



**Tram Project Board
Report on Period 12 (2010/11)
Papers for meeting 16th March 2011**

09:30am – 12:00pm

Distribution:

Members and attendees

Vic Emery	Peter Strachan	Alan Coyle
Richard Jeffrey	Neil Scales	Andy Conway
Donald McGougan	Cllr Phil Wheeler	Steven Bell
Bill Campbell	Cllr Allan Jackson	Mandy Haeburn-Little
Cllr Gordon Mackenzie	Cllr Ian Perry	Gregor Roberts
Brian Cox	Dave Anderson	Alastair Richards
Kenneth Hogg	Marshall Poulton	Ian Craig
		Alasdair Sim (Minutes)

In addition – for information only

Cllr Maggie Chapman	Cllr Tom Buchanan	Dennis Murray
Norman Strachan	Frank McFadden	Ailie Wilson

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Agenda Tram Project Board

Brunel Suite – Citypoint, 2nd Floor

16th March 2011 – 09.30am to 12.00pm

Members and attendees:

Vic Emery	Peter Strachan	Andy Conway
Richard Jeffrey	Neil Scales	Steven Bell
Donald McGougan	Cllr Phil Wheeler	Susan Clark
Bill Campbell	Cllr Allan Jackson	Mandy Haeburn-Little
Cllr Gordon Mackenzie	Cllr Ian Perry	Gregor Roberts
Brian Cox	Dave Anderson	Alastair Richards
Kenneth Hogg	Marshall Poulton	Ian Craig
	Alan Coyle	Alasdair Sim (Minutes)

Apologies:

	Agenda Item	Led by	Page Ref
1.0	Welcome & Opening Remarks		VE
2.0	Review of Previous Minute & Matters Arising	VE	P6
3.0	5 Key Business Priorities <i>3.1 Building the Tram</i> <ul style="list-style-type: none"> ▪ CEO Report ▪ Project Director's Report <ul style="list-style-type: none"> ○ HSQE ○ Progress ○ Finance ○ Project Risk Register ○ Papers for Consideration <i>3.2 Preparing for Operations</i> <i>3.3 Building the Brand/Communications</i> <i>3.4 Building the Team</i> <i>3.5 Preparing for the Future</i>	RJ SB SB SB GR SB SB	Verbal update p15 p73 p45 p62 p65 p22-41 p56 p76 Verbal update Verbal update
4	Any Other Business		All
5	Close & Date of Next Meeting Wednesday 13 th April 2011 commencing at 09:30 (TBC)		VE

Tram Project Board Glossary of Terms

APA	Asset Protection Agreement	MUDFA	Multi Utilities Diversion Framework Agreement
AFR	Accident Frequency Rate	NPF	National Planning Framework
BCR	Benefit to Cost Ratio	NPV	Net Present Value
BROR	Benefits Realisation & Operational Readiness Committee	NR	Network Rail
BSC	Bilfinger Berger, Siemens and CAF	NTS	National Transport Strategy
CCTV	Closed Circuit Television	OCIP	Owner Controlled Insurance Programme
CEC	The City of Edinburgh Council	OGC	Office of Government Commerce
COCP	Code of Construction Practice	OJEU	Official Journal of the European Union
DFBC	Draft Final Business Case	OLE	Overhead Line Equipment
DPOFA	Development Partnering & Operating Franchise Agreement	PFI	Private Finance Initiative
DRP	Dispute Resolution Process	PIN	Preliminary Information Notice
DV	Valuation Office Agency	PMP	Project Management Plan
EARL	Edinburgh Airport Rail Link	QRA	Quantitative Risk Analysis
ER	Employers Requirements	RBS	Royal Bank of Scotland
ETL	Edinburgh Trams Limited	REV	Revision
ETN	Edinburgh Tram Network	RIDDOR	Reporting of Injuries, Diseases and Dangerous Occurrences Regulations
ETP	Edinburgh Tram Project	ROGS	Railway and Other Guided Transport Systems (Safety) Regulations
FATS	Factory Acceptance Test	RPI	Retail Price Index
FBC	Final Business Case	RTS	Regional Transport Strategy
FOISA	Freedom of Information (Scotland) Act	SATS	Site Acceptance Test
FoTW	Foot of the Walk	SCADA	Supervisory Control and Data Acquisition
GMP	Guaranteed Maximum Price	SDS	Systems Design Services contractor
GVD	General Vesting Declaration	SE	Scottish Executive
H&S	Health and Safety	SESTRAN	South East of Scotland Transport Partnership
HSQE	Health, Safety, Quality & Environment	SNH	Scottish Natural Heritage
HMRI	Her Majesty's Rail Inspectorate	SP	Scottish Power
HR	Human Resources	SPOKES	Lothian Cycle Campaign
IDC	Inter-Disciplinary Checks	SRO	Senior Responsible Owner
ICP	Independent Competent Person	SRU	Scotland Rugby Union
Infraco	Infrastructure Contract	STAG	Scottish Transport Appraisal Guidance
ICT	Information Communications & Technology	SUCs	Statutory Utility Companies
INTC	Infraco Notice of Tie Change	SW	Scottish Water
ITN	Invitation to Negotiate	TEL	Transport Edinburgh Limited
ITPs	Implementation Test Plans	TENS	Trans-European Transport Network Executive Agency
ITT	Invitation to Tender	TPB	Tram Project Board
JRC	Joint Revenue Committee r	TRO	Traffic Regulation Order
KPI	Key Performance Indicator	TTRO	Temporary Traffic Regulation Order
LB	Lothian Buses	Tramco	Tram Vehicle Supply and Maintenance Contract
LLAU	Limits of Land to be Acquired or Used	TS	Transport Scotland
LOD	Limits of Deviation	TSS	Technical Support Services contract
LRT	Light Rapid Transit	UTC	Urban Traffic Controls
LRV	Light Rail Vehicle	VAT	Value Added Tax
LTS	Local Transport Strategy	VFM	Value For Money
MP	Member of Parliament		
MSP	Member of Scottish Parliament		

Edinburgh Tram Network Minutes

STRICTLY PRIVATE AND CONFIDENTIAL

Tram Project Board

09th February 2011 (09:30 to 12:05)

tie offices – Citypoint II, Brunel Suite

Members in Attendance:			
Vic Emery	VE	Bill Campbell	WWC
Richard Jeffrey	RJ	Donald McGougan	DMcG
Cllr Gordon MacKenzie	GM		
In Attendance:			
Steven Bell	SB	Andy Conway	ACon
Dave Anderson	DA	Gregor Roberts	GR
Peter Strachan (by telephone)	PS	Cllr Phil Wheeler	PW
Brian Cox	BC	Cllr Ian Perry	IP
Kenneth Hogg	KH	Cllr Allan Jackson	AJ
Alastair Richards	AR	Mandy Haeburn-Little	MHL
Alan Coyle	AC	Susan Clark	SC
Ian Craig	IC	Bob Cummins (part time)	BCu
Marshall Poulton	MP	Alasdair Sim (minutes)	AS

Apologies: Cllr Tom Buchanan, Cllr Maggie Chapman, Neil Scales

1.0	Introduction, Review of Previous Minutes and Matters Arising	
1.1	BC opened the meeting and welcomed Vic Emery to the Board as the new Chairman of tie Ltd, TEL Ltd and the Tram Project Board. VE took introductions from around the table and his opening remarks referred to the challenges ahead on the project, starting with the planned mediation process.	
1.2	<u>Matters Arising from Previous Minutes</u> All actions noted in the previous TPB minutes have been closed out, and/or will be dealt with during this TPB meeting.	
1.3	The minutes from the previous TPB held on 12 January 2011 were approved as an accurate record.	
2.0	Update on Progress with BSC	
2.1	RJ reminded the Board of the recommendations from the December TPB, to: <ul style="list-style-type: none"> ▪ Commence mediation as soon as possible ▪ Scope to cover completion of the route from Airport to St Andrew Square 	

	<ul style="list-style-type: none"> ▪ To be a fast track commercial process ▪ Performance criteria to be bound into delivery of mediated outcome ▪ tie to develop the mediation strategy with CEC Legal and Finance Directors <p>RJ went on to confirm that the mediation will be undertaken during early March. A number of possible outcomes were discussed, these were;</p> <ol style="list-style-type: none"> 1. Agreement is reached with BSC to continue with the works to a defined scope under revised contractual conditions; 2. Mutually agreed termination of the Infraco contract; and 3. Continue on under the existing contractual terms which may lead to either party adopting unilateral action leading to termination of the contract. <p>VE noted that (3) above is not a realistic option against the background of litigation risks and it was agreed that such an outcome would represent a failure of the mediation process. It was further noted that the outcome of the mediation must be legally binding on both parties.</p> <p>It was recognised that the outcome of the mediation would require ratification. From a project perspective, the Council would be requested to ratify the outcome of the process on the recommendation of the mediation team and the TPB. The individuals involved in the mediation team to be clear on delegated authority.</p> <p>RJ and DA updated the Board on the internal planning sessions that are underway in advance of the mediation, noting the procedures to be followed and confirming that the team are working on preparing a range of documents and gathering/cataloguing factual evidence. Briefings to be arranged with Transport Scotland.</p> <p>Dates have been agreed between the parties and with the mediator for document exchange.</p>	<p>RJ/DA</p>
<p>2.2</p>	<p><u>Audit Scotland Report</u></p> <p>RJ reported that the Audit Scotland Report on Edinburgh Trams Audit Report was fair and balanced, although some media coverage was selective and not representative of what the document was actually saying. There were no 'Red Flags' with regards to tie's performance identified, and a number of recommendations of the report have relevance to the mediation, these are to:</p> <ul style="list-style-type: none"> ▪ Ensure Value For Money ▪ Fully Understand all alternatives available <p>Further recommendations were identified in the report relating to actions that tie and CEC to consider, these relating to:</p> <ul style="list-style-type: none"> ▪ Alignment of committed funding and affordability ▪ Organisational resilience ▪ Effective external communications 	

	<p>DMcG noted that CEC are preparing a formal action plan in response to the Audit Scotland report, and VE agreed that tie will do likewise. This will be presented to the next TPB and updates to be reported quarterly thereafter.</p> <p>It was noted in particular that tie does not currently have a shortage of skills to complete the project, nor was this raised in the Audit Scotland report contrary to some media reporting. RJ emphasised that staff turnover/retention is an issue that any business must deal with, but recognised that the current climate of uncertainty around the project could influence staff considering their personal circumstances more than would typically be expected.</p> <p>RJ reported that following leaks to the media of the draft report, Audit Scotland has launched an investigation. RJ has arranged an internal review of the tie IT system regarding access to this document and will report on the findings back to Audit Scotland.</p> <p>DMcG noted that CEC has received an invitation to appear before the Parliamentary Audit Committee scheduled for 23 February 2011. Representations to defer this appearance to a later date are to be made against the background of the planned mediation process.</p>	<p>RJ</p> <p>RJ</p> <p>DMcG</p>
<p>2.3</p>	<p><u>Dispute Resolution Process Update</u> SB reported the following for Period 11:</p> <ul style="list-style-type: none"> ▪ 30 items in DRP - 20 referred by tie, 10 by BSC. ▪ 7 resolved by negotiation & 2 resolved through mediation - 11 decisions made by Adjudication ▪ Live DRPs submitted by Infracore : Preliminaries, Princes Street valuation and INTC 536 (MUDFA) ▪ Live DRPs submitted by tie : Lindsay Road, South Gyle, Bankhead Drive and Street lighting x 4 ▪ The 4 x street lighting DRP's and INTC 536 are all new in the period. <p>It was noted that the contractual timeframe to conclude a number of these DRP items will overlap the mediation process, and for this reason, it was noted that consideration to this will form part of the mediation discussions.</p>	
<p>2.4</p>	<p><u>Change Register Update</u> SB summarised the current position regarding change notices, noting that several hundred estimates are still outstanding from BSC. These notices and supporting information requirements are being recorded and tracked.</p>	
<p>3.0</p>	<p>Building the Tram</p>	
<p>3.1</p>	<p><u>HSQE – Deliver a Tram Safely</u> BCu reported that there were no reportable accidents during the period. The rolling 13 Period AFR is at 0.21.</p> <p>There were no Construction related MOP incidents recorded during Period 11,</p>	

however, 2 reports were received relating to cyclists due to Princes Street tram tracks. This takes the total number of reported cycle related incidents on Princes Street to 36 @ 20/01/11. This is of serious concern to CEC as Roads Authority and to the Board as the party responsible for delivery of a tram system that is safe and fit for purpose. It was noted that the Health & Safety Sub Committee have specifically identified cycle interface as an ongoing risk.

Since installation of the tracks on Princes Street a number of measures and initiatives have been put in place. This includes warning signage located along the length of Princes Street advising cyclists of the tracks; on site training for cycle groups on how to safely negotiate crossing and running parallel to tram tracks, schools campaigns, production and issue of an advisory leaflet as well as a section dealing with cycling on www.edinburghtrams.com which includes a training video. To date, these measures would not appear to have addressed this ongoing issue.

IC expressed his concern from the bus operator perspective, noting that Lothian Buses drivers have specific training regarding awareness/interface with cyclists generally, but specifically for Princes Street. He noted receiving a number of incidents of near misses reported by drivers.

The Board discussed this in some detail, covering a number of areas including; the interim situation on site at present without trams operating, post operations, street lighting and the ongoing issues with defects/deterioration of the track/road interface on Princes Street which is being actively pursued with BSC. It was noted that to date, the reported cycle incidents have not been specifically related to defects or the condition of road/track jointing.

It was agreed that SB and MP will consider a range of options to mitigate these risks to cyclists and report back to the next TPB.

SB/MP

HSQE – Deliver a Safe Tram

BCu updated the Board on the Period 11 DaST metrics, noting that due to the level of work currently taking place, only one Metrics Inspection was carried out during Period 11. A concrete pour at the Depot Access Bridge was inspected.

PSCC (Project Safety Certification Committee) Sub-Committee Hazop Report – BSC Design Phase Hazard mitigation is now finalised and has been issued to the PSCC for consideration. This is a significant milestone from an HSQE perspective, and this document contains the safety case of the trams system.

tie and Siemens will assist ETL by carrying out an independent audit on their operating and maintenance systems, and BSC advised the January PSCC that the fully integrated Design Assurance Statement for Section 6 would be the first fully complete DAS to be issued (mid Feb). The next SVS audit on Track and Civils will be held on the 15th February 2011.

VE queried when the completed design is expected from BSC, and SB reported that the current delivery date for the final IFC package is scheduled

for May 2011. This was expressed with caution, as BSC have failed to meet previously advised deadlines. Evidence of design integration remains an ongoing concern.

On conclusion of the HSQE reports to the Board, VE reiterated that liability for the delivery of a safe tram system lies with the Board and that each Director should be satisfied that safety matters are being properly addressed.

Progress Overall

SB reported on overall progress on the project at end of Period 11. Progress achieved was 0.1% in the period:

<p>Utilities</p> <p><i>The % complete is a physical measure of the progress against the forecast final volume of diversions across the route. It does not take cognisance of cabling, testing and transfers from the Telecom Providers (BT etc.)</i></p> <ul style="list-style-type: none">▪ ~ 50,000m of diversions; ~48,300m completed to date.▪ Airport - Haymarket complete▪ Haymarket – Newhaven complete save for:<ul style="list-style-type: none">▪ Some telecoms cabling and transfers▪ Testing / commissioning / abandonments of transferred services▪ Baltic Street Diversions (1500m)	97%
<p>Design</p> <p><i>The % complete is based upon delivery of IFC packages and close out of all remaining informatives and comments and submission of as-builts (which represents around 10% of the design process). This estimate is under review from URS Scott Wilson.</i></p>	80%
<p>Tram Project Ancillary Works</p> <p><i>Equal weighting is applied to the physical progress % complete for all six work packages, irrespective of value.</i></p> <ul style="list-style-type: none">▪ Ingliston Park & Ride Phase 2 100% complete▪ Burnside Road Bridge relocation at Airport 100% complete▪ Murrayfield Training Pitches relocation 100% complete▪ Murrayfield Wanderers Club House 100% complete▪ Murrayfield Turnstiles relocation 100% complete▪ South Gyle sewer tunnel: Site Contract works 100% complete	100%
<p>Tram Vehicles</p> <p><i>Weighting is applied to the physical completion of trams with a Factory Acceptance Test (FAT) signed off and accepted. All others are under manufacture so this is a conservative measure of progress.</i></p> <ul style="list-style-type: none">▪ 21 out of 27 completed and factory tested with 7 under manufacture.▪ On programme▪ Tram 252 relocate to secure compound in Broxburn	78%
<p>Construction Off Street</p> <p><i>The % complete is a physical measure of the proportion of the section from Haymarket to Edinburgh Airport. Some typical elements of sections provide a more granular view.</i></p>	39%

	<p><i>As has been reported, the on street work is subject to significant dispute and this is excluded in the summary table. Current % complete for the on street Infrastructure construction works is 10%.</i></p> <p><u>Depot</u></p> <ul style="list-style-type: none"> ▪ TEL Occupation to be confirmed in Period 12 ~77% complete ▪ Stabling area Phase 1 & 2 under construction, completion Feb '11 <p><u>Structures</u></p> <ul style="list-style-type: none"> ▪ Bridges 8 out of 16 under construction ~44% complete ▪ Culverts 3 out of 3 completed 100% complete ▪ Retaining Walls 6 out of 17 under construction ~ 24% complete <p><u>Systems</u></p> <ul style="list-style-type: none"> ▪ Track 1400m installed & now starting in depot ~12% complete ▪ Substations 2 out of 4 under construction ~20% complete ▪ Overhead Line Work has just commenced at the depot <p><u>Overall Progress Against Funding</u> <i>This is a summary financial metric, aggregating the current expenditure on the whole project as a % of the currently authorised funding (£545m).</i></p>	<p>74%</p>	<p>MHL</p>																							
<p>KH noted that this aggregation of metrics should be reported more widely as they indicate that progress on particular elements of the project are more advanced than may be perceived publically. MHL to consider.</p>																										
<p>3.2</p>	<p><u>Finance</u></p> <p>GR presented the detailed project financial position at Period 11. This included the Cost of Work Done (COWD) to date, a breakdown of project costs and an assessment of COWD vs Budget. VE to be separately briefed on financial matters and future reporting format.</p> <p>RJ reported that it is the intention to recast the budgets and forecasts on conclusion of the mediation process.</p>	<p>GR</p> <p>GR</p>																								
<p>3.3</p>	<p><u>Change Requests and Risk Drawdown</u></p> <p>The change and risk allowance status at Period 11 is summarised below:</p> <table border="1" data-bbox="247 1799 1364 2048"> <thead> <tr> <th>Description</th> <th>Base cost</th> <th>Risk</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Position at Financial Close (PCB)</td> <td>481,680,811</td> <td>30,336,196</td> <td>512,017,007</td> </tr> <tr> <td>Increase in Approved Budget</td> <td></td> <td>32,982,993</td> <td>545,000,000</td> </tr> <tr> <td>Total Risk</td> <td></td> <td>63,319,189</td> <td></td> </tr> <tr> <td>Changes to end Period 10</td> <td>60,245,956</td> <td>-60,245,956</td> <td></td> </tr> <tr> <td>Position at end Period 10</td> <td>541,926,767</td> <td>3,073,233</td> <td>545,000,000</td> </tr> </tbody> </table>	Description	Base cost	Risk	Total	Position at Financial Close (PCB)	481,680,811	30,336,196	512,017,007	Increase in Approved Budget		32,982,993	545,000,000	Total Risk		63,319,189		Changes to end Period 10	60,245,956	-60,245,956		Position at end Period 10	541,926,767	3,073,233	545,000,000	
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	<table border="1"> <tr> <td>Period 11 Changes</td> <td>4,093,103</td> <td>-4,093,103</td> <td></td> </tr> <tr> <td>Period 11 Budget Written Back</td> <td>-12,690,000</td> <td>12,690,000</td> <td></td> </tr> <tr> <td>Position at Period 11 (CAB)</td> <td>533,329,870</td> <td>11,670,130</td> <td>545,000,000</td> </tr> </table> <p>GR noted that £11.7m of risk available to drawdown at end P11, and that £6.5m of further changes in process plus -£3.1m for phase 1b. It was noted that the project costs run-rate of £900k-£1m per period will put current approved budget under pressure. The Financial, Commercial & Legal sub-committee continue to monitor these matters.</p>	Period 11 Changes	4,093,103	-4,093,103		Period 11 Budget Written Back	-12,690,000	12,690,000		Position at Period 11 (CAB)	533,329,870	11,670,130	545,000,000	
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Position at Period 11 (CAB)	533,329,870	11,670,130	545,000,000											
3.4	<p><u>Project Risk Register</u> SB referred the Board to the Top 6 Project Risks. There were no new risks raised in the period, and the commercial dispute with BSC remains the number one risk.</p>													
4.0	Preparing for Operations													
4.1	<p><u>Tram Progress</u> AR reported that all 27 trams now completed or in production with 21 trams now completed factory testing and stored for delivery. 88% of CAF's programmed tasks have now been completed.</p> <p>The project utilisation of all 27 trams was debated by the Board, against the background that for an interim period, there may be a surplus of vehicles depending upon the incremental delivery options and mediation outcome. AR confirmed that lease options are being investigated in principle with a number of parties. It was acknowledged by the Board that the CAF Edinburgh trams represent excellent value for money in the current marketplace.</p>													
4.2	<p><u>Operational Readiness</u> AR reported that construction works at the depot are now 77% complete and that the offices fit-out is complete, with snagging rectification underway. The main workshop and store rooms are taking shape, and external track works have recommenced in the period. The HV sub-station equipment testing is continuing, and workshop plant installation is expected to commence by end of February now that the floor has been brought to a level at the western end.</p> <p>The hard-standing ransom strip around the building remains and tie are pushing hard to unlock this situation with BSC.</p> <p>The Board discussed the strategy for delivery of the trams to the depot. It was agreed that AR to prepare an options report for consideration for the next TPB.</p>	AR												
5.0	Building the Brand													
5.1	<p><u>Press and Media Activity</u> MHL updated the Board on media activity in the Period, highlighting in particular the coverage of the leaked Audit Scotland report draft and the misrepresentation of the core findings of this audit. It was acknowledged that the contractual obligations around confidentiality has limited the ability of the</p>													

	<p>project to rebut in detail to particular reporting, and against the background of little on the ground progress, the delivery of positive but balanced messages needs to be carefully considered and managed. MHL to review strategy with VE.</p> <p>It was noted that the Audit Select Committee is meeting on 9/02/11 to discuss the Audit Scotland Report. MHL will prepare and issue a précis of this meeting.</p>	<p>MHL</p> <p>MHL</p>
5.2	<p><u>Social Media Statistics</u> MHL presented a series of statistics from the facebook and twitter sources, noting significant traffic and information exchange. It was notable that the core users of these sites are in the 25-44 yrs age group, split 70:30 (male:female).</p>	
5.3	<p><u>Freedom of Information Requests</u> At Period 11 there are a total of 13 Freedom of Information requests at various stages of completion. A large number of these have been submitted by the one individual (a journalist) seeking a greater depth of scrutiny following previous responses.</p> <p>RJ and MHL have a meeting scheduled with the Information Commissioner during Period 12.</p>	
5.4	<p><u>Open for Business & Stakeholder Engagement Update</u> Following TPB approval for additional funding, the process to recruit the staff for the Open for Business initiative has commenced. This has been received positively by the business community.</p> <p>A series of mobile exhibitions on the project are planned, with the first installation scheduled for the St James Centre (commencing mid February). These exhibitions will be suspended during the Purdah period.</p> <p>Work continues on the Vine Trust Project in Leith Docks, of which tram is a non financial sponsor. The Tram Mock up is scheduled for display at this location when the refurbishment of the barge is completed during the summer of 2011.</p>	
6.0	Building the Team	
6.1	<p>RJ reported that tie currently employs 61 permanent staff, with 4 fixed term employees. There are a further 8 secondees, one staff member on sabbatical and 5 consultants on the HR system.</p> <p>RJ went on to note that a series of workshops are in progress with RJ meeting with small groups of staff to discuss the direction of the business, staff morale, resilience and concerns over the current uncertainties. The outcomes of this process will be reported to the Executive Team for review and action. An update will be presented to the Board at a later date.</p>	<p>RJ</p>
7.0	Preparing for the Future	
7.1	No updates to report in the Period.	

8.0	Governance	
8.1	No updates to report in the Period.	
9.0	AOB	
9.1	No items were raised by the Board.	
10.0	Date of Next Meeting	
10.1	VE thanked the Board for their participation and confirmed that the date of the next meeting will be Wednesday 16th March 2011 commencing at 09:30hrs .	
10.2	The meeting closed at 12:05.	

Prepared by Alasdair Sim, 10th February 2011

Building The Tram Project Director Report - Period 12 [10/11]

On Friday 1st October 2010, BSC began to demobilise and cease works on certain sites across the route (over Sections 2A, 5A, 5B and 5C). *tie* continue to undertake site monitoring on both active and inactive worksites.

HSQE

H&S Accidents and Incidents, Near Misses or Other

HS&E ACCIDENTS and INCIDENTS SUMMARY											
Total	Total Hours	>3 day	Major	Injury	NM/Unsafe Condition	Service Damage	ENV	RTA	MOP	AFR	SFR
Period	44,018	0	0	0	4	0	0	0	0	0.00	0.00
13 period rolling	1,312,959	0	2	13	156	14	13	6	20	0.15	1.07



There were no reportable accidents during the period. The rolling 13 Period AFR is at 0.15, better than the KPI of 0.24 for the project. There were no MOP incidents recorded during Period 12.

During a planned *tie* site inspection at Gogar Depot it was noted that there is no current suitable and sufficient fire risk assessment in place for the Depot building and associated Infraco construction activities within and around the building. *tie* has formally written to BSC requesting that this statutory breach be addressed and we have now received an amended Risk Assessment from BSC.

BSC have been requested to provide details on how road defects around the Princes Street tram tracks are being risk assessed and prioritised for interim remedial work pending a final resolution to the causes of the defects.

BSC have been requested to provide Road Safety Stage 3 Audits for all Infraco works that have been reopened to road users.

Environment

A meeting held with BSC and their ecologist on site at the Airport to discuss the current need for amendment to the Otter disturbance licence. BSC to ensure that the amended licence is in place and compliant prior to works commencing in the area.

Discussions are ongoing with BSC regarding contaminated land across the route. Testing is in process but the results of this have yet to be received.

Deliver a Safe Tram Key Metrics

Section	Activity	Data Checked				
		IDC	ITP's	Design Variations/Change	As Built's	Asset Register
Section 6 - Depot	Interface - track & Concrete	0.5	1	1	N/A	N/A
Section 6 - Depot	Electrical Installation	0.5	1	1	0.5	0
PD	Total (y)	1	2	2	0.5	0
	Max Possible Total (y)	2	2	2	1	1
Total	Percentage P11	45%	91%	86%	79%	44%
	Percentage P12	46%	92%	86%	79%	40%

Key - Y = Evidence exists (1) N = No evidence exists (0) NA = Not applicable (-) P = Part evidence in place (0.5)

Two metrics inspections were carried out during Period 12; both at Gogar Depot. Two NCRs were issued to BSC during the period, these relating to concrete finishes and unspecified equipment installed in the heavy store.

A meeting was held with BSC on 14th Jan 2011 re Haymarket Approvals Audit. BSC have yet to return a response to this audit and **tie** to formally request this during Period 13.

All Clancy Docwra completion information for Haymarket (Section 1D) has now reissued by the contractor. This will be reviewed and issued to the Statutory Utility Companies during Period 13. Packs for Section 1C have not yet been submitted.

Assurance & Project Safety Certification Committee (PSCC)

tie's Safety Verification Scheme had been redrafted for improved clarity. This has been issued to the Office of Rail Regulation (ORR) for information and comment.

A number of audits are scheduled for Period 13 (subject to confirmation of dates from BSC); these covering Track and Civils, BSC Design Assurance (Vehicles). An independent audit of ETL systems and procedures is scheduled to take place in mid March.

Progress

The progress achieved in Period 12 for INFRACO works was 0.1% against a plan of 0.2% although it should be noted that against the contractual Rev.1 programme Off-street construction should now be complete with the route in total planned to be 99.9% complete.

BSC have demobilised from previously active on-street worksites in the Leith Docks area at Lindsay Road and Tower Bridge. The only progress achieved in the period has been at the Depot Access Bridge and in the Depot itself.

The total cumulative completion for Infraco Works is 28.0% at end of Period 12.

Progress Comparison Period 11 vs Period 12 – Infraco

Period	Cumulative Progress (Actual)	Rev 1 Target
2010/11 Period 11	27.9%	99.7%
2010/11 Period 12	28.0%	99.9%

The cost, programme and risk information in this Period 12 report continues to be based upon an unapproved forecast on the information reported in May 2009. This will be updated once agreement is reached with BSC on a new revised programme.

BSC continue to report progress against the agreed Rev.1 contractual programme. This shows for progress up to and including 18th February 2011 an OFRS date of 10 February 2014 against the contractual Rev.1 programme date of 06 Sep 11 and reports a **49 calendar day slippage during the period.**

It should be noted that as a result of the current rates of BSC progress and cessation of works across the site, that it is likely that slippage will continue to be reported on a period by period basis, until such time as a re-baselined programme can be agreed with the Contractor.

Dispute Resolution

Following a Full Council meeting in November and a Tram Project Board in December, **tie** has commenced discussions with BSC in relation to mediation outwith the Infraco Contract in an attempt to reach a solution to the differences between **tie** and BSC. A mediator has been appointed and the Mediation will take place during Period 13 (March 2011).

In total, 30 items have now been referred to the formal dispute resolution process – 20 by **tie** and 10 by Infraco. In total 7 have been resolved through negotiation, 4 through external mediation, 12 were decided through adjudication, and 7 still remain to be resolved. It is important to note that overall, the application of DRP to disputed matters has reduced BSC's claims for additional payment from £25.0m to £11.4m in relation to those DRPs which have actually reached a financial settlement.

During the period, a decision regarding payment of preliminaries has been received and agreement reached at Mediation regarding the value of Change associated with South Gyle Access Bridge and Bankhead Drive. The mediation regarding Lindsay Road has been held over to allow the parties to further review their positions.

Design

SDS Programme v67 was submitted to **tie** on 10 February 2011 with a progress date of 17 January 2011.

There are 22 IFC's with a slippage of 28 Calendar days or more in the period. The final scheduled IFC is scheduled for delivery on 24 May 2011. This represents a slippage of 39 days in the period.

The design approvals status in Period 12 is summarised below:

phase 1a only	Numbers Required											Number Granted
	V26	V31	V58	V59	V60	V61	V62	V63	V64	V66	V67	
Prior Approvals	44	49	56	56	56	56	60	60	60	60	62	56
Technical Approvals	53	71	92	92	92	92	63	63	63	63	63	55
IFC	71	81	233	230	227	230	230	229	229*	234	238*	192

* Additional IFC activities added V67

To date 199 out of 969 informative comments have been closed; agreement in principle has been reached on a further 638.

tie has implemented an extensive programme of site based monitoring to validate & verify the installation of works in line with an integrated design assured construction.

Design performance by Infraco and their designer is the subject of one of the RTN's and is being vigorously pursued through the Design Task Force sessions held-with BSC.

Utility & Cabling Works

Telecoms continue to progress their re-cabling activities on-street – with works in St Andrews Square, York Place & Torphichen St due to complete during Q2 2011. Cabling in Torphichen St could be protected to allow tramworks to commence as crossings are perpendicular to Tram route.

The completion of BT Cabling on the northbound carriageway between MacDonald Rd – Jane St is compounded by delays to the duct work at York Place; however these would not impede BSC works as the Southbound carriageway is available to BSC.

Tramworks (INFRACO)

INFRACO progress is primarily focussed on the off-street section between Haymarket and the Airport. Progress in Period 12 is summarised as follows:

Period 12 2010-11	Period		Delta	Cumulative		Delta	Project
INFRACO PERIOD 12 PROGRESS (Contract Rev.01 Programme)	Plan	Actual		Plan	Actual		Wtg
Section 1a Newhaven to Foot of the Walk	0.0%	0.0%	0.0%	100.0%	8.6%	-91.4%	16.2%
Section 1b Foot of the Walk to McDonald Road	0.0%	0.0%	0.0%	100.0%	1.3%	-98.7%	7.4%
Section 1c McDonald Road to Princes Street West	1.6%	0.0%	-1.6%	99.1%	0.0%	-99.1%	10.8%
Section 1d Princes Street West to Haymarket	0.0%	0.0%	0.0%	100.0%	42.1%	-57.9%	7.6%
Combined Sections 1A-1B-1C-1D (On-Street) Newhaven Road to Haymarket	0.4%	0.0%	-0.4%	99.8%	11.2%	-88.6%	42.0%
Section 2 Haymarket to Roseburn Junction	0.0%	0.0%	0.0%	100.0%	35.1%	-64.9%	4.2%
Section 5a Roseburn Junction to Balgreen Road	0.0%	0.0%	0.0%	100.0%	10.0%	-90.0%	13.9%
Section 5b Balgreen Road to Edinburgh Park Central	0.0%	0.0%	0.0%	100.0%	43.4%	-56.6%	13.2%
Section 5c Edinburgh Park Central to Gogarburn	0.0%	0.3%	0.3%	100.0%	25.4%	-74.6%	7.2%
Section 6 Gogar Depot	0.0%	0.5%	0.5%	100.0%	77.9%	-22.1%	11.9%
Section 7a Gogarburn to Edinburgh Airport	0.0%	0.0%	0.0%	100.0%	47.3%	-52.7%	7.6%
Combined Sections 2A-5A-5B-5C-6A-7A (Off-Street) Haymarket to Edinburgh Airport	0.0%	0.2%	0.2%	100.0%	40.1%	-59.9%	58.0%
FULL ROUTE PHASE 1A NEWHAVEN ROAD TO EDINBURGH AIRPORT	0.2%	0.1%	-0.1%	99.9%	28.0%	-71.9%	100.0%

Other Progress Points to note in Period 12:

- South Gyle Bridge and Bankhead Retaining Wall agreed through DRP process.
- Depot Access Bridge progressing to programme with Major deck pour due on 9th/10th March.
- Depot Building internal fit out progressing well with trackwork on going both internal and external.
- Tenders issued directly by tie in the period to cover some outstanding work banks namely Gogar water main, Assembly Street water connection, Scottish Water abandonments and Manhole Works.

Issues in the Period

- BSC demobilised from worksites in Section 1A at Lindsay Road and Tower Place Bridge during period 12.
- Following meeting with BSC proposed design for Edinburgh Gateway retaining wall has been subject to major change by designer due to the risk profile on the original concept. This

has resulted in 2 options now being preferred as a final solution but requires approval from all parties involved.

- Network Rail require re-submission of Construction Phase Plan and Track Monitoring Proposals from BSC for approval before they will sign off any further WPP to allow works to commence. This follows a reorganisation of BSC staff from that originally indicated which alters present Construction Phase Plan.
- Final proposal for remedial works / design change for Princes Street still not approved.
- Installed water main at Depot Building has been rejected by Scottish Water alleging non compliant pipework for industrial use being used . This is currently under investigation by all parties and could have major implications to depot completion.
- Still no progress being made from Haymarket Viaduct through to the A8 Underpass due to the ongoing dispute over change.
- Still await formal approval on flooding report from BAA. Response expected w/c 28th February.

TRAMCO

Period 12 Summary – Tramco

No	Planned	Activities in current Period
1	Fabrication of the trams	Fabrication and primer painting is completed on all the body-shells for all twenty seven trams. Equipment fit-out for the remaining trams 24 to 27 is continuing in the assembly hall. The first 22 trams are completed and tram 23 is completing factory acceptance testing.
2	Enhanced passenger information upgrade	Plan still to fit final equipment when trams arrive in Edinburgh.
3	Review of Test Protocols and test results	CAF have completed final internal tests to verify and calibrate computer design tools using Tram 251 at Wildenrath on the 12 th October 2010, final report awaited.
4	Depot Equipment	CAF are continuing progress, delivery schedule under discussion in conjunction with civil works programme for the depot now in mid-March 2011.
5	Finalisation of external branding	Final branding will be applied whilst the trams are stored at the factory prior to shipping to Edinburgh.
6	Tram O&M Manuals	Revised manuals next update due mid 2011 after experience on site with the trams.
7	Key sub-contract placement	Collateral warranties – 3 signed warranties have been received, remaining continue to be progressed.
8	Factory Based Acceptance Testing complete	First 22 trams have successfully completed factory testing to date. 81% of trams now completed and tested.
9	Testing regime	CAF have revised the Delivery & commissioning regime for the trams to reflect the requirement to store Trams pre delivery to Depot. All Trams will be prepared after storage, undertake dynamic testing and commissioning. 1 st tram due for starting commissioning April 2011- last tram mid-May 2012.
10	Programme progress	88% of scheduled activities completed (the site commissioning activities have been broken down into greater detailed tasks in the latest update).

Preparing for Operations

In the period the further tracks in the workshop area have been installed and work has continued in the remaining stabling tracks. Also the preliminary tests prior to energisation of the HV equipment in the depot sub-station have been undertaken.

We have been planning in detail the first three stages of preparation for the Testing & Commissioning. The Benefits Realisation & Operational Readiness Sub-Committee of the TEL Board provides the governance overview and monitors the progress of the tasks and decisions required to deliver the Operational Readiness programme. Good progress is being made in all activities except those that are directly dependent upon progress with the infrastructure works.

The procurement of the ticketing equipment for the tram system, to integrate with the existing Lothian Buses ticketing system has progressed to the stage where the final tenders have been further clarified with respect to planning and commercial considerations. On the basis of these we expect to be able to select a preferred bidder by the 17th March after the mediation outcome is known with a contract containing client break option clauses at suitable points in the programme.

Edinburgh Gateway

Progress on the Edinburgh Gateway Project in Period 12 2010/11 is summarised as follows:

- The work carried out in the Period involved a review of the design risk of the anchored wall and investigation of options for a more conventional piled abutment. Key stakeholders TS, NWR and Scottish Water were kept up to date with developments. Prior Approval was originally granted on 28th July 2010. The revised Prior Approval was issued on 14th January 2011 with approval being put on hold while review of anchored retaining wall is carried out. Co-ordination meetings continue with NR to resolve issues associated with EMC and co-ordinate discrepancy. Other outstanding design issues including resolution of ICP sign off and drainage approvals continued in the Period.
- **tie** requested an Estimate from BSC for Edinburgh Gateway construction works as a Change under the Infraco Contract including a number of programme matters that **tie** indicated Infraco should assume when completing their Estimate. These programme issues will require adjustment following resolution of the Prior and Technical Approval issues.

Cost

The 'AFC' (£545m) in this report does not reflect an approved and reliable Anticipated Final Cost for the Edinburgh Tram Project. Rather, the forecast presented reflects the best view of the spend profile of the funding currently available for the delivery of phase 1a. Given the commercial uncertainties with Infraco and continuing delays to the project it is now considered unlikely that the full scope of Phase 1a will be completed within the available funding envelope of £545m.

Until the key issues are resolved through the contractual and legal process, it will not be possible to accurately forecast a revised budget outturn.

Key cost related items to note in Period 12 are:

- COWD to date is £408.9m, with funding to date split to TS (£375.2m) and CEC (£33.8m).
- The budget for ETP in 2010/11, established in April 2010 is £142.2m (£153.3m 09/10). Transport Scotland funding for 2010/11 is £130.5m for ETP, with £11.7m funding available from CEC.
- The original TS share of the budget (£130.5m) has been reduced to a forecast of £58.4m.

- Key sensitivities to the reforecast are identified in the main report.

tie presented an updated forecast for 2010/11 on Tuesday 19th October with Sharon Fairweather & John Ramsay attending on behalf of TS. A follow up meeting took place on 4th November where spend ranges and sensitivities for 2010/11 & 2011/12 were presented by tie/CEC to TS. A further revision of the current year forecast took place in Period 12, and is within the range presented to TS on 4th November.

Actual YTD P12 & forecast P13 FY10/11

£m	2010/11 to P12	Forecast P13,10/11	Forecast FY10/11
Infrastructure and vehicles	38.4	0.7	39.1
Utilities diversions	8.0	0.0	8.0
Design	1.5	0.2	1.7
Land and compensation	0.1	0.0	0.1
Resources and insurance	13.1	1.6	14.7
Base costs	61.1	2.5	63.6
Risk allowance	0.0	0.0	0.0
Total Phase 1a	61.1	2.5	63.6

- ETP COWD in FY10/11 to Period 12 is £61.1m (P11 £58.1m)

As previously reported and agreed with CEC and TS, initial milestones under the Infraco and Tramco contracts in the aggregate amount of £14.3m, 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 2010/11 and future years.

Risk & Opportunity

Drawdowns on risk and contingency to the end of Period 12 10/11 now total £71,193,862. The remaining risk balance based on the approved QRA plus the additional funding is £4.8m. This includes non-committed expenditure which has been transferred back to risk funding.

Stakeholder & Communications

Media / Press Activity

Total Media coverage for Period 12 resulted in **167** articles being released. At the beginning of Period 12 there was sustained coverage of the project following a draft copy of the Audit Scotland report being leaked to the BBC. The BBC's coverage of the report highlighted one area of the report which they believed implied the company 'may lack the skills' to complete the project. This point was considered highly damaging to the reputation of the organisation as it was taken completely out of context from the final report by Audit Scotland.

In the wake of the Audit Scotland report, representatives from tie and the City of Edinburgh Council were invited to give evidence at the Public Audit Committee at Holyrood on Wednesday 23rd February. Our Chief Executive, Richard Jeffrey and four senior executives from CEC, including the new Council Chief Executive, Sue Bruce were interviewed by the Committee on a range of questions about the Audit Scotland report. Various press outlets reported on the Audit Committee discussion directly and did not need to approach us for comment.

Website / Internet Communications

Visitor figures for www.edinburghtrams.com are at 13,324 this period with 853 followers on facebook. Twitter has grown to 1300 followers and has seen an increase in activity this period, particularly in terms of discussion and re-tweeting of information from our account. There has been an increase in the viewing of podcasts this period, with new content from the Chief Executive and Chairman concerning Mr Emery's appointment to the board.

Freedom of Information Requests

The volume of Freedom of Information Requests remains high for the third period running with a total of 17 requests currently at different stages of development with a further seven completed. The majority of outstanding requests have been submitted by journalists of which ten are from the one publication.

On the 23 February the Scottish Information Commissioner announced his decision on the Steve Vass Sunday Herald Appeal. The original date of Mr Vass's request was on the 21 January 2010 where he submitted eleven requests for information. We withheld information on six of these requests which subsequently resulted in Steve's appeal to the Commissioner. The appeal findings are summarised below:

1. The OSIC found in our favour when withholding the results of the dispute adjudications.
2. The OSIC found in our favour when withholding providing copies of the Clancy Dowcra, Farrans, MUDFA and INFRACo contracts.
3. With respect to the request for copies of the contracts we made successful use of EIRs Regulation 10(4)(b) – Manifestly unreasonable which we had not used until now.
4. The Commissioner found that we had not complied with the EIRs Regulation 9(1) where we should have been more helpful to Mr Vass through our duty to provide him with advice and assistance in relation to the withheld contracts and in particular how Mr Vass could have narrowed down his request. We have to do this by the 11 April 2011.

Customer Service Correspondence

Period 12 has recorded a total of 216 enquires to the Customer Service team, a noticeable increase in public interest during the last four weeks. This represents a rise of 81 queries from Period 11 - the overwhelming majority of which are requests for information on different aspects of the project.

Period 12 2010/11 – Papers for Consideration

Paper to: TPB**Meeting date: 16th March 2011****Subject: Project Change Control Update – Period 12, 2010/11****Preparer: Gregor Roberts**

Summary

This paper is 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 11, £51.6m has been drawn down from the project risk allowance, following the agreed write back of budget of £12.7m in Period 11.

In Period 12, an additional £6.9m has been drawn down, leaving a risk allowance of £4.8m.

Any changes which are approved are in relation to either actual expenditure, a commitment to future expenditure or based upon an anticipated future commitment.

Following the delegated authority from TEL to the TPB authorising the use of the £545m funding envelope and the subsequent approval to increase the budget to £545m in Period 9 2010/11, the approved budget now stands at £545m.

tie will continue to report on, and ensure that the Board have clear visibility of, all changes which have been authorised and recommended and to seek Board approval for all changes greater than £1m, in line with the Delegated Authority Rules.

The table below summarises the approved changes that have impacted the Project Risk Allowance in Period 12.

Description	Base cost	Risk	Total
Position at Financial Close (PCB)	481,680,811	30,336,196	512,017,007
Increase in Approved Budget		32,982,993	
Total Risk		63,319,189	545,000,000
Changes to end Period 11	51,649,059	-51,649,059	
Position at end Period 11	533,329,870	11,670,130	545,000,000
Period 12 Changes	6,854,804	-6,854,804	
Position at end Period 12 (CAB)	540,184,674	4,815,326	545,000,000

Changes Approved in Period 12Tax and Governance (COP446 +£21,960)

This change is to set a budget and scope for advice sought in connection with revised governance structure, and preparation work for proposed long funding lease structure.

Services Protection Section 5C – Edinburgh Park (COP465 +£2,430)

The existing utilities in the Edinburgh Park section of the route, Section 5C, require to be protected to allow dig out and replace works to be carried out. The protection of services

is due to the requirement to dig out and replace soft ground. Both the dig out and replacement of soft ground and the protection of utilities is a specified exclusion within the Contract, and therefore a required change for protection of these services.

Lindsay Road Traffic Management 2 (COP467 +£17,691)

A seamless transition was expected between Clancy Docwra and BSC at Lindsay Road, but this has not been possible. As a result, an allowance for Traffic Management costs incurred between the completion of Clancy and the start of BSC is necessary. As BSC have not started as anticipated, it is necessary to further extend the timescale of the Traffic Management at Lindsay Road. The proposed budget figure anticipates a BSC start on 1 May 2011. **tie** will be seeking to recover these costs from BSC as a result of their culpable delay.

BT CCTV Inspections (COP468 +£2,151)

Change relates to inspection and report on BT ducts from Picardy Place to Greenside Lane. This is a change because upon completion of the MUDFA works two ducts installed by CUS would not pass the Mandral test. BT were persuaded that rather than excavate the ducts and repair they would accept a CCTV report on the two ducts which were failing. CUS were offered the opportunity to carry out this survey but refused and stated that they would excavate and repair the ducts at the end of the defects period. The potential to recover these costs from CUS will be explored.

BT Chamber Inspections (COP470 +£9,790)

Change relates to inspection and report on BT Chambers Fitness for Purpose. This is a change because upon completion of the MUDFA works to construct the chambers at York Place Lane and Dublin St, BT refused to accept these structures into their network until a survey and report on their 'long term durability and fitness for purpose' is available. The potential to recover these costs from CUS will be explored.

Transfer of TEL budget to TMR Works (COP471 +£7,589)

This is a change because Clancy Docwra carried out Traffic Management works on behalf of **tie**/Edinburgh Trams in relation to moving the Tram on Princes Street for the Festival Fireworks, the Papal Visit and moving the Tram in November 2010.

Transfer of Outstanding Budget from EPPU (COP472 -£11,638)

Savings against the original approved budget for works relating to the private utilities diversions at Edinburgh Park (Original COP 188, 276 and 332). The original budget associated with the above works has not been fully expended upon completion of the project.

York Place Lining (COP478 +£3,933)

Numerous Traffic Management arrangements on York Place to support Utility Diversion work have resulted in the carriageway lining being confusing to motorists. Lothian and Borders Police first identified this issue in November 2010 and temporary measures were taken to black out redundant lines. This temporary measure has now worn away along with other areas of blacking out paint. Lothian and Borders Police have again raised concerns (via TMRP) with regard to the lining in this area. The works that this paper covers will remove redundant lines and refresh, where required, existing lines that are to be retained. All work will be in accordance with an AECOM lining drawing. The potential to recover costs from BSC is to be explored.

Cyril Sweett Contingency Reprourement Advice (COP486 +£8,900)

This change is for procurement advice from Cyril Sweet Ltd in relation to contingency planning in the event that BSC do not complete the remaining scope of works between the Airport and St Andrew Square. This is a contingency exercise relating to the current dispute with BSC and was not contemplated during the establishment of the Project Budget.

Redundant Fire Hydrant Cover Removal (COP422 +£22,755)

This is a change because upon completion of the MUDFA Contract it was discovered that not all redundant Fire Hydrant covers have been removed from site. As a result of this the Fire Service expressed concerns that they could be connecting to redundant services, which is clearly a safety concern. Due to the urgency of the situation we approached Frontline Construction to price the works.

Tower Place Bridge – Sequence of Work (COP430 +£65,573)

This is a change because the licence agreement with Forth Ports required the bridge to be open to 2-way traffic by 19 November 2010. A separate licence application is required for any future works to Tower Place Bridge. The costs involved in this may be recoverable from Infraco due to the earlier Infraco failure to achieve the necessary productivity in the construction of Tower Place Bridge.

Haymarket Station – NR Access Door (COP435 +£1,821)

Abortive and additional works to NR access door at Haymarket Station due to **tie** stopping planned works. This is a change because **tie** require to allow Mudfa to remove the temporary power supply to the station building.

TSS Additional Activities (COP438 +£206,081)

The following items of work will impact the current approved budget for TSS:

1. Trackform Design Review - TSS commissioned for independent review the current trackform design and provide alternative design proposals following the undertaking of VE exercise. Budget Estimate £155.3k, with hours to be signed off by **tie**'s PM Willie Biggins. This change is to explore alternative track design with the intention to significantly reduce construction costs.
2. Design Review - TSS commissioned to provide rapid design review of the system wide design. Budget Estimate £25.5k, with hours signed off by **tie**'s PM C Kerr. This change is to undertake independent design check.
3. Additional Commercial Resource - to supplement **tie**'s existing commercial team. Budget Estimate £17.6k. Increased commercial requirements regarding Infraco related disputes necessitate the need for short term TSS assistance to the end of December 2010 (5 weeks, commencing Mon 22nd November), on a variety of commercial matters regarding BSC.
4. RPIX - annual inflationary increase - Budget Estimate based on current forecast to current financial year end is £7.7k (future increases will be captured in change paper for next financial year as required). This change is in accordance Contract

Paper to: TPB**Meeting date: 16th March 2011****Subject: Tram Delivery, Testing and Storage Options Paper****Preparer: Alastair Richards**

1.0 Introduction

This paper has been produced in response to the Chairman's request at the TPB on the 9th February 2011.

22 out of the 27 tram vehicles have completed their factory acceptance tests and are stored, the 23rd vehicle is completing the factory acceptance test and the remaining modules for the last 4 trams are progressing through final assembly.

The first 2 trams have completed vehicle type tests and have run a total of 1,250 km at a test facility at Wildenrath, Germany.

Before the next stage of testing may begin, the trams must first be delivered to site, where they will be assembled (having been split into 3 sections for transport), then undergo a Site Acceptance Test to verify that they are in the same condition as they were when tested in the factory.

The purpose of the site test and commissioning is to prove the integration of the tram with the systems, track, power supply and environmental factors in Edinburgh. The first tram undertakes an intensive Type Commissioning series of tests, whilst subsequent trams are put through a lighter set of Routine Commissioning tests.

Performance of these tests starts to build mileage on the trams, an essential pre-requisite to ensure that prior to operation each tram is sufficiently reliable, as well as to provide the opportunity for training and familiarisation of operations and maintenance staff. The target is to achieve at least 5,000 km to 10,000 km on each tram (the equivalent of approximately a month of passenger operation) to achieve this during testing, the trams must be run relatively intensively.

Once trams and systems, as well as operations and maintenance staff, have undergone this 'shakedown' period, it is possible to commence the Trial Running phase, where the System Performance Demonstration is performed, operating the system to the timetable but without passengers.

If insufficient 'shakedown' mileage has been accumulated with the trams, systems and staff, then the Trial Running period almost certainly becomes extended with the result that the System Performance Demonstration offers far less confidence on when to take the system into passenger operation.

There are many examples where this has happened, as a result of time pressure on the project, with the result that an immature system is offered for public use. This has the consequence that passenger confidence is shaken and in many cases lost, which has taken years to then recover.

This paper proposes how testing, commissioning and trial running can best be achieved in Edinburgh, given where we are with the Infrastructure part of the Project, as well as the associated tram storage options.

2.0 Test Sequence

2.1 Tram Delivery Acceptance Test

Pre-requisites - Depot Workshop to be completed with overhead line in place in the East fan through the workshop to poles on the West fan providing power for trams to be tested statically. At present the poles are installed but the wires not yet been run. The Sub-station is ready and waiting and fine tuning of the installation arrangements of the isolator switches locations is underway.

Benefits – Provides confidence that we have functional trams available on-site ready for dynamic testing. With the trams in the workshop it enables commissioning and training to be undertaken on the tram specific items of Depot Plant and Equipment. The unpowered tram may also be used to undertake slow gauging checks of the track and adjacent structures to ensure adequate clearances exist. This limited power energisation of the tram will also flush out any remaining concerns from Network Rail over interference with the signalling on the adjacent Fife line without there being a time critical imperative to resolve.

Drawbacks – Bringing the tram too soon could impose a constraint on remaining works being performed in the workshop or adjacent areas if we are not able to move it out of the way easily.

Recommendation – At the end of April 2011, based on current rate of progress, deliver a second tram from Spain and at the same time deliver the tram stored in Broxburn. These first two trams would be kept inside the workshop building.

2.2 Tram Commissioning and Integration Tests

Pre-requisite - Powered section of line for the tram to be able to achieve at least 50 Kph and preferably 74 Kph (the maximum speed of the tram) to undertake the Type Testing that can only be performed on site in Edinburgh.

Benefits – Provides an early view of the integration of the tram with structures, track, power supply and systems in Edinburgh, with time to find solutions to any problems that emerge.

In the event that these elements are as anticipated and have been delivered in an integrated manner under the existing contract or Project Phoenix then these series of tests should be relatively low risk.

If however a Project Separation route has been followed, then the Tram Commissioning Tests will be very important in incrementally building confidence, providing a test bed for new suppliers or contractors to test their systems and solutions with the tram vehicle and infrastructure.

In either situation, test trams operating as soon as possible would offer visibility of a significant step forward being achieved by the tram project.

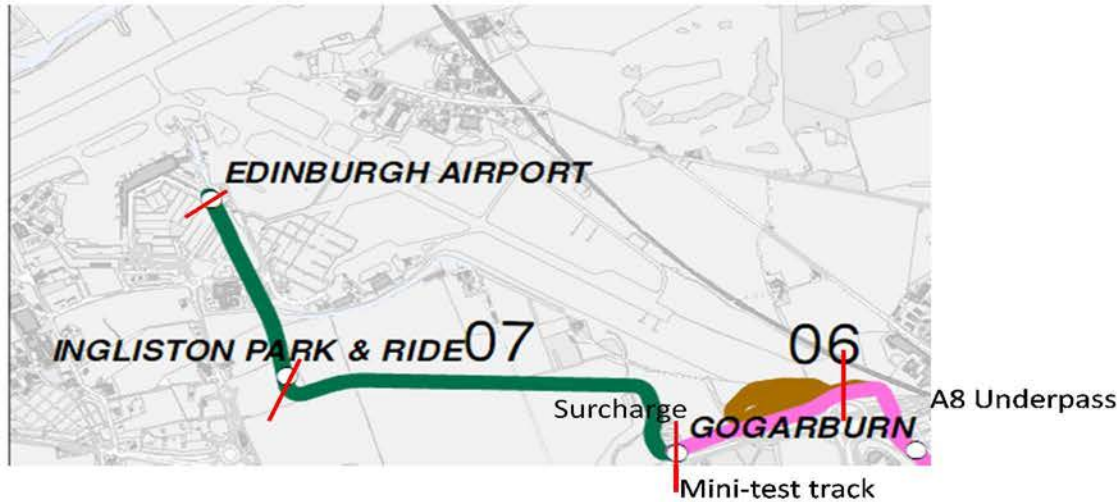


Figure 1. Sections 5c, 6 and 7

Recommendation

Step 1

Given the constraints of the infrastructure to either side of the depot (see Figure 1), the A8 underpass and uncertainty of the Gogar Interchange in one direction and the surcharge area past Gogarburn tramstop in the other, we have focused on the track between the depot west entry/exit and Gogarburn tramstop (see marked red in Figure 2).

This provides for c. 600m length of track, with two minor road crossings and a reasonably significant gradient, sufficient for testing the tram up to a speed of 50 Kph. In conjunction with the complex track geometry in the depot, this provides an opportunity to test and prove integration as well as achieving some mileage accumulation, staff familiarisation and initial safety approvals/no objection. This de-risks to some extent the dependency of the programme on the completion of the more time critical structure elements associated with the surcharge and the A8 Underpass.



Figure 2. Aerial Photo - the Mini-test track

Step 2

This mini-test track may then be extended west to the Ingliston Park & Ride stop which yields the advantage of c. 1km length of track across the fields permitting testing of maximum tram speed and braking, as well as providing the opportunity to test with multiple sub-station feeds (the mini- test track is fed solely from the depot sub-station whilst once the track reaches Ingliston that sub-station may also be energised.)

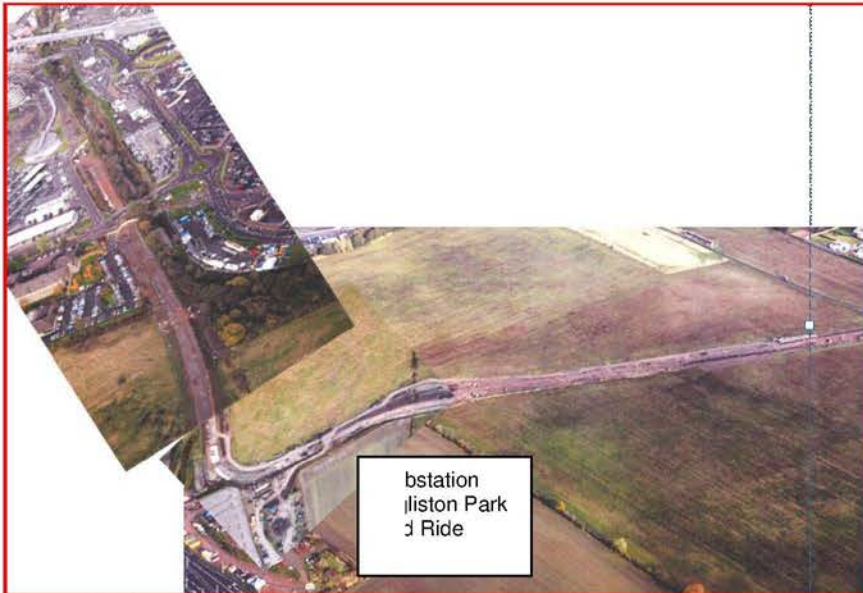


Figure 3. Section 7

Step 3

Once the structures, track, power supply and systems are completed as far as the Airport tramstop, with Section B completion, it becomes possible to operate trams in a simulated service pattern between the depot and the Airport. This utilises the scissors turnback outside of the Airport tramstop to reverse trams, allowing the use of both inbound and outbound tracks with multiple trams operating on each.

This Section B test track provides the ideal test environment for mileage accumulation on the fleet of trams and for vital experience to be gained and training undertaken for control room staff and tram drivers.

Once this building block has been achieved, it provides a high level of confidence that the remaining sections of the line can be added and commissioned incrementally with the minimum of testing and commissioning time. With subsequent testing focused on interactions with any novel location specific features and specific route learning and familiarisation for the drivers.

2.3 Tram Storage

In 2010, additional facilities were introduced at the Irwin factory to allow the storage of up to a maximum of 12 trams within the CAF site (as part of the MUDFA Rev 08 EOT). By summer 2010 there was no further space available within the CAF site, CAF therefore negotiated with RENFE to use two international gauge heavy rail sidings adjacent to the factory, to store the remaining trams. These are however subject to additional monthly costs associated with this storage as well as 24 hour security to protect the trams. There are currently 14 trams stored in this area, which may at reasonably short notice be required to be vacated for RENFE freight storage.



Whilst having the trams stored near the factory does benefit from close proximity to technicians at the factory to maintain and make any required modifications, the trams however are being stored without power. Whilst this is acceptable and not unusual for relatively short term storage, it is far from ideal and is relatively unprecedented for long term storage situations.

To reduce the risks associated with this storage, it is recommended to minimise the period that this remains the case and also to increase the amount of time in shaking the trams down once they come out of storage in order to build reliability up.

The depot workshop is able to house up to 8 trams completely under cover with associated facilities to power them up from time to time. The stabling area behind the depot and the depot fan outside the building offers sufficient space for at least four trams to be parked and sufficient manoeuvring space in the event that they must be moved to allow further infrastructure work to be undertaken.

Recommendation – To deliver the 14 trams stored in the RENFE sidings to the depot in Edinburgh as soon as power is available inside the workshop area.

Decision(s) / support required

The TPB is requested to approve the recommendations of the paper.

Proposed Name: Alastair Richards Date: 16th March 2011

Recommended Name: Richard Jeffery Date: 16th March 2011

ApprovedDate:
Vic Emery on behalf of the Tram Project Board

Paper to: TPB **Meeting date: 16th March 2011**
Subject: Section 5C : Utility Diversion 5C/SW/D/01 Gogar Depot 250 Water Main
Preparer: Andrew Scott

Summary

To ensure access was available to Infracore for Depot construction a 250 diameter water main was diverted prior to finalisation of the earthworks design. When the earthworks profile was established on site it was discovered that the pipe was located within the south embankment. This resulted in insufficient cover to the pipe and unacceptable access restrictions for Scottish Water. As a result a 295m section of the main requires to be relayed.

The 250 diameter main is critical to ensure the provision of a permanent water supply to the Depot. Revised drawings have achieved IFC status with Scottish Water and construction works are currently out to competitive tender. Returns were delivered on 4 March 2011. The contract is intended to be awarded no later than 18th March 2011 with works scheduled to be completed by 27th May 2011.

The total value of this change is £192,575.00.

Decision(s) / support required

The TPB is requested to:

- a. Approve the drawdown from contingency for the above change.

Proposed Name: Andrew Scott Date: 16 March 2011
Title: Project Manager

Recommended Name: Steven Bell Date: 16 March 2011
Title: Tram Project Director

ApprovedDate:
Vic Emery on behalf of the Tram Project Board

Paper to: TPB**Meeting date: 16th March 2011****Subject: Section 1B/1C/1D: Scottish Water Abandonments Various Locations****Preparer: Phil Dobbin**

Summary

To complete the obligations outstanding with Scottish Water the existing water mains replaced during the MUDFA works, require to be disconnected from the live Distribution Network. This work requires isolated work sites at nine locations;

- Cassellbank Street
- Crown Street
- Stead's Place
- Springfield Street
- Jameson Place
- Arthur Street
- Baxters Palce
- Palmerston Place

A tender document was issues to three of our approved suppliers,

- Clancy Docwra
- Farrans
- Barhale

Tenders were returned on the 2nd of March and are currently undergoing formal evaluation to determine validity of the valuation. Scottish Water have since advised of an additional scope of works to replace a further 15m of 250 water main at Palmerston Place. This requirement was agreed by TQ during the MUDFA works.

The Value for these combined changes is estimated at £153,577.

Decision(s) / support required

The TPB is requested to:

- a. Approve the drawdown from contingency for the above change.

Proposed

Name: Phil Dobbin
Title: Project Manager

Date: 16 March 2011

Recommended

Name: Steven Bell
Title: Tram Project Director

Date: 16 March 2011

Approved

.....Date:
Vic Emery on behalf of the Tram Project Board

Paper to: Tram Project Board

Date: 16th March 2011

Subject: Princes Street Cycling Incidents – Update Paper

Preparer: Bob Cummins, Head of HSQE and Engineering - 08/08/2011

1.0 Introduction/Background

Since the re-opening of Princes Street to the public there have been a number of cycle incidents linked to the introduction of the tram rails into the street. The incidents continue to occur at an average of 2-3 per month. This paper will summarise the action already taken to provide a safe environment and the action being taken at present to maintain a safe environment. This paper is not a risk assessment or appraisal of risk.

It is recommended that the Board note the contents of this paper and actions identified.

2.0 Princes St Incidents

Princes Street was re-opened to the public, vehicles and cyclists on the 29th November 2009. Princes Street was constructed to the Consortium's quality control system. Prior to the opening, BSC carried out a number of inspections and tests as part of their quality control system. During the weekend of the re-opening, Princes Street was subject to a number of visual inspections by **tie**, BSC and CEC. All parties agreed that it was safe to be opened to the public, vehicles and cyclists.

Since the re-opening of Princes Street there have been 37 reported incidents of cyclists falling after coming into contact with the tram rails. It should be noted that only 9 of these have been reported through formal channels (i.e via CEC or from the STATS 19 Police RTC incident reporting system); the remaining 28 being brought to **tie**'s attention informally through a variety of sources including the tram helpline, insurance claims and from SPOKES.

For this reason, a direct pre and post track installation comparison of cycle related incidents is not appropriate given that for previous years, the only source of data would be through formal reporting (**note**: 8 formally reported cycle incidents were recorded for the period Jan 2006 - Dec 2009).

Considering the data available since track installation; 42% of the cyclists have cited being caught in the groove as the reason for the fall and 44% have cited slipping on the rail (14% non specific). There are a number of defective areas of road surface adjacent to the rail along the length of Princes Street. **To date no incident reported to tie has cited the defects or breakup of the road next to the rail as a causal factor, however, it should be considered that the current defects and in some locations, proud rail, may be contributing to the number of incidents.**

All incidents are now plotted onto the project Geographic Information System (GIS) and have highlighted 'hot spots' (see graph "Grouping by location" and attached map of Princes Street). GIS information has been shared with BSC to allow the targeted repair of defects. The information will also be shared with Lothian Busses and other bus companies to allow for further specific briefings to drivers.

3.0 The Design and Assessment of Risk

The design was carried out using current guidance and standards for roads and tramways.

The design for the interface between road and rail was not provided to CEC for review by the Infraco prior to or during construction and remains the subject of an outstanding informative that has not been closed out, and therefore this design remains unapproved at the time of writing.

A risk assessment by the operator was carried out in June 2008 and amongst other hazards, highlighted the potential for cycle incidents including slipping on the rail or becoming stuck in the groove and subsequently struck by a tram or other vehicle. The control measures within the risk assessment included: the selection of the rail type; the tolerance during construction to ensure the rail head is level with the road; the design of cycle crossing points not less than 60° to the track and the procurement of a Road Safety Audit. The Operators Risk Assessment was included in the BSC/tie/ETL project hazard log.

The design was subjected to a Stage 1 and Stage 2 Road Safety Audit. The audit did not highlight any risk from slipping on the rail or becoming caught in the groove. Most of the audit recommendations relating to cyclists were accepted by the designer SDS. One of the Stage 2 audit findings recommended that:

“Some cyclists may prefer to avoid Princes Street due to the presence of the trams (as well as the large number of buses and their associated stops) Recommendation – Alternative signed routes be provided egdestinations avoiding trams”.

The designer rejected this finding based on detailed consultation with Spokes in that Princes Street was retained as a cycle route and also the requirement to reduce on-street clutter. Reference RSA2, B6.2 Cyclists.

Extensive briefings and a number of workshops were carried out in conjunction with Spokes and other cycling groups in order to help prepare cyclists for the introduction of the tram rails into the city and the potential hazard they posed.

Following concerns raised by the Traffic Management Peer Review Group (TMPRG) and the Traffic Management Review Panel (TMRP) during the summer of 2010, a risk assessment relating to cycle incidents was prepared, which led to the installation of additional warning signage being installed on, and on the approaches to Princes Street.

4.0 The Construction

The track and road were constructed and the activities controlled by the Infraco's internal quality assurance system as required by the contract. Periodic checks by tie and CEC were also carried out.

A Stage 3 Road Safety Audit was not carried out by the Infraco prior to or since the opening of Princes Street. It is a requirement of the Design Manual for Roads and Bridges that a Stage 3 Audit is carried out either prior to or 1 month after the opening of a new roads scheme that is substantially complete. BSC cite their reason for not carrying out this audit as the works in Princes Street are not substantially complete.

It is recommended that a separate independent Stage 3 Road Safety Audit is procured (and steps are underway to engage the TSS supplier for this work) and that this be approved through project change control. The estimated cost for this audit is £1,000.

As part of the final works to Princes Street, the street lighting levels are required to be improved in order to meet current standards. Presently, no works has been carried out to improve the lighting levels in Princes Street as the works are not complete. The lighting levels do not appear to have contributed to any cycle incidents.

5.0 Defective Work and Repairs

After approximately 1 month, in some locations, the road surface next to the rail started to crack and break up leaving the rail proud of the remaining road surface. The Infraco carried out the first batch of repairs in March 2010.

The temporary repairs were not successful and the road continued to break up. Since then an alternative method has been used and proved to be more durable but is still a temporary, make safe repair. **The current make safe repairs are programmed to be complete by May/June 2011.**

To date no incident reported to tie has cited the defects or breakup of the blacktop next to the rail as a causal factor, however, it should be considered that the current defects or proud rail may be contributing to the number of incidents.

As a result of the poor performance of the new construction in Princes Street a permanent alternative design has been proposed by the Infraco and is subject to ongoing discussions with tie and CEC.

6.0 The Mound/Hanover St Junction

There have been 5 incidents specifically located at the junction with Hanover Street and The Mound. Guidance requires cycle routes to cross the track at no less than 60°. **Achieving this angle and adhering to this guidance is not possible at this junction.** The lining at this junction is currently being redesigned by CEC in an attempt to get as near to the guidance as possible. **At present there is no 'on-street' guidance (lines or broken lines) for cyclists at this location to assist them with crossing the junction in the safest way.**

The Mound and Hanover Street (crossing Princes Street) is part of the National Cycle Network Route 1 (NCN 1). **A Cycle integration study published in June 2009, commissioned by tie, recommended that this crossing route should be moved to Waverley Bridge and South St David's Street to encourage cyclists away from the Mound/Hanover Street. To date, NCN 1 remains in its original location.**

7.0 The Rail Groove

The groove in the rail appears from the reported incidents to be a causal factor resulting in the bicycle wheel becoming stuck in the groove and throwing the cyclist off.

The operators risk assessment identifies this risk and through rail type, design and construction methods, controls it to an acceptable level. The risk assessment does not identify the use of any proprietary filler material as a control measure. The Cycle Integration study also identifies the groove as a risk but uses research from the Sheffield Tram system to argue the ineffectiveness of a proprietary infill system as unreliable and highly expensive. **Enquiries with other UK tram systems have highlighted that proprietary groove fillers are not used.**

The tracks in Princes Street will be in place for a significant period before the tram is operational. Enquiries were made with other UK operators to establish if any temporary measures were used to fill the rail groove in the interim. Only one case was identified where, in North Wales, the local police required the Ffestinog Railway to protect rail grooves on a yet to be opened section of track because the railway was not in use and not all the signs were in place.

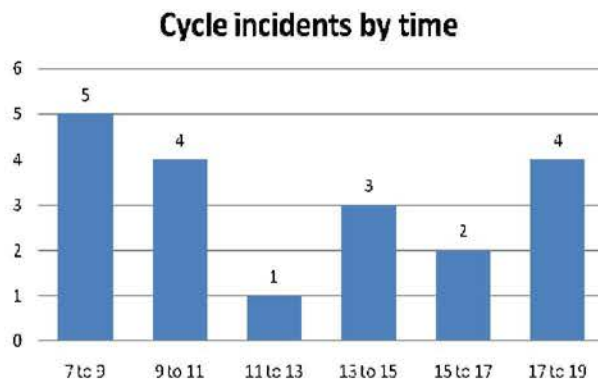
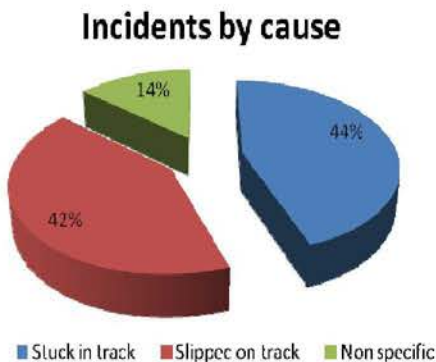
It is not clear how successful a temporary 'filling in' of the rail groove would be or how long it would last. It is also not clear how this would affect the behaviour of cyclists and may encourage them to cycle on the rail and within the tram lane. **Encouraging cyclists to cycle across rails and within the tram lane may increase slips on the rail and a greater number of future accidents when the tram is operational and the temporary filler is removed.**

8.0 Paper Highlights and Recommendations

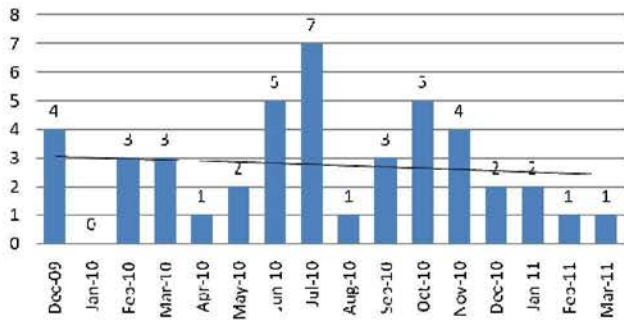
	Issue/Highlight	Temporary Solutions	Permanent Solution
Incidents	All incidents now plotted onto GIS to establish 'hot spots'.	Information shared with BSC to allow targeted repair of defects Information shared with bus companies to enhance briefings to drivers. Information to be shared with Cycle groups.	Continue to plot and monitor. Continue to brief bus drivers and cyclist groups.
Defects	To date no incident reported to tie has cited the defects or breakup of the blacktop next to the rail as a causal factor, however, it should be considered that the current defects or proud rail may be contributing to the number of incidents.	Carry out remaining make safe repairs to Princes Street, to be complete by May/June Continue to monitor condition.	Agree permanent design solution that will stop area break up of road at road rail interface. Reconstruct Princes Street to agreed design.
Stage 2 Road Safety Audit finding – alternative cycle route signage	The designer rejected this finding based on detailed consultation with Spokes in that Princes Street was retained as a cycle route and also the requirement to reduce on-street clutter.	Reconsider finding and discuss with designers and cycle groups.	Reconsider finding and discuss with designers and cycle groups.
Stage 3 Road Safety Audit	A Stage 3 Road Safety Audit was not carried out by the Infraco prior to or since the opening of Princes Street.	tie procure separate RSA3. Review recommendations of audit.	Agree specifically with BSC when RSA's are required. Review recommendations of audit.
The Mound / Hanover St	At present there is no 'on-street' guidance (lines or broken lines) for <u>cyclists</u> at this location to assist them with crossing the junction in the safest way. A Cycle integration study published in June 2009, commissioned by tie recommended that this crossing route should be moved to Waverley Bridge and South St David's Street to encourage cyclists away from the Mound/Hanover Street. To date, NCN 1 remains in its	Complete design and implement on street guidance or alternative control measures such as warning signs and anti skid at junction. Discuss with Sustrans the relocation of NCN 1	Investigate why BSC did not produce the design for cyclists crossing this junction in accordance with the appropriate guidance.

	original location		
The Rail Groove	Enquiries with other UK tram systems have highlighted that proprietary groove fillers are not used. The ETL risk assessment also does not require its use. Encouraging cyclists to cycle across rails and within the tram lane may increase slips on the rail and a greater number of future accidents when the tram is operational and the temporary filler is removed.	Do not use proprietary groove filler Filling in the groove on a temporary basis should be seen as a last resort and only after the other recommendations above have been completed.	Do not use proprietary groove filler
Risk Assessment Summer 20101	Following concerns raised by TMRP & TMRPG a risk assessment regarding cycle incidents was prepared	15 No. temporary warning signs were erected in November 2010	CEC to consider route-wide implications of non statutory signage
Further review	Based on the findings of the Stage 3 Road Safety Audit and the current information relating to cycle incidents it is recommended that the Operators Risk Assessment is reviewed.	Review of audit recommendations. Review risk assessment	Continue to monitor and review as appropriate

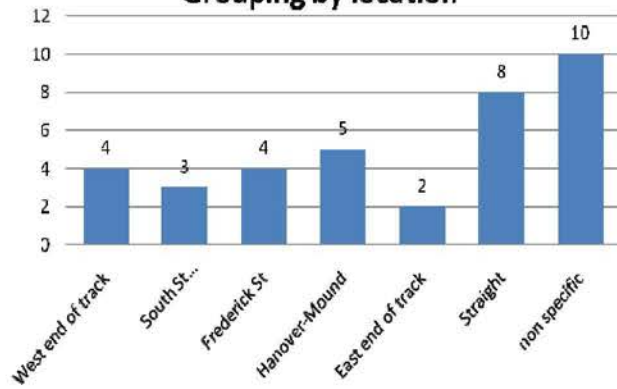
It is important to continue to monitor the number of cycle incidents in Princes Street during the process of completing the actions within this paper to establish if the actions within this paper are reducing the current level of incidents.

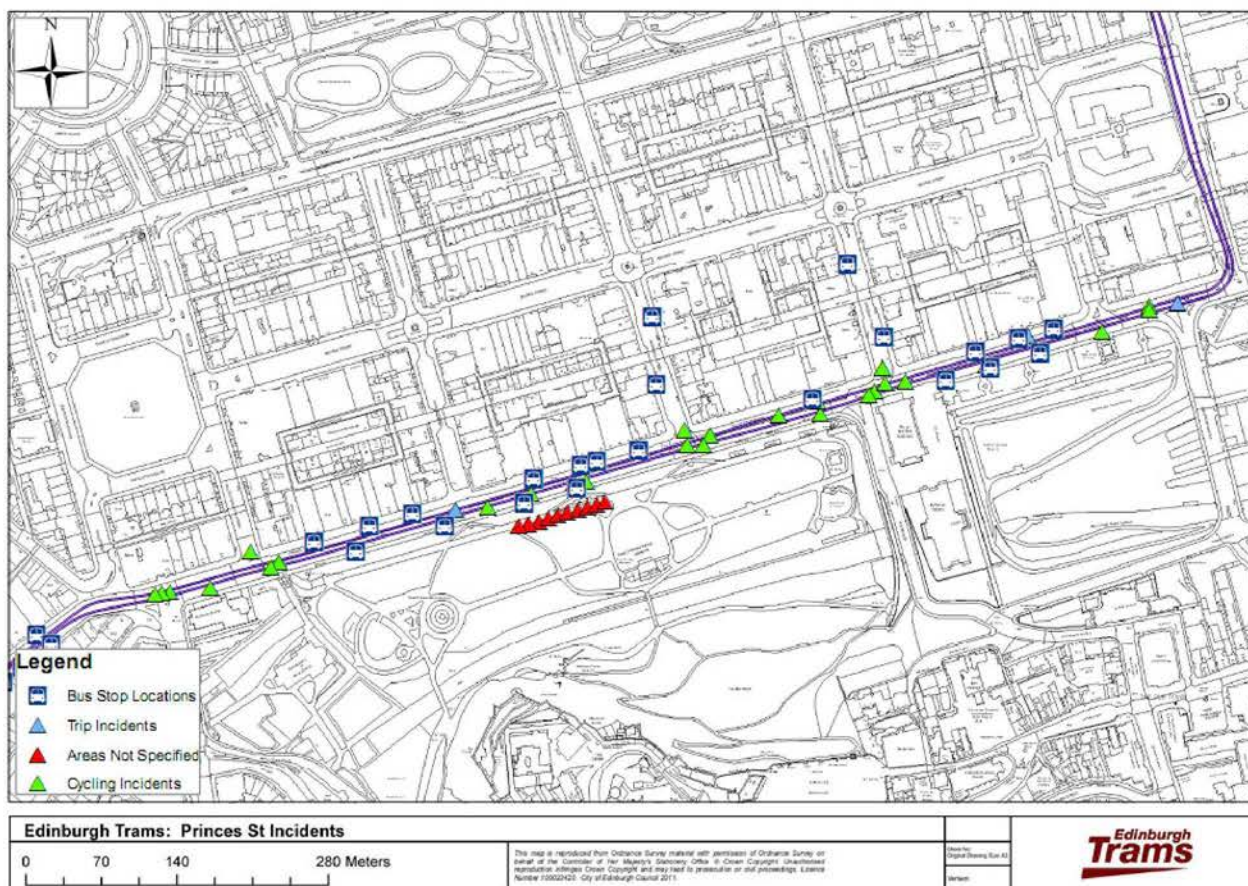


Cycle incidents



Grouping by location





Decision(s) / support required

The TPB is requested to:

- b. Note the contents of this assessment and on this basis,
- c. Approve the recommendation to undertake a Stage 3 Road Safety Audit for Princes Street based upon the current incomplete construction undertaken to date, and that this should be progressed through the project Change Control mechanism.

Proposed Name: Bob Cummins Date: 16 March 2011
 Title: Head of HSQE and Engineering

Recommended Name: Steven Bell Date: 16 March 2011
 Title: Tram Project Director

Approved Date:
 Vic Emery on behalf of the Tram Project Board



FOISA exempt

Yes
 No

Primary risk register

Period 12 1011 Primary Risk Register

ARM Risk ID	Cause	Event	Effect	Risk Owner	Significance	Treatment Strategy	Previous Status	Due Date	Action Owner
343	General delay to programme with various causes e.g. failure to obtain approvals on time; contractor issues; access after completion of utility diversions	Delay to completion of project	Increased out-turn cost due to delay plus revenue loss	S Clark	High - 25.00	Access maps showing areas available	On Programme	31-Mar-11	F McFadden
						Contractually assertive workstreams to progress programme	Complete	29-May-10	S Bell
						DRP Mudra Rev 8 response	Complete	31-Aug-10	S Bell
						DRP on programme management (EOT1)	Complete	30-Oct-09	S Bell
						Issue UWN on programme	Complete	15-Sep-10	S Clark
						Liaison between tie/BSC programme managers	On Programme	30-Dec-11	T Hickman
						Programme Management Panel process	Complete	30-Dec-11	F McFadden
						Use of Clause 34 / 80.15 - addressed via DRP	Complete	30-Aug-10	S Bell
						Weekly tie/BSC commercial meetings	On Programme	30-Dec-11	M Paterson
1101	Unreasonable behaviour of BSC commercial management	Unrealistic estimates being submitted for potential changes	Programme delay while disputes regarding estimates are resolved	Dennis Murray	High - 25.00	Additional resource from T&T	Complete	29-Jul-09	M Paterson
						Agreed with BSC for independent evaluation to get benchmark	Complete	30-Jul-09	M Paterson
						All estimates to be scrutinised by tie commercial team and, where appropriate, challenge made to BSC. Additional resource (T&T) being used to check estimates to reduce delay and other commercial resources on these areas	Complete	31-Dec-10	M Paterson
						Clause 34/80 issues using DRP for disputed values	Complete	31-Aug-10	S Bell
						Legal challenge to Clause 80 and BSCs interpretation thereof	Complete	30-Sep-10	S Bell
1094	Roads throughout works require full depth reconstruction	Programme impact plus additional costs. £1.5m cap applies to only 4 areas. (PA 12) Also affects (PA 14)		F McFadden	High - 20.00	All party buy in - application of appendix 7(1)	On Programme	31-Dec-11	C Neil
						Carry out surveys to confirm extent of roads requiring full depth reconstruction	Complete	30-Jun-09	C Neil
						Intensive engagement with CEC, palette of options, methodology being agreed	On Programme	31-Jan-11	C Neil
						Resolution of trackform at trackform workshop	On Programme	30-Apr-11	C Neil
						Suite of options from surveys to be reviewed and agreement reached	Complete	30-Jul-10	C Neil
						tie developed on street proposal with scott wilson - complete and under review	On Programme	31-Jan-11	S Bell

Period 12 1011 Primary Risk Register

ARM Risk ID	Cause	Event	Effect	Risk Owner	Significance	Treatment Strategy	Previous Status	Due Date	Action Owner
1160	Lack of signed, formal agreement between CEC and Forth Ports regarding Forth Ports contribution to Tram works	Forth Ports contribution does not materialise or does not equal value of works carried out	CEC required to fund difference between Forth Ports contribution and value of works	S Bell	High - 23.03	Liaise with Dave Anderson and Donald McGuigan to ensure awareness of issue and agreement of current strategy	Complete	31-Jan-11	S Bell
352	Increase in land values	Higher land compensation claims than anticipated	Additional uplift on compensation claims	A Sim	High - 23.03	Close out initiate early negotiations between V and landowners	Complete	28-Mar-08	A Sim
888	Design, construction and/or testing does not meet operator requirements and gain approval from the ROGS Competent Person	ETL refuse to operate system on safety ground or apply overly restrictive procedures that are not directly the responsibility of Infraco (ROGS Competent Person agrees with this)	Delay to commencement of service, additional cost both for delay and rectification of the issue	B Cummins	High - 23.03	Ensure Infraco Agreement requires Operator to be consulted on appropriate issues	Complete	28-Dec-07	B Dawson
928	Major single safety and/or environmental incident (including a dangerous occurrence) during construction	Safety incident during construction	Delay (potentially critical) due to HSE investigation and rework. PR risk to life and stakeholders.	F McFadden	High - 23.03	All Site Staff to get CSCS or equivalent	On Programme	31-Mar-11	B Cummins
						Develop and Implement Incident Management Processes	Complete	27-Apr-07	T Condie
						HSQE Audits, site inspections and Management Safety Tours to be carried out	On Programme	31-Mar-11	B Cummins
						Incident management process regularly updated and revisited	On Programme	31-Dec-12	B Cummins
						Safety Induction to be carried out for all site staff	On Programme	31-Mar-11	B Cummins
						Site Supervisors to be appointed by life	Complete	28-Feb-07	S Clark
						TEL HSE committee overview applied	On Programme	31-Mar-11	B Cummins
						The life "Safety" bus is being used to deliver safety talks & culture surveys to the contractors workforce. Build the tram safety Drugs & Alcohol policy	Complete	31-Dec-09	B Cummins
931	Utilities assets uncovered during construction that were not previously accounted for; unidentified abandoned utilities assets; known redundant utilities; unknown live utilities; unknown redundant utilities.	Unknown or abandoned assets impacts scope of Infraco work	Re-design and delay as investigation takes place and solution implemented; Increase in Capex cost as a result of additional works.	C Neil	High - 23.03	Conflicts Register - all on-street sections apart from York Pic and Broughton St	Complete	31-Aug-10	C Neil
						GPR surveys in areas where there are likely to be services	Complete	1-Apr-07	T Glazebrook
						Infraco trial holes where applicable.	On Programme	31-Jan-10	P Dobbin
						MUDFA trial holes to verify GPR surveys	Complete	30-Jul-09	A Hill
						Obstructions and voids survey, establish ownership reduced delay on discovery.	On Programme	31-Jan-12	C Neil

Period 12 1011 Primary Risk Register

ARM Risk ID	Cause	Event	Effect	Risk Owner	Significance	Treatment Strategy	Previous Status	Due Date	Action Owner
977	Legal challenge. Extension of statutory consultation process. Large number of objections. TRO process is subject to a public hearing process.	Delay in achievement of TRO(s) due to a large number of public objections and/or a legal challenge to using a TTRO to construct Infracore.	Requirement to start construction using TTROs	D Fraser	High - 25.0%	Comms strategy to include provision of process and drawings on website for public viewing	Complete	30-Sep-09	S Clark
						Public deposit commenced 22nd Feb and the formal public consideration phase is underway and will be concluded on 22nd March at which point objections will be dealt with in the form of a formal report to the council for consideration.	Complete	30-Jun-10	A Sim
						TRO strategy approved by board, discussion to be held with CEC head of transport to reduce risk of legal challenge.	Complete	31-Oct-09	S Clark
						TRO Strategy to CEC Transport, Infrastructure and Environment Committee on 22 Sept 10	Complete	21-Sep-10	D Fraser
						Use of TTROs to undertake construction of permanent works in advance of permanent TTROs being approved.	Complete	30-Jan-11	A Sim
1104	Design changes following utility diversions	Utilities affected by subsequent kerb realignments (primarily westside of Leith Walk)	Re-diverting of utilities with additional cost and programme delay	C Neil	High - 25.0%	Following identification of conflicts potential solution such as protection measures to be identified	Complete	31-Aug-10	C Neil
						Timetable for utility conflicts resolution	Complete	31-Aug-10	C Neil
						Utility conflicts being identified Conflicts Register - all on-street sections apart from York Plc and Broughton St	Complete	30-Aug-10	C Neil
1106	Failure of SDS to provide IFC drawings in line with the V31 programme	Programme delay with dispute over accountability.	Delay to programme and additional costs	R Bell	High - 20.0%	Production of concurrency information using AccuLus and internal production of PITA database	On Programme	31-Mar-11	S Clark
						Use of additional resources to apportion accountability for delay in issuing of IFC	On Programme	31-Mar-11	D Sharp
139	Uncertainty of Utilities location and consequently required diversion work/ unforeseen utility services within LOD	Increase in costs or delays as a result of carrying out more diversions than estimated		F McFadden	High - 15.0%	Carry out GPR Adien survey	Complete	31-Oct-07	J Casserly
						Identify increase in services diversions. MUDFA to resource/re-programme to meet required timescales.	Complete	23-Nov-07	F McFadden
						Solution to be developed to manage the issue of the underground structures at the cellar in York Place, design received 10.08.09.	Complete	30-Aug-09	F McFadden
						Trial excavations to confirm locations of Utilities and inform designer. Picardy Place and particularly Broughton St Junction IFC design incompatible with congested utilities.	Complete	30-May-10	M Blake
271	Inadequate quality of submission of approval. Partial submission of programme compression. Lack of CEC resources. CEC does not follow agreed procedures.	Failure to process prior approvals applications within 8 weeks	Delay and disruption to Infracore programme	R Bell	High - 15.0%	4-weekly meetings of Approvals Task Force	On Programme	28-Feb-11	D Sharp
						Agree approvals submission arrangements with CEC to align with SDS design programme and procurement programme.	Complete	31-Mar-08	T Glazebrook
						Assure the quality and timing of submissions	On Programme	28-Feb-11	D Sharp
						Final agreement to be approved by Roads Authority, CEC Promoter, CEC in-house legal and tie	Complete	28-Feb-07	T Craggs
						Finalise alignments and gain agreement from CEC	Complete	29-Dec-06	T Craggs

Period 12 1011 Primary Risk Register

ARM Risk ID	Cause	Event	Effect	Risk Owner	Significance	Treatment Strategy	Previous Status	Due Date	Action Owner
						Where appropriate increase case officer resource to cope with programme compression	Complete	31-Oct-08	D Fraser

Period 12 1011 Primary Risk Register

ARM Risk ID	Cause	Event	Effect	Risk Owner	Significance	Treatment Strategy	Previous Status	Due Date	Action Owner
911	Scottish Power own and maintain a cable tunnel in the vicinity of Leith Walk that may or may not interfere with Tram construction and operation; exact location and depth of tunnel is unknown; condition of tunnel is unknown.	Presence of Scottish Power tunnel in Leith Walk requires approved construction methodology from Scottish power - works scheduled for August 08.	Tunnel may have to be decommissioned and re-laid in a more suitable location; tram alignment may require to be adjusted; special foundation solution e.g. cantilever may be required; increased capex; potential for tunnel collapse during operation and consequent disruption for tram.	C Neil	High - 18.00	Liase with Scottish Power to agree and approve method of crossing tunnel - SDS doing this	On Programme	31-Mar-11	W Biggins
1076	Utilities do not finish diversion works prior to Tramworks commencing work.	Tramworks are unable to commence work or work is delayed/disrupted	Delay and disruption claims from BSC.	F McFadden	High - 18.00	Tramworks PMS attendance at Traffic Management meetings. Weekly meetings between Iie Tramworks and Utilities PMS. 4-weekly Iie Tramworks/Utilities management meetings. Identification of programme clashes between Tramworks and Utilities works tracked	Complete	2-Apr-07	J Casserly
1078	Lack of effective engagement from BSC leaders towards Iie.	Failure of partnership approach between Iie and BSC.		S Bell	High - 18.00	Engagement between Iie and BSC at different levels. Regular review of BSC management of third parties as per Employers Requirements.	Complete	31-Dec-09	C Neil
1079	Failure of BSC to effectively resource up for project	Lack of competent resources within BSC to safely and effectively deliver Tram project	Delay to programme and additional cost	F McFadden	High - 18.00	Apply contract re personnel	On Programme	1-Apr-11	F McFadden
1163	Uncertainty over extent of contaminated land on route	Tramway runs through area of previously unidentified contamination/unforseen ground conditions.	Increase in costs to remove material to special and other tip.	C Neil	High - 17.00	List of staff and competencies to be provided 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. Resource led programmes Sub contractor order approval Where appropriate Iie can request removal of resources.	Complete	31-May-09	C Neil
1163	Blifinger change of staff, not notified to Siemens, who are acting as Principal Contractor Licence holder to NF.	PCL requires named personnel. Without this document, work adjacent to heavy rail cannot be undertaken	Heavy civil work is halted.	W Biggins	High - 17.00	Issue containment and gi report to Infraco bidders Iie pursuing BSC for Environmental Management Plan. Iie to obtain ground investigation and contamination reports from SDS	Complete	2-Mar-07	B Dawson
							Complete	31-Oct-10	F McFadden
							Complete	29-Mar-07	R Bell

Period 12 1011 Primary Risk Register

ARM Risk ID	Cause	Event	Effect	Risk Owner	Significance	Treatment Strategy	Previous Status	Due Date	Action Owner
1166	NR fee for site supervision when working adjacent to heavy rail	No trackwork being laid, but consultation still ongoing, incurring costs. When work restarts, insufficient funds left to pay for site supervision for for up to 18 months		G Blythe	High - 17.00				
914	Required approval/acceptance turnaround time does not reflect SUC standard practice; SUCs do not have enough resource or process capability to achieve 20 day turnaround	Statutory Utility Companies unable to meet design approval/acceptance turnaround time to meet programme	Additional period required for design approval/acceptance turnaround	F McFadden	High - 15.00	SDS to obtain consent for design in accordance with programme requirements - SGN and Scottish Power. Complete with the exception of plate 15 and the redesign of the affected utilities at Palmerston Place	Complete	30-Nov-09	F McFadden
1084	Constraints applied to work areas post-contract to satisfy stakeholders	Additional Traffic Management and enabling works are required to meet stakeholder constraints applied post-contract	Additional cost and potential delay to programme	F McFadden	High - 15.00	SDS to obtain consent for design in accordance with programme requirements - SGN and Scottish Power. Complete with the exception of plates the redesign of the affected utilities at Baltic Street - IFC drawings then reduce additional cost.	Complete	31-Dec-10	F McFadden
1102	Design changes following utility diversions.	Known non-compliant utility diversions in relation to proximity to the DKE and/or other utilities.	Re-diverting of utilities with increased cost and programme impact	F McFadden	High - 15.00	Obtain reduction from SUCs	On Programme	31-Mar-11	F McFadden
58	Poor performance (quality) by Infraco during construction; poor materials; latent defects	Infraco fails to deliver construction quality; latent defects occur during or after Infraco maintenance period	Rework, stakeholder criticism, negative PR, programme delay if quality issue occurs during construction, operations affected by rework, project management costs to deal with issues	F McFadden	Medium - 14.00	Develop quality audit and inspection plan for audits/inspection during construction	Complete	30-Nov-07	B Cummins
115	Network Rail cancels planned possessions	Planned work at interface with Network Rail is delayed	Time delay and resulting cost increase	W Biggins	Medium - 14.00	Ensure appropriate bonding and PI are in place	Complete	28-Sep-07	G Gilbert
						Ensure contractual transfer of quality related risks to Infraco during contract negotiations	Complete	28-Sep-07	G Gilbert
						Review Infraco quality process as part of bids	Complete	29-Jun-07	B Cummins
						Undertake quality audits during construction	Undefined	31-Mar-11	B Cummins
						Undertake regular site inspection during construction	Undefined	31-Dec-10	P Douglas
						Book contingency possessions	Complete	31-Mar-09	W Biggins
						Ensure Infraco agree contingency plans with Network Rail	Complete	1-Oct-08	S Clark
						Ensure possession requirements are discussed (and booked) with Network Rail well in advance	Complete	31-Oct-07	S Clark

Period 12 1011 Primary Risk Register

ARM Risk ID	Cause	Event	Effect	Risk Owner	Significance	Treatment Strategy	Previous Status	Due Date	Action Owner
336	Adequate scope and extent of noise and vibration prevention measures/requirements are not provided to SDS; Specifications relating to Tram noise provided by Tramco are optimistic.	Design assumptions lead to Tram noise and vibration measures being inadequate during operation	Tram design requires to be re-worked; Post construction elements need to be adjusted or re-constructed or additional noise and vibration measures need to be incorporated.	T Glazebrook	Medium - 14.00	SDS to review and identify high risk areas. Additional control measures to be added by Ite.	Complete	31-Jul-09	F McFadden
1165	Traffic Management - Leith Walk - removal of 2km of mass barrier, replaced with AECOMM Redi-Pave.	Pedestrians killed or injured as result of vehicle over-riding the barrier.	PL exposure and publicity.	M Blake	Medium - 13.00				
169	Concurrent major projects in Edinburgh	Other major projects in Edinburgh interface with Tram	Delay in sequence in certain areas; Additional interface project management costs.	S Clark	Medium - 12.00	Appoint Interface Project Manager Get Interface and any critical path items into the Tram Programme	Complete	31-May-07 30-Apr-07	T Glazebrook T Hickman
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 Ite; Increased out-turn cost if transferred and also as a result of any delay due to inflation.	G Blythe	Medium - 12.00	Set up regular interface meeting with EARL. 4-weekly meetings of Approvals Task Force Additional EMC modelling to give better info to NR	Complete	29-Dec-06 31-Oct-10 31-Dec-07	S Clark D Sharp C Kerr
318	Failure to make arrangements with Utilities for the phasing of necessary connections; Utility Company operational constraints	Utility connections cannot proceed as planned	Potential delay to start of Infraco works in certain sections	M Blake	Medium - 12.00	CEC Planning - mock application by SDS Draft depot and station change proposals to NR Identify fallback options Increased liaison with 3rd parties Monitoring and tracking through the 3rd party rep Monitoring of BBS - 12 week look ahead Obtain critical consents prior to financial close Confirm/obtain design to allow SUs to programme their works	Complete	31-Dec-07 31-Jan-08 31-Aug-07 31-Dec-11 30-Jun-09 14-Jul-11 31-Jul-08 31-Jul-07	T Glazebrook A Sim D Sharp R Bell T Glazebrook D Crawley
52	Political and/or Stakeholder objectives change or require design developments that constitute a change of scope; Planning Department requires scope over and above baseline scope in order to give approval (may be as a result of lack of agreement over interpretation of planning legal requirements).	Amendments to design scope from current baseline and functional specification.	Programme delay as a result of re-work, Programme delay due late receipt of change requirements and lack of resolution; Scope/cost creep (dealt with through change process); Project ultimately could become unaffordable.	S Bell	Medium - 11.00	Construction programme to be agreed with SUCs Re programme Infraco to start on sections completed Change panel process to apply scrutiny to changes Close working relationship with CEC and stakeholders Design Task Force Weekly critical issues meeting	Complete	30-Apr-07 31-Mar-09 31-Dec-12 31-Jul-11 31-Dec-10 31-Jul-08	G Barclay J McAloon M Hamill D Sharp R Bell T Glazebrook

Period 12 1011 Primary Risk Register

ARM Risk ID	Cause	Event	Effect	Risk Owner	Significance	Treatment Strategy	Previous Status	Due Date	Action Owner
164	Unidentified asbestos found in excavation for utilities diversion; unknown cellars and basements intrude into works area; other physical obstructions; other contaminated land	Unknown or abandoned assets or unforeseen/contaminated ground conditions affect all streetwork sections.	Re-design and delay as investigation takes place and solution implemented; Increase in Capex cost as a result of additional works.	F McFadden	Medium - 8,000	Carry out GPR Adien survey Identify increase in services diversions. MUDFA to resource/re-programme to meet required timescales.	Complete	31-Oct-07	J Casserly
						Solution to be developed to manage the issue of the underground structures at the cellar in York Place, design received 10.08.09.	Complete	30-Aug-09	F McFadden
172	Area of possible contamination and unstable ground (unlicensed tip) has been highlighted during desk study immediately to east of Gogar Burn - investigation for CERT project indicates that this consists of building rubble and domestic waste.	Tramway runs through area of possible contamination and special foundation is required to cope with unstable ground	Increase in costs to provide special foundation solution	C Neil	Medium - 8,000	Donaldsons provided specialist input Include SI Report and Information in next issue of information to Infracore.	Complete	30-Jul-09	A Scott
						Monitor design progress and include costs in base estimate. Obtain ground investigation information. Pursue technical solution re design and agree above costs On Programme	Complete	28-Feb-07	A McGregor
						ite have written to BSC to confirm design is fit for purpose	Complete	30-Jan-11	C Neil
865	Buildings contain asbestos that was not uncovered during surveys	Asbestos found during demolition works and excavations for construction	Cost and delay during investigation and removal	C Neil	Medium - 8,000	Asbestos surveys.	On Programme	31-Jan-11	C Neil
952	Scope of works relating to Wide Area Modelling (WAM) have not been agreed with SDS because they consider this to be out with the scope of their contract.	Uncertainty over contractual obligations regarding essential TRO works.	Potential claim from SDS to deal with additional design work; Potential construction costs to deal with WAM issues (difficult to quantify without design) over and above those already included.	A Sim	Medium - 8,000	Agree design requirements relating to WAM with SDS Employ further traffic management expertise Finalise boundaries of Tram responsibility for WAM requirements Obtain design and quantify construction cost for inclusion in base estimate Provision of £500k in Draft Final Business Case estimate to deal with WAM requirements	Complete	31-May-07	T Glazebrook
							Complete	31-Jan-07	C McLauchlan
							Complete	31-May-07	A Sim
							Complete	31-Jul-07	T Glazebrook
							Complete	31-Jan-07	G Gilbert

Period 12 1011 Primary Risk Register

ARM Risk ID	Cause	Event	Effect	Risk Owner	Significance	Treatment Strategy	Previous Status	Due Date	Action Owner
1077	Base Date Design Information to Issued For Constructions (BDDI-IFC). 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.	Additional cost and programme delay	S Bell	Medium - 8.00	Aggressive commercial strategy to ensure minimum change.	On Programme	31-Mar-11	F McFadden
						Contract interpretation and technical expert witness work	Complete	31-Aug-10	S Clark
						Deploy alternative utilities contractors to progress utilities	Complete	31-Dec-10	F McFadden
						Design review, continued DRP / Adjudication Process	On Programme	31-Mar-11	S Bell
						Establish a process which will act as a control mechanism for design changes. (If one exists already then ensure process is complied with)	Complete	30-Jun-09	T Glazebrook
						Intensive Mediation Marathon 29/6/09 to 6/7/09 to try and resolve issues.	Complete	30-Jun-09	S Bell
						Mediation resulted in no overall agreement on BDDI - IFC although it gave useful background information. Strategy paper to be presented to TPB on 29 July to seek approval for way forward including utilising necessary contract mechanisms (DRP, audit etc)	Complete	14-Aug-09	S Bell
						Of the issues previously highlighted as going through DRP, 1 has been ruled in favour of IFC, 2 have been agreed, 2 have been ruled in BSC's favour and this is being reviewed by IFC. Further issues are due to enter DRP in December 09 and January 10.	Complete	31-Jan-10	S Bell
						PA1 challenge if legal advice supplied	On Programme	31-Mar-11	S Bell
						Resolution Strategy approved - 1st DRP to go 10th August, audit requests to BSC for information going w/c 3.8.09	Complete	10-Aug-09	S Bell
						RTN issued on information 10.4 + 10.16	Complete	15-Sep-10	S Bell
						RTN issued on SDS + Billinger Berger agreement	Complete	15-Sep-10	S Bell
						Siemens 33 initiative to achieve Airport to Bankhead Drive continues to be progressed	On Programme	31-Mar-11	S Bell
						Donaldsons to carry out surveys	Complete	30-Jul-09	C Neil
						Extent of soft ground being investigated. External specialist advice deployed.	Complete	30-May-10	M Paterson
						Iterative testing approach in order to maximise value	On Programme	31-Jan-11	C Neil
						Technical challenge against SDS designs	On Programme	30-Jan-11	C Neil
1091		Excavation of soft, unsuitable material below Earthworks outline	Additional cost and programme delay	F McFadden	Medium - 8.00		Complete		

Period 12 1011 Primary Risk Register

ARM Risk ID	Cause	Event	Effect	Risk Owner	Significance	Treatment Strategy	Previous Status	Due Date	Action Owner
1105	Diverted utilities do not have sufficient protection	Additional protection measures of utilities are required (primarily Leith Walk) reduced depth 1200 to 800 to save time/money. This applies to 20 no crossings on Leith Walk.	Additional cost and delay.	M Blake	Medium - 8.00	Examine possibility of additional protection being used rather than additional diversion of utilities	On Programme	31-Mar-11	F McFadden
1161	Delay to completion of construction of water main.	Unable to provide water to depot	Delay in provision of water to Gogar Depot	A Scott	Medium - 8.00				
1162	Local agreement with Seathis for BAA emergency access to A8 involved transfer of title for land currently within LOD which compromises current design	Delay due to current road crossing design for Gogar Castle Road being outwith limits of land owned by CEC.	Delay in project delivery	A Scott	Medium - 8.00				
105	Encountering archaeological finds/burials/munitions during construction	Exhumation of archaeological finds/burials	Delay in construction programme	C Neil	Medium - 7.00	Additional funding for Archaeological works Agree protocol AMIS to re-programme works accounting for hot-spots Assess Infraco programme to determine if float contained within the high risk areas Carry out advanced archaeological works in advance of Infraco Check to ensure that AMIS programme has adequate float	Complete	30-Oct-10	C Neil
1164	NR risk fee is a % of contract value	Paid £900k to date, 2% of £45m for rail corridor programme	If the overall figure increases, then the fee will commensurately increase.	G Blythe	Low - 6.00	Headland working at Constitution Street Identify hotspots Meet Archaeologist Review Infraco programme regarding archaeological hotspots and ensure adequate programme float	Complete	28-Aug-07	T Hickman
869	Surveying team unable to obtain access to Network Rail, BAA and other privately owned land because they were not cleared to access this land (including PTS).	Invasive Species Area Exceeds that treated under Advanced Works. Additional areas have to be treated by BSC under this contract.	Underestimating the extent of works; leads to an increase in cost	D Burns	Low - 5.00	Ensure risk fully transferred to specialist contractor during tender negotiations Length of Line 1a to be re surveyed on regular basis Site staff to re-measure previously unsurveyed areas of Network Rail land with contractor	Complete	31-Mar-08	P Douglas
							Complete	3-Apr-07	D Burns
							Complete	30-Jun-10	D Burns
							Complete	28-Sep-07	D Burns

Period 12 1011 Primary Risk Register

ARM Risk ID	Cause	Event	Effect	Risk Owner	Significance	Treatment Strategy	Previous Status	Due Date	Action Owner
1167	CEC/BAA requirement to conclude agreements	CEC/BAA are closing out any residual Third Party agreement issues associated with not precluding future dual carriageway.		A Scott	Low - 1.00				
1168	Design Changes at EAL	CCRC Walkway Alignment check, W14 retaining wall service diversion modification and Modifications of Airport Kiosk (Canopy) (accepted in principle)		A Scott	Low - 1.00				
916	CEC do not achieve capability to deliver	CEC are unable to honour their funding commitment	Potential showstopper to project if contribution not reached; Line 1B may depend on incremental funding from CEC	S McGarrity	NIL - 0.00	CEC has formed a multi discipline Team Contributions Group to monitor identified sources of £45m contribution including critically developers contributions. Tie are invited to that group. (see add info)	On Programme	31-Jul-11	CEC
999		Extent of concessionary fare support commitment from TS provides inadequate comfort to CEC	CEC withdraw support for FBC and project fails	A Richards	NIL - 0.00	Bus concessionary fare support scheme currently under review. New proposals for bus and tram will be submitted in autumn 2009	Complete	30-Mar-10	B Campbell
1087	Lack of effective engagement from BSC leaders towards third parties (NR, BAA, Forth Ports) and the Tram project as a whole.	Failure to maintain effective third party relationships with key third parties.		F McFadden	NIL - 0.00				
1159	Commercial dispute with contractor	Depending on outcome of negotiations the revised cost leads to funding pressures for CEC.	CEC required to increase contribution	S Bell	NIL - 0.00	CEC exploring contingency measures for additional funding	On Programme	31-May-11	S Bell
			Mediation Agreed - Intensive commercial negotiations with contractor and mediation agreed for Q1 2011.				On Programme	30-Mar-11	S Bell
			CEC to deliver necessary contributions for 1a				On Programme	31-Jul-11	CEC
			Tram Project Board to monitor progress towards gaining contributions				On Programme	31-Jul-11	D MacKay
			Negotiate the terms of Government commitment to concessionary fare support to level which is satisfactory to CEC				Complete	31-Jan-08	G Bissett

Period 12 Transport Scotland report Sections 2-7

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

2 Progress

On Friday 1st October 2010, BSC began to demobilise and cease works on certain sites across the route (over Sections 2A, 5A, 5B and 5C), this reflecting an escalation in the contractual dispute between BSC and tie. In response to this action, tie has entered into formal correspondence with the contractor regarding contractual obligations. tie continue to undertake site monitoring on both active and inactive worksites.

The progress achieved in Period 12 for INFRACO works was 0.1% against a plan of 0.2% although it should be noted that against the contractual Rev.1 programme Off-street construction should now be complete with the route in total planned to be 99.9% complete.

BSC have demobilised from previously active on-street worksites in the Leith Docks area at Lindsay Road and Tower Bridge. The only progress achieved in the period has been at the Depot Access Bridge and in the Depot itself.

The total cumulative completion for Infraco Works is 28.0% at end of Period 12. A summary of progress on various project elements can be found below:

<p>Utilities <i>The % complete is a physical measure of the progress against the forecast final volume of diversions across the route. It does not take cognisance of cabling, testing and transfers from the Telecom Providers (BT etc.)</i></p> <ul style="list-style-type: none"> ▪ ~ 50,000m of diversions; ~48,300m completed to date. ▪ Airport - Haymarket complete ▪ Haymarket – Newhaven complete save for: <ul style="list-style-type: none"> ▪ Some telecoms cabling and transfers ▪ Testing / commissioning / abandonments of transferred services ▪ Baltic Street Diversions (1500m) 	97%
<p>Tram Project Ancillary Works <i>Equal weighting is applied to the physical progress % complete for all six work packages, irrespective of value.</i></p> <ul style="list-style-type: none"> ▪ Ingliston Park & Ride Phase 2 complete 100% ▪ Burnside Road Bridge relocation at Edinburgh Airport complete 100% ▪ Murrayfield Training Pitches relocation complete 100% ▪ Murrayfield Wanderers Club House complete 100% ▪ Murrayfield Turnstiles relocation complete 100% ▪ South Gyle sewer tunnel: (Site Contract works 100% completed) 100% complete Additional works -TM switchover completed November 10 	100%
<p>Tram Vehicles <i>Weighting is applied to the physical completion of trams with a Factory Acceptance Test (FAT) signed off and accepted. All others are under manufacture so this is a conservative measure of progress.</i></p> <ul style="list-style-type: none"> ▪ 22 out of 27 completed and factory tested with 5 under manufacture. ▪ On programme 	82%

<ul style="list-style-type: none"> Tram 252 relocated to secure compound in Broxburn 	
<p>Construction Off Street <i>The % complete is a physical measure of the proportion of the section from Haymarket to Edinburgh Airport. Some typical elements of sections provide a more granular view.</i> <i>As has been reported, the on street work is subject to significant dispute and this is excluded in the summary table. Current % complete for the on street Infrastructure construction works is ~11%.</i></p> <p>Depot</p> <ul style="list-style-type: none"> TEL Occupation to be confirmed in Period 12 ~80% complete Stabling area Phase 1 & 2 under construction, completion Feb '11 <p>Structures</p> <ul style="list-style-type: none"> Bridges 8 out of 16 under construction ~44% complete Culverts 3 out of 3 completed 100% complete Retaining Walls 6 out of 17 under construction ~ 24% complete <p>Systems</p> <ul style="list-style-type: none"> Track 1400m installed & now starting in depot ~12% complete Substations 2 out of 4 under construction ~20% complete Overhead Line Work has just commenced at the depot 	<p>40%</p>
<p>Overall Progress as a Financial Metric <i>This is a summary financial metric, aggregating the current expenditure on the whole project as a % of the currently authorised funding (£545m).</i></p>	<p>75%</p>

The cost, programme and risk information in this Period 12 report continues to be based upon an unapproved forecast on the information reported in May 2009. This will be updated once agreement is reached with BSC on a new revised programme.

BSC continue to report progress against the agreed Rev.1 contractual programme. This shows for progress up to and including 18th February 2011 an OFRS date of 10 February 2014 against the contractual Rev.1 programme date of 06 Sep 11 and reports a **49 calendar day slippage during the period.**

It should be noted that as a result of the current rates of BSC progress and cessation of works across the site, that it is likely that slippage will continue to be reported on a period by period basis, until such time as a re-baselined programme can be agreed with the Contractor.

Overall the relationship with BSC continues to suffer in a number of key areas and progress remains behind the master programme:

- Contractual obligations not met to allow works to commence on street;
- Design slippage since novation of design to INFRACO (now recorded in v67 of the design programme);
- Consortium integrated design programme, assured and validation;
- Finalisation of the agreement of change delaying the commencement of work even though instructed to progress by **tie**;
- Remaining small pockets of incomplete utility diversions in the On-Street sections;
- Slow mobilisation of INFRACO, including lack of formal sub-contracts being in place;

Section	Description	Contract Programme Rev.01	BSC Forecast (P11) Rev.01	BSC Forecast (P12) Rev.01	BSC Movement in Period Cal Days (c) – (b)	tie Live Forecast (P11) Rev.01**	tie Live Forecast (P12) Rev.01**	tie Movement in Period Cal Days (f) – (e)
		(a)	(b)	(c)	(d)	(e)	(f)	(g)
Section A	Depot completion	01-Jun-10	21-Sep-11	26-Aug-11	26	17-Aug-11	20-Dec-11	-125
Section B*	Test Track Available	01-Jul-10	05-Nov-12	03-Dec-12	-28	23-May-12	26-Apr-12	27
Section C	All Phase 1a Construction complete	10-Mar-11	26-Jun-13	14-Aug-13	-49	29-Mar-13	25-Apr-13	-27
Section D	Open for Revenue Service	06-Sep-11	23-Dec-13	10-Feb-14	-48	25-Sep-13	22-Oct-13	-27

*The interpretation is that Sectional Completion "B" means that Test Track is available for Tram movements.

** v67 information used.

Note that the **live** programme does not make any assumptions regarding BSC restarting on site.

tie continue to monitor progress against their "**live**" programme which is based on the contractual Rev.1 Programme logic, although progress recorded against this programme considers the currently known work-scopes including some changes. This indicates a Sectional D completion of 25-Oct-13, which is a -27 calendar day slippage from Period 11.

The significant slippage of -125 calendar days indicated in the **tie** live programme for the attainment of Sectional "A" completion is due to the discovery of an activity for Commissioning of SIG-interlocking which was not logically linked to the Sectional "A" completion milestone. This error also exists in the BSC Programme. **tie** have formally written to BSC to request an explanation of this logic.

Contractual Strategy & Dispute Resolution

Dispute Resolution (Infraco)

Following a Full Council meeting in November and a Tram Project Board in December, **tie** has commenced discussions with BSC in relation to mediation outwith the Infraco Contract in an attempt to reach a solution to the differences between **tie** and BSC. A mediator has been appointed and the Mediation will take place during the first part of March 2011.

In total, 30 items have now been referred to the formal dispute resolution process – 20 by **tie** and 10 by Infraco. In total 7 have been resolved through negotiation, 4 through external mediation, 12 were decided through adjudication, and 7 still remain to be resolved. It is important to note that overall, the application of DRP to disputed matters has reduced BSC's claims for additional payment from £25.0m to £11.4m in relation to those DRPs which have actually reached a financial settlement.

During the period, a decision regarding payment of preliminaries has been received and agreement reached at Mediation regarding the value of Change associated with South Gyle Access Bridge and Bankhead Drive. The mediation regarding Lindsay Road has been held over to allow the parties to further review their positions.

Summary of Live DRP @ Period 12 2010/11

DRP No	Subject	Nature of Dispute	Launched or planned	PD Mtg	Position Papers	CEO Meeting	Referral	Decision
22	Princes St	Payment	√	√	√	√	√	Decision due 25 March 2011
26	Delay due to Mudfa works	Extend contact period & costs	√	√	√	√	×	CE meeting held Notice of Mediation expected

23	Lindsay Road	Costs	√	√	√	√	x	Mediation 'held over' until 18 March 2011
27	Street Lighting/ highways (Section 2A)	BBDI / IFC	√	√	√			
28	Street Lighting/ highways (Section 5A)	BBDI / IFC	√	√	√			
29	Street Lighting/ highways (Section 5B)	BBDI / IFC	√	√	√			
30	Street Lighting/ highways (Section 5C)	BBDI / IFC	√	√	√			
Launched by tie								
Launched by BSC								

A strategic review of commercial and contractual options continues and is reported to the Tram Project Board and Transport Scotland each period.

tie has continued with the contractually assertive approach to management of the contract. From Period 7 this has taken the cumulative issue of Contract Notices to : 10 Remedial Termination Notices (RTN's) and 3 Underperformance Warning Notices (UWN's) - Rectification plans have been received for 4 RTN's due from 7 by the end of Period 9.

All 4 have been rejected by **tie** as they do not address the defaults identified with satisfactory proposals. BSC has recently responded with updates to 2 of these plans and **tie** is discussing these with them. No new RTN's have been sent to BSC although detailed forensic analysis is ongoing for the existing 10.

Design

IFC Design

v67 was submitted to **tie** on 10 February 2011 with a progress date of 17 January 11. There are 22 IFC's with a slippage of 28 Calendar days or more in the period. The final scheduled IFC is DCR0146 Canopy & Boundary Treatment at Airport Kiosk & DCR0095 Edinburgh Airport Kiosk on 24 May 2011.

Design approvals status in Period 12 is summarised below:

Phase 1a only	Numbers Required											Number Granted
	V26	V31	V58	V59	V60	V61	V62	V63	V64	V66	V67	
Prior Approvals	44	49	56	56	56	56	60	60	60	60	62	56
Technical Approvals	53	71	92	92	92	92	63	63	63	63	63	55
IFC	71	81	233	230	227	230	230	229	229*	234	238*	192

* Additional IFC activities added V67

v67 data has been used to inform the programme updates. **tie** have included these into the live programme.

- IFCs – Phase 1a: 192 issued out of 238 (81%)
- 62 Prior Approvals are included in v67 – 56 of which have been granted – those remaining include Canopy & Boundary Treatment at Edinburgh Airport and Roseburn Viaduct Value Engineering option (90%)
- 55 Technical Approvals out of 63 have been granted in V67 (93%)

- Roads approvals - One area remains outstanding from the V31 Technical Approval in Phase 1a (1C2- Picardy Place to St Andrew Square);
- Scottish Water has sent formal acceptances to BSC for all sections with the exception of 1C2 (Picardy Place to St Andrew Square) & 1C1 (McDonald Rd to Picardy Place).
- Sections 1A1, 1A2, 1A4, 1B, 1D, 5A, 5B, 5C & 6 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.

Reasons for design slippage are being reviewed and recorded monthly at the design taskforce meeting, which is focused on resolving the outstanding design issues. **tie** is identifying and implementing opportunities to mitigate the impacts of this slippage. It should be noted that this is a consortium issue to manage, and **tie** will provide support in this respect.

To date 199 out of 969 informative comments have been closed; agreement in principle has been reached on a further 638.

tie has implemented an extensive programme of site based monitoring to validate & verify the installation of works in line with an integrated design assured construction. Design performance by Infraco and their designer is the subject of one of the RTN's and is being vigorously pursued through the Design Task Force sessions held-with BSC.

Utility & Cabling Works

Utility work – The tender process for Utility work at Baltic street remains on hold until **tie** receive the required IFC drawings from SDS - which remain outstanding with no delivery schedule in place from SDS.

Telecoms continue to progress their re-cabling activities on-street – with works in St Andrews Square, York Place & Torphichen St due to complete during Q2 2011. Cabling in Torphichen St could be protected to allow tramworks to commence as crossings are perpendicular to Tram route. The completion of BT Cabling on the northbound carriageway between MacDonald Rd – Jane St is compounded by delays to the duct work at York Place; however these would not impede BSC works as the Southbound carriageway is available to BSC.

Tramworks (INFRACO)

The progress achieved in Period 12 for INFRACO works was 0.1% against a plan of 0.2% although it should be noted that against the contractual Rev.1 programme Off-street construction should now be complete with the route in total planned to be 99.9% complete.

BSC have demobilised from previously active on-street worksites in the Leith Docks area at Lindsay Road and Tower Bridge. The only progress achieved in the period has been at the Depot Access Bridge and in the Depot itself.

Milestone	Period 12		Cumulative (Achieved to date)	Contract Planned to P11
	Planned	Actual	Actual	
Prelims	0	0	69	77
Construction	4	1	169	1136

Contract Milestones

Works are currently not being carried out in line with the original Contract Programme and subsequently cannot be achieved as originally forecast.

Prelim Milestones

Prelim Milestones are no longer being forecast as BSC are not applying for these milestones in accordance with the Infraco Contract. It is also the case that a number of BSC's key subcontractors have not commenced in certain areas of the site therefore the milestones are not being achieved in full at this stage.

(%) Infraco Construction Progress Period 12

Period 12 2010-11	Period		Delta	Cumulative		Delta	Project
INFRACO PERIOD 12 PROGRESS (Contract Rev.01 Programme)	Plan	Actual		Plan	Actual		Wtg
Section 1a Newhaven to Foot of the Walk	0.0%	0.0%	0.0%	100.0%	8.6%	-91.4%	16.2%
Section 1b Foot of the Walk to McDonald Road	0.0%	0.0%	0.0%	100.0%	1.3%	-98.7%	7.4%
Section 1c McDonald Road to Princes Street West	1.6%	0.0%	-1.6%	99.1%	0.0%	-99.1%	10.8%
Section 1d Princes Street West to Haymarket	0.0%	0.0%	0.0%	100.0%	42.1%	-57.9%	7.6%
Combined Sections 1A-1B-1C-1D (On-Street) Newhaven Road to Haymarket	0.4%	0.0%	-0.4%	99.8%	11.2%	-88.6%	42.0%
Section 2 Haymarket to Roseburn Junction	0.0%	0.0%	0.0%	100.0%	35.1%	-64.9%	4.2%
Section 5a Roseburn Junction to Balgreen Road	0.0%	0.0%	0.0%	100.0%	10.0%	-90.0%	13.9%
Section 5b Balgreen Road to Edinburgh Park Central	0.0%	0.0%	0.0%	100.0%	43.4%	-56.6%	13.2%
Section 5c Edinburgh Park Central to Gogarburn	0.0%	0.3%	0.3%	100.0%	25.4%	-74.6%	7.2%
Section 6 Gogar Depot	0.0%	0.5%	0.5%	100.0%	77.9%	-22.1%	11.9%
Section 7a Gogarburn to Edinburgh Airport	0.0%	0.0%	0.0%	100.0%	47.3%	-52.7%	7.6%
Combined Sections 2A-5A-5B-5C-6A-7A (Off-Street) Haymarket to Edinburgh Airport	0.0%	0.2%	0.2%	100.0%	40.1%	-59.9%	58.0%
FULL ROUTE PHASE 1A NEWHAVEN ROAD TO EDINBURGH AIRPORT	0.2%	0.1%	-0.1%	99.9%	28.0%	-71.9%	100.0%

ON-STREET

Item	Period10 % Comp	Period11 % Comp	Period12 % Comp
Section 1 Newhaven Road to Haymarket			
Lindsay Rd RW's	64.0%	66.0%	66.0%
S17 Tower Place bridge	73.0%	73.0%	73.0%
1B Leith Walk (Foot of the Walk – McDonald Rd)	1.3%	1.3%	1.3%
1D Princes Street to Haymarket	42.1%	42.1%	42.1%

OFF-STREET

Progress Off-street has continued or commenced at the following locations: Note that the (%) completion estimates relate to the full structure

Item	Period10 % Comp	Period11 % Comp	Period12 % Comp
Section 02 Haymarket to Roseburn Junction			
Caley Alehouse Demolition	100.00%	100.00%	100.00%
S19 Haymarket viaduct	79.7%	79.7%	79.7%
Trackwork Civils and Earthworks Haymarket to Roseburn junction	14.1%	14.1%	14.1%
Trackwork Track Laying Haymarket to Roseburn junction	0.0%	0.0%	0.0%
Haymarket Station TS	1.8%	1.8%	1.8%
Section 05A Roseburn Junction to Balgreen Road			
Network Rail Haymarket Sprinter Depot Carpark	100.0%	100.0%	100.0%
Russell Road Retaining Walls	22.7%	22.7%	22.7%
Murrayfield Wanderers Clubhouse Demolition	100.0%	100.0%	100.0%
Murrayfield SRU Accomodation Mods	100.0%	100.0%	100.0%
Section 05B Balgreen Road to Edinburgh Park Central			
S23 Carricknowe bridge	79.5%	79.5%	79.5%
Trackwork Civils and Earthworks Balgreen to Saughton	42.7%	42.7%	42.7%
Trackwork Track Laying Balgreen to Saughton	11.3%	11.3%	11.3%
Trackwork Civils and Earthworks Saughton to Bankhead (includes Guided Busway)	100.0%	100.0%	100.0%
Trackwork Track Laying Saughton to Bankhead (includes Guided Busway)	63.7%	63.7%	63.7%
Trackwork Civils and Earthworks Bankhead to Edinburgh Park	31.0%	31.0%	31.0%
Trackwork Track Laying Bankhead to Edinburgh Park	0.0%	0.0%	0.0%
Edinburgh Park Station TS	6.4%	6.4%	6.4%
Trackwork Civils and Earthworks Edinburgh Park Station to Edinburgh Park Central	43.4%	43.4%	43.4%
Trackwork Track Laying Edinburgh Park Station to Edinburgh Park Central	0.0%	0.0%	0.0%
S27 Edinburgh Park viaduct	94.2%	94.2%	94.2%
Section 05C Edinburgh Park Central to Gogarburn			
Trackwork Civils and Earthworks Edinburgh Park Central to Gyle Centre	20.6%	20.6%	20.6%
Trackwork Track Laying Edinburgh Park Central to Gyle Centre	0.0%	0.0%	0.0%
A8 underpass (Excluding utilities works)	45.4%	45.4%	45.4%
S32 Depot Access bridge	73.8%	75.6%	77.4%
Trackwork Civils and Earthworks Gyle to Depot Stop	4.2%	4.2%	4.2%
Trackwork Track Laying Gyle to Depot Stop	0.0%	0.0%	0.0%
Trackwork Civils and Earthworks Depot Stop to Gogarburn	66.9%	66.9%	66.9%
Trackwork Track Laying Depot Stop to Gogarburn	0.0%	0.0%	0.0%
Section 06 Gogar Depot			
Depot Earthworks & drainage	99.1%	99.1%	99.1%
Depot Trackworks Civils	78.0%	78.8%	82.2%
Depot Trackworks - Track Laying	20.0%	20.0%	26.1%
Depot building (Total).	76.0%	80.0%	80.6%
Depot Sub-station	79.0%	85.0%	85.8%
Depot Access Roads	68.5%	68.5%	68.5%
Depot E&M Works	13.0%	13.2%	13.2%
Depot in totality	77.2%	77.3%	77.3%
Section 07 Gogarburn to Edinburgh Airport			
Gogar Landfill	91.5%	91.5%	91.5%
Gogarburn Bridge	98.5%	98.5%	98.5%
S30 Gogar Culvert No.1	100.0%	100.0%	100.0%
Trackwork Civils and Earthworks Gogarburn to Ingliston P&R	75.2%	76.2%	76.2%
Trackwork Track Laying Gogarburn to Ingliston P&R	0.0%	0.0%	0.0%
Hilton Hotel Carpark Phase 1	100.0%	100.0%	100.0%
Ingliston Park and Ride Sub-station	1.4%	1.4%	1.4%
W14A&B / W15C&D Gogarburn RW's	57.5%	57.5%	57.5%
S31 Gogar Culvert No.2	100.0%	100.0%	100.0%
S34 Gogar Culvert No.3 (Remedial works to be done)	97.2%	97.2%	97.2%
Trackwork Civils and Earthworks Ingliston Park & Ride to Edinburgh Airport	85.9%	85.9%	85.9%
Trackwork Track Laying Ingliston Park & Ride to Edinburgh Airport	0.0%	0.0%	0.0%

Section	Commentary
Section 1a Newhaven to Foot of the Walk	BSC have demobilised from all worksites in this area during period 12 No agreed programme for recommencing the main works in this section.
Section 1b Foot of the Walk to McDonald Road	No agreed programme for recommencing in this section
Section 1c McDonald Road to Princes Street West	No agreed programme for recommencing in this section
Section 1d Princes Street West to Haymarket	No agreed programme for recommencing in this section
Section 2 Haymarket to Roseburn Junction	<p><u>Haymarket Viaduct</u> There have been no productive works in this section since BSC cleared site on 1st October 10.</p> <p><u>Haymarket Yards</u> There have been no productive works in this section by BSC since they cleared site on 1st October 10.</p>
Section 5a Roseburn Junction to Balgreen Road	<p>Temporary & permanent works re-design along with commercial resolution is delaying various structures. All required consents in place for track installation.</p> <p><u>Russell Road Bridge</u> No works planned or carried out by BSC during the period. The methodology for protection of the 24" gas main during the soil nail works has been agreed. BSC issued the report on the protection to the gas mains during the piling works on 18/11/2010. SGN confirmed 11/01/11 their agreement to the proposal from AESL provided the vibration monitoring was implemented. BSC is now overdue issuing the estimate to tie. Piling Method – tie drafted letter to BSC confirming our position that we do not consider this to be a Change</p> <p><u>Russell Road Retaining Wall W4</u> No works planned or carried out by BSC during the period INTC 511 – Piling obstructions to CFA piling is not resolved. The history of the design and SI information is currently being reviewed. BSC carried out WAC testing and soil sampling 19/01/11. Results are yet to be provided. The proposal to install an additional barrier to ensure Scotrail move into the new car park has been rejected by tie and Scotrail have been advised in writing.</p> <p><u>Plots 96/97/101/102</u> No works planned or carried out by BSC during the period. A meeting was held 07/01/11 to discuss the ongoing commercial issues relating to the BSC quote.</p> <p><u>W18 – Murrayfield Tram Stop RW</u> BSC claim Plot 101 is within the LOD and clashes with the foundations of W18 RW. tie has received the structural engineers report for review.</p> <p><u>Murrayfield Wanderers Football Clubhouse</u> BSC intended to complete the outstanding works by 27/01/11, in advance of the 6 Nations however they have failed to do so. A letter has been drafted for issue regarding the delay</p> <p><u>W8 – Baird Drive RW</u> No works planned or carried out by BSC during the period Site clearance work stopped and site cabins removed week commencing 1st November10. Delay by BSC in progressing the Busy Bees demolition will impact the Baird Drive works and subsequently the Balgreen bridges.</p>

Section	Commentary
<p>Section 5b Balgreen Road to Edinburgh Park Central</p>	<p>Temporary & permanent works re-design along with commercial resolution delaying various structures.</p> <p><u>Balgreen Road to Carrick Knowe Bridge</u> No works planned or carried out by BSC during the period</p> <p><u>Carrick Knowe Bridge</u> No works planned or carried out by BSC during the period. Abutment/track slab finished level conflict remains unresolved. BSC unable to advise date for resolving the matter. Golf Course Boundary – tie confirmed to BSC on 10/02/11 that agreement had been obtained from CEC for the boundary fence to the golf course could be realigned to allow the earthworks on the north side to be carried out. BSC to contact Edinburgh Leisure to agree the details for the works once a commencement date has been confirmed</p> <p><u>Balgreen Road Bridges</u> No works planned or carried out by BSC during the period. tie have corresponded with BSC regarding the impact of the delay in demolishing Busy Bees on the Baird Drive works and the Balgreen Bridges. Demolition prevents the Baird Drive works being progressed sufficiently to allow the bankseats at the bridges to commence.</p> <p><u>Balgreen Road Retaining Wall</u> No works planned or carried out by BSC during the period.</p> <p><u>Balgreen Road to Carrick Knowe Earthworks</u> No works planned or carried out by BSC during the period. The drainage works are available to BSC and can be progressed by site agreement of quantities as has been done on the parallel drainage on the other side of the track where the rock has been removed.</p> <p><u>South Gyle Access bridge and Junction Works</u> BSC has yet to submit TM proposal for any works in the SGA junction. South Gyle Bridge west/Bankhead Dr RTW area has been available to BSC since 4th Oct 10 and the area completely cleared by Barhale since 4th November 10. Access to the east side of the junction has never been restricted to BSC. BSC commenced trial holes to verify utility locations on 31/01/11. Work was stopped intermittently due to resources working on safety critical activities resulting from the heavy rain. Trial holes within tie TM on the west side of the junction were due on 07/02/11 however the resources were moved to safety critical actions and postponed to 08/02/11, completed 10/02/11. Trial holes were due to be completed 11/02/11 however due to the weather delays they will over-run into w/e 19/02/11. BSC submitted a Relaxation Permit on Tuesday 25/01/11 to carry out a road crossing to install ducting (by Scottish Power on behalf of BSC). The Relaxation was provisionally approved by CEC however BSC were asked to confirm that they had obtained approval for the traffic management to be installed on 29-30th Jan 11. The TM involved a set of three way signals at the junction of Bankhead Drive and the access to the 7-a-side pitches to the east of the SGA junction. By 6.30pm on 27/01/11 BSC cancelled the planned works in order to obtain approval for the traffic management which, until this time, they had assumed their sub-contractor (Scottish Power) would obtain. The duct crossing was finally installed on the week end of 5th-6th February 2011.</p> <p><u>Bankhead Drive from SGA Junction (excl) to Busgate (excl)</u> No works planned or carried out by BSC during the period. BSC continue to use this area for the storage of excavated material. Contaminated material – BSC carried out the soil sampling on 19/01/11 and we continue to wait for the results.</p> <p><u>Busgate</u> No works planned or carried out by BSC during the period.</p>

Section	Commentary
	<p>There continues to be no reported progress with the technical issues remaining with BSC/SDS solutions including the OLE clash with an existing (known) sewer which SDS and Siemens continue to debate (tie letter 7112 issued 14/01/11), trackform drainage review/re-design and CEC approval of the latest street lighting design. There is also a clash between the existing SGN IP gas main and one of the OLE bases which SDS and Siemens continue to debate.</p> <p>SP transmission ducts conflict with the proposed tram drainage – BSC plan to carry out trial holes w/e 19/02/11 to confirm the locations of all the SP ducts on the north side of the tram.</p> <p>Contaminated material – WAC and soil samples taken 19/01/11 in order to allow BSC to demonstrate the source of the stockpiled material at their expense. Await results.</p> <p>The Drainage Change for Section 5B has been agreed however BSC has stated they are unable to commence the works due to existing utility clashes requiring a tie Change Order. BSC confirmed that the only conflict is the 10m of drainage below the HV cables. The pipe is laid either side of this section hence there is no further impact.</p> <p><u>Edinburgh Park Bridge North Ramp to Edinburgh Park Central</u> No works planned or carried out by BSC during the period. There is still no resolution to the OLE base conflict with the coarse material, installed by BSC following direction from SDS to replace the organic material. tie change was issued 28/01/11 agreeing the utility protection slab works. BSC has stated that this issue was preventing the commencement of the drainage and earthworks through the Edinburgh Park section, including the Edinburgh Park Central Tram Halt.</p> <p><u>Edinburgh Park Bridge</u> No works planned or carried out by BSC during the period. The site offices have been removed and the area is now being used for storing track slab sections.</p>
<p>Section 5c Edinburgh Park Central to Gogarburn</p>	<p><u>Section 5C Edinburgh Park Central to Gyle Tram Stop (Inclusive)</u> The section is broken down into a number of areas due to the issues associated with each.</p> <p><u>CH 530 450 to 600</u> Earthwork replacement was completed by 27/09/10 and the site cleared. Further works will not be progressed by BSC until ongoing Change issues are resolved.</p> <p><u>CH 530 420 to 435</u> BSC has undertaken trial holes on the south side of Lochside Ave. The services have been found at acceptable depth however the ground will need to be assessed by SDS. This appears to be significantly better than in the soft areas. The outcome of these trial holes has not been issued to tie.</p> <p><u>CH 524 490 to 530 420</u> BSC has agreed a solution for the protection of the utilities with SDS and issued to tie with a Notification of Change. Tie change was issued 28/01/11 agreeing the utility protection slab works. BSC had stated that this issue was preventing the commencement of the drainage and earthworks through the Edinburgh Park section from the EP Tram Halt up to Lochside Avenue.</p> <p><u>Gyle Tram Stop</u> No works planned or carried out by BSC during the period. The utility conflict with the retaining wall (INTC 577) is the remaining issue to the works commencing however tie does not agree with the solution proposed and included in the estimate. Contaminated material – BSC has not yet confirmed when the soil samples will be taken since they were not taken on 19th January 11. BSC stated 15/02/11 that they will progress the</p>

Section	Commentary
	<p>planning for the samples.</p> <p><u>A8 Underpass</u> No works planned or carried out by BSC during the period.</p> <p><u>Depot Access Bridge</u> 100% of planned progress achieved in Period.</p>
Section 6 Gogar Depot	<p><u>Depot Building works:</u> Accommodation area fit out and finishes planned progress achieved in Period. Siemens track installation commenced 13th January 2011 with progress restricted due to level tolerance and control issues.</p> <p><u>Depot Substation:</u> Fit out by Siemens achieved planned progress in Period.</p> <p><u>Depot Externals:</u> Civils works to stabling walkways completed in Period. Remaining civils works no progress in Period due to Change issues. Siemens track installation no progress in period as limited resource completing Depot Building trackwork prior to completing external areas.</p>
Section 7a Gogarburn to Edinburgh Airport	<p><u>Gogarburn Bridge:</u> Remedial works to track plinths commenced in Period.</p> <p><u>Design</u> BSC provided electronic flood model to EAL. EAL expected to remove flooding objection in Period. EAL have agreed in principle to route of HV cable to IPR substation. EAL have agreed in principle to provision of LV power for tramstop.</p>

Other Progress Points to note in Period 12:

- South Gyle Bridge and Bankhead Retaining Wall agreed through DRP process.
- Depot Access Bridge progressing to programme with Major deck pour due on 9th/10th March.
- Depot Building internal fit out progressing well with trackwork on going both internal and external.
- Tenders issued directly by **tie** in the period to cover some outstanding work banks namely Gogar water main, Assembly Street water connection, Scottish Water abandonments and Manhole Works.

Issues in the Period

- BSC demobilised from worksites in Section 1A at Lindsay Road and Tower Place Bridge during period 12.
- Following meeting with BSC proposed design for Edinburgh Gateway retaining wall has been subject to major change by designer due to the risk profile on the original concept. This has resulted in 2 options now being preferred as a final solution but requires approval from all parties involved.
- Network Rail require re-submission of Construction Phase Plan and Track Monitoring Proposals from BSC for approval before they will sign off any further WPP to allow works to commence. This follows a reorganisation of BSC staff from that originally indicated which alters present Construction Phase Plan.
- Final proposal for remedial works / design change for Princes Street still not approved
- Installed water main at Depot Building has been rejected by Scottish Water alleging non compliant pipework for industrial use being used . This is currently under investigation by all parties and could have major implications to depot completion.
- Still no progress being made from Haymarket Viaduct through to the A8 Underpass due to the ongoing dispute over change.
- Still await formal approval on flooding report from BAA. Response expected w/c 28th February.

Tram Construction (Tramco)

The CAF contract programme is incorporated in the Master Tram project Programme. We receive electronic submission of the CAF programme to allow analysis of the programme.

CAF is progressing well to deliver trams to Edinburgh according with its contractual programme but there is currently no access available to the depot to receive the trams. Tram 252 is stored in Broxburn and is checked on a regular basis, trams 251 and 253 to 272 are stored at the factory in Irun.

Period 12 Summary – Tramco

No	Planned	Activities in current Period
1	Fabrication of the trams	Fabrication and primer painting is completed on all the body-shells for all twenty seven trams. Equipment fit-out for the remaining trams 24 to 27 is continuing in the assembly hall. The first 22 trams are completed and tram 23 is completing factory acceptance testing.
2	Enhanced passenger information upgrade	Plan still to fit final equipment when trams arrive in Edinburgh.
3	Review of Test Protocols and test results	CAF have completed final internal tests to verify and calibrate computer design tools using Tram 251 at Wildenrath on the 12 th October 2010, final report awaited.
4	Depot Equipment	CAF are continuing progress, delivery schedule under discussion in conjunction with civil works programme for the depot now in mid-March 2011.
5	Finalisation of external branding	Final branding will be applied whilst the trams are stored at the factory prior to shipping to Edinburgh.
6	Tram O&M Manuals	Revised manuals next update due mid 2011 after experience on site with the trams.
7	Key sub-contract placement	Collateral warranties – 3 signed warranties have been received, remaining continue to be progressed.
8	Factory Based Acceptance Testing complete	First 22 trams have successfully completed factory testing to date. 81% of trams now completed and tested.
9	Testing regime	CAF have revised the Delivery & commissioning regime for the trams to reflect the requirement to store Trams pre delivery to Depot. All Trams will be prepared after storage, undertake dynamic testing and commissioning. 1 st tram due for starting commissioning April 2011- last tram mid-May 2012.
10	Programme progress	88% of scheduled activities completed (the site commissioning activities have been broken down into greater detailed tasks in the latest update).

Preparing for Operations

The Operational Readiness detailed programme information is also incorporated into the Master Tram Project Programme.

Regular meetings are held to review the programme and the potential impact of the infrastructure delivery dates to the commissioning process and the associated operational staff recruitment and training programme based on a set of assumptions surrounding incremental opening.

The Operational Readiness team are working closely with both **tie** and BSC programme teams to coordinate progress at the Depot, we are concentrating on attempting to bring resolution to the notified changes by the Contractor and particular the drainage and hard standing areas in order to attempt to keep progress continuing at the Depot.

In the period the further tracks in the workshop area have been installed and work has continued in the remaining stabling tracks. Also the preliminary tests prior to energisation of the HV equipment in the depot sub-station have been undertaken.

We have been planning in detail the first three stages of preparation for the Testing & Commissioning. The Benefits Realisation & Operational Readiness Sub-Committee of the TEL Board provides the governance overview and monitors the progress of the tasks and decisions required to deliver the Operational Readiness programme. Good progress is being made in all activities except those that are directly dependent upon progress with the infrastructure works.

The procurement of the ticketing equipment for the tram system, to integrate with the existing Lothian Buses ticketing system has progressed to the stage where the final tenders have been further clarified with respect to planning and commercial considerations. On the basis of these we expect to be able to select a preferred bidder by the 17th March after the mediation outcome is known with a contract containing client break option clauses at suitable points in the programme.

The maintenance of completed infrastructure assets continues to be developed with BSC maintenance representatives, notably the tram vehicle O&M and Operator Manuals and the asset management system for the tram vehicles, but also more recently there has been some progress with the infrastructure systems maintenance preparations.

Discussions and preparations have continued on the potential for short term lease opportunities for a limited number of trams should this be found to offer a good value option.

3 Edinburgh Gateway

Edinburgh Gateway

Progress on the Edinburgh Gateway Project in Period 12 2010/11 is summarised as follows:

- The work carried out in the Period involved a review of the design risk of the anchored wall and investigation of options for a more conventional piled abutment. Key stakeholders TS, NWR and SW were kept up to date with developments. Prior Approval was originally granted on 28th July 2010. The revised Prior Approval was issued on 14th January 2011 with approval being put on hold while review of anchored retaining wall is carried out. Co-ordination meetings continue with NR to resolve issues associated with EMC and co-ordinate discrepancy. Other outstanding design issues including resolution of ICP sign off and drainage approvals continued in the Period.
- **tie** requested an Estimate from BSC for Edinburgh Gateway construction works as a Change under the Infraco Contract including a number of programme matters that **tie** indicated Infraco should assume when completing their Estimate. These programme issues will require adjustment following resolution of the Prior and Technical Approval issues. Further **tie** letter reference INF CORR 7005 of 17th December 2010 requested confirmation from BSC regarding date for receipt of Estimate.

Forecast Cost to Complete Design

Forecast outturn is £1,166k against an original £880k:

£880k Breakdown

SDS	£400k
JRC	£ 30k
tie	£100k
Siemens	£350k

£1,166k Breakdown

SDS	£540k
JRC	£ 45k
tie	£120k
Siemens	£327k
Const. Staging	£ 30k
ICP	£ 20k
Name Change	£ 3k
A8 Drainage	£ 27k
Legal Costs	£ 50k
33kV Enab Wks	£ 4k

tie have discussed outstanding milestone applications with BSC in an effort to ensure cash flow is consistent with progress.

Period 12 Design progress

At the end of Period 12 **tie** assessed the design phase as 84% complete. The work carried out in the Period involved a review of the design risk of the anchored wall and investigation of options for a more conventional piled abutment. Key stakeholders TS, NWR and SW were kept up to date with developments.

Cost of work done to date is £973K versus the £880k originally forecast and the £1166k revised AFC.

The work carried out in the Period involved a review of the design risk of the anchored wall and investigation of options for a more conventional piled abutment. Key stakeholders TS, NWR and SW were kept up to date with developments. Prior Approval was originally granted on 28th July 2010. The revised Prior Approval was issued on 14th January 2011 with approval being put on hold while review of anchored retaining wall is carried out. Co-ordination meetings continue with NR to resolve issues associated with EMC and co-ordinate discrepancy. Other outstanding design issues including resolution of ICP sign off and drainage approvals continued in the Period.

Tram Design Issues

BSC previously identified a need to discuss the reduced headroom for the OLE through the tramstop with the Independent Competent Person (ICP). The **tie** engineering team have discussed this further with BSC and have received confirmation that this is still an issue. BSC will supply the justification for the **tie**/ICP to review.

A meeting was held on 2nd September 2010 between **tie**, TS and NR with ETN ICP John Dolan. The meeting discussed the design interface issues that require to be addressed to satisfy ETN ICP John Dolan. In the Period the design assumptions register was updated to reflect the current status regarding close out of ICP issues. Further discussions will be required with NR to close out the specific interface issues. These will be addressed through the regular Design Managements meetings between **tie**, TS and NR and the fortnightly conference calls. Design review meeting on 17th January 2011 updated ICP sign off and made significant progress. No recorded progress made in Period 12.

Tram Patronage Modelling & Business Case

tie provided a response to TS queries on JRC modelling during Period 11. TS to confirm if outstanding matters are now closed.

Programme Milestones

Discussions are continuing between **tie** and Transport Scotland to agree Key Milestones. **tie** updated the forecast dates in Period 10 for indicative purposes only as these are subject to clarity on the wider ETN Project timescales. It should be noted this will require amendment following review of anchored retaining wall.

Master Project Milestone Schedule

PERIOD Ending	01/01/2011
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ALL DATES ARE INDICATIVE ONLY UNTIL BASELINE PROGRAMMES ARE AGREED

Progress against milestones in programme					
		Baselined	Forecast	Status / Completion Date	Master Project Milestones
Edinburgh Gateway - Tram Works					
Milestone G1	Submission of Detail Design for Technical Approval	30-Aug-10	04-Feb-11		
Milestone G2	Completion of Cost Estimate (Including Risk & Value)	30-Sep-10	18-Mar-11		
Milestone G3	Completion of Technical Approvals	30-Sep-10	04-Mar-11		
Milestone G4	Completion of Statutory Approval & Consents (Prior Approval)	28-Jul-10	18-Feb-11		
Milestone G5	Completion of Issue for Construction (IFC) Information	18-Oct-10	04-Mar-11		
Milestone G6	Completion of Tram/Business Case Modelling	22-Jun-10	TBC		
Milestone G7	Completion of Construction Staging and Programme	30-Sep-10	18-Mar-11		
Milestone G8	Provision of CEC/tie Proposal to TS (Price & Programme)	08-Oct-10	18-Mar-11		
Milestone G9	Completion of Grant Funding Arrangement	15-Oct-10	15-Apr-10		
Milestone G10	Complete Design & Development Stage 1		TBC		
Milestone G11	Confirmation of Scope of Legal Agreements/Heads of Terms	05-Aug-10	05-Aug-10	Closed	
Milestone G12	Completion of Heads of Terms/Draft Legal Agreement	19-Aug-10	18-Feb-11		
Milestone G13	Completion of Legal Agreements	01-Oct-10	15-Apr-11		
Milestone G14	Commencement of Tram Construction Phase 1	18-Oct-10	15-Apr-11		
Milestone G15	Completion of Tram Construction Phase 1	31-Mar-11	14-Oct-11		
Milestone G16	Access to NR for Tram Area 1 (CIV/6001/001) Main Station Works	01-May-11	01-Nov-11		
Milestone G17	Access to NR for Tram 2 (CIV/6001/002) Sewer Works	01-Jul-11	17-Oct-11		
Milestone G18	Commence Tram Construction Phase 2	01-Jul-11	23-Jan-12		
Milestone G19	Completion Tram Construction Phase 2		08-Jun-12		
Milestone G20	Commencement of Operational Tramway Restrictions		11-Jun-12		
Milestone G21	Access to Tram Cutting for NR Works Around Operational Tram	01-Dec-11	11-Jun-12		
Milestone G22	Commence Tram Commissioning	01-Jan-12	11-Jun-12		
Milestone G23	Completion of Tram Commissioning	30-Jun-12	14-Dec-12		
Milestone G24	Completion of Implementation Stage & Commencement of Operation		14-Dec-12		
Milestone G25	Entry into Service	01-Jul-12	17-Dec-12		

Item Complete	Strikethrough		
Item due for completion on time	Green	Green	
Overrun, not yet critical - low risk to 'Final Delivery'	Amber	Amber	
Significant risk to 'Final Delivery' unless addressed	Red	Red	
Milestone also reported in PDG Section 4.1	Grey	Grey	

Legal Agreements

Following meetings between parties on 25th and 29th October, it was agreed not to progress the drafting of the legal agreements at the moment. This work will be reviewed in Q1 2011 once there is clarity on the wider ETN Project timescales. The current status of these agreements is understood to be as follows:

- Licence to occupy land from CEC to NR, also incorporating transfer of land to NR from CEC. This agreement will require to be in place in time for entry to site.
- Construction Interface Agreement. No drafting has progressed on this agreement to date.
- Operational Interface Agreement. No drafting has progressed on this agreement to date.
- Bridge Agreement. No drafting has progressed on this agreement to date.
- Section 21 Agreement: **tie** have requested draft wording from SW regarding Section 21 Agreement for build over of retaining wall. Meeting with SW and NR on 25th January 2011 reached resolution with SW on issuing draft determination.

Long-lead Items / Abortive Works

tie has written to Transport Scotland confirming arrangements put in place with respect to avoiding re-works to the ETN infrastructure due to EGP. Transport Scotland has confirmed that **tie** should take steps to minimise the abortive works on the basis that the Edinburgh Gateway Project will go ahead.

Drainage for the earthworks at the Depot is currently being installed to the west of the Depot Access Bridge. There is no option that does not involve some re-works if Edinburgh Gateway Project goes ahead as foul and surface water drainage works need to be installed to allow completion of the Depot and Section 5C test track. BSC are at present only progressing the critical works to allow commissioning of the Depot and Test Track. The full extent of the re-works will not be known until the drainage design for the Edinburgh Gateway Project has been designed and approved. The BSC design is being progressed to maximise reuse of the existing IFC drainage systems.

tie letter reference INF CORR 7004 of 17th December 2010 issued to BSC confirmed current works are not to cease while the Edinburgh Gateway design and construction Estimate is agreed.

Construction Staging

Construction Staging meetings with **tie**, TS, Network Rail and BSC have concluded for now. NR have agreed to work to a predetermined set of ETN night time possessions to construct the recirculation tower and overbridge. All parties have discussed the preferred construction sequence which can only be verified following receipt of an Estimate and Programme from BSC.

tie met with Transport Scotland and BSC on to review the requirements for commissioning of the tram system test track and the impact of Edinburgh Gateway project on 1st September 2010. Edinburgh Gateway does not appear to have a significant impact in this respect, however a number of minor issues were identified as requiring consideration. **tie** issued TNC letter to BSC on 10th September 2010 to cover this scope of works. No response has been received to date.

Enabling Works

Network Rail commenced on site on 2nd November 2010 to divert the Scottish Power 33Kv cable diversion. Cable works completed on site by 26th November 2010 ready for jointing. NR completed jointing works on 16th January 2011.

4 Headline cost report

4.1 Current Financial Year

	FY 10/11			FY 10/11			FY 10/11			COWD To Date	Costs To Go	Total AFC
	COWD Period			COWD Year To Date			COWD Full Year Forecast					
	Actual	Budget	Variance	Actual	Budget	Variance	Forecast	Budget	Variance	Actual	Forecast	Forecast
Total Project COWD	2.982	10.459	-7.477	61.094	126.867	-65.773	63.630	142.245	-78.616	408.936	136.064	545.000
Other Funding	0.246	0.864	-0.617	5.044	10.475	-5.431	5.254	11.745	-6.491	33.765	11.235	45.000
Demand on TS	2.736	9.595	-6.860	56.050	116.392	-60.342	58.376	130.500	-72.124	375.171	124.829	500.000

The 'AFC' figure of £545m (table above) does not reflect an approved and reliable Anticipated Final Cost for the Edinburgh Tram Project. Rather, the forecast presented reflects our best view of the spend profile of the funding currently available for the delivery of the entirety of phase 1a.

Given the continuing commercial uncertainties with the Infraco and continuing delays to the project it is considered unlikely that the full scope of Phase 1a will be completed within the available funding envelope of £545m. It is not however possible at the present time to accurately forecast a reliable outturn cost until the key commercial issues are resolved through the contractual and legal process

tie presented an updated forecast for 2010/11 project spend to TS on Tuesday 19th October. Forecast spend ranges and sensitivities for 2010/11 & 2011/12 were presented to TS on 4th November. A further revision of the current year forecast took place in Period 12, and is within the range presented to TS on 4th November.

The latest review of the forecast for 2010/11, at period 12, has resulted in the outturn forecast being reduced to £63.6m, with a potential sensitivity highlighted in the section below for the outcome of the Infraco prelims dispute. tie are committed to keeping TS and CEC updated as to the progress of our commercial engagement and any material impacts on the Projects spend profile.

COWD to date is £408.9m, with funding to date split to TS (£375.2m) and CEC (£33.8m).

Actual YTD P12 & forecast P13 FY10/11

£m	2010/11 to P12	Forecast P13,10/11	Forecast FY10/11
Infrastructure and vehicles	38.4	0.7	39.1
Utilities diversions	8.0	0.0	8.0
Design	1.5	0.2	1.7
Land and compensation	0.1	0.0	0.1
Resources and insurance	13.1	1.6	14.7
Base costs	61.1	2.5	63.6
Risk allowance	0.0	0.0	0.0
Total Phase 1a	61.1	2.5	63.6

YTD 2010/11 COWD is £61.1m in P12, and the full-year 2010/11 outturn forecast is £63.6m.

Key Risks and sensitivities to the £63.6m forecast for are:

- Infraco related prelims – £2.5m has been accrued in the above p12 figures following an indication of the outcome of the adjudication on payment of prelims. The outturn figure will be confirmed in p13 when confirmation of the adjudication outcome is expected.

As previously reported and agreed with CEC and TS, initial milestones under the Infraco and Tramco contracts in the aggregate amount of £14.3m, 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 2010/11 and future years.

Current Financial Year Profile

Profile for FY10/11

£m	Q1 (p1-3)	Q2 (p4-6)	Q3 (p7-10)	Q4 (p11-13)	Total FY10/11
Infrastructure and vehicles	16.7	9.6	11.6	1.2	39.1
Utilities diversions	-0.4	0.1	4.7	3.6	8.0
Design	0.5	0.4	0.5	0.4	1.7
Land and compensation	0.2	0.1	0.0	-0.2	0.1
Resources and insurance	3.2	3.3	4.2	4.1	14.7
Base costs	20.1	13.5	21.0	9.0	63.6
Risk allowance	0.0	0.0	0.0	0.0	0.0
Total Tram	20.1	13.5	21.0	9.0	63.6

- Costs for 2010/11 are forecast at £63.6m (£86.7m Q2). *Note: This forecast is sensitive to the key risks as identified above.*
- The latest forecast is based upon **tie** Project Managers view as at the end of period 12.
- The original TS share of the budget (£130.5m) has been reduced to a forecast of £58.4m.**

Phase 1a Profiling

£m	Cum FY07/08	Actual 08/09	Actual 09/10	FY 10/11	FY 11/12	AFC
Infrastructure and vehicles	30.6	45.2	83.5	39.1	123.1	321.5
Utilities diversions	18.4	33.4	10.6	8.0	-4.7	65.8
Design	24.4	4.7	2.1	1.7	1.2	34.2
Land and compensation	16.8	1.7	1.6	0.1	0.0	20.3
Resources and insurance	42.9	16.0	15.9	14.7	9.0	98.5
Base costs (inc 1b)	133.1	101.0	113.8	63.6	128.7	540.2
Risk Allowance	0.0	0.0	0.0	0.0	4.8	4.8
Total	133.1	101.0	113.8	63.6	133.5	545.0

Note: Base costs include £6.2m for ph 1b.

Per the note in 4.1 the 'AFC' figure of £545m does not reflect an approved and reliable Anticipated Final Cost for the Edinburgh Tram Project, but point to 'our best view' of the spend profile of the funding currently made available for the delivery of the entirety of phase 1a.

The TEL board have approved a risk allowance within the current funding arrangements of up to £63.3m, which takes the current agreed budget up to £545.0m.

5 Time schedule report

5.1 Report against key milestones

The table below reflects the milestones set out against the Rev1 programme.

Milestones	Baseline programme date	Actual / current forecast date tie live prgm
Approval of DFBC by CEC	21 Dec 06A	21 Dec 06A
MUDFA – commencement of utility diversions	02 Apr 07A	02 Apr 07A
TRO process commences	14Dec07A	10-Dec-07A
Approval of FBC by TS – approval and funding for INFRACO / Tramco	09 Jan 08	Dec 07A
Princes Street closed	03-Feb-09	22-Feb-09A
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
First track installation commences – on street	03-Nov-08	Jun 2009A
Carrick Knowe Bridge commences	21-Aug-08	19-Aug-08A
A8 underpass commences	08-Aug-08	28-Aug-08A
Haymarket viaduct commences	08-May-08	01-Sep-08A
Edinburgh Park viaduct commences	06-Aug-08	01-Sep-08A
Tram mock-up delivered	Oct 2008	Nov 2008A
Demolition of Wanderers clubhouse	25-Aug-08	05-Jan-10A
Edinburgh Park viaduct complete	24-May-09	Apr-11
Princes Street re-opened	01-Aug-09	29-Nov-09A
NR immunisation complete	Nov 2009	Sep-10A
Utilities works complete (including telecoms)	Nov 2008	Mar-11
All demolition work complete (S21C)	22-Aug-08	Aug-11
All Issue for Construction (IFC) drawings delivered (inc Gogar interchange design)	21-Jan-09	May-11
Haymarket viaduct complete	08-Dec-08	Jun-11
All consents and approvals granted	18-May-09	Mar-11
Design assurance complete	20-Jan-09	Mar-11
1 st Tram delivered	09-Apr-10	25-Apr-10A
Carrick Knowe bridge complete	11-May-09	Jul-11
A8 underpass complete	14-Jul-09	Mar-12
Roseburn viaduct commences	20-Jan-09	Jun-11
TRO1 process complete	01-Dec-09	Nov-10A
Recruitment commences for Operations	July 2010	Jun-11
1 st OHL installed (Section 6 Depot)	11-Dec-09	Sep-11
1 st section (other than depot) complete ready for energisation (Section 2)	25-June-10	Dec-11
Commission Section 2 (Haymarket to Roseburn junction)	11-Jan-10	Mar-12
Final tram delivered to Depot*	17-Jan-11	May-12
Commission Section 6 (depot)	25-Mar-10	Dec-11
Roseburn viaduct complete	20-Apr-10	Jul-12
Test track complete (Ready for tram testing)	23-Apr-10	Apr-12
Commission Section 7 (Gogar to Edinburgh Airport)	25-June-10	Nov-11 to Apr-12
Commission Section 1 (Newhaven to Haymarket)	11-Mar-11	May-12 to Apr-13
Commission Section 5 (Roseburn junction to	09-Nov-10	Nov-11 to Dec-12

Milestones	Baseline programme date	Actual / current forecast date tie live prgm
Gogar)		
Driver training commences (excludes depot)	Nov 2010	Jul-12
System testing complete off street	09-Dec-10	Jan-13
Construction Line 1a complete	17-Jan-11	Apr-13
System testing complete on street	16-Feb-11	May-13
Letter of "no objection" from Independent Competent Person to commence tram running	17-Apr-11	May-13
Shadow running starts	18-Apr-11	Jul-13
Shadow running complete	July 2011	Oct-13
Letter of "no objection" from Independent Competent Person to commence revenue service	July 2011	Oct-13
Open for revenue service	July 2011	Oct-13

* CAF revised programme to reflect availability of Depot for Tram delivery

Guidance for Completion:

Legend for colouring of Actual / forecast date text

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

Key Issues Affecting Schedule

- BSC demobilised from worksites in Section 1A at Lindsay Road and Tower Place Bridge during period 12 and have now therefore ceased works in all areas with the exception of the Depot Access Bridge and the Depot area.
- BSC has formally advised **tie** of 99no. Individual Infraco Notice of **tie** Change (INTC) items and the validity and content of these are under review. **tie** has responded to the majority of these items under the existing contractual mechanisms available.
- Lack of agreement with BSC regarding on-street construction programme;
- Completion of a fully integrated and assured design.

12-Week Look-Ahead

Until the revised programme is in place the forecast for the next 12 weeks continues to be generated from the **tie** Live programme including latest updated information from both BSC and **tie** Project Managers. Note that due to the uncertainty surrounding the On-street section of the Infraco works, and the recent demobilisation from site by BSC that these works have been removed from the 12 week forecast. Similarly, as BSC have now advised that they are demobilising worksite where there is an outstanding disagreement regarding an estimate, these works have also been removed from the table.

Milestones	Actual / current forecast date
5C - S32 Depot Access bridge	28-Feb-11C
6 - Depot Building (Siemens Internals Only)	28-Feb-11C
6 – Depot Trackworks -Track Laying	28-Feb-11C
6 – Depot Access Roads	28-Feb-11C
6 – Depot OHL Bases	28-Feb-11C
6 – Depot Sub-station	28-Feb-11C

Key: A=Actual; C=Continues in period; S=Start; F=Finish,

6 Risk and opportunity

Review of Risk Register

Project Risk Register

There are 49 risks in the risk register. The top six project risks are listed herein. Four out of these top six risks are issues which have now materialised and are at the core of the overall differences between **tie** and the BSC consortium and which have been or are being tested through the formal Contractual Dispute Resolution process.

There will be a complete refresh of the Risk Register and opportunities following the overall mediation being held between the parties in the next few weeks.

The risks in the Project Risk Register were reviewed by the attendees at the Project Risk Review and all risks plus their assessment and treatment plans were reviewed and refreshed.

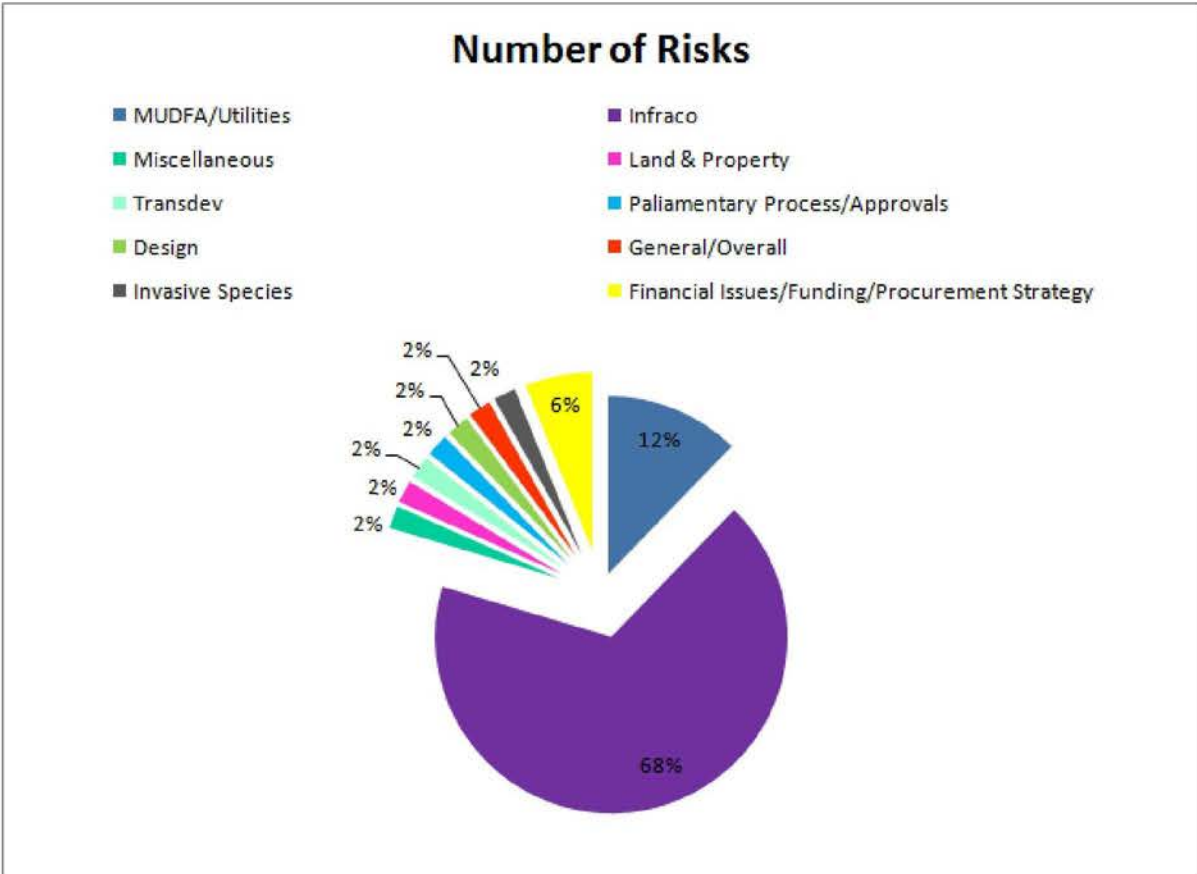
Period 12 1011 Top 6 Risks

ARMI Risk ID	Cause	Event	Effect	Risk Owner	Significance	Treatment Strategy	Previous Status	Due Date	Action Owner
343	General delay to programme with various causes e.g. failure to obtain approvals on time; contractor issues; access after completion of utility diversions	Delay to completion of project	Increased out-turn cost due to delay plus revenue loss	S Clark	High - 2.5/3	Access maps showing areas available	On Programme	31-Mar-11	F McFadden
						Contractually assenive workstreams to progress programme	Complete	29-May-10	S Bell
						DRP Mufda Rev 8 response	Complete	31-Aug-10	S Bell
						DRP on programme management (EOT1)	Complete	30-Oct-09	S Bell
						Issue UWN on programme	Complete	15-Sep-10	S Clark
						Liason between tieBSC programme managers	On Programme	30-Dec-11	T Hickman
						Programme Management Panel process	Complete	30-Dec-11	F McFadden
						Use of Clause 34 / 80.15 - addressed via DRP	Complete	30-Aug-10	S Bell
						Weekly tieBSC commercial meetings	On Programme	30-Dec-11	M Paterson
1101	Unreasonable behaviour of BSC commercial management	Unrealistic estimates being submitted for potential changes	Programme delay while disputes regarding estimates are resolved	Dennis Murray	High - 2.5/3	Additional resource from T&T	Complete	29-Jul-09	M Paterson
						Agreed with BSC for independent evaluation to get benchmark	Complete	30-Jul-09	M Paterson
						All estimates to be scrutinised by tie commercial team and, where appropriate, challenge made to BSC. Additional resource (T&T) being used to check estimates to reduce delay and other commercial resources on these areas	Complete	31-Dec-10	M Paterson
						Clause 34/80 issues using DRP for disputed values	Complete	31-Aug-10	S Bell
						Legal challenge to Clause 80 and BSCs interpretation thereof	Complete	30-Sep-10	S Bell
1094		Roads throughout works require full depth reconstruction	Programme impact plus additional costs. £1.5m cap applies to only 4 areas. (PA 12) Also affects (PA 14)	F McFadden	High - 2.4/3	All party buy in - application of appendix 7(1)	On Programme	31-Dec-11	C Neil
						Carry out surveys to confirm extent of roads requiring full depth reconstruction	Complete	30-Jun-09	C Neil
						Intensive engagement with CEC, palette of options, methodology being agreed	On Programme	31-Jan-11	C Neil
						Resolution of trackform at trackform workshop	On Programme	30-Apr-11	C Neil
						Suite of options from surveys to be reviewed and agreement reached	Complete	30-Jul-10	C Neil
						tie developed on-street proposal with scott wilson - complete and under review	On Programme	31-Jan-11	S Bell

Period 12 1011 Top 6 Risks

ARM Risk ID	Cause	Event	Effect	Risk Owner	Significance	Treatment Strategy	Previous Status	Due Date	Action Owner
1100	Lack of signed, formal agreement between CEC and Forth Ports regarding Forth Ports contribution to Tram works	Forth Ports contribution does not materialise or does not equal value of works carried out	CEC required to fund difference between Forth Ports contribution and value of works	S Bell	High - 2.5/3.0	Liase with Dave Anderson and Donald McGuigan to ensure awareness of issue and agreement of current strategy	Complete	31-Jan-11	S Bell
928	Major single safety and/or environmental incident (including a dangerous occurrence) during construction	Safety incident during construction	Delay (potentially critical) due to HSE investigation, and rework. PR risk to tie and stakeholders.	F McFadden	High - 3.1/3.0	All Site Staff to get CSCS or equivalent Develop and Implement Incident Management Processes HSQE Audits, site inspections and Management Safety Tours to be carried out Incident management process regularly updated and revisited Safety induction to be carried out for all site staff	On Programme	31-Mar-11	B Cummins
1159	Commercial dispute with contractor	Depending on outcome of negotiations the revised cost leads to funding pressures for CEC.	CEC required to increase contribution	S Bell	NIL - 0.00	CEC exploring contingency measures for additional funding Mediation Agreed - Intensive commercial negotiations with contractor and mediation agreed for Q1 2011.	On Programme	31-May-11	S Bell

The risks within the Project Risk Register are categorised below.



The ratings of the risks are illustrated below.



Risk Action Plan for Next Three Periods

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

Action Owner	Risk ID	Action ID	Event	Action Name	Due	Active	Complete	Late	Next 3 periods
A Coyle	1159	745	Depending on outcome of negotiations the revised cost leads to funding pressures for CEC	CEC exploring contingency measures for additional funding	31/05/2011	Yes	No	No	Period 03
A Richards	888	127	ETL refuse to operate system on safety ground or apply overly restrictive procedures that are not directly the responsibility of Infraco (ROGS Competent Person agrees with this)	Involve ETL fully in design, construction and testing/review process.	30/06/2011	Yes	No	No	Period 04
B Cummins	928	338	Safety incident during construction	Safety Induction to be carried out for all site staff	31/03/2011	Yes	No	No	Period 13
B Cummins	928	339	Safety incident during construction	HSQE audits, site inspections and management safety tours to be carried out	31/03/2011	Yes	No	No	Period 13
B Cummins	928	341	Safety incident during construction	All site staff to get CSCS or equivalent	31/03/2011	Yes	No	No	Period 13
B Cummins	928	710	Safety incident during construction	TEL HSE committee overview applied	31/03/2011	Yes	No	No	Period 13
B Cummins	58	226	Infraco fails to deliver construction quality, latent defects occur during or after Infraco maintenance period	Undertake quality audits during construction	31/03/2011	Yes	No	No	Period 13
C Neil	1094	736	Roads throughout works require full depth reconstruction	Resolution of trackform at trackform workshop	30/04/2011	Yes	No	No	Period 01
D Sharp	1106	714	Programme delay with dispute over accountability	Use of additional resources to apportion accountability	31/03/2011	Yes	No	No	Period 13
D Sharp	271	559	Failure to process prior approvals applications within 8 weeks	Assure the quality and timing of submissions	28/02/2011	Yes	No	Yes	Period 12
D Sharp	271	637	Failure to process prior approvals applications within 8 weeks	4-weekly meetings of Approvals Task Force	28/02/2011	Yes	No	Yes	Period 12
F McFadden	343	719	Delay to completion of project	Access maps showing areas available	31/03/2011	Yes	No	No	Period 13
F McFadden	1102	696	Known non-compliant utility diversions in relation to proximity to the DKE and/or other utilities.	Obtain reduction from SUCs	31/03/2011	Yes	No	No	Period 13
F McFadden	1102	697	Known non-compliant utility diversions in relation to proximity to the DKE and/or other utilities.	Where relaxation cannot be obtained replace plastic with steel	31/03/2011	Yes	No	No	Period 13
F McFadden	1077	748	Tramworks price based on a design which may have been altered. Unclear who authorised design change.	Aggressive commercial strategy to ensure minimum change	31/03/2011	Yes	No	No	Period 13
F McFadden	1105	689	Additional protection measures of utilities are required (primarily Leith Walk) reduced depth 1200 to 800 to save time/money. This applies to 20 no crossings on Leith Walk	Examine possibility of additional protection protection being used rather than additional diversion of utilities	31/03/2011	Yes	No	No	Period 13
F McFadden	1079	681	Lack of competent resources within BSC to safely and effectively deliver Tram project	Apply contract re personnel	01/04/2011	Yes	No	No	Period 1
F McFadden	1079	684	Lack of competent resources within BSC to safely and effectively deliver Tram project	Where appropriate tie can request removal of resources.	01/04/2011	Yes	No	No	Period 1
F McFadden	1079	685	Lack of competent resources within BSC to safely and effectively deliver Tram project	Resource led programmes	01/04/2011	Yes	No	No	Period 1
F McFadden	1079	686	Lack of competent resources within BSC to safely and effectively deliver Tram project	List of staff and competencies to be provided	01/04/2011	Yes	No	No	Period 1
S Bell	1077	703	Tramworks price based on a design which may have been altered. Unclear who authorised design change.	Design review, continued DRP / Adjudication Process	31/03/2011	Yes	No	No	Period 13
S Bell	1077	720	Tramworks price based on a design which may have been altered. Unclear who authorised design change.	PA1 Challenge if legal advice supplied	31/03/2011	Yes	No	No	Period 13
S Bell	1077	724	Tramworks price based on a design which may have been altered. Unclear who authorised design change.	Siemens 33 initiative to achieve Airport to Bankhead Drive continues to be progressed	31/03/2011	Yes	No	No	Period 13
S Bell	1159	744	Depending on outcome of negotiations the revised cost leads to funding pressures for CEC	Mediation Agreed - Intensive commercial negotiations with contractor and mediation agreed for Q1 2011	31/03/2011	Yes	No	No	Period 13
S Clark	1108	738	Programme delay with dispute over accountability.	Production of concurrency information using Accutus and internal production of PITA database	31/03/2011	Yes	No	Yes	Period 13
W Biggins	911	628	Presence of Scottish Power tunnel in Leith Walk requires approved construction methodology from Scottish power - works scheduled for August 08	Liase with Scottish Power to agree and approve method of crossing tunnel - SDS doing this	31/03/2011	Yes	No	Yes	Period 13

Cost Quantative Risk Analysis

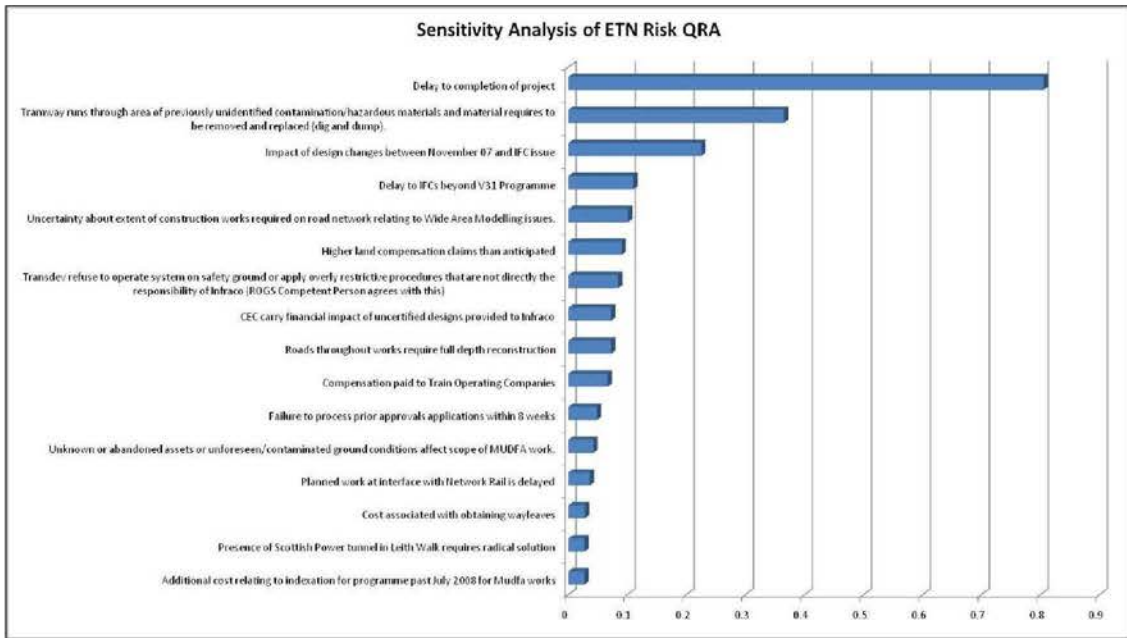
The Project Risk Allowance at financial close was £30,336,196. This was increased in Period 1 by £17,982,993 to £530m, to £535m in Period 5, £540m in Period 7 and £545m in Period 9. Drawdowns on risk and contingency to the end of Period 12 10/11 now total £71,193,863. The remaining risk balance based on the approved QRA plus the additional funding is £4.8m. This has increased from P10 following a review on non-committed expenditure which has been transferred back to risk funding.

Risk Drawdown

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

Description	Owner	Value (£)
Tax and Governance	Hamish Sheppard	£21,960
Services Protection Section 5C - Edinburgh Park	Frank McFadden	£2,430
Lindsay Road Traffic Management 2	Frank McFadden	£17,691
BT CCTV inspections	Frank McFadden	£2,151
BT chamber inspections	Frank McFadden	£9,790
Transfer of TEL budget to TMR works	Frank McFadden	£7,589
Transfer of outstanding budget from EPPU	Frank McFadden	£-11,638
York Place Lining	Frank McFadden	£3,933
Cyril Sweett contingency reprocurment advice	Frank McFadden	£8,900
Redundant Fire Hydrant Cover Removal	Frank McFadden	£22,755
Tower Place Bridge – Sequence of Work	Frank McFadden	£65,573
Haymarket Station - NR Access Door	Frank McFadden	£1,821
TSS additional activities	Frank McFadden	£206,081
5B 5C Track Drainage	Frank McFadden	£1,592,768
DRP Extension of work	Frank McFadden	£1,881,000
PM Staff Costs	Frank McFadden	£3,022,000
	Total:	£6,854,804

Sensitivity Analysis of Approved Cost QRA

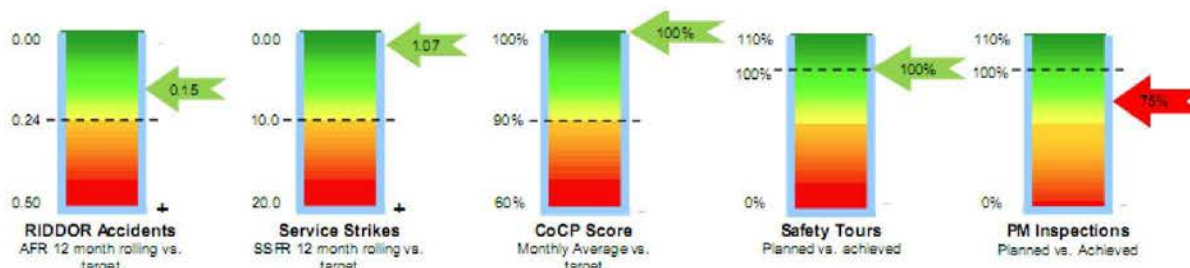


The above chart highlights those component risks which are correlated most closely with the overall risk allocation. These risks are the ones which, if changed in terms of probability or impact, would have the most significant effect on the final output.

7 Health, Safety, Quality and Environment

H&S Accidents and Incidents, Near Misses or Other

HS&E ACCIDENTS and INCIDENTS SUMMARY											
Total	Total Hours	>3 day	Major	Injury	NM/Unsafe Condition	Service Damage	ENV	RTA	MOP	AFR	SFR
Period	44,018	0	0	0	4	0	0	0	0	0.00	0.00
13 period rolling	1,312,959	0	2	13	156	14	13	6	20	0.15	1.07



There were no reportable accidents during the period. The rolling 13 Period AFR is at 0.15, better than the KPI of 0.24 for the project. There were no MOP incidents recorded during Period 12. CoCP compliance was recorded at 100% during Period 12.

75% of the planned PM joint inspections were carried out during Period 12. This shortfall was caused by a **tie** PM being called for jury duty and then being diverted to dispute resolution activities. 100% of planned safety tours were carried out during Period 12.

During a planned **tie** site inspection at Gogar Depot it was noted that there is no current suitable and sufficient fire risk assessment in place for the Depot building and associated Infraco construction activities within and around the building. **tie** has formally written to BSC requesting that this statutory breach be addressed and we have now received an amended Risk Assessment from BSC.

It is noted that there have been 35 cycle accidents on Princes Street where the tram tracks are alleged to have contributed in some way to the accident. **tie** have further analysed the available data and also plotted the locations on GIS in an attempt to better understand the causal factors. The output has been shared with BSC.

BSC have been requested to provide details on how road defects around the Princes Street tram tracks are being risk assessed and prioritised for interim remedial work pending a final resolution to the causes of the defects.

BSC have been requested to provide Road Safety Stage 3 Audits for all Infraco works that have been reopened to road users.

BSC have proposed an alternative permanent design for on street track works that may alleviate premature deterioration of the road at the road rail interface. Discussions have taken place with **tie**, BSC and CEC in order to progress further.

Environment

A meeting held with BSC and their ecologist on site at the Airport to discuss the current need for amendment to the Otter disturbance licence. There are a number of options regarding the manmade otter Holt adjacent to the BAA project office. BSC must make the decision regarding the best option and ensure that the amended licence is fully in place prior to works commencing.

tie observed a number of areas at the tram Depot where concrete has been spilt or washed out, outwith the designated area. This has been brought to BSC's attention.

Ongoing discussions with BSC regarding contaminated land; Testing is in the process of being carried out, however, to date no further results have been received.

Deliver a Safe Tram

Section	Activity	Data Checked				
		IDC	ITPs	Design Variations/Change	As Builts	Asset Register
Section 6 - Depot	Interface - track & Concrete	0.5	1	1	N/A	N/A
Section 6 - Depot	Electrical Installation	0.5	1	1	0.5	0
PD	Total (y)	1	2	2	0.5	0
	Max Possible Total (y)	2	2	2	1	1
Total	Percentage P11	45%	91%	86%	79%	44%
	Percentage P12	46%	92%	86%	79%	40%

Key - Y = Evidence exists (1) N = No evidence exists (0) NA = Not applicable (-) P = Part evidence in place (0.5)

Assurance and PSCC

A Track submissions review meeting has been scheduled for early March, to progress the design review process.

tie's Safety Verification Scheme redrafted for improved clarity. This has been issued to the Office of Rail Regulation for information and comment.

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Deliver a Safe Tram Key Metrics

2 metrics inspections carried out during period 12 both at Gogar Depot; QM066 Interface between track concrete and column, and QM 067 Electrical Installations.

A technical inspection carried out – review of Electrical Certification at Gogar Depot (18/2/11), issues raised during this inspection have been formally communicated to BSC, response expected period 13.

BSC have advised they are reviewing ITP 024, as documented in metrics inspection QM66 to include Column track information to be issued in due course. ITP No 004 Road Restraints reviewed by **tie** and returned as Level C. ITP No 011 Street lighting reviewed by **tie** and returned as Level B

NCR's 2 x issued by BSC during the period NCR 00210 Finish to concrete on the stabling yard platform NCR 00211 unspecified equipment installed in the heavy store.

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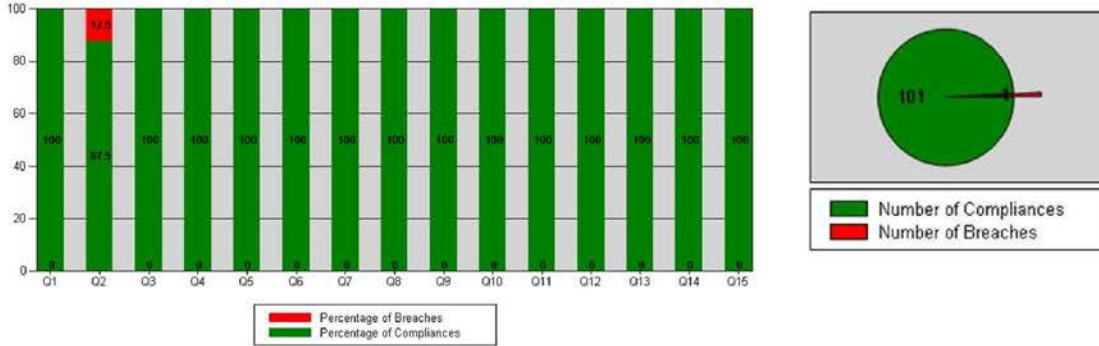
All Clancy Docwra completion information for Haymarket now reissued by CD. To be reviewed and issued to SUC's during period 13.

Awaiting issue of Clancy packs for Section 1C, these were expected to be issued along with section 1D packs but have not been received. P Dobbin currently chasing CD for info.

A review of the Body of Evidence document was scheduled to take place during period 12. Due to absence this meeting will require rescheduling.

COCP Compliance

Period 11

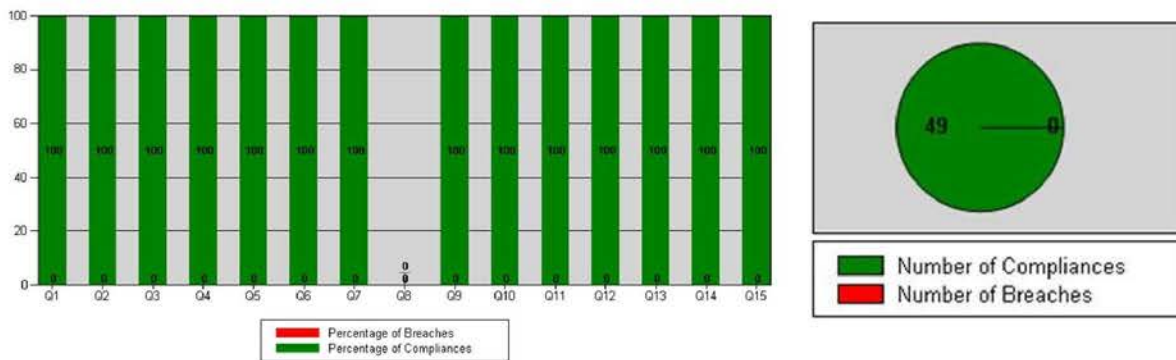


Q1. Hours of Work
Q2. Notification
Q3. Notices
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Q5. Noise
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Q8. Water
Q9. Emergency Access
Q10. Parking
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Q12. Dust
Q13. Smoking
Q14. Members of the Public
Q15. PPE and Behaviours

Movement during the Period

- Compliance during Period 12 was recorded at 100%. This represents a slight improvement on the 99% figure recorded during Period 11.

Period 12



8 Stakeholders & Communications

Media / Press Activity

Total Media coverage for Period 12 amounted to 167 articles.

At the beginning of Period 12 there was sustained coverage of the project following a draft copy of the Audit Scotland report being leaked to the BBC. The BBC's coverage of the report highlighted one area of the report which they believed implied the company 'may lack the skills' to complete the project. This point was considered highly damaging to the reputation of the organisation as it was taken completely out of context from the final report by Audit Scotland. The final report acknowledged that a number of staff had left tie in recent months and asserted that "others may also leave, creating a risk that it may lack the necessary skills and experience to complete the project." In its full context, we completely agree with this observation by Audit Scotland, however the selective manner in which it was reported, portrayed the staff currently working on the project are not skilled.

Coverage of the report was picked up by a high volume of media outlets the following day, including various BBC radio programmes. Six newspapers used the inaccurate interpretation of the BBC, despite the fact that the final report was published a day early as a result of the leak. Emails were sent to the relevant reporters at six newspapers regarding this inaccuracy, with news editors copied in. Two responded positively that they would not repeat this error. However to ensure our point was put across this was followed up with letters to Editors for publication. We also conducted an interview with the BBC by way of response to clarify the report and also made use of Tram TV to film a brief clarification video for our website.

A 'Getting the Facts right' document was prepared and placed on our website and on the Edinburgh Trams Facebook page to counter a number of recurring themes in the media coverage of the Audit Scotland report, which we felt required attention.

In the wake of the Audit Scotland report, representatives from tie and the City of Edinburgh Council were invited to give evidence at the Public Audit Committee at Holyrood on Wednesday 23rd February. Our Chief Executive, Richard Jeffrey and four senior executives from CEC, including the new Council Chief Executive, Sue Bruce were interviewed by the Committee on a range of questions about the Audit Scotland report. Various press outlets reported on the Audit Committee discussion directly and did not need to approach us for comment.

Following the announcement of our new Chairman Vic Emery, we received a large volume of interviews requests of which three were granted to the Scotsman, the Evening News and Herald. The resulting articles were straightforward and centred mainly on the idea that Vic would be willing to approach the Government for more funding for the project; that the upcoming elections may be key to the project's future and also that mediation in March may have varying results.

An announcement was made by Transport for London early in Period 12 regarding their interest in lease additional tram vehicles from other companies. This generated a small amount of media attention, particularly from the Evening News, which drew links with the project potentially leasing any extra tram vehicles which we may have if incrementally delivering the project.

We also published an advertorial article in the industry publication, Tramways and Urban Transit explaining the economics case for trams in Edinburgh.

Branding

The mobile tram exhibition 'From the past to the future' has been on display at St James Shopping Centre, telling the story of Edinburgh's trams since the original horse drawn route through the City. On display are several photographs of old and new trams, with personal

stories from those who worked on the old trams and some of the team who have helped to construct the new infrastructure. Also on display is a variety of original tram items, on loan from Edinburgh Museums and Galleries, an introduction to some of the *Tramformers* characters from the schools programme and safety tips for cycling near tram lines.

With a passing footfall of just over 285,000, while on display in the main concourse of St James Shopping Centre it has recently moved to the Gyle Shopping Centre with the intention of displaying at a variety of locations throughout the year.

The new DEMA This Is My Edinburgh campaign artwork will soon be displayed on Haymarket House and preparations have begun for Princes Street banners throughout the Science, Film and International festival season.

Partner and Stakeholder Communications

A number of communications to stakeholders and key partners were issued during Period 11 about minor areas of on street work which is due to be carried out over the coming weeks:

- York Place – Refreshing lining along York Place x 100 notices
- Dublin Street – Inspection of chambers x 70 notices

A series of site tours arranged by the project are ongoing at the moment for key stakeholders, Council officials and partner organisations to give a unique insight into the progress that is being made on the project to date. In an effort to extend this offer to businesses along the off street section of the route, our Customer Service Manager arranged catch up meetings with Wolfson Microelectronics, RF Mckay, Sainsburys and Stirling furniture.

Due to the car park diversion route around the Haymarket Yards worksite, notifications were sent out in advance of the Rugby international fixtures to note the closure of access to the car park and Haymarket Yards by car over each weekend. As part of this closure we have also been in regular contact with First Scotrail regards crowd and litter control measures during the match days.

There is continued involvement with the City of Edinburgh Council in there ongoing discussions with residents associations about the Traffic Regulation Orders (TRO) proposals. In addition to this we are also involved in representing trams on the CEC Road Safety Partnership along with representatives from traffic management and operations.

Communication continues on a regular basis between businesses and residents to keep them informed of the progress being made in the ongoing contractual dispute and about when works could possibly commence again in their area.

Website / Internet Communications

Visitor figures for www.edinburghtrams.com are at 13,324 this period with 853 followers on facebook. Twitter has grown to 1300 followers and has seen an increase in activity this period, particularly in terms of discussion and re-tweeting of information from our account. There has been an increase in the viewing of podcasts this period, with new content from the Chief Executive and Chairman concerning Mr Emery's appointment to the board.

Changes to the facebook platform have had an impact on the way users receive information from facebook pages. These systemic changes have had an impact on the syndication of information in follower news feeds, reducing the overall number of users seeing our new content. Despite this impact, most keenly felt in terms of video and photo views, we have managed to sustain traffic to www.edinburghtrams.com and facebook metrics indicate that photo and video content is still being reliably relayed to between two and three thousand people per post.

Last period's increased interest in the 'Story so Far' section of the site, a chronological archive of key documents and factual information has been sustained this period, coming in as the second most popular content page of the site after local updates.

Internal Communications

The February/March issue of "Tramlines", the project's internal newsletter, was published and distributed electronically to staff during Period 12 and featured a selection of articles highlighting the progress being made at the Gogar Depot and the approval of our new Chairman Vic Emery. The newsletter provides us with a unique channel through which to communicate with employees who would not normally come into contact with different elements of the project.

Freedom of Information Requests

The volume of Freedom of Information Requests remains high for the third period running with a total of 17 requests currently at different stages of development with a further seven completed. The majority of outstanding requests have been submitted by journalists of which ten are from the one publication.

One request has been submitted on the recent Audit Scotland Interim Report where there is a request for all correspondence and drafts between us and Audit Scotland. Other relevant public authorities have received similar requests.

On the 23 February the Scottish Information Commissioner announced his decision on the Steve Vass Sunday Herald Appeal. The original date of Steve's request was on the 21 January 2010 where he submitted eleven requests for information. We withheld information on six of these requests which subsequently resulted in Steve's appeal to the Commissioner. The importance of the result is as below:

- The OSIC found in our favour when withholding the results of the dispute adjudications.
- The OSIC found in our favour when withholding providing copies of the Clancy Dowcra, Farrans, MUDFA and INFRACo contracts.
- With respect to the request for copies of the contracts we made successful use of EIRs Regulation 10(4)(b) – Manifestly unreasonable which we had not used until now.
- The Commissioner found that we had not complied with the EIRs Regulation 9(1) where we should have been more helpful to Mr Vass through our duty to provide him with advice and assistance in relation to the withheld contracts and in particular how Mr Vass could have narrowed down his request. We have to do this by the 11 April 2011. It is worth noting that as part of our handling of this Appeal we had previously offered to Mr Vass, through the Commissioner's office, the opportunity to examine the contracts and supporting documents in tie's premises which he turned down.

Customer Service Correspondence

Period 12 has recorded a total of 216 enquires to the Customer Service team, a noticeable increase in public interest during the last four weeks. This represents a rise of 81 queries from Period 11 - the overwhelming majority of which are requests for information on different aspects of the project. The increase can be attributed directly to the fact that the project has issued notifications for work to be carried out in the city centre during the last four weeks, such as remedial work on Princes Street and re-lining work on York Place, which has piqued the interest of residents and stakeholders.

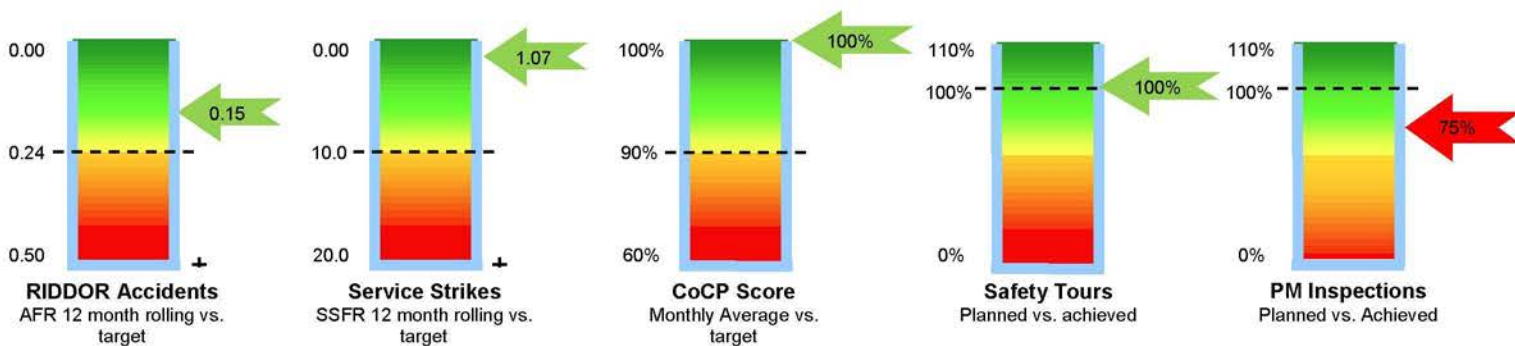
The Format in which enquiries are logged with the Customer Service team has changed little over the last 6 – 12 months. A total of 114 emails were received and 58 phone calls during Period 12, the main channels for incoming correspondence. In addition to this two letters and one fax were also received. The biggest change in trend is the number of enquiries which have been logged as a result of face to face meetings with businesses and residents. Compared with the five enquires recorded via Face to Face meetings during the last reporting period, a total of 41 enquiries have been noted as a result of our Customer Service Manager actively talking to businesses about upcoming work on Princes Street and York Place.

The subject of correspondence has also changed little during Period 12. Information requests which, represents 196 out of the 216 enquiries continued to dominate the subject of

correspondence and enquiries are received looking for clarity or information on a range of various subject matters. Employment opportunities on the project has received eight enquiries this Period while the remaining contacts are again split between the same recurring topics from Period 10 and 11 – Complaints (2), COCP Complaints (2), Traffic Management (2), Land and Property (1) Business Support (1), Insurance (1), and Positive comments (Others) (3).

HS&E ACCIDENTS and INCIDENTS SUMMARY

Total	Total Hours	>3 day	Major	Injury	NM/Unsafe Condition	Service Damage	ENV	RTA	MOP	AFR	SFR
Period	44,018	0	0	0	4	0	0	0	0	0.00	0.00
13 period rolling	1,312,959	0	2	13	156	14	13	6	20	0.15	1.07
BSC											
Period	26,611	0	0	0	4	0	0	0	0	0.00	0.00
13 period rolling	914,022	0	2	7	85	4	6	1	11	0.22	0.44
OTHER TRAM											
Period	1,088	0	0	0	0	0	0	0	0	0.00	0.00
13 period rolling	116,218	0	0	5	65	10	7	5	7	0.00	8.60



EXECUTIVE SUMMARY

- There were no reportable accidents during the period.
- The rolling 13 Period AFR is at 0.15, better than the KPI of 0.24 for the project.
- There were no MOP incidents recorded during Period 12. It is noted that there have been 35 cycle accidents on Princes Street where the tram tracks are alleged to have contributed in some way to the accident. **tie** have further analysed the available data and also plotted the locations on GIS in an attempt to better understand the causal factors. The output has been shared with BSC.
- CoCP compliance was recorded at 100% during Period 12.
- Only 75% of the planned PM joint inspections were carried out during Period 12. This shortfall was caused by a **tie** PM being called for jury duty and then being diverted to dispute resolution activities.
- 100% of planned safety tours were carried out during Period 12.
- During a planned **tie** site inspection at Gogar Depot it was noted that there is no current suitable and sufficient fire risk assessment in place for the Depot building and associated Infraco construction activities within and around the building. **tie** has formally written to BSC requesting that this statutory breach be addressed.
- BSC have been requested to provide details on how road defects around the Princes Street tram tracks are being risk assessed and prioritised for interim remedial work pending a final resolution to the causes of the defects.
- BSC have been requested to provide Road Safety Stage 3 Audits for all Infraco works that have been reopened to road users.

HS&E INSPECTIONS SUMMARY *(a summary of significant inspection findings can be found in appendix B)*

Project Running Totals	HS&E Tours	HS&E PM Inspection
Number planned	2	4
Number achieved	2	3

HSQ&E KEY ACHIEVEMENTS

- There were no pedestrian issues around the Haymarket works site during the first 6 Nations Rugby event at Murrayfield in early February. Positive feedback on the adequacy of arrangements was received by **tie** from Scotrail following the event.

KEY ISSUES – POINTS TO NOTE

- A resolution continues to be sought on a previously identified concern relating to the adequacy of the electrical earthing installation at Gogar Depot. **tie** have contacted BSC who have been requested to come forward with a proposal for a detailed check on the entire earthing installation, with participation/witnessed by both **tie** and Scottish Power. **tie** has also sought the assistance of the SP Director of Safety in closing out any residual concerns.
- During a planned **tie** site inspection at Gogar Depot it was noted that there is no current, suitable and sufficient fire risk assessment in place for the Depot building and associated Infraco construction activities within and around the building. **tie** has formally written to BSC requesting that this statutory breach be addressed.
- Scaffolding installed by BSC on a temporary fire escape at Murrayfield Sports Club was found not to have had statutory inspections carried out for more than 6 months. This has since been addressed.
- BSC have been requested to provide details on how road defects around the Princes Street tram tracks are being risk assessed and prioritised for interim remedial work pending a final resolution to the causes of the defects.
- There have been 35 cycle accidents on Princes Street where the tram tracks are alleged to have contributed in some way to the incident. **tie** have further analysed the available data and plotted the locations on GIS in an attempt to better understand the causal factors. The output has been shared with BSC.
- BSC have been requested to provide Road Safety Stage 3 Audits for all Infraco works that have been reopened to road users.
- CEC have formally raised concerns with **tie** over the quality of traffic signal work undertaken by **tie**'s contractor at the George Street/Hanover Street junction. These concerns relate to shallow cables and inadequate compaction. **tie** are investigating the concerns.
- Clarification and consistency is required between CEC/**tie** on how MOP claims are handled where they relate to alleged occurrences at tram streetworks locations that have been returned to public thoroughfares.
- The clarity of road markings at York Place is becoming increasingly ambiguous through wear and tear. Remedial works are being programmed by **tie** for the next period.
- Significant Network Rail APA issues have emerged as a result of organisational changes within BSC. The BSC Network Rail CPHSP and all Work Package Plans have lapsed and require to be resubmitted for approval. **tie** has written to BSC on this issue.

SIGNIFICANT RISKS FOR THE NEXT PERIOD

RISK	ACTION
<ul style="list-style-type: none"> • Gas and water abandonment works York Place and Haymarket. • Water main diversion at Gogar. • Manhole remedial works at Bankhead Drive. • New manholes at St Andrews Square 	<ul style="list-style-type: none"> • HSQE providing ongoing support to project delivery teams to ensure firm compliance with CDM and tie's associated arrangements for procurement, management and supervision.

ENVIRONMENTAL SUMMARY

List any significant environmental events, initiatives, breaches etc

- Meeting held with BSC and their ecologist on site at the Airport to discuss the current need for amendment to the Otter disturbance licence. There are a number of options regarding the manmade otter Holt adjacent to the BAA project office. **tie** Environment Manager agreed that the option to move the holt and destroy the existing holt is likely to be the most suitable option in terms of what will be approved by SNH; however, BSC ultimately must make the decision regarding the best option and ensure that the amended licence is fully in place prior to works commencing.
- **tie** HSQE Advisor has observed a number of areas at the tram Depot where concrete has been spilled or washed out outwith the designated area. This obviously has the potential to contaminate the land and should be addressed by BSC Environment Team.
- Ongoing discussions with BSC regarding contaminated land. Testing is in the process of being carried out, however, to date no further results have been received.
- **tie** moving forward with developing the documentation required to submit planning for the storage of material on site outwith the LOD (within the LLAU – Bankhead Drive). Upon completion of the planning process a SEPA exemption licence will be applied for. Temporary storage of material is acceptable within the constraints of the Tram Act.

BEST PRACTICE

List any significant quality events, initiatives, breaches etc

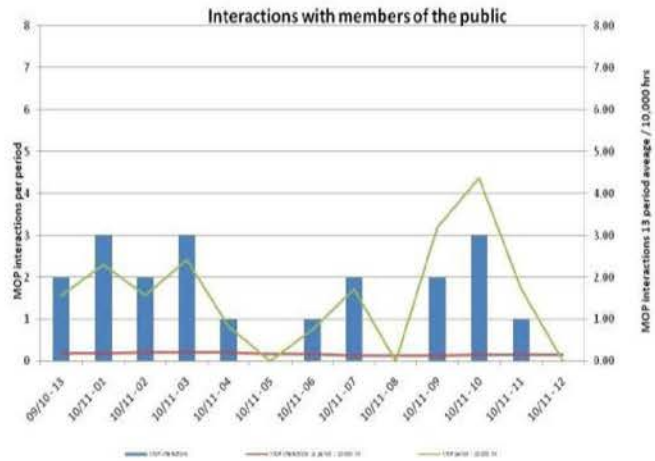
- BSC (Expanded) delivered safety harness training to relevant site personnel working at the Depot Access Bridge.
- BSC Occupational Health and Safety Forum on 22 Feb'11 included a refresher session on foreman / supervisor responsibilities.
- First aid training was delivered to selected personnel within Citypoint.



MEMBER OF PUBLIC INTERACTION SUMMARY

List any significant interactions with members of the public, including RTA's, alleged incidents

- There were no MOP incidents during Period 12. An insurance claim was however received during the period relating to a tripping incident that is alleged to have occurred in Constitution Street during Sept 2010.
- It is noted that there have been 35 cycle accidents on Princes Street where the tram tracks are alleged to have contributed in some way to the incident. **tie** have further analysed the available data and plotted the locations on GIS in an attempt to better understand the causal factors. The output has been shared with BSC.

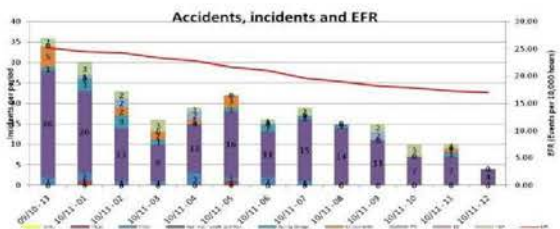
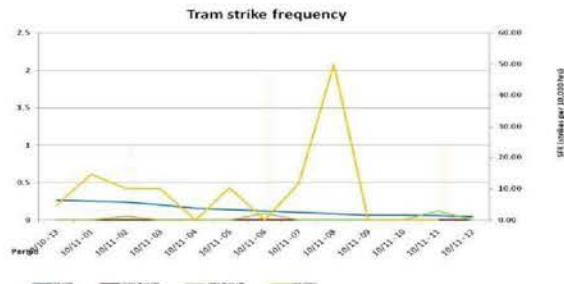


CDM Compliance

List any significant quality events, initiatives, breaches etc

- The previously planned Professional Development session on **tie**'s arrangements to ensure compliance with CDM, which had to be cancelled due to project personnel unavailability is being rescheduled.

GRAPHS

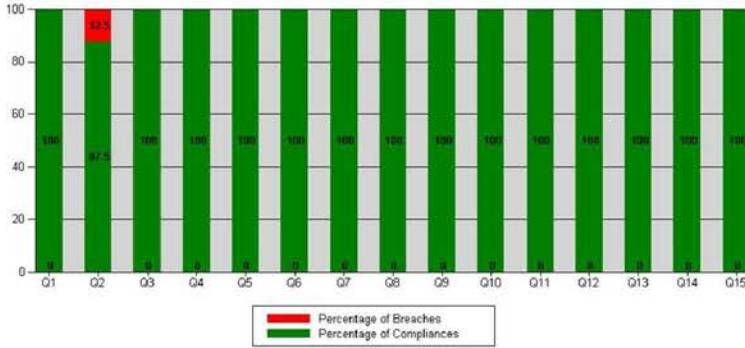


APPENDIX A
SIGNIFICANT ACCIDENT / INCIDENT

There were no significant incidents during Period 12.

APPENDIX B – COCP INSPECTIONS

Period 11

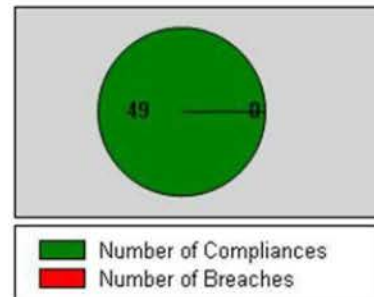
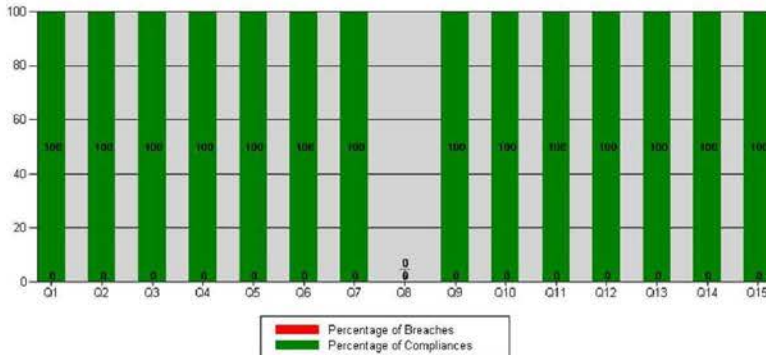


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Period 12



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1.0 Assurance & PSCC

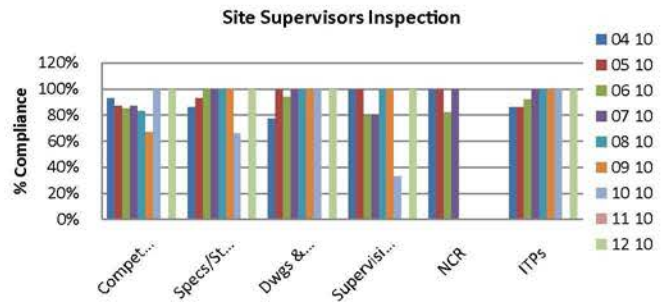
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- **tie** comparison document and response presented to **tie**'s SHEQ Committee covering the report on the multiple derailments which occurred on the Dutch 'Randstad' tram system. This will continue to be used to identify improvements and prevent similar occurrence on the ETP.
- The PABX and COM system design details finalised with BSC.
- TSA-10-03 SVS Audit Track and Civils re-scheduled to take place 9th March 2011. Awaiting formal response from BSC. TSA-10-04 SVS BSC Design Assurance (Vehicle) Audit is currently scheduled to take place on 16th March 2011. It will now take place on 11th May 2011, subject to agreement with BSC.
- **tie** will assist ETL with an independent audit on their systems. This audit is scheduled to take place 17th March 2011 with a pre-meeting 16th March 2011

2.0 Deliver a Safe Tram Key Metrics

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- A technical inspection was carried out – review of Electrical Certification at Gogar Depot (18/2/11). Issues raised during this inspection have been formally communicated to BSC and a response expected in Period 13.
- BSC have advised they are reviewing ITP 024 as documented in Metrics Inspection QM66 to include Column track information which will be issued in due course. ITP No 004 Road Restraints reviewed by **tie** and returned as Level C. ITP No 011 Street Lighting reviewed by **tie** and returned as Level B.
- NCR's 2 x issued by BSC during the period NCR 00210. Finish to concrete on the stabling yard platform NCR 00211 unspecified equipment installed in the heavy store.
- Issues regarding SDS completion of project as-built drawings (from CUS redline drawings) are preventing Section 1A Farrans handover packs being completed.
- A review of Land Engineering handover packs has revealed that they are currently not in the approved format. A request has been made to update and re-issue.
- Meeting held with BSC on 14th Jan 2011 re Haymarket Approvals Audit. BSC to return agreed responses to **tie**, to date no response has been received from BSC, **tie** to formally request response from BSC during Period 13.
- All Clancy Docwra completion information for Haymarket now reissued by CD. To be reviewed and issued to SUC's during period 13.
- Awaiting issue of Clancy packs for Section 1C. These were expected to be issued along with section 1D packs but have not been received. P Dobbin currently chasing CD for info.
- A review of the Body of Evidence document was scheduled to take place during Period 12. Due to absence this meeting will require rescheduling.

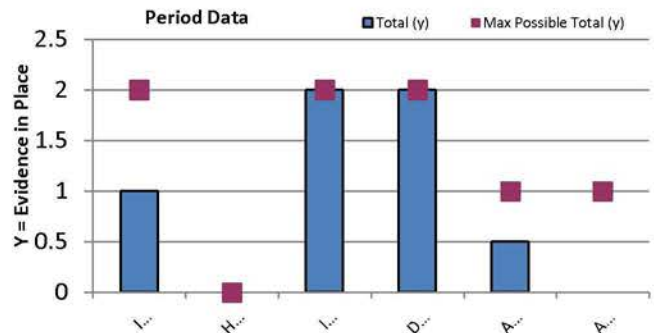
3.0 Site Supervisors Inspection

- 1 Supervisors inspection was carried out during Period 12. Review of Electrical Safety at the Depot. No major issues were identified, however, the Electrical Installation Technical Inspection identified areas for improvement as it dug further into the requirements set down in current industry guidance



4.0 Deliver a Safe Tram – Required Action

- Ensure Clancy Docwra completion packs for Section 1D are finalised and re-issued to SUC's during Period 13.
- Ensure Clancy Docwra completion packs for Section 1C are issued to **tie** – co-ordinate with **tie** PM
- Ensure that completion pack information is received from Land Engineering and issued to SUC's
- Pursue **tie** PM for response to TQ in order that Section 1A completion information can be issued to SUC's
- SVS Audit – Track/Civils scheduled 30th march 2011



Period to date Data

