the additional contingency measures and associated costs has now been completed and approved by the Change Panel up to £1.13m. This includes costs for additional enabling works, recovery vehicles, additional communications, costs associated with the tram mock-up, provision of a west-bound contingency lane, banners, RHINO barriers, variable messaging signs and relocation of bus stops and bus-trackers. The final cost will be advised to the TPB once estimates have been agreed with BSC. This change will be included in the CAB at the time the overall project budget revision is approved by the TPB and is included in the unapproved forecast AFC.

#### Other changes

#### Manor Place

The consequences of deferring the road closure at Manor Place covered in a paper to the TPB in January are covered within the unapproved forecast AFC.

#### Decision(s) / support required

The TPB is requested to:

- 1. Note the Project Change Control status at Period 1; and
- 2. Review to the additional papers covering the MUDFA and depot risk drawdowns requiring Board approval.

Proposed	Name: Elliot Scott Title: Reporting Manager	Date: 01/05/09
Recommended	Name: Steven Bell Title: Tram Project Director	Date: 01/05/09
Approved	David Mackay on behalf of the Tram Pro	Date: oject Board

FOISA exempt

Yes

No

Paper to: TPB Meeting date: 6/5/09

Subject: Depot risk drawdown

Preparer: E Scott

#### Summary

This paper is intended to request authorisation from the Tram Project Board to drawdown £1.43m from the project risk allowance for the additional excavation at the depot. This is to cover the removal and disposal of an additional 61,000m³ of material than that allowed for in the Infraco contract at Financial Close. At Financial Close, £0.1m was allowed for in the project risk allowance. However, this allowance was increased in the updated ranges in project AFC provided to the **tie** Board on 11<sup>th</sup> February and the TPB on 11<sup>th</sup> March 2009. The full £1.4m was allowed for in the <u>unapproved</u> forecast provided to TS on 26<sup>th</sup> March and the TPB on 15<sup>th</sup> April 2009. There is no impact of this change to the unapproved Open for Revenue Service date of 23<sup>rd</sup> February 2012.

#### Impact on programme

The depot works had not progressed due to the delay in agreeing an estimate with BSC. Since this has been agreed, work has commenced and output is significantly more than the BSC programme.

The additional works, if accepted at the BSC programmed output, will cause an 55 business days / 17 weeks delay to the programmed (Rev 1) Open for Revenue Service date (Sectional Completion D). As productivity is significantly greater than programmed by BSC, and on the assumption that these outputs can be maintained, it is fair to assume that the programmed dates could be reduced to 40 business days / 8 weeks; a saving that will ease the programme critical path and be reflected in the recalibrated programmed (Rev 1) Open for Revenue Service date.

In the update provided to TS on 26<sup>th</sup> March 2009, it was assumed that an additional 70,000m³ of material would need to be removed, with an overall duration of 120 days for a combined total of 150,000m³. At the current rate of excavation it will only take 75 days to remove the full 141,000m³. This takes the depot off the critical path and reduces the risk that it will delay the Open for Revenue Service date. However, as the critical path then passes to the track activities between McDonald Road and Bernard Street, it does not change the unapproved Open for Revenue Service date of 23<sup>rd</sup> February 2012.

#### Impact on budget

The change will increase the Infraco Current Approved Budget to £245.2m. At Financial Close, £0.1m was allowed for in the project risk allowance for additional excavation at the depot. However, this allowance was increased in the updated ranges in project AFC provided to the TPB and **tie** Board on 22<sup>nd</sup> January, 11<sup>th</sup>

FOISA exempt

Yes

No

February and 11<sup>th</sup> March 2009. The full £1.43m was allowed for in the <u>unapproved</u> forecast provided to TS on 26<sup>th</sup> March and the TPB on 15<sup>th</sup> April 2009.

#### Impact on scope

The quantity of material to be excavated from the depot was an assumption in the BSC contract (80,000m³). Site surveys carried out by **tie** and BSC identified a gross quantity of 141,000m³. Furthermore, the depot excavation required to be handed over to Infraco pumped dry with a firm sound formation. It was agreed between **tie** and BSC that within the overall design concept there was no suitable location to deposit the additional 61,000m³ of material. As such, agreement was reached that this excess material required to be disposed off-site.

#### Risks and opportunities

At Financial Close, £0.1m was allowed for in the project risk allowance. However, this allowance was increased in the updated ranges in project AFC provided to the **tie** Board on 11<sup>th</sup> February and the TPB on 11<sup>th</sup> March 2009. The full £1.4m was allowed for in the <u>unapproved</u> forecast provided to TS on 26<sup>th</sup> March and the TPB on 15<sup>th</sup> April 2009.

The risk associated with any unknown contaminated material found within the depot remains with **tie**.

#### Decision(s) / support required

The TPB is requested to:

1. Formally approve the drawdown for £1.43m to cover additional spoil requiring to be removed from the depot.

Proposed	Name: Elliot Scott Title: Reporting Manager	Date: 01/05/09
Recommended	Name: Steven Bell Title: Tram Project Director	Date: 01/05/09
Approved	David Mackay on behalf of the Tran	Date: n Project Board

FOISA exempt

Paper to: TPB Meeting date: 06/05/09

Subject: Utility strategy to completion

Preparer: E Scott

#### Summary

For performance, quality and cost reasons, it is proposed to close the Carillion contract no later than 31<sup>st</sup> July 2009. This paper is requesting authorisation from the Tram Project Board to close the contract and commence alternative procurement strategies for the remaining utility works.

The preferred option is to remove the entire utility diversion works at Section 1A between Newhaven and Tower Place bridge and all other outstanding works as at 31<sup>st</sup> July from the Carillion scope and award these to a suitable contractor(s) following competitive tender. It is envisaged that the management of the outstanding scope will be in conjunction with the infrastructure works, ensuring optimal synchronisation of the overall programme aims.

Although it cannot be validated until indicitative programmes are received, experience to date strongly suggests the transfer of works to other contractors would result in a reduced delivery and construction period. Similarily, the cost for the works and associated preliminary costs are anticipated to be £0.5-1.0m less than that of Carillion.

Any savings in cost achieved are additional to that identified in the <u>unapproved</u> project forecast provided to previous TPB meetings and TS. This exercise will be used to neutralise an SGN betterment opportunity which has not crystallised due to a change in the scope of works. The overall impact on the <u>unapproved</u> forecast is neutral.

#### Impact on programme

Although the overall utility programme is now 74% complete Carillion admit that the complexity of moving utilities to this scale and variety has been underestimated by them. There are still significant areas to be completed, most notably the work in Section 1A on Forth Ports land and that work currently programmed post 31 July. In addition, there is utility work outstanding at Burnside Road which is the subject of a separate paper.

Due to the time required for a competitive tender, there is a potential delay of three to four weeks in the commencement of works from that proposed by Carillion. However, the anticipated saving in actual construction time associated with the appointment of a new contractor for a small defined package of works in a discrete work section are expected to result in completion, at worst, at the same time as Carillion (end of October 2009). Although any programme benefits cannot be validated until indicative programmes are received, experience to date with work given to Kier construction has shown a reduced delivery and construction period.



FOISA exempt

Yes

No

The estimated programme duration is based upon receipt of the IFC details at the beginning of May and completion by mid October 2009.

It is envisaged that the management of the outstanding scope of works will be managed in conjunction with the infrastructure works, ensuring optimal synchronisation of the overall programme aims.

#### Impact on budget

The current anticipated Carillion cost is £3.7m for the work that is planned to be procured separately. In the current, tough market conditions, **tie** believe that the moving of discrete packages of work to other suppliers will afford the opportunity for savings in the order of £0.5-1.0m. This includes an anticipated saving of 10-20% in the cost of the works, as well as significantly reduced preliminary costs, compared to that of Carillion.

Any savings in cost achieved are additional to that identified in the unapproved project forecast provided to previous TPB meetings and TS. This exercise will be used to neutralise an SGN betterment opportunity which has not crystallised due to a change in the scope of works. The overall impact on the <u>unapproved</u> forecast is neutral. Any potential valuation differences will be addressed as part of the close down of the contract.

#### Impact on scope

The overall scope of the utility works will remain the same. However, the delivery of the works will be transferred from Carillion to other suitable contractor(s).

#### Risks and opportunities

To reduce the risk of procurement challenge, a competitive tender process will be followed to a limited number of qualified, competent and experienced contractors, agreed with the statuatory utility companies and in accordance with **tie** procurement procedures. The tender package has been prepared and is ready for issue pending TPB approval.

A challenge from Carillion to the procurement and transfer of scope is considered unlikely as the MUDFA contract is re-measurable, dependent on a work-order and there is no guarantee of workload. A joint communication strategy between **tie** and Carillion is an important area to ensure that the best interest of the project in terms of cost and programme is conveyed.

The procurement of separate contractor(s) introduces separate management and delivery resource and enhances the likliehood of closing down the Carillion works without further stratching their management resource. Although there are potential benefits, until the tenders are received, there is no guarantee on the price and programme impacts and there are no further allowances for risk and / or contingency included in this strategy.

FOISA exempt
☐ Yes
☐ No

#### Decision(s) / support required

The TPB is requested to:

- 1. Approve the closure of the Carillion contract no later than 31<sup>st</sup> July 2009;
- 2. Approve the procurement strategy for outstanding utility works at that time; and
- 3. Approve the procurement strategy for the outstanding utility diversions in Section 1A (Forth Ports).

Proposed	Name:Elliot Scott Title: Reporting Manager	Date: 01/05/09
Recommended	Name: Steven Bell Title: Tram Project Director	Date: 01/05/09
Approved	David Mackay on behalf of the Tram	Date:

FOISA exempt
☐ Yes
☐ No

Paper to: TPB Meeting date: 06/05/09

Subject: Burnside Road procurement strategy

Preparer: E Scott

#### Summary

This paper is intended to request authorisation from the Tram Project Board to commence an alternative procurement strategy for the utility and construction works at Burnside Road. This is necessary due to the failure of Carillion and BAA to agree the collateral warranty (as previously reported), slow progress on utility diversions to date and slow mobilisation of BSC. The works will be procured as two separate contracts.

The current cost estimate is £3.32m for the complete scope; £1.25m more than in the current approved budget. However, this increase has been included within the unapproved project forecast provided to previous TPB meetings and TS. It is currently anticipated that if the works are completed by the 20<sup>th</sup> November, then the delay to BSC will be neglible. This relies on TPB approval for the strategy, BAA and external approvals being granted in line with programme, and removing the need to complete permanent and temporary contract cab / coach relocation works.

#### Impact on programme

The tender documents for the utility work have been issued and contract award is expected on 25<sup>th</sup> May with completion by the end of September 2009. This is a challenging but manageable timeframe, assuming all parties co-operate. Given the size and particular nature of the works and inaccordance with the permitted arrangements and procurement policy, it is proposed that the contractor be selected from a shortlist of two BAA approved, pre-qualified contractors.

Pre-qualification has commenced and tender documents for the Burnside Road relocation are on target to be issued on 8<sup>th</sup> May, following the public procurement process. Contract award is targeted for 20<sup>th</sup> June with completion by the 20<sup>th</sup> November 2009. This is the earliest possible date and requires a fast track approach to be taken to achieve it. In addition, it assumes TPB, BAA and external approvals are achieved as programmed.

It is currently anticipated that, if the works are completed by the 20<sup>th</sup> November, the delay to BSC will be neglible.

#### Impact on budget

The budget for the utility works is £0.57m and the current estimate is £0.82m (including a risk provision of £0.1m and BAA estimate of IT / HV costs of £0.12m but excludes the BAA advance works of £0.19m included in MUDFA budget). At Financial Close the Burnside Road relocation works were included as a defined sum in the Infraco scope of works (£1.50m). The current estimate for these works is £2.50m.

FOISA exempt

Yes

No

Both of these estimates are included within the updated ranges in project AFC provided to the TPB and **tie** Board on 22<sup>nd</sup> January, 11<sup>th</sup> February, 11<sup>th</sup> March and 15<sup>th</sup> April 2009 and the unapproved forecast provided to TS on 26<sup>th</sup> March.

#### Impact on scope

The obligation for **tie** to complete the works has not changed from Financial Close. It is proposed to procure the works separately from either Carillion or BSC. This is necessary due to the failure of Carillion and BAA to agree the collateral warranty (as previously reported), slow progress on utility diversions to date and slow mobilisation of BSC. The works will be procured through a competitive tender to BAA and **tie** approved contractors and managed by the Infraco team. Public procurement rules will need to be addressed and it is recommended that the Burnside Road relocation works are advertised.

#### Risks and opportunities

As a result of **tie** directly managing the works, BAA prelim costs can be minimised and competitive tenders may be procured. In addition, the form of contract chosen (NEC option C) means that there is no opportunity for delay and disruption claims at the end of the project.

The programme relies on overlapping the detailed design with contractor procurement to achieve time savings. The choice of contract means that the tender sum can be adjusted with final design information without radically affecting the contract period or final cost.

It is currently anticipated that if the works are completed by the 20<sup>th</sup> November, then the delay to BSC will be neglible. This relies on TPB approval for the strategy, BAA and external approvals being granted in line with programme and removing the need to complete permanent and temporary contract cab / coach relocation works.

If relocation works are needed then this will add a further £1.5m and up to 12 months to the programme. There may be a compensation claim for loss of parking spaces – this is in the early stages of discussion with BAA. Support from senior stakeholders in **tie** and CEC may be needed to ensure that these do not eventuate. Workshops aimed at proving that the contract cab egress can be installed and access to the delivery to the cab area and retail yard can be maintained throughout the works without requiring relocations are in progress. Temporary and permanent design work as well as traffic modelling has commenced on this basis, and is due for completion by 11<sup>th</sup> May.

In addition, as the public procurement process is to be followed this may impact upon tender issue date.

#### Decision(s) / support required

FOISA exempt
☐ Yes
☐ No

### The TPB is requested to:

 Approve the procurement strategy for the utilities and Burnside Road relocation works on the basis that the £1.25m increase in cost will be funded by an increase in budget, but contained within the <u>unapproved</u> forecast AFC.

Proposed	Name:Elliot Scott Title: Reporting Manager	Date: 01/05/09
Recommended	Name: Steven Bell Title: Tram Project Director	Date: 01/05/09
Approved	David Mackay on behalf of the Tram	Date: Project Board

FOISA exempt
☐ Yes
☐ No

## Period 1 Transport Scotland report Sections 2-7

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

Document Type: Issue: Progress Meeting Date: Page: Progress Report Issue 1 Period 01

#### 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;
- Incomplete utility diversions caused in part by traffic management constraints (e.g. Manor Place);
- Slow mobilisation of Infraco, including lack of formal sub-contracts being in place;
- 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 v44 of the design programme);
- Design changes as a result of the Prior and Technical Approvals process; and
- Consortium integrated design programme and validation.

There is a focus via the PMP to deal with the top priority issues affecting progress including the depot and key structures. This has successfully led to agreement on works commencing at the depot in Period 1 and will continue to ensure no further barriers emerge and some of the lost time is recovered.

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.

Last period **tie** presented an <u>unapproved</u> recalibrated baseline programme which reflects an Open for Revenue Service date of 23 Feb 2012. This is still a **tie** only view as, to date, a recalibrated programme has not been agreed with BSC.

The **tie** live programme currently predicts an Open for Revenue Service date of July 2012. This is earlier than last period due to a small logic change being made to track resources at one location. Next period **tie** will begin to use some of the productivity rates experienced on Princes Street and the depot to re-forecast the live programme and this is expected to generate some further time benefits. These may of course be offset by delays / impacts elsewhere.

The table below was reported last period and as well as the recalibrated baseline programme it also reflects a completely unmitigated programme as a control scenario only. This is an unapproved delay to the Open for Revenue Service date. On a section by section basis there are "swings and roundabouts" identified in terms of improvement / degradation of delivery dates. Integration of these sections by BSC is now underway and the re-baselined programme assumes the all logic changes will be accepted by BSC.

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Area	Description	Unmitigated Finish	Re-baseline Finish
Section 1A	Newhaven Road to Foot of the Walk	03-MAY-12	08-SEP-11
Section 1B	Foot of the Walk to McDonald Road	10-JAN-12	09-SEP-11
Section 1C	McDonald Road to Princes Street west	28-MAR-12	06-SEP-11
Section 1D	Princes Street west to Haymarket	19-OCT-11	17-MAR-11
Section 2A	Haymarket to Roseburn junction	14-FEB-11	28-JUL-10
Section 5A	Roseburn Junction to Balgreen Road	20-MAR-12	17-JUN-11
Section 5B	Balgreen Road to Edinburgh Park central	23-JUN-11	04-FEB-11
Section 5C	Edinburgh Park Central to Gogarburn	24-OCT-11	20-JAN-11
Section 6A	Gogar depot	28-MAR-11	15-OCT-10
Section 7A	Gogarburn to Ingliston Park and Ride	07-JUL-11	11-MAR-11
Section 7B	Ingliston Park and Ride to Airport	26-JUL-11	11-MAR-11
Section A	Depot (ready to receive trams)	21-JAN-11	15-OCT-10
Section B	Section B Test track		27-DEC-10
Section C	All construction complete	20-APR-12	27-AUG-11
Section D	Open for Revenue Service	17-OCT-12	23-FEB-12

Importantly, the re-baseline programme does not take account of any opportunities regarding:

- Improved productivity rates Princes Street will be an important test in this regard;
   Embargo relaxations;
- 3. Alternative construction methodologies to recover time;
- 4. Adjustments to the testing and commissioning phase (the original programme window has been held); or
- Partial opening options.

The recalibration of the programme is one of the key priorities for the PMP in Period 1 with submission of a recalibrated programme expected from the consortium early in Period 2.

#### 2.2 Design

#### **IFC Design**

Prior Approvals are progressing as follows:

- IFCs Phase 1a 76 issued out of 93 (Edinburgh Park station bridge redesign has been included from v42):
- Prior Approvals are progressing well with 92% granted, two left to be submitted (including the RBS Gogarburn tramstop) and five left to be granted;
- Technical approvals also progress well with 85% granted, eight remaining to be submitted and 15 (10 from v31) 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. Three areas remain outstanding for Technical Approval in Phase 1a (1A3, 1C2 and 6 roads although section 6 internal roads have been approved and only the access road outstanding);
- Scottish Water are now making good progress with drainage outfall consents and are following prioritisation list provided by BSC; and
- Sections 1B, 1D, 1C3 close reports have been signed off by CEC, subject to BSC concluding any concessions included in the reports during construction. CEC are reviewing all other sections based on the prioritisation list provided by BSC.

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 expected from BSC in Period 2.

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Phase 1a only	Number	required	Number		
	v31	v44	Submitted	Granted	
Prior Approvals	49	54	51 (94%)	49 (91%)	
Technical Approvals	71	80	72 (90%)	68 (85%)	

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)

Period 1 has seen MUDFA progress as follows:

Rev.07.09 Figures	Pe	riod	Delta	Cumulative		Delta
MUDFA PERIOD 01 PROGRESS	Plan	Actual		Plan	Actual	
Section 1a Newhaven to Foot of the Walk	0.0%	1.1%	1.1%	100.0%	39.5%	-60.5%
Section 1b Foot of the Walk to McDonald Road	0.0%	0.3%	0.3%	100.0%	99.9%	-0.1%
Section 1c McDonald Road to Princes Street West	0.0%	7.6%	7.6%	100.0%	67.5%	-32.5%
Section 1d Princes Street West to Haymarket	0.0%	5.9%	5.9%	100.0%	82.4%	-17.6%
Combined Sections 1A-1B-1C-1D (On-Street) Newhaven Road to Haymarket	0.0%	3.4%	3.4%	100.0%	68.3%	-31.7%
Section 2 Haymarket to Roseburn Junction	0.0%	5.2%	5.2%	100.0%	99.1%	-0.9%
Section 5a Roseburn Junction to Balgreen Road	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
Section 5b Balgreen Road to Edinburgh Park Central	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
Section 5c Edinburgh Park Central to Gogarburn	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
Section 6 Gogar Depot	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
Section 7a Gogarburn to Edinburgh Airport	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%
Combined Sections 2A-5A-5B-5C-6A-7A (Off-Street) Haymarket to Edinburgh Airport	0.0%	1.0%	1.0%	100.0%	99.9%	-0.1%
FULL ROUTE PHASE 1A NEWHAVEN ROAD TO EDINBURGH AIRPORT	0.0%	3.0%	3.0%	100.0%	73.7%	-26.3%

Where sections are complete, this allows BT and SGN connection works to be undertaken. In the next period report these programmes will also be reported.

Section	Commentary
Section 1a Newhaven to Foot of the Walk	Alternative strategy being proposed for utilities in the Newhaven/Ocean Terminal area.  Baltic Street Junction works being redesigned and are likely to be undertaken outwith the LOD due to space constraints in the junction itself  Constitution Street interface with both archaeological works and potential transfer of side entry manholes scope to Infraco - Includes seven side entry manholes from Queen Charlotte Street to Duke Street.
Section 1b Foot of the Walk to McDonald Road	Utilities diversion works nearing completion. Telecoms re-cabling and SGN service connections to complete.  Proposal to suspend all Infraco programmed works until Utility diversions are completed now in place.
Section 1c McDonald Road to Princes Street West	Waverley Bridge side entry manhole (6 weeks) and gas and water connections - to be programmed with INFRACO works.  St Andrews Sq due to be completed in late May and early June and BT/SGN works will commence.  Programmed completion for The Mound gas main diversion remains as 14 <sup>th</sup> June.
Section 1d Princes Street West to Haymarket	Complete excluding Lothian Road / South Charlotte Street water connections & BT remedial which is programmed to commence 27th April 2009 through to 27th July 2009. This being undertaken within the Tramworks traffic management.

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Section 2 Haymarket to Roseburn Junction	Haymarket Yards (lower) complete by 20 <sup>th</sup> March 09. Haymarket Yards (upper) including Haymarket Terrace sewer crossing by 15 <sup>th</sup> May. SP Jointing works are booked for 11 <sup>th</sup> May 2009 with completion of Section now programmed for 15 <sup>th</sup> May 2009.
Section 5a Roseburn Junction to Balgreen Road	MUDFA Diversions COMPLETE. Utilities transferred to Infraco remain in the Scotrail depot
Section 5b Balgreen Road to Edinburgh Park Central	Sewer diversion at South Gyle Access bridge transferred to Infraco Telecoms proximity to South Gyle Access bridge west abutment and Bankhead Drive retaining wall
Section 5c Edinburgh Park Central to Gogarburn	Carillion utility diversions complete. 1,500mm sewer diversion complete 24th April 2009. Site de-mobilisation by 29th April 2009. Utility snagging complete. BT re-cabling works commenced on 14th April 2009 for 16 weeks.
Section 6 Gogar Depot	COMPLETE
Section 7a Gogarburn to Edinburgh Airport	Removed from CUS scope.  Keir have completed and tested all utility diversion associated with the BAA walkway project. Remainder of scope will require to be delivered by a non-MUDFA party.

#### 2.4 Tramworks (Infraco)

The project continues to experience problems with slow progress 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.

Haymarket viaduct and Carrick Knowe bridge constructions have been on hold due to BSC's sub contractor issues with the A8 underpass delayed through requirement of temporary works redesign. However, work has continued on a number of worksites including Princess Street, Edinburgh Park Bridge, Gogarburn Bridge and the new access road at Verity House with spoil removal from the depot commencing and progressing well during the period (20% of total spoil removed in three weeks).

#### **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).

ĵ	Period 1			Cumulative (contract programme)		
	Planned	Achieved	%	Planned	Achieved	%
Prelims	3	3	100%	39	39	100%
Construction	0	0	100%	408	30	7%
Total	3	3	100%	447	69	15%

Progress is now being monitored against the Revision 1 programme which incorporates the agreed 38 business days (seven weeks plus three days) EOT variation to the contract programme as in the table below. As had been the case in the contract programme progress, the common denominator in the Revision 1 programme remains that every activity in the programmes has a work content generated against it which translates into a weighting, allowing accurate reporting of progress.

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	Pe	eriod	Delta	Cumulative		Delta
INFRACO PERIOD 01 PROGRESS (Contract Rev.01 Programme)	Plan	Actual		Plan	Actual	
Section 1a Newhaven to Foot of the Walk	1.7%	0.0%	-1.7%	12.4%	0.0%	-12.4%
Section 1b Foot of the Walk to McDonald Road	4.8%	0.1%	-4.7%	33.9%	1.5%	-32.5%
Section 1c McDonald Road to Princes Street West	1.6%	0.0%	-1.6%	7.5%	0.0%	-7.5%
Section 1d Princes Street West to Haymarket	12.6%	1.5%	-11.2%	39.9%	2.3%	-37.6%
Combined Sections 1A-1B-1C-1D (On-Street) Newhaven Road to Haymarket	4.6%	0.3%	-4.2%	20.6%	0.7%	-19.9%
Section 2 Haymarket to Roseburn Junction	2.0%	0.0%	-2.0%	66.2%	12.6%	-53.6%
Section 5a Roseburn Junction to Balgreen Road	5.8%	0.0%	-5.8%	49.8%	2.9%	-47.0%
Section 5b Balgreen Road to Edinburgh Park Central	4.5%	0.8%	-3.7%	77.1%	5.8%	-71.3%
Section 5c Edinburgh Park Central to Gogarburn	1.2%	0.0%	-1.2%	46.3%	1.6%	-44.7%
Section 6 Gogar Depot	5.1%	0.6%	-4.5%	67.7%	0.6%	-67.1%
Section 7a Gogarburn to Edinburgh Airport	1.1%	4.8%	3.7%	43.4%	7.3%	-36.1%
Combined Sections 2A-5A-5B-5C-6A-7A (Off-Street) Haymarket to Edinburgh Airport	4.0%	0.9%	-3.0%	61.5%	4.4%	-57.1%
FULL ROUTE PHASE 1A NEWHAVEN ROAD TO EDINBURGH AIRPORT	4.2%	0.7%	-3.5%	45.4%	3.0%	-42.4%

Section	INFRACO Commentary
Section 1a Newhaven to Foot of the Walk	Section 1A4 Lindsay Road under review. Design awaited to allow Utility diversions to be completed for W1 Lindsay Rd retaining wall. Traffic management under design and discussion with Forth Ports
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. Alternative traffic management solutions being reviewed to look at improving productivity once work commences. Section of Princes Street east of The Mound junction to west side of South St. David Street due to commence from week 1 of Period 2.
Section 1d Princes Street West to Haymarket	Princes Street works re-started 23 <sup>rd</sup> March 09 and planning and concrete break out completed. Ducting and drainage works commenced.  Tram works in Haymarket are dependent on MUDFA completion expected late July 09 – again alternative traffic management solutions being reviewed to improve productivity.
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 due to complete end of April.  All required consents in place for track installation.  Commercial issues holding-up commencement of works.
Section 5a Roseburn Junction to Balgreen Road	Temporary and permanent works re-design delaying various structures.  All required consents in place for track installation.
Section 5b Balgreen Road to Edinburgh Park Central	Temporary and permanent works re-design delaying various structures.  All required consents in place for track installation.
Section 5c Edinburgh Park Central to Gogarburn	A8 Underpass recommenced during Period 13 but has since stopped due to discovery of obstructions and refusal of piles.
Section 6 Gogar Depot	Depot handed over from MUDFA to Infraco 9 <sup>th</sup> February 09 Earthworks progressing ahead of revised programme
Section 7a Gogarburn to Edinburgh Airport	Gogarburn underbridge continues.

# 2.5 Tram construction (Tramco)

Good progress continues to be made with the progress of deliverables against the schedule. The production line has commenced during Q1 2009 with the delivery of the first tram still on schedule for April 2010.

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The CAF contract programme is incorporated in the Master Tram Project Programme and the Period 01 update confirmed the following milestone dates:

- 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. The detailed sequence and scope of testing and commissioning prior to systems Acceptance testing is to be programmed out and proposed by BSC in further detail in the next year.

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	10 of the 37 BSC Inspections and Test Plans have been revised by BSC incorporating tie comments. tie are awaiting formal issue from BSC. tie have requested an update of the status of the remaining ITP's.					
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.					

BSC have produced Inspection and Test Plans (ITP's) for the current set of construction works, however they have not yet produced a consolidated Test and Commissioning Plan. Constituent elements are available from CAF, the tram manufacturer, the Operator and an overall framework from TEL exists to cover the activities.

It is intended over the next three periods to obtain collective engagement on testing and commissioning, and agreement to the formation of a multi-organisation, multi-disciplinary test coordination team.

Testing undertaken and witnessed in the period has included the A8 piles at Gogar and the first tram set of body shells, (weld quality, dimensional tolerances and water tightness).

\*Pre-system acceptance testing includes both Factory Acceptance Tests(FATs), site Acceptance Tests (SATs), Sub-system integration tests (SITs) and System commissioning Tests(SCTs). Once a section of the network is physically completed and the SITs are satisfactorily completed then the formal acceptance process requires BSC to carry out and pass a series of systems Acceptance Tests in order to achieve Sectional Completion. These are shown in the table below.

Test	Test Name	Test Description	Programme
T1	Post Commissioning Test	To demonstrate that each Section of the ETN in sequence is able to perform in an acceptably safe manner and deliver the required run times. This is the gateway test to driver training.	Post Commissioning Test immediately follows successful commissioning of each section and is required for progressing to Driver Training.
T2	Performance Test 1	After Phase 1a is complete and has passed Test T1, this test demonstrates that Phase 1a is able to perform satisfactorily before starting the three-month Shadow Running period. This is the gateway test to shadow running.	Performance Test 1 will immediately precede the Shadow Running period and is a requirement for progressing to this phase of the programme.
Т3	Pre-operations Test	The test covers a seven day period during the latter part of the Shadow Running phase of the programme using the initial 6/12 tph service timetable.	Pre-operations Test shall immediately precede the Service Commencement Date.
T4	Network Performance Test	The Test is carried out over a 28 day period in Passenger Service to establish that the ETN can reliably operate.	To be completed within twelve months of the Service Commencement Date.
T5	Network Reliability Test	Reliability Testing of key sub- systems in Passenger Service.	To be completed within twelve months of the Service Commencement Date.

This whole process can be described by the following flowchart.

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Stage	Flow Chart	Tests	Description
8	Passenger Service	Network Performance (T4) and Reliability Test (T5)	The date upon which the Edinburgh Tram Network starts in public service
			PASSENGER SERVICE COMMENCEMENT
7	Shadow Running	Pre-Operations Test (T3)	The period of Tram operations that simulates full public service operation including running to published timetable and calling / dwelling at Tramstops before the ETN enters public service
		Performance Test 1 (T2)	ENERGISATION OF COMPLETED PHASE OF THE ETN
6	Test Running & Driver Familiarisation		The period post-ETN commissioning used to complete driver and control room staff training and gain confidence to enter Shadow Running Phase
		Post-Commissioning Test (T1)	
5	Commissioning	System Integration Test	All subsystems, including the tram, are fully-integrated to form the ETN and are tested to demonstrate that they work together successfully and meet the Employer's Requirements
			ENERGISATION OF SECTION OF THE ETN
4	Set to Work Tests	Site Tests	The point at which subsystems have been installed and then tested to prove they meet their requirements with both Type tests and Site Acceptance tests
			LIMITED ENERGISATION OF PART OF THE ETN
3	Installation / Construction		Once the subsystem has successfully passed Factory Acceptance Tests installation / construction at site will take place and as appropriate a delivery test undertaken.
2	Factory Acceptance Tests	FAT	Thorough demonstrable testing of the subsystem at Infraco's premises
	Ŷ		
1	Build / Manufacture		Manufacture and assembly of the System by the Infraco
	1		
D	Design		The scope of the works designed through Approval in Principle and Approved for Construction & Manufacturing Drawings; with associated verification and validation test and integration plans complete

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# 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. The most significant interface of concern is the Gogar interchange. **tie** has requested an estimate of cost and programme for the design of the tram works: this has now been received in draft and needs to be discussed with BSC, particularly in respect of the Siemens rates included in the estimate. Following meetings with CEC and TS, this would allow a complete instruction to be given to BSC by mid May. The St James centre re-development remains as amber as commencement of this project is now indicated towards the completion of the Tramworks and therefore interfaces should diminish.

External Project	Promoter	Project Description	Potential Conflict	Tram cor	ntract	Project da	ates	
Š				Start	Finish	Start	Finish	Comments
Gogar Surface Station	Transport Scotland	New mainline station to the east of the Gogar depot.	Unknown as yet but expected to include  Re-design impacts  Approvals and consents  Tram alignment issues  Traffic management clashes  Potential site access issues	Aug-08	Jul-11	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 Sep 2010. tie 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 from red 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).	Utility diversions continue until June.2009 Potential Interface with Infraco works at Haymarket junction commencing July.2009	Jul-09	May-10	ТВА	ТВА	Possible interface between installation of lifts for this project and construction works for viaduct, tramstop and OHL. ScotRail are required under their franchise to install lifts due to the uncertainty over the integrated scheme at Haymarket. ScotRail will progress but it will be at the end of their Franchise 2011/12
St. Andrew Square development	CEC	Demolition of existing buildings bordering South Side St. Andrew Square, South St David Street and Meuse Lane.	Infraco programme.	Jan-10	Mar-10	May-09	Oct-09	Utility Diversions in South and mid St Andrew Square will be complete mid May09 allowing TM changeover. Main demolition to commence (TBA) as Demolition contract running late. 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.	Mar-09	Nov-09	Early 2009	Jun-11	Currently in planning stage. CEC is managing the developer within the tram constraints. Contractors programme being sought.

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External Project	Promoter	Project Description	Potential Conflict	Tram contract		Project dates			
J# 35949 G28 (HOLEY 27 O 2012 G4D # 52 19 596	T WOMEN CONTROL	ATTENDED TO STATE STATE STATE OF THE STATE O	IN SECULORS ENDOS NORMANOS INTERCO	Start Finish		Start Finish		Comments	
Princes Street Hotel	asediqbal consulting	Site clearance and redevelopment at 125a Princes Street on all 3 floors to convert to an EasyHotel	Access through BSC worksite. Internal strip- down ongoing and access required for debris removal.	Feb-09	Nov-09	TBA	ТВА	Requirement to access BSC worksite to allow removal of debris has been addressed and achieved.	
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. Potential TM conflict being managed.	Jan-10	Mar-10	Oct-09	Mar-11	Although the main construction works will be complete by end Mar-10 this area will be revisited in Q4 2010 for OHL installation.  Potential impact on tram TM	
Airdrie - Bathgate	Transport Scotland	New track installation.	Tram possessions mainly "piggy-backed" on A2B possessions which could be altered / cancelled.	ТВА	ТВА	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.	Sep-10	Feb-11	TBA	ТВА	Design and approvals progressing to programme.	
National Portrait Gallery		Major building construction and refurbishment.	Interface with both Utilities and Infraco works on St Andrew Street / York Place.	Now	Mar-10	Apr-09	Nov-11	Timetable of Gallery movements received.  Meetings held with developer. No issues expected.	
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.	Mar-10	Mar-11	Apr-08	Apr-09	Diesel tanks demolished & site clear-up underway. VE design on Roseburn viaduct has seen this structure re-programmed.	
New Hotel in Haymarket	Tiger Developments	New build hotel.	Utility diversions and potential interface with Infraco works.	Jan-09	Apr-10	ТВА	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)	ТВА	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	Mar-10	Apr-10	Apr-14	Although the tram main construction works will be complete by end Mar-10 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	ТВА	Dec-10	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

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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 mid April 2009 with TS and a further session is arranged for week 2 of Period 2 09/10.

## 2.8 Other

### Temporary traffic regulation orders (TTROs)

Weekly visual summary being produced of all tram traffic management 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 November 2010. The informal consultation process for this has been completed and BSC have been instructed to incorporate minor design revisions into the final design. tie are currently awaiting a set of TRO drawings to enable the statutory consultation process to commence (anticipated early summer 09).

# 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;
- 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;
- Pollution Prevention Program has slipped four months with the demolition of the fuel tanks now complete and site will be available to tie by the end of Period 2.
- 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;
- The contractor has submitted for ROTR possessions according to the look-ahead programme;
- Span 4 of the Edinburgh Park viaduct (across the E&G) was planned for installation on 25<sup>th</sup> and 26<sup>th</sup> April but was cancelled and re-programmed for weekend of 2/3 May; and
- Haymarket Station access road is planned to be complete by Monday for 04/05.

# Third party interfaces

- NR the Bridge Agreements are not yet concluded. There is an outstanding issue on indemnities to close out. CEC are taking this matter up directly with TS, and tie is no longer involved. An Operating Agreement with NR is expected to be agreed in Q2 2009;
- Forth Ports a target date to execute the FP agreement is set for 11/05/09. FP and CEC legal are currently reviewing the final draft;
- Haymarket carpark compensation tie have agreed compensation with NR and will settle
  this in Q1 09/10. 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. A meeting is arranged with TS to address this in
  Period 2;
- 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. tie are pursuing an alternative approach to the design and construction of the
  works due to lack of co-operation with BSC.

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# Fast link modifications (Front Line)

- Front Line has completed all the civil works with the remaining signage erected to coincide with the new traffic regulation order;
- The new TRO is to be reviewed by CEC on the 05/05;
- The new lay-by is 95% completed and the SW issue has been resolved with the surfacing planned to commence on the 18/05;
- Signage (95% completed);
- · Street lighting(100% completed); and
- Move bus stops (95% completed) full completion by mid May.

## Murrayfield Pitches (Souters)

- Maintenance works ongoing, grass pitches will be available for SRU to use prior to Rugby League Magic Weekend (2/3 May); and
- Final accounts agreed in principle subject to final measurements.

# Ancient Monuments (Land Engineering)

#### **Hearts War Memorial**

- Work starts w/c 04 May 2009 to tie-in with the Utility traffic and pedestrian management;
- CEC issued letters to key Stakeholders 06/04/09 notifying them of the commencement of works on the w/c 03/05/09. A stakeholder meeting held on the 16<sup>th</sup> April at City Point and good feedback was received. tie / HMFC to co-ordinate press coverage of works starting. tie to draft press release and notice to local Stakeholders.

#### **Robert Burns Monument**

 MUDFA have confirmed that they no longer need the monument removed before they start work in the junction in June 2009.

# BAA - Burnside road (BAA)

- The scheme design has been received and the decant proposals are being finalised. The
  construction sequencing is expected to be confirmed in Period 2; and
- This work will be tendered in Period 2 and it is planned to be complete by the end of November 2009.

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# 3 Headline cost report

# 3.1 Current financial year

	FY 09/10 COWD Period		FY 09/10 COWD Year To Date		FY 09/10 COWD Full Year Forecast			COWD Costs To Date To Go		Total AFC		
	Actual	Budget	Variance	Actual	Budget	Variance	Forecast	Budget	Variance	Actual	Forecast	Forecast
Total Project COWD	9.127	5.576	3.551	9.127	5.576	3.551	150.084	150.072	0.013	240.146	286.953	527.099
Other Funding	0.754	0.460	0.293	0.754	0.460	0.293	12.392	12.391	0.001	19.828	23.693	43.522
Demand on TS	8.373	5.115	3.258	8.373	5.115	3.258	137.692	137.680	0.012	220.318	263.260	483.577

- tie has developed a re-baselined programme in advance of agreement with BSC which reflects an Open for Revenue service date of 23<sup>rd</sup> February 2012. The 2009/10 budget profile has been produced linking the re-baselined programme to Infraco constructions milestones:
- The budget for Phase 1a in 2009/10 is £150.1m. In addition, the budget includes anticipated costs of £3.2m which relate to the postponement of Phase 1b Infraco construction contract;
- Funding available from TS for the project in 2009/10 is £149m. The TS share of this
  year's budget (£153.3m) is £140.6m, giving available headroom of £8.4m.
- Actual costs incurred in Period 1 are £9.1m against budget £5.6m. The main drivers for the £3.6m variance are the timing of Infraco costs (£2.7m) (e.g. Leith Walk embargo), BAA costs (£0.5m) and legal costs (£0.2m). All of these are timing differences only and do not impact on the outturn for the year.

# Actual P1 & forecast P2-P12 FY09/10

£m	Actual P 1	Forecast P2- P13,09/10	Total FY09/10
Infrastructure and vehicles	5.4	117.1	122.5
Utilities diversions	1.6	0.0	1.6
Design	0.3	0.5	0.8
Land and compensation	0.5	1.0	1.6
Resources and insurance	1.3	11.2	12.5
Base costs	9.1	129.9	139.0
Risk allowance	0.0	11.1	11.1
Total Phase 1a	9.1	141.0	150.1

- Actual COWD for Period 1 is £9.1m. The forecast for the year remains in-line with the Phase 1a budget at £150.1m;
- The Tramco programme is now running ahead of the original plan and this has been incorporated into the 2009/10 budget and forecast profiles;
- 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. These will be
  reclassified as expenditure against funding in the periods when the related materials
  are delivered to site and incorporated in the works. The release will occur on the
  achievement of trackwork and structures milestones in 2009/10 and future years.

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# 3.2 Current financial year profile

Profile for FY09/10 - Phase 1a only

£m	Q1	Q2	Q3	Q4	Total FY09/10
100000	(p1-3)	(p4-6)	(p7-10)	(p11-13)	
Infrastructure and vehicles	16.8	26.0	44.6	35.0	122.5
Utilities diversions	1.6	0.0	0.0	0.0	1.6
Design	0.7	0.1	0.0	0.0	0.8
Land and compensation	1.3	0.1	0.1	0.1	1.6
Resources and insurance	3.5	2.8	3.5	2.7	12.5
Base costs	24.0	29.0	48.3	37.8	139.0
Risk allowance	2.4	4.1	3.5	1.0	11.1
Total Phase 1a	26.4	33.1	51.8	38.8	150.1

- A full reforecast of the cost profile has been produced which links the re-baselined programme to Infraco constructions milestones. The realigned base costs and risk have then been linked against this programme; and
- The latest forecast for 2009/10 shows base cost of £139.0m and risk £11.1m, giving a total phase 1a cost of £150.1m. Q1 09/10 base forecast is £24.0m with risk £2.4m and total phase 1a Q1 cost £26.4m. Activity is expected to ramp-up throughout 2009 with a forecast of £48.3m base in Q3 (£51.8m including risk) and £37.8m in Q4 (£38.8m including risk).

# 3.3 Total project anticipated forecast cost

Phase Re-baselined Phase 1a AFC and profiling

£m	Cum	Actual	FY	FY	FY	AFC
	FY07/08	08/09	09/10	10/11	11/12	
Infrastructure and vehicles	30.7	45.4	122.5	92.1	19.0	309.5
Utilities diversions	18.4	33.4	1.6	0.0	0.0	53.4
Design	21.4	4.7	0.8	0.0	0.0	27.0
Land and compensation	16.8	1.7	1.6	0.0	0.2	20.3
Resources and insurance	42.7	15.8	12.5	7.8	2.9	81.7
Base costs	130.0	101.0	139.0	99.8	22.0	491.8
Risk Allowance	0.0	0.0	11.1	19.0	5.2	35.3
Total Phase 1a	130.0	101.0	150.1	118.9	27.1	527.1
Phase 1b postponement	3.0	0.0	3.2	0.0	0.0	6.2
Total Phase 1a and Phase 1b	133.1	101.0	153.3	118.9	27.1	533.3

- The table above reflects the base costs and risks aligned to the re-baselined programme and re-alignment of the Infraco milestones schedule. The AFC for Phase 1a above includes an <u>unapproved</u> increase of £15.1m to the project risk allowance. The approved cost estimate for delivery of Phase1a of the project remains at £512m;
- The latest forecast view includes £3.2m of costs relating to Phase 1b payable to BSC due to the postponement of Phase 1b (this will require to be covered by current funding). Coupled with the re-baselined forecast, there is £11.7m of funding headroom within the £545m total funding available; and
- tie and CEC are in the process of deploying a work plan to target key risk areas and bottom-out issues in order to improve confidence and bring greater certainty to the allocation of risk. This work plan is to be implemented in parallel with on-going engagement with Infraco on all programme and commercial issues.

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# 3.4 Change control

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

Description	Base cost	Risk	Total
Base estimate	498.1	30.3	498.1
Approved changes to Financial Close	13.9	0.0	13.9
Position at Financial Close (PCB)	481.7	30.3	512.0
Changes to end Period 13	7.1	-7.1	0.0
Position at end Period 13	488.9	23.1	512.0
Period 1 changes	3.1	-3.1	0.0
Position at end Period 1 (CAB)	491.8	20.2	512.0

- 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;
- Position at Financial Close (New Project Control Budget PCB) The baseline within which all future project change control will be reported against;
- Approved changes post Financial Close Changes approved to the end of Period 13 08/09 and changes approved by the Change Panel in Period 1 09/10 (two requiring TPB approval). The funding for these approved changes has been met from the project risk allowance.

In addition there are two changes that have been approved by the TPB and form part of the <u>unapproved</u> forecast of £527.1m. These relate to the internal layout of the tram (£0.34m) and the additional contingency measures for Princes Street (£1.03m).

The following potential changes have been identified. These will impact cost, programme or risk and are outwith the £522-540m range given to TS on the 26<sup>th</sup> March:

- Gogar interchange impact of changes to facilitate the provision of the Gogar interchange station (to be funded by TS); and
- 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.

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# 4 Time schedule report

# 4.1 Report against key milestones

In advance of developing agreement with BSC, tie has developed an <u>unapproved</u> recalibrated baseline programme which reflects an Open for Revenue Service date of 23 Feb 2012. A completely unmitigated programme <u>as a control scenario only has also been produced</u> which shows a date of 17 Oct 2012. However, the live programme has been used to generate the milestone data below and this is based on all current information fed into the master programme and gives a mid-point between the recalibrated baseline and un-mitigated programme dates. This indicates an open for revenue service date of July 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 live
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 /	09 Jan 08	Dec 07A
Tramco	- 34	O <del>l-10-10-10-10-10-10-10-10-10-10-10-10-10-</del>
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 excluding Wanderers clubhouse	22-Aug-08	15-May-09
Demolition of Wanderers clubhouse	25-Aug-08	15-Oct-09
Tram mock-up delivered	Oct 2008	Nov 2008A
First track installation commences – on street	03-Nov-08	Jun 2009
MUDFA works complete	Nov 2008	Oct 2009
Haymarket viaduct complete	08-Dec-08	20-Oct-09
Roseburn viaduct commences	20-Jan-09	29-Mar-10
Design assurance complete	20-Jan-09	22-Oct-09
All Issue for Construction (IFC) drawings delivered	21-Jan-09	08-Oct-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	21-Sep-09
Edinburgh Park viaduct complete	24-May-09	10-Oct-09
A8 underpass complete	14-Jul-09	31-Mar-10
Princes Street re-opened	01-Aug-09	29-Nov-09
NR immunisation complete	Nov 2009	Nov 2009
TRO process complete	01-Dec-09	Nov-10
1 <sup>st</sup> OHL installed (Commence Section 2)	11-Dec-09	16-Jul-10
Commission Section 2 (Haymarket to Roseburn junction)	11-Jan-10	14-Sep-10
Commission Section 6 (depot)	25-Mar-10	14-Mar-11
1 <sup>st</sup> Tram delivered	09-Apr-10	09-Apr-10
Test track complete	23-Apr-10	14-Jul-11
1 <sup>st</sup> section (other than depot) complete ready for energisation	25-June-10	14-Sep-10
Commission Section 7 (Gogar to Edinburgh Airport)	25-June-10	29-Jul-11
Driver recruitment commences	July 2010	Oct 2010

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Commission Section 5 (Roseburn junction to Gogar)	09-Nov-10	27-Jan-12
Driver training commences (depot only)	Dec-10	Jan-11
Driver training commences (excludes depot)	Nov 2010	Feb-12
System testing complete off street	09-Dec-10	Feb-12
Final tram delivered	17-Jan-11	17-Jan-11
Construction Line 1a complete	17-Jan-11	Jan-12
System testing complete on street	16-Feb-11	Feb-12
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	Apr-12
Shadow running starts	18-Apr-11	Apr-12
Shadow running complete	July 2011	Jul-12
Letter of "no objection" from Independent Competent Person to commence revenue service	July 2011	Jul-12
Open for revenue service	July 2011	Jul-12

<u>Guidance for Completion:</u> Legend for colouring of Actual *I* forecast date text

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

#### 4.2 Key issues affecting schedule

Programme is one of the priorities of the PMP and a refresh of the key issues affecting schedule will be provided in future periods following engagement with BSC.

#### 4.3 12-week look-ahead

Milestones	Actual / current forecast date
1D Roadworks and trackworks Princes Street	23-Feb-09A*
1A Queen Street to Baltic Street Junction S-E-M	23-Mar-09A
1A Coatfield Lane to Queen Charlotte St S-E-M	14-Apr-09
1A Baltic Street to Tower Street S-E-M	27-Apr-09
1D Commence removal of Haymarket War Memorial	04-May-09
1C Complete Utility diversions St Andrew Sq Central & South St Andrew Street	08-May-09
1A Commence Victoria bridge temporary utility diversions	11-May-09
1A Commence Tower bridge temporary utility diversions	11-May-09
1C Complete Utility Diversions Brunswick St to Haddington Place	12-May-09
2A Complete Utility diversions and BT Installations	18-May-09
1C Complete Utility diversions St Andrew Sq Central to North St Andrew St	20-May-09
Gogar depot building foundations	20-May-09
1C Complete Utility diversions South St Andrew St junction with Princes St	22-May-09
5B Complete BT Installation works	22-May-09
1D Complete Utility diversions Haymarket junction to Dalry Rd junction	24-May-09
5B Trackworks Saughton Road north to Bankhead	27-May-09
1C Commence Utility diversions at Broughton St junction	01-Jun-09
1B Complete Utility diversions Crown Place to Duke St junction	03-Jun-09
1B Complete Utility diversions Manderston St to Crown Place	03-Jun-09
1B Complete Utility diversions Stead's Place to Jane St	03-Jun-09
1B Complete Utility diversions and SGN Service connections Springfield Street to Stead's Place	03-Jun-09
1B Complete Utility diversions Balfour St – Orchardfield St – Springfield St	03-Jun-09
Gogar Depot Access Road	04-Jun-09
5B Trackworks Balgreen Rd Saughton Road North	04-Jun-09

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1B Complete BT Chamber Jane St to Manderston St	07-Jun-09
1A Commence Utility Diversions Hawthorne Vale to Newhaven roundabout	08-Jun-09
1A Commence Utility diversions Lindsay Rd junction to Hawthornevale	08-Jun-09
1A Commence Utility diversions Anchor Fields to Lindsay Rd junction	08-Jun-09
1A Commence Utility diversions North Leith Sands to Anchor Fields	08-Jun-09
1A Commence Utility diversions Ocean Terminal frontage	08-Jun-09
W3/W4 Russell Road retaining walls	17-Jun-09
2A Trackworks Haymarket to Roseburn junction	17-Jun-09
1D Complete SW diversions South Charlotte Street	19-Jun-09
S20 Russell Road bridge	23-Jun-09
W11 Bankhead Drive RW	24-Jun-09
S26 South Gyle Access bridge	24-Jun-09
1B Complete Utility diversions and SGN Service connections Iona St – Balfour St – Pilrig Place	29-Jun-09
1B Complete Utility diversions and SGN Service connections Croall Place – Pilrig Place	29-Jun-09
1C Complete Utility diversions Elder Street to Broughton St junction	07-Jul-09
1C Complete Utility diversions York Place West end to Elder St	07-Jul-09
1C Complete Utility diversions North St Andrew St to York Place West end	07-Jul-09
1C Complete SGN diversion & BT Installation works at Mound junction	10-Jul-09
1C Complete SGN Service connections St Andrew Sq Central & South St Andrew Street	13-Jul-09
1B Complete Utility diversions & SGN Service connections McDonald Rd – Croall Place	13-Jul-09
1D Commence SGN Service connections Grosvenor St to Palmerston Place	14-Jul-09
1D Commence BT Installation works Lothian Rd junction	15-Jul-09
1C Commence BT diversions Elder Street to Broughton St junction	17-Jul-09
1C Complete Utility Diversions Annandale St to Gayfield Place North	27-Jul-09
1D Complete Utility diversions and SGN Service connections Grosvenor St junction to Clifton Terrace	27-Jul-09
1D Complete Utility diversions works Lothian Rd junction	27-Jul-09
1D Complete Utility diversions Grosvenor St to Palmerston Place	31-Jul-09

<sup>\*</sup>Works recommenced 23<sup>rd</sup> March 09.

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# 5 Risk and opportunity

# 5.1 Review of risk register

# Risk and Opportunity Reviews

The following reviews took place in the period:

Date	Format of review	Attendees	Comments
06/04/09	SDS risk review	Project Risk Manager SDS Project Risk Manager	All risks and treatment plans reviewed
08/04/09	Infraco project risk allocation (QRA) review	Project Risk Manager Infraco Director Commercial Director Infraco Construction Mgr Infraco Commercial Mgr SDS Project Manager	Review of current and required risk allowances
13/04/09 & 24/04/09	Programme delay review	Project Risk Manager Programme Manager SDS Project Manager	Review of delays in delivery of packages from SDS
20/04/09	Change and risk review	Project Risk Manager Change Manager Cost Control Manager Infraco QS	Review of current and proposed changes against risk allowance
21/04/09	Depot risk review	Project Risk Manager Depot Project Manager	All risks and treatment plans reviewed
22/04/09	OLE and power risk review	Project Risk Manager Project Manager	All risks and treatment plans reviewed
22/04/09	Network Rail risk review	Project Risk Manager Project Manager	All risks and treatment plans reviewed
23/04/09	Section 7 risk review	Project Risk Manager Project Manager	All risks and treatment plans reviewed
24/04/09	Roads and drainage review	Project Risk Manager Project Manager	All risks and treatment plans reviewed
24/04/09	Structures risk review	Project Risk Manager Project Manager	All risks and treatment plans reviewed

In addition to the above reviews a training session on risk management was given to the whole Infraco team during the period.

# 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 periodically and will form part of the updated QRA.

There are 47 risks in the risk register. The top five project risks are listed on the following pages.

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There were five risks closed in the period, these are highlighted below:

Risk ID	Risk Event	Period closed
104	Delay in detailing of stops, trackway, OLE etc for Phase 1B	Period 1
162	Gaining access to land prior to purchase for advanced works	Period 1
897	Contractors excavation equipment causing damage to water mains	Period 1
1033	Failure of Infraco to mobilise in time to commence work in line with programme	Period 1
1082	Late completion of remedial works to water main	Period 1

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# 0078-TIE-PrimaryRisks.rpt

		Risk Description										
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 capabil	CEC are unable to ity honour their funding	Potential showstopper to project if contribution not reached; Line 1B may depend on incremental funding from CEC	S McGarrity	NIL - 0.00	Project	CEC has formed a multi discipline Tram Contributions Group to monitor identified sources of £45m contribution including critically developers contributions, tie are invited to that group. (see add info)	On Programme	On Programme	31-Jul-11	CEC	
							CEC to deliver necessary contributions for 1a	On Programme	On Programme	31-Jul-11	CEC	
							Tram Project Board to monitor progress towards gaining contributions	On Programme	On Programme	31-Jul-11	D MacKay	
999		Extent of concessionary fare support committment from TS provides inadequate comfort to CEC	CEC wihdraw support for FBC and project fails	B Campbell	NIL - 0.00	Project	Bus concessionary fare support scheme currently under review. New proposals for bus and tram will be submitted in autumn 2009	On Programme	On Programme	30-Oct-09	B Campbell	
							Negotiate the terms of Government commitment to concessionary fare support to level which is satisfactory to CEC	Complete	Complete	31-Jan-08	G Bissett	

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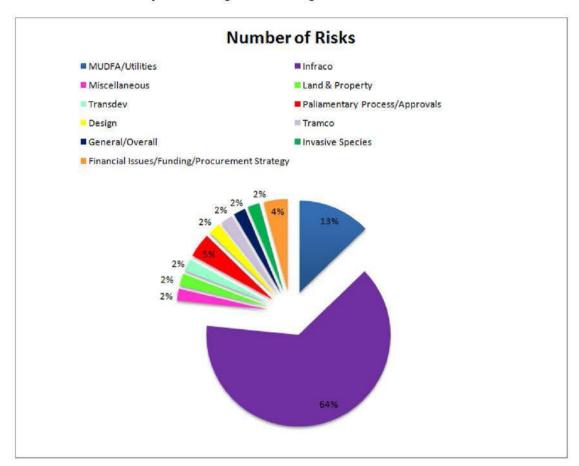
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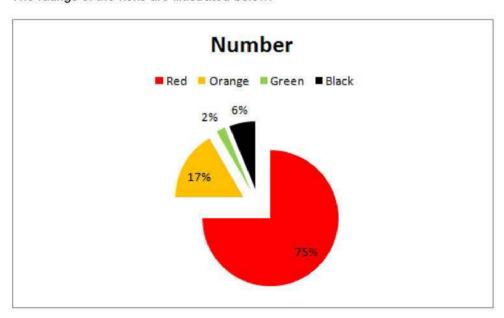
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1077	Lack of visibility of design changes between November 2007 and May 2008	Tramworks price based on a design which may have been altered. Unclear who authorised design change.		R Bell	High - 25 00	Establish a process which will act as a control mechanism for design changes. (If one exists already then ensure process is complied with)	On Programme	On Programme	31-May-09	T Glazebrook
1090	Initial costs for Burnside Road works higher than anticipated	Cost of works at Burnside Road exceed that allowed in project budget.	Additional Cost	F McFadden	Fegh - 25.00	Costs being reviewed and tender documents sent out April 09.	n/a	On Programme	30-June-09	M Butchert
1091		Excavation of soft, unsuitable material below Earthworks outline	Additional cost	F McFadden	High - 25,60	Extent of soft ground being investigated	n/a	On Programme	30-July-09	M Patterson

The risks within the Project Risk Register are categorised below.



The ratings of the risks are illustrated below.



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## New risks and concerns

The Project Risk Manager, in conjunction with the relevant director, agrees which concerns are escalated to risks and are added to the Project Risk Register. New risks are discussed in section 5.3. The following seven items were added to the Infraco Concerns Register in the period.

Discipline		Risk description							
	Risk Number	Cause	Risk Event	Effect					
Structures	90	Additional diversion works required at A8 underpass phase 1 and 2		Delay to programme, extension of time claim. Additional costs.					
Structures		Ground conditions resulting in refusal of vibro sheet piles at A8 underpass		Delay to programme, extension of time claim. Additional costs.					
Depot	92	SDS design not approved by SW despite being issued as IFC	Changes to sewer diversion works resulting in tie notice of change	Potential additional cost to tie					
Section 7	93	Late agreement of estimate with New Ingliston for future proofing		Delay to programme, extension of time claim. Additional costs.					
Section 7	94	Utility diversion design did not accomodate pre-earthworks drainage	Potential clash between pre-earthworks drainage and utilities	Delay to programme, extension of time claim. Additional costs					
Structures	95	Power supply to Scotrail depot needs to be replaced	Scotrail works do not complete till August and this may hold up BSC's construction of Russell Rd retaining walls	Delay to programme, extension of time claim. Additional costs.					
Roads		Construction of OLE bases and track ducts close to church wall on Constitution Street	Church wall undermined by excavations and potential for collapse	Additional costs. Negative publicity. Programme delay					

Five items were added by the Depot Project Manager. For numbers 90 and 93, estimates have been received and are being reviewed by the Infraco commercial team. To mitigate the impacts of number 91, the possibility of combining Phases 1 and 2 to remove the requirement for Phase 1 temporary works is being investigated. SDS will be pursued by Infraco for any additional costs arising from number 92. Regarding number 94, BSC are currently carrying out surveys to determine the extent of any potential clash.

Number 95 was added by the Structures Project Manager following the news that Scotrail are replacing the power supply to their depot.

Number 96 was added by the Roads and Drainage Project Manager. There is a potential for a Grade A listed church wall to be removed to allow the works to proceed on Constitution Street.

The following items were were closed in the period:

Discipfine	Risk description							
	Risk Causo Number	Risk Event	Effect					
Depot	5 Under estimation of material to be removed from Depot	Additional cost of removing additional material	Additional cost to provide suitable formation. Programme delay.					
POW	62 Design failure by SDS		Additional cost for design - if liability rests with tie extension of time claim					

Item number 5 was closed as this issue materialised and has been resolved by reaching a settlement with BSC to remove the excess material.

Number 62 was closed as there will be no additional cost for this matter.

# 5.2 Risk action plan for next two periods

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

Progress Report Issue 1 Period 01

Action Owner	Risk ID -	Action ID -	Action Name	Due -	Active -	Complete •	Late *	Next 3
_ 11050	061		In conjunction with MUDFA, undertake trial excavations to confirm locations of utilities and inform designer. All complete but section 1A1 and York Place to Picardy Place	5.7 = 36 F 256 F - 5.7			2.5	5 17875
A Hill	164		outstanding.	30/06/2009		No	No	Period 4
A Hill	931		MUDFA trial holes to verify GPR surveys In conjunction with MUDFA, undertake trial excavations to confirm locations of utilities and inform designer. All complete but section 1A1 and York Place to Picardy Place outstanding.	30/04/2009		No	No No	Period 2
D Sharp	44		Weekly Meetings of Approvals Task Force	31/05/2009	_	No	No	Period 3
D Sharp	279	_	Weekly Meetings of Approvals Task Force	31/05/2009	-	No	No	Period 3
D Sharp	279	-	Monitoring and tracking through the 3rd party rep	31/05/2009		No	No	Period 3
D Sharp	271		Assure the quality and timing of submissions	31/05/2009	-	No	No	Period 3
D Sharp	271		Weekly Meetings of Approvals Task Force	31/05/2009	-	No	No	Period 3
G Barclay	1084		Assess TM implications to minimise enabling works and additional cost	30/04/2009		No	No	Period 2
G Barclay	1085	653	Examine VE opportunity to reduce costs with SUCs and SDS	30/06/2009	Yes	No	No	Period 4
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	30/05/2009	Yes	No	No	Period 3
M Blake	911	628	Liase with Scottish Power to agree and approve method of crossing tunnel	30/04/2009	Yes	No	No	Period 2
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	30/05/2009	Yes	No	No	Period 3
R Bell	1079	648	Ongoing review of BSC resources and formal review at 4- weekly meeting. Objectives to be set for BSC at monthly meetings in order to monitor progress.	31/05/2009	Yes	No	No	Period 3
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 compiled with)	31/05/2009	Yes	No	No	Period 3

# 5.3 Cost Quantative Risk Analysis

The Project Risk Allocation has reduced by £3.0m in the period. All draw-downs are shown in the table below. The current Project Risk Allocation (based on the approved budget) is £20.2m.

The QRA which was in place at Financial Close is regularly reviewed. The programme and cost profile submitted to Transport Scotland on 26 March 2009 highlighted, amongst other issues, an <u>unapproved</u> increase in the Project Risk Allocation as a result of the updated QRA. The key drivers behind this increase were the amendment of an existing risk (Risk Id 343 – delay to completion of project) and the addition of the following four new risks:

- Over excavation at depot impact on cost and programme issues still to be finalised and agreed with Tramworks (subsequently included within existing Risk Id 974 – Increase in levels of spoil excavation);
- 2. Movement below track support zone;
- 3. Roads throughout works require full depth reconstruction; and
- 4. Tramworks price based on a design which may have been altered.

A further review of risks and the QRA took place in Period 1. Number 1 above was amalgamated into the existing risk while a further new risk was identified:

1. Cost of works at Burnside Road exceed that allowed on project budget.

All existing risks, as well as those recently added, are being reviewed to ensure the QRA output is as accurate as is reasonably possible. It is accepted that the additional risks and increase in QRA output are currently <u>unapproved</u>. These are within the <u>unapproved</u> range in costs provided to TS on 26<sup>th</sup> May. tie will continue to report on the risk allocation at Financial Close until a new budget (with an updated QRA) is approved.

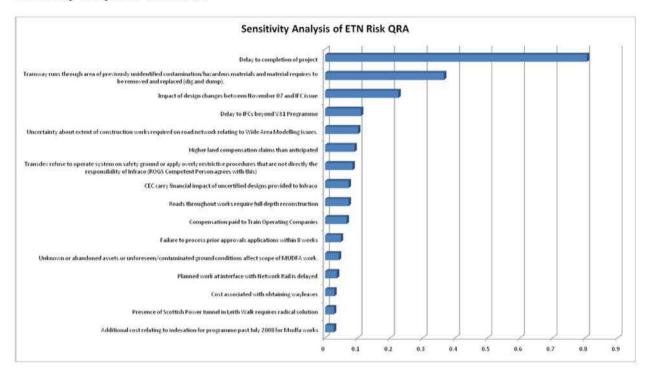
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#### Risk drawdown

The following table illustrates the drawdown applications on the project risk allocation in Period 1.

Description	Owner	Value (£)
Extra excavation at the depot	Mike Paterson	-1,425,174
Savings on badgers	David Burns	62,080
PWC strategic commercial advice	Gregor Roberts	-9,042
MUDFA risk drawdown	John Casserly	-1,643,346
	Sub-total	-3,015,474

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.

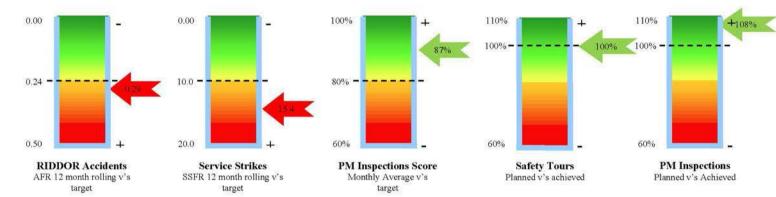
# 5.4 Schedule QRA

**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. In advance of the recalibrated programme **tie** will trial the updated ARM software in Period 2 against the current programme.

# 6 Health, safety, quality and environment

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

HS&E ACCIDENTS	and INCIDE	ENTS	SUMMA	ARY							
Project Running Totals	Total Hours	>3 day	Major	Injury	NM/Unsafe Condition	Service Damage	ENV	RTA	МОР	AFR	SFR
Period 01	107,474	0	0	0	27	9	0	0	5	0.00	8.37
Year to Date	107,474	0	0	0	27	9	0	0	5	0.00	8.37
13 period rolling	1,360,049	1	3	26	194	210	3	14	94	0.29	15.44



There were no reportable accidents during period and the project 13-period rolling AFR is 0.29 (target 0.24). The frequency of service damages has decreased during the period on the project and for Carillion but the BSC frequency has slightly increased. The percentage of power cable strikes has decreased during this period.

Although the score for **tie** health and safety inspections on the contractor fell slightly during period it is still above the 80% compliance level. The number of inspection carried by **tie** PM's was over 100% of those planned. All of the planned safety tours were carried out by **tie** senior management in the period. One safety tour resulted in a contractor being stopped due to a deficient lifting plan.

The frequency of Member of Public incidents has decreased after the rapid increase seen last period due to the Princes Street works. However, there have been two injuries to members of the public (a road sign blowing over and an alleged trip over a barrier) and these are being investigated.

tie and Carillion held a joint health and safety workshop during the period to discuss ways to improve health and safety on the project. Improvements that were agreed include joint health and safety inspections and a more targeted approach to issues highlighted from trends and past incidents.

A successful meeting was held between **tie** the Health and Safety Executive, Carillion and BSC to discuss Occupational Health Management. This meeting was a follow up from a December meeting with the HSE. Carillion and BSC both presented satisfactory management systems to the HSE and no enforcement action will be taken by the HSE as a result of the presentations and the work carried out by the Contractors and **tie**.

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## 6.2 Environment

Control and eradication of invasive species continued through the period. Archaeological works at Constitution St continued, carried out by Frontline Construction, with a watching brief from the Archaeologist.

BSC have employed Mott MacDonald to pull together their Environmental Management plans, these will be resubmitted to tie for review.

# 6.3 Quality

tie have requested that BSC submit an up-to-date deliverables / submittal register detailing issue dates of outstanding documents and full contents of documents. This is expected during Period 2

BSC are employing additional resource to help with on site quality and environmental issues.

Discussions with Carillion regarding as-built drawings and handover documentation, sampling will take place during Period 2 to ascertain quality and relevance of information.

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# 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. All parties continue to meet regularly and the next Communications Group meeting is due to be held on 5 May 2009. tie have supported CEC and the Council Leaders during the business briefings with key business leaders in the city.

# 7.2 Stakeholder / communication update

The design and delivery of Princes Street banners took place along with continued support for the tram mock up on Princes Street. During its five week stay on Princes Street the mock up had 73,939 visitors. The mock up has now been moved to Leith, at the top of Constitution Street for a similar timeframe. Similar to Princes Street, and as part of developing stakeholder relationships, tie produced a banner for the site fencing for five businesses on Leith Walk who were partially or fully obscured by work sites.

Media activity has included a news release for the appointment of Richard Jeffrey, a release on the removal of the Haymarket War Memorial and a release about **tie** sponsorship of Edinburgh Open Doors Day. The Cockburn Association is a key stakeholder who coordinates the Open Doors Day. Last year it attracted 80,000 visitors to over 75 buildings across Edinburgh; by partnering the event it gives **tie** an opportunity to raise the profile of Edinburgh trams.

There were 101 media enquiries during March 2009, these mainly revolved around the talks between **tie** and the consortium with the press looking for updates on the talks, comments on Bilfinger Berger's press release, information around the 'Princes street talks deadline' and cost change enquiries.

The production and distribution of notifications continue on a regular basis: Constitution Street Update (3 April), Balbirnie Update (9 April) Leith Walk Update (20 April) and removal of Haymarket war memorial (20 April).

The tram website recorded 11,961 visits in April 2009. The most popular pages viewed continue to be local updates, the route map and story so far. 1,083 people have signed up for RSS feeds during this period which means as soon as the website is updated they get an alert. 788 of the people signing up wanted an alert for any changes in local updates.

Events this month included a presentation to Leith Rotary Club at their request. **tie** attended the CBI Lunch (3 April) as an opportunity to network with key business leaders and information about the tram was put into the event literature. As part of the STUC conference in Perth, **tie** organised a fringe event featuring Councillor Andrew Burns and Paul Tetlaw from Transform Scotland. This coincided with the wider debate on transport infrastructure and gave **tie** the opportunity to raise the profile of Edinburgh's future need for tram. **tie** was also invited to present to ex Royal Mail Executives and the Incorporation of Hammermen as key opinion informers. As part of our ongoing commitment to work with the cycling community **tie** also attended the Cycle forum (23 April).

# 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, Leith Walk, and Haymarket. The Princes Street tram works will be supported by ongoing face to face engagement with all traders. A fact sheet for May has been produced and will be distributed.

Several banners will be produced for a number of frontagers who will be or have been affected by work sites.

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In addition to responding to any ongoing issues surrounding the council's announcement about Line 1B, media activity next period will focus around the continued construction works. The team will also be working with Richard Jeffrey, the new Chief Executive, to look at how to raise his profile through the media in the forthcoming weeks.

Edinburgh tram TV will also be launched on the trams for Edinburgh website. There will be a three minute slot updated fortnightly; the first one will feature Richard Jeffrey. Other key stakeholders and people involved in the project will feature as part of a new way of communicating relevant issues about the project on an ongoing basis.

Events in the next period will include a presentation to 35 Strathclyde University students (28 April) studying politics, **tie** has been asked to speak to the students as part of their learning experience as the tram project provides knowledge across a wide variety of subjects. Also been spoken to are international civil engineering students, the visit is being managed by Napier University (13 and 14 May). **tie** has also been asked to speak to Inverkeithing and Dalgety Bay Rotary club (13 May), this is part of the wider stakeholder activities outside of Edinburgh, particularly in areas where there is an interest in light rail as a solution for other regions in Scotland.

There are currently 18 Freedom of Information requests awaiting response from tie, these cover a variety of topics such as land acquisition costs and the BSC settlement.

Editing for the new tram video will be taking place over the next few weeks.

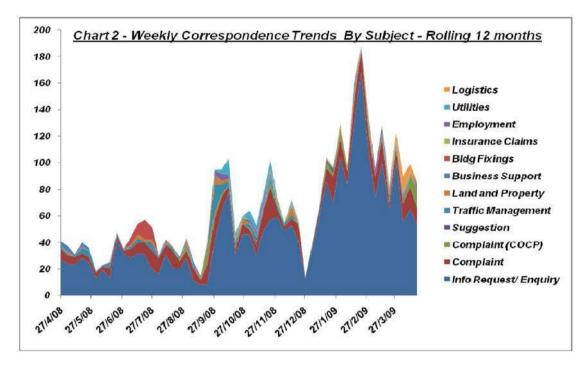
# 7.4 Customer Service Trends and Analysis

Analysing the method of contact this period the overall number of contacts totalled 405, a drop of 52 from the previous period's 457 contacts. The majority of all correspondence is still received either via email (162) or by phone conversation (160). Correspondence in each case dealt with a wide range of issues.

Face to face (F2F) meetings constituted 71 of the recorded contacts for this period, an increase of 24 from last month's 47. Face to face meetings increased steadily throughout the week ending 29 March until the 12 April with 13, 20 and 32 contacts being logged for each week.

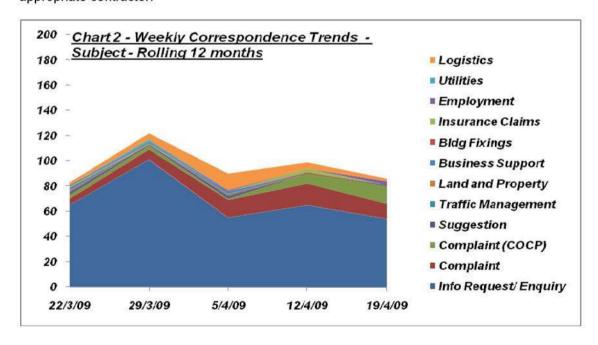
Information requests and logistical issues were the main reasons for each week's increasing face to face meeting figures. For instance, of the 20 contacts made during Week 2, 10 were information requests and 7 logistics issues. Information requests again made up 22 of the 32 contacts for week 3 while the remaining 10 were split between Logistics (4), Complaints (3), and COCP Complaints (3). The graph below shows the increase in Logistics enquiries, this is reflected in the increasing face to face figures and can be partially attributed to preparations for Easter weekend.

The remaining 12 pieces of correspondence were spread between incoming letters (9), TCA Reports (2) and Fax (1). None of these forms of correspondence differed in trend from Period 13.



Over the last 12 months the highest contact was in February, this was due to Princes Street closure and the notifications being distributed. The number of enquiries and amount of contact has decreased since then with the logistics enquiries remaining visibly high compared to the previous months. This is due to contact from traders on Princes Street, Haymarket and Leith requesting additional support in addition to the existing logistical resources in the areas.

Information requests continue to be the main reason for contact. The majority of information requests this period are related to work sites, road closures and the construction programme. The number of complaints increased over the period, these were all resolved by **tie** or the appropriate contractor.



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# 7.5 Weekly Customer Service Report for week ending - 24/04/09

Item	Volume Week	Volume (Cumulative from 21/11/08)	Performance (Week)	Performance (Cumulative)	Target Performance
Telephone response	43	1364	100	98	90% in 30 seconds
Telephone Same day resolution	42	1317	98	97	Info only
Email acknowledgement	33	794	100		100% acknowledged within 24 hours
Email response			100	98	90% resolution in 7 days
Email same day resolution	32	697	97	88	Info only
Letter acknowledgement	0	56	100		100% acknowledgement within 24 hours
Letter response			100	94	100% resolution in 7 days
Total Enquiry Volumes	76	2214			
Website update	16	334	100	100	Weekly

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# Appendix 'A' Detailed cost report

# FY 09/10: Demand on TS

137.692

#### 1: HEADLINE FINANCIAL COMMENTARY

PERIOD (PD) RESULTS:
Period is for Phase 1a only. See Section 3 of the TS report for further commentary.

YEAR TO DATE (YTD) RESULTS: YTD is for Phase 1a only. See Section 3 of the TS report for further commentary.

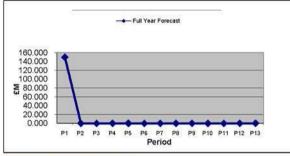
FULL YEAR FORECAST (FYF):
FY 0910 is for Phase 1a only. See Section 3 of the TS report for further commentary.

ANTICIPATED FINAL COST (AFC):

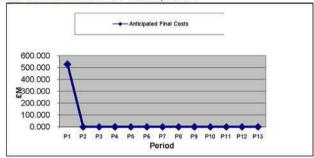
AFC is for Phase 1a only and includes an unapproved increase of £15M to the Project Risk allowance. This excludes £6.2M of potential Phase 1b costs and is consistent with the update sent on 26th March 2009. See Section 3 of the TS report for further commentary.

	C	FY 09/10 OWD Period		cow	FY 09/10 /D Year To I	Date	COWD	FY 09/10 Full Year Fo	precast	COWD To Date	Costs To Go	Total AFC
	Actual	Budget	Variance	Actual	Budget	Variance	Forecast	Budget	Variance	Actual	Forecast	Forecast
Total Project COWD	9.127	5.576	3.551	9.127	5.576	3.551	150.084	150.072	0.013	240.146	286.953	527.099
Other Funding	0.754	0.460	0.293	0.754	0.460	0.293	12.392	12.391	0.001	19.828	23.693	43.522
Demand on TS	8.373	5.115	3.258	8.373	5.115	3.258	137.692	137.680	0.012	220.318	263.260	483.577









## 3: RISK AND OPPORTUNITIES TO

FULL YEAR FORECAST:
See Section 3 of the TS report for further commentary.

ANTICIPATED FINAL COST:

AFC is for Phase 1a only and includes an unapproved increase of £15M to the Project Risk allowance. This excludes £6.2M of potential Phase 1b costs and is consistent with the update sent on 26th March 2009. See Section 3 of the TS report for further commentary.

#### 4: ACCRUALS COMMENTARY

5: TOTAL PROJECT ELEMENT SPEND BREAKDOWN (Total Project Costs)  PLANNED/EMERGING/FORECAST	-0.02	stimated Co al Project C		Act To	Variance		
Allocated in accordance with standard WBS. Values relevant to		Escalated	Escalated	Cost Of	Forecast	Anticipated	AFC v
business case or other agreed baseline date to be known as original estimate.		Original	Latest	Work Done	to	Final	ELE
Relevant Baseline date : FBC 20/12/2007	Estimate	Estimate	Estimate	(COWD)	Completion	Costs (AFC)	
General Overall	28.233	28,233	28.639	24.514	4.125	28.639	0.000
Procurement Consultant	68.126	68.126	70.363	51.729	18.634	70.363	0.000
Design	23.683	23.683	26.953	26.480	0.473	26.953	0.000
Financial Issues/Funding/Procurement Strategy	2.258	2.258	2.611	2.299	0.312	2.611	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	304.771	116.211	188.560	304.771	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	18.595	39.557	58.152	0.000
Risk	48.974	48.974	35.293	0.000	35.293	35.293	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	527.099	240.146	286.953	527.099	0.000

Detailed Financial Information	Edinburg	h Trams							0	FY 09/10	j	Period N		£
: Current Year 09/10 - Baseline Budget  1 Total Project COWD - Budget	P1 5.576	P2 4.633	P3	7.157	P6	P6 13.280	P7	P8 16.036	P9	P10	P11	P12 12.897	P13	Total
2 Other Funding - Budget	0.460	0.383	0.893	0.591	1.048	1.097	1.121	1.324	1.159	0.914	1.132	1.065	1.204	12.3
3 Demand on TS - Budget	5.115	4.251	9.921	6.566	11.649	12.184	12.459	14.712	12.873	10.154	12.582	11.832	13.381	137.6
Current Year 09/10 - Actuals (Updated 4 weekly) 4 Total Project COWD + Revised Forecast	9.127	5.549	11.733	7.423	13.043	12.601	12.929	15.386	13.352	10.154	12.755	11.974	14.058	150.0
7 Other Funding + Revised Forecast	0.754	0.458	0.969	0.613	1.077	1.040	1.068	1.270	1,102	0.838	1.053	0.989	1.161	12.3
10 Total Demand on TS	8.373	5.091	10.764	6.811	11.966	11.560	11.861	14.115	12.250	9.316	11.701	10.986	12.898	137.6
: Variance tracker  12 Variance Line 1 to Line 4 - Project Actual vs Budget  13 Variance Line 2 to Line 7 - Oth Funding Actual vs Budget  14 Variance Line 3 to Line 10 - Demand on TS vs Budget	3.551 0.293 3.258	0.916 0.076 0.841	0.918 0.076 0.843	0.267 0.022 0.245	0.345 0.028 0.317	-0.680 -0.056 -0.624	-0.652 -0.054 -0.598	-0.650 -0.054 -0.597	-0.680 -0.056 -0.624	-0.914 -0.075 -0.838	-0.960 -0.079 -0.881	-0.923 -0.076 -0.847	-0.527 -0.043 -0.483	0.0 0.0 0.0
: Next Year 10/11 - Forecast (Updated 4 weekly)	Q1	Q2	Q3	Q4		Financial Co								
18 Total Project COWD	36.037	34.920	22.086	25,810	118.853	All costs are for This excludes	F6.2M of	only and inc	ludes an un	approved inc	tent with the	M to the Pr	oject Risk a	Howand
21 Other Funding	2.975	2.883	1.824	2.131	3.014	See section 3								
24 Total Demand on TS	33.061	32.037	20.263	23.679	109.039									
0: All Years (Escalated) (Updated 4 weekly) 26 Total Project COWD	FY 03/04 0.000	FY 04/06 3.093	FY 05/06 10.664	FY 06/07 30.431	FY 07/08 85.852		FY 09/10 150.084	FY 10/11 118.853	FY 11/12 27,142	FY 12/13 0.000	FY 13/14 0.000	FY 14/15	FUTURE	TOTA 527.0
29 Other Funding	0.000	0.000	1.000	0.019	10.287	7.769	12.392	9.814	2.241	0.000	0.000			43.:
32 Total Demand on TS	0.000	3.093	9.664	30.412	75.565	93.210	137.692	109.039	24.901	0.000	0.000	0.000	0.000	483.
RAPH 3 - Demand on TS: Actual/Budget Run Rate - Current Y	- Budget on TS				-225	Year To Dat		10 G0 - % C	ayto	octg	ar FY 09/10			
14.000	ž.						9.127			140.958				
14.000 12.000 10.000 8 8.000 6.000	Y	<b>~</b>	<u>^</u>		52,000	COWD	9.127			140.958				
12.000 10.000 8.000 6.000 4.000	<b>\</b>	<b>~</b>	<u>^</u>		Oth	COMD	9.127 g 0.754			313177633				
12.000 10.000 8.000 6.000 4.000 2.000	<b>Y</b>				Oth	COWD	9.127 g 0.754	2004		11.639		- Connection - Con		
12.000 10.000 8.000 6.000 4.000	P9 P10 P	I1 P12	P13		Oth	COWD	9.127 g 0.754	20%	409	11.639	0%	80%	100%	
12.000 10.000 8.000 4.000 2.000 0.000 P1 P2 P3 P4 P5 P6 P7 P8 Period	P9 P10 P	700. 100.04007 1	124 40000		Oth	COWD	g 0.754 S 3.373	2002-2002		11.639 129.319 % 66 % Complete	0%	26.587	201495	
12.000 10.000 8.000 4.000 2.000 0.000 P1 P2 P3 P4 P5 P6 P7 P8 Period  1: Other Funding Budget (Current Year 09/10)	P9 P10 P	P2	P13	P4	Oth	COWD	g 0.754 S 8.373	20%		11.639	0%	80% P12	100%	Tot 0.
12.000 10.000 8.000 4.000 2.000 0.000 P1 P2 P3 P4 P5 P6 P7 P8 Period  1: Other Funding Budget (Current Year 09/10) RAB Funding (If Applicable) Other Funding Stream	92 19	700. 100.04007 1	124 40000	P4 0.591	Oth	COWD	g 0.754 S 3.373	2002-2002		11.639 129.319 % 66 % Complete	0%	26.587	201495	12.
12.000 10.000 8.000 4.000 2.000 0.000 P1 P2 P3 P4 P5 P6 P7 P8 Period  1: Other Funding Budget (Current Year 09/10) RAB Funding (If Applicable) Other Funding Stream Other Funding Stream Other Funding Stream Other Funding Stream	P1	P2	P3	- 0	Oth Den	er Funding	9.754 9.754 S 8.373	P8	P9	11.639 129.319 % 66 % Complete	0% 9	P12	P13	0. 12. 0.
12.000 10.000 8.000 4.000 2.000 0.000 P1 P2 P3 P4 P5 P6 P7 P8 Period  1: Other Funding Stream	P1 0.460	P2 0.383	P3 0.893	0.591	Oth Den  1.048	er Funding	0%	P8 1.324	P9 1.159	11.639 129.319 % 66 % Complete	0% P11	P12	P13	0. 12. 0. 0.
12.000 10.000 8.000 4.000 2.000 0.000 P1 P2 P3 P4 P5 P6 P7 P8 Period  1: Other Funding Budget (Current Year 09/10) RAB Funding (If Applicable) Other Funding Stream Other Funding Stream Other Funding Stream Other Funding Stream Total Budget Other Funding	0.460 0.460	0.383 0.383	0.893	0.591	Oth Den  P5  1.048	per Funding	9.754 S 8.373 0%	1.324 1.324	P9 1.159 1.159	11.639 129.319 % 66 % Complete	0% P11 1.132	1.065	P13 1.204	0. 12. 0. 0. 0. 12.
12.000 10.000 8.000 4.000 2.000 0.000 P1 P2 P3 P4 P5 P6 P7 P8 Period  1: Other Funding Budget (Current Year 09/10) RAB Funding (If Applicable) Other Funding Stream	0.460 0.460 P1	P2 0.383 0.383	P3 0.893 0.893	0.591 0.591 P4	P5 1.048 P5	P8 1.097	0%  P7  1.121  P7	1.324 1.324	1.159 1.159	11.639 129.319 % 66 % Complete	0% 9 1.132 1.132 P11	1.065 1.065	1.204 1.204	0. 12 0. 0. 0. 12 Tot
12.000 10.000 8.000 4.000 2.000 0.000 P1 P2 P3 P4 P5 P6 P7 P8 Period  1: Other Funding Budget (Current Year 09/10) RAB Funding (If Applicable) Other Funding Stream	0.460 0.460	0.383 0.383	0.893	0.591	Oth Den  P5  1.048	per Funding	9.754 S 8.373 0%	1.324 1.324	P9 1.159 1.159	11.639 129.319 % 66 % Complete	0% P11 1.132	1.065	P13 1.204	0. 12 0. 0.
12.000 10.000 8.000 4.000 2.000 0.000 P1 P2 P3 P4 P5 P6 P7 P8 Period  1: Other Funding Budget (Current Year 09/10) RAB Funding (If Applicable) Other Funding Stream	0.460 0.460 P1	P2 0.383 0.383	P3 0.893 0.893	0.591 0.591 P4	P5 1.048 P5	P8 1.097	0%  P7  1.121  P7	1.324 1.324	1.159 1.159	11.639 129.319 % 66 % Complete	0% 9 1.132 1.132 P11	1.065 1.065	1.204 1.204	0. 12 0. 0. 0. 12 Tot 0. 12
12.000 10.000 8.000 4.000 2.000 0.000 P1 P2 P3 P4 P5 P6 P7 P8 Period  1: Other Funding Budget (Current Year 09/10) RAB Funding (If Applicable) Other Funding Stream	0.460 0.460 P1	P2 0.383 0.383	P3 0.893 0.893	0.591 0.591 P4	P5 1.048 P5	P8 1.097	0%  P7  1.121  P7	1.324 1.324	1.159 1.159	11.639 129.319 % 66 % Complete	0% 9 1.132 1.132 P11	1.065 1.065	1.204 1.204	0. 12 0. 0. 0. 12 Tot 0.
12.000 10.000 8.000 4.000 2.000 0.000 P1 P2 P3 P4 P5 P6 P7 P8 Period  1: Other Funding Budget (Current Year 09/10) RAB Funding (If Applicable) Other Funding Stream Other Funding Stream Other Funding Stream Total Budget Other Funding Actual (Current Year 09/10) RAB Funding (If Applicable) Other Funding Stream Total Actual Other Funding	0.460 0.460 P1 0.754	0.383 0.383 0.383 P2 0.458	0.893 0.893 0.893 0.969	0.591 0.591 P4 0.613	P6 1.048 1.048 P6 1.077	P8 1.097 P6 1.040	9 0.754 S 3.373 0% P7 1.121 P7 1.068	1.324 1.324 1.324 P8	1.159 1.159 1.159 1.102	11.639 129.319 % 66 % Complete P10 0.914 P10 0.838	P11 1.132 1.132 P11 1.053	1.065 1.065 1.065 0.989	1.204 1.204 1.104 1.161	0. 12. 0. 0. 12. Tot 0. 12. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.
12.000 10.000 8.000 4.000 2.000 0.000 P1 P2 P3 P4 P5 P6 P7 P8 Period  1: Other Funding Budget (Current Year 09/10) RAB Funding (If Applicable) Other Funding Stream Other Funding Stream Other Funding Stream Total Budget Other Funding Actual (Current Year 09/10) RAB Funding If Applicable) Other Funding Stream Total Actual Other Funding	0.460 0.460 P1 0.754	0.383 0.383 0.383 P2 0.458	0.893 0.893 0.893 0.969	0.591 0.591 P4 0.613	P6 1.048 1.048 P6 1.077	P8 1.097 P6 1.040	9 0.754 S 3.373 0% P7 1.121 P7 1.068	1.324 1.324 1.324 P8	1.159 1.159 1.159 1.102	11.639 129.319 % 66 % Complete P10 0.914 P10 0.838	P11 1.132 1.132 P11 1.053	1.065 1.065 1.065 0.989	1.204 1.204 1.104 1.161	0. 12. 0. 0. 12. Tot 0. 12. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.
12.000 10.000 8.000 4.000 2.000 0.000 P1 P2 P3 P4 P5 P6 P7 P8 Period  1: Other Funding Budget (Current Year 09/10) RAB Funding (If Applicable) Other Funding Stream	0.460 0.460 P1 0.754	0.383 0.383 P2 0.458	0.893 0.893 0.893 0.969	0.591 0.591 P4 0.613	Den  1.048  1.048  1.077	P6 1.097 1.040 1.040	9 0.754 S 8.373 0% P7 1.121 1.121 1.068	1.324 1.324 1.324 P8 1.270	1.159 1.102 1.102	11.639 129.319 % 66 % Complete P10 0.914 P10 0.838	P11 1.132 1.132 P11 1.053	1.065 1.065 1.065 P12 0.989	1,204 1,204 1,204 1,161 1,161	0 12 0 0 0 12 Tot 0 12 0 0
12.000 10.000 8.000 4.000 2.000 0.000 P1 P2 P3 P4 P5 P6 P7 P8 Period  1: Other Funding Budget (Current Year 09/10) RAB Funding (If Applicable) Other Funding Stream	0.460 0.460 P1 0.754	0.383 0.383 P2 0.458	0.893 0.893 0.893 0.969	0.591 0.591 P4 0.613	Den  1.048  1.048  1.077	P6 1.097 1.040 1.040	9 0.754 S 8.373 0% P7 1.121 1.121 1.068	1.324 1.324 1.324 P8 1.270	1.159 1.102 1.102	11.639 129.319 % 66 % Complete P10 0.914 P10 0.838	P11 1.132 1.132 P11 1.053	1.065 1.065 1.065 P12 0.989	1,204 1,204 1,204 1,161 1,161	0 12 0 0 0 12 Tot 0 12 0 0