



Transport Edinburgh
Trams for Edinburgh
Lothian Buses

Tram Project Board
Report on Period 7
Papers for meeting 31st October 2007

09:00am – 12:00pm

Distribution:

David Mackay (Chair)
Willie Gallagher
Neil Renilson
Bill Campbell
Andrew Holmes
Matthew Crosse
Susan Clark
Steven Bell

Donald McGougan
Graeme Bissett
James Stewart
Jim Harries
Jim McEwan

TRAM PROJECT BOARD

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Agenda Tram Project Board
Brunel Suite – Citypoint II, 2nd Floor
31st October 2007 – 9.00am to 12.00pm

Attendees:

David Mackay (Chair)	Stewart McGarrity
Willie Gallagher	Jim McEwan
Neil Renilson	Jim Harries
Bill Campbell	Steven Bell
Andrew Holmes	James Stewart
Matthew Crosse	Susan Clark
Donald McGougan	Andrew Fitchie
Graeme Bissett	Elliot Scott (minutes)
Colin McLauchlan	

Apologies: Geoff Gilbert, Alastair Richards, Miriam Thorne

- 1 Review of previous minutes and matters arising
- 2 Presentation:
 - Progress and issues – WG
 - Governance, funding and financial close programme – GB
 - MUDFA / Network Rail – SB
 - Design – DC
 - Procurement and negotiations – MC
 - Value engineering and Final Business Case – JMCE
 - Legals, contracts and programme – AF
 - Communications and media – CMcL
 - IPR – SC
- 3 Project Director's progress report for Period 7 - Papers:
 - SDS update including claims resolution
 - Runtime
- 4 OGC and Risk review action plan – SC
- 5 Sign off criteria – Update
- 6 Delivery organisation / structure – WG
- 7 Change requests
- 8 CEC contribution
- 9 Date of next meeting
- 10 AOB

ETN Minutes Tram Project Board 26 September 2007

tie offices – Citypoint II, Brunel Suite

Principals		Participants:	
David Mackay	DJM (chair)	Matthew Crosse	MC
Willie Gallagher	WG	Graeme Bissett	GB
Donald McGougan	DMcG	Steven Bell	SB
Andrew Holmes	AH	Bill Campbell	WWC
Neil Renilson	NR	Duncan Fraser	DF
		Susan Clark	SC
		Geoff Gilbert	GG
		Alastair Richards	AR
		James Papps (for James Stewart)	JP
		Colin McLauchlan	CMcL
		Jim McEwan	JMcE
		Miriam Thorne (minutes)	MT

Apologies: James Stewart

1.0	REVIEW OF PREVIOUS MEETING	Action
1.1	The previous minutes were taken as read.	
2.0	Matters Arising	
2.1	WG confirmed that he would provide an update on current plans for tram design to Sir Terry Farrell if required – feedback requested before 12/10/07.	
2.2	AH requested support from tie for the 4-weekly meetings between CEC and TS – attendance was to be agreed between CEC and tie off-line	AH
3.0	Presentations	
3.1	WG provided a high-level overview of key elements progressed during the period and the issues to be discussed in detail at this TPB.	
3.2	OGC Review	
3.3	SC provided an update on the programme and scope for the review which was to commence on 1 st October. She highlighted that the OGC team had indicated particular interest in the arrangements for governance during construction, the funding arrangements and technical integration plans. It was confirmed that CEC are the client for this OGC review.	
3.4	DJM gave feedback on his interview with the OGC team. Key questions discussed related to contingencies management and risk transfer, contracts management during construction and how novation will work in practice. Further, plans relating to operational phases were requested.	
3.5	Additionally, DJM confirmed that the OGC team had expressed interest in the matter of concessionary fares and their significance to the project. The TPB were informed that there were a number of issues to consider on this matter: <ul style="list-style-type: none"> - 23% of current LB revenue relates to concessionary fares – if tram was not treated equally to bus, a considerable element of tram 	

	<p>revenue may be lost</p> <ul style="list-style-type: none"> - TS are not currently willing to provide assurance on concessionary fares. However, indications have been that this reluctance was regarding the level of concessionary fares in the future, not about the principle of concessionary fares for tram on the same basis as for bus 	
3.6	The TPB agreed that this matter was an operational issue for TEL and should be discussed by the TEL board.	
3.7	Governance, funding and programme to Financial Close	
3.8	GB stated that the 1 st meeting of the 4-weekly reviews between TS and CEC had been held previously.	
3.9	<p><u>Governance:</u> The TPB discussed the governance structure proposed for construction and agreed the following:</p> <ul style="list-style-type: none"> - The TPB will be a formal sub-committee of the TEL board. The arrangement will ensure that the TPB retains its power as key decision making forum. - The TPB sub-committees would evolve as proposed in the governance paper and agendas, remits and lists of attendees would be defined during the coming months. - The TEL board would remain as is with a review of timing and agenda following financial close - The tie board would continue as is, including relevant committees (audit / remuneration / safety (to be set up) / etc). The meeting cycle and agenda are to be reviewed. <p>GB was to update the paper for the next TPB</p>	GB - done
3.10	The TPB agreed that although the governance structure describes a number of meetings as sub-committees, these are more akin to management team meetings to harness relevant experience and allow integration of all stakeholders with the aim to provide recommendations to the TPB.	
3.11	Another key item to clarify is the role and scope of the CEC tram sub-committee so that it could be included in the proposed governance schematics. AH to feed back.	AH
3.12	The TPB also confirmed that there was no alteration to the arrangements for change control.	
3.13	<p><u>Expenditure and funding:</u> The TPB noted that current indications were that there was sufficient funding in place to cover requirements until the projected Financial Close date of January 08. This was dependent on a number of management actions and assumed no delay to Financial Close. Progress would be monitored and reported via the 4-weekly report</p>	GB – done

3.14	MUDFA	
3.15	SB gave an update on the current situation regarding progress, contract management and expenditure. He highlighted that the current cost position was as expected. However, it was too early to assess how much of the MUDFA risk contingency would be utilised this year. He also confirmed that the commercial issues with the SUCs were being resolved.	
3.16	The key issue for MUDFA is the delivery of the IFC drawings to programme. The design contract was being closely managed by tie but it was important not to dilute SDS's responsibility to obtain approvals from the SUCs. SB confirmed that settlement payments on the claim were contingent on delivery of utility drawings. SB to update TPB on progress.	SB
3.17	Another key item related to BT design and cabling programme – tie is working with BT to explore ways of reducing the impact.	
3.18	AH questioned when the more difficult sections for utility diversions would be tackled – SB confirmed that initial work would commence in October 07 with physical works starting in April 08. WG stressed the success of trial holes in mitigating issues. However, all progress was also dependent on support from CEC and TEL.	
3.19	Design	
3.20	MC highlighted that current progress showed a good correlation to the approved V17 programme. He pointed out that the current shortfall related to 26 packages and SDS had produced approximately 58%-60% of the detailed design. He also stated that the design review process had now commenced which would address quality issues with CEC's input.	
3.21	SB explained that the design delivery for MUDFA had been stripped out of the overall design programme to allow sufficient detailed monitoring.	
3.22	AH raised concerns that the programme assumed that SDS would get designs right first time and what the impact on the CEC review would be. MC pointed out that the programme review accepted the technical and prior approval timescale and had been developed with input from CEC. DF was to perform a detailed review of the programme and feedback to AH and the TPB.	DF
3.23	MC explained that the proposed commercial settlement of the claim had been accepted by the PB UK board and was now being finalised, subject to some legal drafting.	
3.24	Procurement	
3.25	MC / GG presented the progress made on the Infraco bid negotiations and evaluation. GG confirmed that, as the bids were very close at this time in their results on normalised basis, this gave greater credence to the option to go back to the reserved bidder, should the necessity arise.	
3.26	GG explained that the current prices were based on a programme which included procuring materials of up to £60m immediately post Financial Close. The benefit, other than for the programme, was that this would de-risk the bidders procurement chain. Similar early payments were considered for Tramco.	
3.27	GG stated that both bidders had provided detailed programme proposals. However, their achievements would be contingent on assumed productivity rates for on-street works and early mobilisation.	

3.28	The TPB was informed that the offer of a £5m discount for Phase 1b only applied to concurrent construction.	
3.29	Value engineering	
3.30	JMcE presented an update on VE. He expressed concerns about some of the anticipated savings on structures due to the lack of detailed design available. However, he stated that much of the VE works resulted in reducing potential future costs, thus reducing risks for the project.	
3.31	The TPB recognised that the proposed capital costs for the project of £498m included significant VE savings. Concerns were raised that the capital £'amount could therefore move upwards between October and December when final Council approval was sought. However, it was recognised that using a range or a higher number would introduce ambiguity and may reduce the bidders' commitment to meet budget. These considerations were set against concerns about the impact on public perception should the number change. Ultimately, the TPB agreed that there were sufficient levers available to the project to ensure that changes in VE could be absorbed within the estimate.	
3.32	FBC	
3.33	MT provided an update on the current status of the FBCv1 which was targeted for completion by 03 October.	
3.34	The TPB agreed that there would be no update to the TEL business plan for the FBCv2 in December.	
3.35	Legals and contracts	
3.36	SC provided an update on progress which included close working with CEC legal and focussed on risk transfer as per the Infraco contracts. She confirmed that a separate risk review was being procured by CEC.	
3.37	GB highlighted that briefing of TS / the minister on the FBCv1 and the recommendation of the Preferred Bidder should take place immediately following the approval by the Council on October 25 th .	
3.38	Stakeholder and communication management	
3.39	CMcL outlined the proposed briefing programme. It was confirmed that a similar process for briefings should be followed in December in the lead up to Financial Close.	
4.0	IPR	
4.1	SC provided an update – no issues were raised.	
5.0	Funding of works outside the core scheme	
5.1	SC presented the paper which set out the principles for funding of items not included in the project scope. The TPB confirmed that this presented no change to the current arrangements on change control and accepted the recommendations of the paper.	
6.0	Public Realm	
6.1	The TPB noted the paper but stated this was a matter for the TEL board and / or the CEC tram sub-committee.	
7.0	CEC contribution	
7.1	AH provided an update on the progress to secure CEC's contribution to the project. A concern was raised as to how borrowing costs would be met. DMcG stated that CEC recognised this was not part of the tram cost estimate.	

FOISA exempt
 Yes
 No

8.0	AOB - CEC / TEL recharges to the project	
8.1	DJM stated that the TEL recharges to the project for staff time would cease as of September 07 and that an agreement had been achieved with Tom Aitchison that CEC recharges would discontinue from 31 March 08. DMcG to confirm at next TPB.	DMcG

Prepared by Miriam Thorne, 25th September 2007

Minutes joint tie Board / Tram Project Board / Legal Affairs Committee
15th October 2007

tie offices – Citypoint II, Brunel Suite

Members:			
tie Board		Tram Project Board	
Willie Gallagher (Chair tie Board)	WG	David Mackay (Chair TPB)	DJM
Brian Cox	BC	Neil Renilson	NR
Kenneth Hogg	KH	Andrew Holmes	AH
Neil Scales	NS	James Papps (for James Stewart)	JP
Cllr Ricky Henderson	RH		
Cllr Allan Jackson	AJ		
Cllr Phil Wheeler	PW		
Cllr Gordon MacKenzie	GMcK		
In Attendance:			
Matthew Crosse	MC	Jim McEwan	JMcE
Susan Clark	SC	Gill Lindsay	GL
Geoff Gilbert	GG	Steven Bell	SB
Colin McLauchlan	CMcL	Duncan Fraser	DF
Andrew Fitchie	AF	Jim Harries	JH
Alastair Richards	AR	Colin McKenzie	CMcK
		Miriam Thorne (minutes)	MT

Apologies: Bill Campbell, Donald McGougan, Graeme Bissett, Barry Cross, Peter Strachan and James Stewart.

1.0	Overview of the agenda	Action
1.1	WG provided a high-level overview of the agenda for the meeting. Additionally, he highlighted that good progress had been made on the MUDFA IFC issue and that PB had undertaken steps to review the programme at a very senior level.	
2.0	OGC Review – feedback	
2.1	SC presented the results from the OGC review, highlighting the positive feedback received.	
2.2	DJM expressed concern about point 8 of the OGC recommendation on concessionary fares. NR stated that the issue was really two-fold: <ul style="list-style-type: none"> - There was unlikely to be any real impact on the BCR for the project if concessionary fares did not apply, as the revenues only formed some part of the BCR calculation; However, - The implications of potentially losing up to 23% of tram revenue would be considerable for TEL's P&L. 	
2.3	However, the boards noted that the tram Business Case and the TEL Business Plan were prepared on the basis that concessionary fares would apply equally to tram and bus, as instructed by TS, and that the matter of concessionary fares is a legislative issue which cannot easily be withdrawn. KH confirmed that most English light rail schemes included concessionary fares	

2.4	AH pointed out that including tram in the concessionary fare scheme is unlikely to have a significant cost impact for the Scottish Government. He stated that the issue should stay on the risk register and it was highlighted that a full review of concessionary fares for public transport would be undertaken in 08/09 and that tram would be part of that agenda. NR also stated that a meeting was planned for the 15 th October with TS to discuss the issues. NR to provide feedback from the TS meeting.	NR
2.5	WG expressed the boards' thanks to SC and the project team for their efforts throughout the OGC review.	
3.0	Procurement	
3.1	MC / GG presented the progress made in procuring the Infraco Preferred Bidder. The boards were advised that a selection had been made and that the respective bidders would be advised of this selection early in the w/c 22 nd October, subject to finalisation of a number of contractual issues and signing of the draft deals by 19 th October.	
3.2	BC questioned what the mechanism was to ensure the selected bidder would deliver on the promises made during the negotiations. MC / GG stated that the recommended bidder had been more specific in all issues throughout the negotiations and the boards were told that delaying the selection allowed more issues to be closed out and thus reduce the risk of movement during the Preferred Bidder period. WG advised the boards on the positive visit to a client of the recommended bidder by MC and SB to gain further assurance. Additionally, SB highlighted the bidder's good general reputation.	
3.3	KH questioned what percentage of SDS design had informed the bidders' pricing. GG stated that the pricing was primarily based on preliminary design and included approximately 30% of provisional sums, mainly for structures and highways. These were the key price-critical items as the bidders were able to price other items without detailed design. However, certain price-critical design items had been provided to the bidders as part of the negotiation process.	
3.4	The boards recognised the importance of the trackform proposal from the selected bidder. It was noted that tie had chosen the more proven, conservative proposal to minimise the risk of future track issues, despite this being more expensive. The boards welcomed the mix of technical conservatism and commercial innovation evident in the negotiated bids and the Preferred Bidder recommendation.	
3.5	JP questioned how tie could evidence compliance with all relevant steps as per the approved evaluation methodology. The board were advised that the following reviews had been undertaken: <ul style="list-style-type: none"> - Approval of evaluation methodology by TPB in Jan 07; - Independent review of the initial bids in Jan 07 on behalf of TS to confirm compliance with ItN; - Internal review of evaluation process by JMcE in Sept / Oct 07; and - Review of evaluation process by OGC team as part of their review. This included a discussion with the bidders who confirmed that they had no concerns about the negotiation and / or evaluation processes. 	

3.6	The boards agreed that there was little point at this time for further independent reviews. JMcE is to circulate his report to the boards.	JMcE
3.7	JP questioned what the scale of design issues that were subject to due diligence and whether this could influence the recommendation. GG stated this was very unlikely as the recommended bidder had been very specific on what the items for due diligence were.	
3.8	The boards expressed thanks to MC / GG and their teams for their efforts to achieve the positive bid results.	
4.0	FBCv1	
4.1	MT presented the key conclusions of the FBCv1 in terms of capital costs, programme, risk and affordability. The boards discussed the merits of using a single £pound figure for capital costs as opposed to a range. A key point considered was the credibility issue with the bidders and the public which would arise if a range was to be used. Additionally, comfort was gained from the facts that the: <ul style="list-style-type: none"> a) Bids were very competitive; and b) Draft deals would be signed by both bidders, thus reducing the potential for scope creep. The boards therefore agreed to endorse the recommendations and conclusions of the FBCv1.	
4.2	WG / DJM expressed the boards' thanks to MT / JMcE for their efforts in preparing the FBC.	
5.0	Governance	
5.1	The boards noted the update on governance presented by JMcE. It was agreed to postpone the discussion on governance to a future date.	
5.2	AF raised the point that the delay in finalising the grant funding agreement was giving concern to the recommended bidder. This would be pursued with TS by tie and CEC as a matter of urgency	AH / GB
6.0	Key events and communications programme	
6.1	CMcL presented the programme for the next few weeks which was accepted by the boards.	
7.0	Programme	
7.1	SC presented the programme and progress slides – noted by the boards.	
8.0	Endorsements	
8.1	The TPB confirmed its endorsement of the: <ul style="list-style-type: none"> - Recommendation of the preferred Infraco bidder; and - Content and conclusions of the FBCv1. The TPB noted that the terms of the funding agreement were outstanding from TS but further clarity would be gained prior to the publication of the FBCv1. The tie Board confirmed its endorsement of the: <ul style="list-style-type: none"> - Recommendation of the preferred Infraco bidder; and - Content and conclusions of the FBCv1. The tie Board noted that a final update of the FBC will be required prior to Contract Award. The tie Board confirmed it is prepared to enter into the recommended contracts for Infraco and Tramco subject to finalisation of the FBC and funding agreements.	

Executive summary

1.1. Previous period update

1.2.1 Commercial and procurement

Infraco / Tramco

- The negotiations and evaluation of the Infraco bids is now complete.
- The recommendation for Preferred Tramco and Infraco Preferred Bidders was endorsed by the TPB on 15th October.
- It should be noted that in order to maintain the overall completion of the Phase 1a at 1st quarter 2011, advance mobilisation of Infraco and Tramco in November 2007 will be required. Advance works at the depot also supports this goal. Detailed proposals for the early mobilisation work and commitments required are currently being sought from the Infraco bidders.

MUDFA

- All the potential issues related to the delayed commencement of the AMIS MUDFA utility diversion works have been discussed in detail with AMIS resulting in an agreed way forward and agreement in principle between the parties.
- The final account for the Gogar depot Phase I mass excavations was agreed with AMIS in line with budget and approved changes.

1.2.2 Approvals / governance / funding

Governance

- A paper on the governance structure for the construction period was presented and discussed at the TPB of the 26th Sept. A slightly revised version was agreed at the TPB of the 15th Oct. and incorporated in the FBCv1.

Funding letter

- The position on the grant from the Scottish Government (up to £500m) for the project was confirmed in a letter from the Chief Executive of Transport Scotland. The detailed reciprocal protections against default (and some other important detailed areas) remain unconfirmed until a full response is received to the award letter mark-up issued to TS on 4th September. It is vital that progress on this area is accelerated.

Pre-close additional funding

- Indications are that there is sufficient funding in place to cover requirements until the projected Financial Close date of January 2008.

FBC

- The content and conclusions of the FBCv1 was endorsed by the TPB on 15th October.
- The FBCv1 was issued to CEC on 18th October.

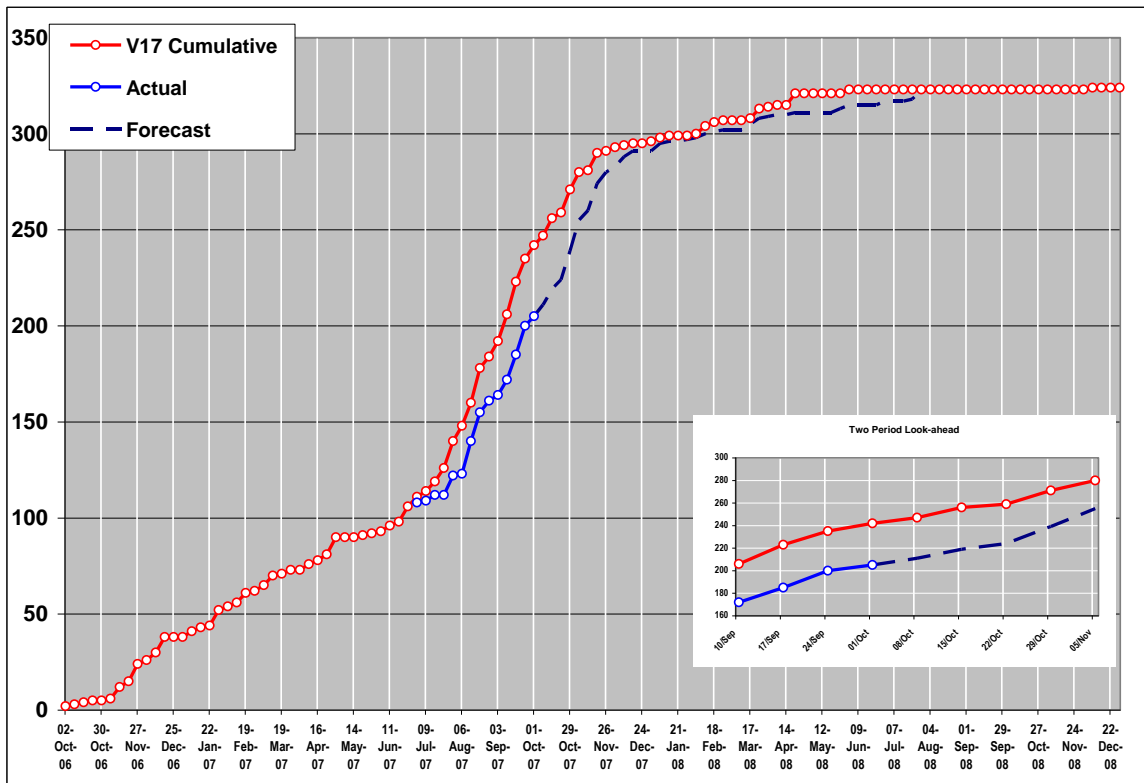
OGC

- The OGC review team visited Edinburgh between 1st & 4th October to conduct the review – OGC3 gateway: Implementation. The project was given a **GREEN** status. This means that the project is on target to succeed provided the recommendations are acted upon. A total of eight recommendations were made and an action plan for close out has been developed.

1.2.3 Design and engineering

Design

- The design deliverables summary is shown below. As for last period this is still referred to V17 as this was the first period after removal of all critical issues. The solid black line is the record of delivery after this point and the black dotted line is the V20 forecast.



Slippage of the number of deliverables at V20 with respect to forecast at V19 is minimal.

Issues

- These issues below are receiving constant attention, in terms of design, planning, traffic modelling or stakeholder or neighbour agreements. Each has the potential to become a critical issue impeding progress, and all are being managed effectively through a weekly review to ensure that progress is maintained. The ownership of these items is with SDS to deliver the relevant designs but **tie** and CEC input is necessary to remove blockages, particularly in respect of negotiation with Forth Ports and SRU.

Section 1a

Lindsay Road
Ocean terminal
Section 1a bridges

Section 1b

Leith Walk footway reinstatement specifications

Section 1c

Picardy Place
St Andrew Square
Casino Square

Section 5a

SRU

Section 6

Depot

System Wide

Drainage

- Details on the status of each issue are shown in the SDS update paper for Period 7.
- In order to maintain progress, issues will be escalated with the relevant stakeholder when they are raised as critical by any stakeholder.

Design review process

- Formal design reviews are continuing and the process has been further refined to maximise stakeholder buy-in. The review sessions are held weekly. These provide a forum which allows all stakeholders to see what has been produced by SDS and understand why it has been produced in a certain way. This is done through discussion with SDS and permits **tie** to give direction on how to deal with any issues arising from differences between stakeholder expectation and SDS submission. The deliverables programme from SDS is proving to be close to expectation.

Value engineering

- Finalisation of VE is progressing and savings being realised. Effort has been concentrated this period on trackform and structures where significant savings

can be realised. Support is required from CEC in order to deliver savings in respect of structures. Both Infraco bidders have also identified that this as an area for substantial cost savings.

- The current status, in financial terms, is as follows:
 - Opportunities – “banked” £ 11.8m
 - Opportunities – “further work” – Infraco £ 15.4m
 - Opportunities – “further work” – Non-Infraco £ 7.5m
 - Overall opportunities identified £ 34.7m

1.2.4 MUDFA

Progress

The results below relate to the current Rev 05 programme and included planned work in line with forecasts.

Period 07 2007/08 from 15-Sep-07 to 12-Oct-07			Overall Performance to date		
PLANNED	ACT	Variance	PLANNED	ACT	Variance

TOTAL	Metres	984	1789	805	2713	3084	371
	Chambers	5	8	3	10	14	4

*Approximately 500m of cable and wireless cable successfully slew at Gogar ahead of programme.

- Revision 06 of the MUDFA programme is currently being finalised by **tie** / AMIS and will be concluded by 26th October 2007. This will reflect the impact of works at St. Andrew Square, the outstanding conclusion on the Ocean Terminal to Newhaven section, the finalisation of the Gogar diversion and the current best assumptions about Picardy Place solutions.

There are a number of key issues requiring resolution which will affect the Rev 06 programme including:

- BT design and cabling programme – working with BT to explore ways of reducing the impact, including BT working 24/7; and
- Key stakeholder issues related to St Andrews Sq streetscape works and Picardy Place final alignment.

Summary of work section progress

Section 1A

Casino Square works – Road crossings at roundabout and the associated works were completed on the 12th October 2007, as planned, for the commencement of Forth Ports Winter embargo from the 13th October 2007 until the end of January 2008.

Following the expiry of the embargo period, three Scottish Water connections will be completed to finalise the works section.

Section 1B

The utility diversion works and associated road closure to McDonald Road were completed on Monday 8th October 2007 as planned. To facilitate the achievement of the Rev 06 programme, the centre reservation along Leith Walk is being removed and temporary road reinstatement installed to provide a greater working area for the utility diversions and greater flexibility with traffic management along Leith Walk. Removal of the centre reservation is required for Infracore works. All the proposals have been discussed and agreed with the Traffic Management Panel prior to implementation. Local business and stakeholders have been informed.

Jane Street road closure commences on the 15th October 2007 for twelve weeks.

Section 1C

A series of trial hole investigations along Princes Street are planned in the next period to inform construction, potentially reducing any delays to programme. The works have Traffic Management Panel approval and AMIS have taken account of the pending city centre embargoes.

A proposal to undertake the utility road crossings in Princes Street at the junctions of Fredrick Street and Castle Street has been agreed by the Traffic Management Review Panel and will commence week beginning 29th October. These will be completed prior to the embargo at the start of December.

Section 1D

Proposals to undertake a series of trial holes to inform construction along Shandwick Place in the next period are being submitted to the Traffic Management Review Panels on the 15th and 22nd October 2007.

Section 5A

The MUDFA works available within this work section were completed on the 5th October 2007 this amounted to 70% of the utility diversions required in this area. The remaining 30% of utility diversions are being transferred to the Infracore contractors scope.

Section 7A & 7B

AMIS have submitted proposals for the utility diversions associated with the above two sections to be commenced as RATS. The submissions are currently under review and **tie** has arranged meetings with the affected SUC's and BAA for discussion and agreement.

Design

During October SDS prioritised the utility design deliverables to protect the programme of IFC deliverables and ensure IFC submissions are available to AMIS to keep the on-site production team working. Overall, a net improvement in the deliverables position has been achieved, however as a result of focus on items for the current / next period, there may be detrimental effects on future anticipated IFC deliverables.

Late response from SUCs and / or acceptance to utility design deliverables by the SUCs had a potentially delaying effect to the SDS IFC deliverables programme. However, during October the Client Utility Team and the SDS Utility Design Team have promoted a continuous working engagement with the SUCs. A progressive lobbying exercise of the SUCs is now in place to confirm acceptance to the utility design deliverables resulting in all IFC dates in the period being met.

1.2.5 Delivery

Advanced works

- There was little planned activity for the period.

Land and property

- Preparation continued for GVD 5. Good progress was made with BAA, RBS and Forth Ports during the period.
- Progress with the NR lease is slower and should be escalated.

IPR2

- Contract award was made in the period to RJ McLeod and mobilisation is underway. Work is due to commence on site towards the end of October.

Network Rail

- NR Property Agreements
 - The lease continues to stall over irritancy issue with NR retracting a proposal which had previously proven acceptable to CEC. This is currently being escalated to NR HQ and CEC and NR have been advised that CEC will seek their consent to commence the CPO process imminently in the absence of progress on this critical issue. A final decision from CEC on this matter is anticipated week commencing 29th Oct.
 - The Asset Protection Agreement is being redrafted to a new template and expected to include licence conditions. Good progress is being made but the surety proposal from NR is receiving final consideration and response from CEC.
 - The Framework agreement Operating Code and Neighbour Agreement are progressing as expected.
 - The depot change agreement (requiring agreement of First Scotrail) needs to be fast-tracked over the next two month and NR will likely require support from tie with both SDS and Infracore Preferred Bidder input if possible.
- NR immunisation
 - The type of Contract Agreement and programme sequence has been agreed with NR and is subject to formal weekly review and monitoring by tie's Project Manager. The scope of work is being minimised and is subject to a senior technical review meeting with NR HQ on 24th October 2007.
 - There are concerns that the programme may be critical as disruptive possessions are required to complete process. This will not be crystallised until the scope element noted above is concluded. The budget can then be confirmed.
 - Current strategy envisages the default position of NR undertaking the necessary detailed design and installation work via their framework

contractors. There is an option under consideration to utilise Infraco to undertake this work. This requires further development with NR during November 2007.

- NR relocation of lineside equipment
 - The type of Contract Agreement, scope of work (subject to final survey verification by NR) and the programme steps have been agreed with NR and is subject to formal weekly review and monitoring by **tie**'s Project Manager.
 - An unacceptable proposal for programme duration and the inclusion of a specific piece of outsourcing in relation of this work was received on the 11th October. The proposal suggested August 2008 completion and this has been escalated to the NR Director, Scotland. Finalisation of costs and agreement on an acceptable programme will be completed during November 2007. **tie** continues to hold the end of March 2008 as the completion milestone for this work to ensure there is no clash / delay with Infraco works.
 - This will remain a programme risk until an acceptable programme is agreed and implemented.

Traffic management

- A Preliminary TRO design has been completed for Ocean Terminal / Constitution St / Leith Walk and St Andrews Square. Design work is continuing on other sections of the route to Haymarket.
- A TRO covering the permanent enabling works on the west side of St Andrews Square has been drafted. The statutory consultees have been advised of the proposals and comments are expected from them by the end of October. Thereafter, a report will be submitted to the November CEC Full Council meeting seeking to authorise the progression of the Order to the Public Deposit stage.
- The traffic modelling has tested a number of alternative scenarios at key junctions and the work within the tram route is now to optimise the most efficient configurations and incorporate these into the final design. A key focus is junction simplification by, for example, banning some turning movements. Part of this work has suggested the need to re-open Frederick St at its junction with Princes St in order to achieve a better solution at the Mound / Hanover St junction.
- An initial assessment of wider area impacts has now been made and is being further investigated with a view to identifying specific junctions and routes for traffic impact optimisation.

Public Realm

- The principles included in last periods report to the TPB were approved in regard to costing the public realm works for the prioritised section of the route (Leith Walk) against the limited CEC funds that will be available for public realm improvements in the period to April 2010. Any public realm works will be brought forward to the TPB on an individual basis for approval.

1.2.6 Health, safety, environment and quality

There were no accidents in the period and the accident frequency rate remains at 0.00. There were six incidents reported in the period, all on utility diversion worksites. All utility services have been subject to immediate repairs and the incidents are currently subject to investigation. These incidents will be subject to an overall review between **tie** and AMIS to discuss the effectiveness of the actions agreed after each incident. One site inspection was carried out with two minor findings raised and closed.

1.2.7 Stakeholder and communications

The communications team has been extremely busy working on upcoming news regarding submission of the FBC to CEC and the recommendation of Preferred Bidder for Infraco.

1.2. Key issues for forthcoming period

- Award of mobilisation contracts for Infraco and Tramco;
- SDS programme for IFC drawing issue – this is a significant risk to maintaining continuity of work for MUDFA team;
- NR immunisation and equipment relocation agreements to be progressed as programmed;
- The terms of the funding agreement need to be agreed giving protection against default to both parties and reassurance to bidders;
- Resolution of Forth Ports design issues;
- SGN review at technical level ongoing and commercial issues to be resolved;
- BT cabling and jointing programme to align with MUDFA Rev 06 programme; and
- SGN commercial agreement – Expected to be finalised for Willie Gallagher / Mel Karam agreement in early November 2007.

1.3. Cost

	COWD Period	COWD (YTD)	COWD YTD + forecast to year end	AFC
Phase 1a	£ 6.5m	£43.7m	£157.2m	£498.1m
Phase 1b	£ 0.0m	£ 1.1m	£ 1.4m	£ 87.3m
Phase 1a+1b	£ 6.5m	£44.8m	£158.6m	£585.4m

- The COWD in the period relates primarily to the continued development of design, the finalising of advance works at the depot (Phase 2) and MUDFA street works.
- Costs for Phase 1b relate purely to finalising design works, as previously agreed by the Board.
- The forecast COWD for the year has decreased by £6.9m. This is primarily due to realigning with the Preferred Bidders profile. Further work is still to be undertaken to confirm this.
- The forecast COWD for the year includes a total of £18.7m in relation to land costs, reflecting the latest valuation by the District Valuer (no change from P6).

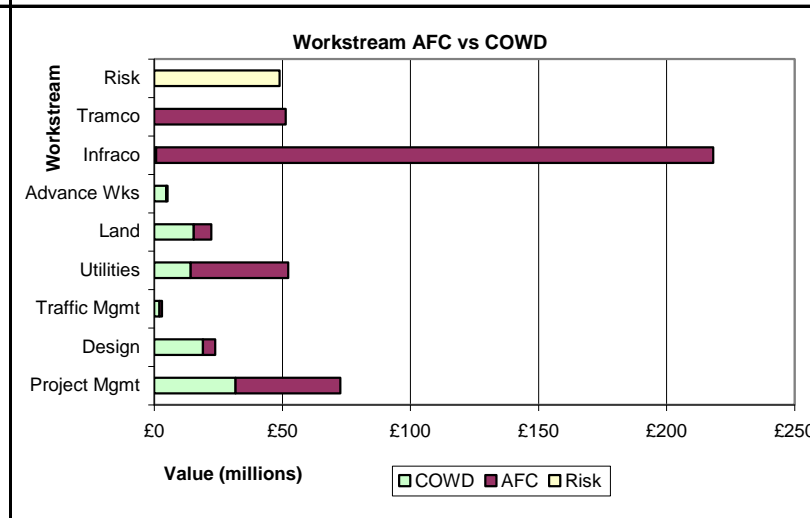
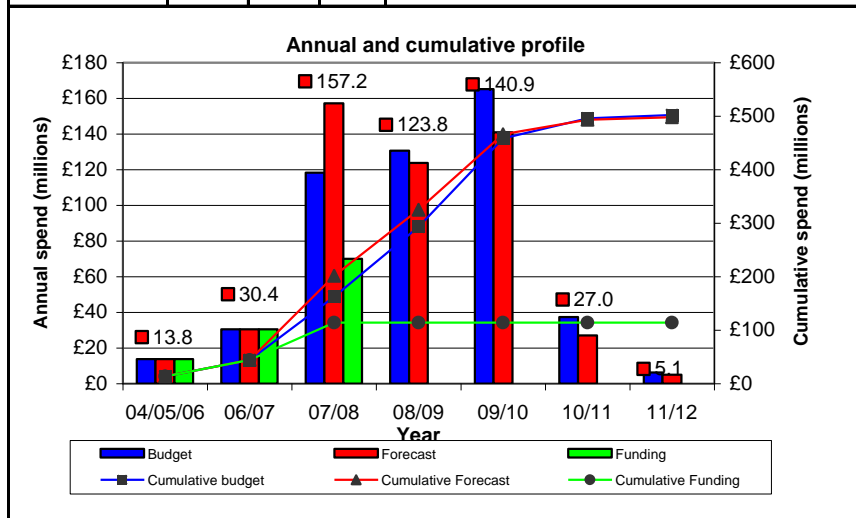
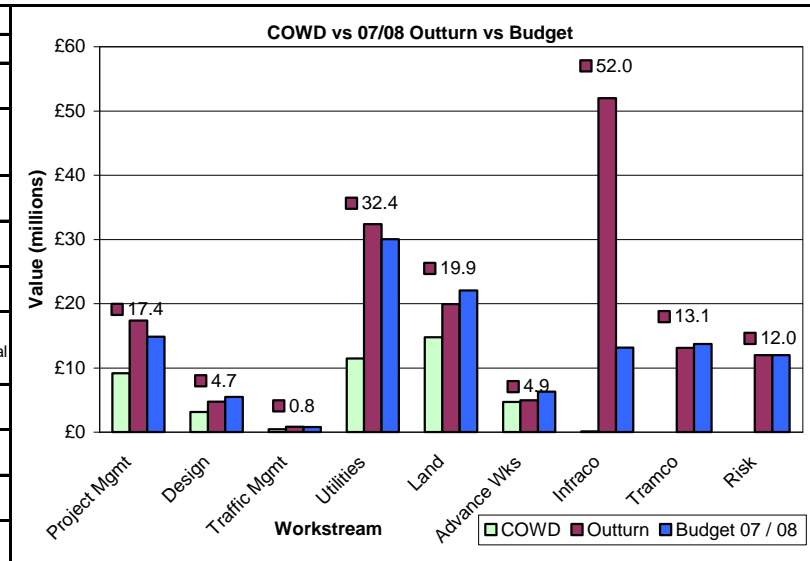
FOISA exempt
 Yes
 No

- The COWD forecast for the year also includes allowances for further advance works in November, as per the assumptions underlying the Procurement Programme.

FOISA exempt

Yes
 No

Period 7 - 07/08 COWD (£000s)				
Workstream	F/cast	Act	Var	Comments
Project Mgmt	1,235	1,209	(26)	
Design	122	(104)	(226)	Reflects stilled progress on SDS on reaching agreed design solution at: 1. Forth Ports - Lindsay Rd, Ocean Terminal, Ocean Drive Bridges and 2. CEC - Picardy Place.
Traffic Mgmt	87	44	(44)	
Utilities	3,205	3,130	(75)	Works to Leith Walk delayed start due to late completion of McDonald Road Junction
Land	1,779	1,778	(2)	
Advance Wks	440	492	52	Reflects F/A assessment for Phase 1 mass excavation at Depot. Increase relates to surveys, protection of SW Main & archeological constraints on productivity.
Infraco	10	10	0	
Tramco	38	0	(38)	
Risk	0	0	0	
Total	6,916	6,558	(358)	



1.4. Programme

The critical path is becoming settled as the programme develops. The key issues affecting the delivery of the programme are:

- BT Openplan programme impact on Infraco construction programme;
- Delivery of design programme;
- NR immunisation and relocation of lineside equipment;
- Award of Infraco / Tramco contracts delayed by late design assurance or risk introduced to programme by incomplete Design Assurance packages prior to Infraco award; and
- Scottish Power Network re-inforcement.

1.5. Risk

Following the OGC Gateway Review for the project, the OGC team were asked to conduct a more in-depth review of the risk management processes within the project and to comment on the suitability of the risk allocation sum allowed for in the project estimate.

The output of this review was positive and the report was presented to CEC and the project directors.

1.6. Approvals / decisions / support required

Decisions / support required from TS

- Finalise draft funding agreement for Project based on FBCv1 and subject to any changes to be reflected in FBCv2.

Decisions / support required from CEC

- Approval of FBCv1;
- Approval of recommended Preferred Bidders for Infraco and Tramco;
- Support to implement Infraco and Tramco mobilisation and advance works contracts to avoid extending programme with attendant additional costs;
- Support for changes to major structures to deliver value engineering savings;
- Review and agreement of Infraco and Tramco terms and conditions by CEC legal;
- Coordination of input from CEC to optimise constraints for on street working;
- Support to obtain funding from Forth Ports for revised Lindsay Road scheme and other changes on the Forth Ports estate;
- Support for Section 1A bridges to achieve design of an acceptable standard;
- Ongoing support of the approvals process;
- Agree terms of lease between CEC and **tie**;
- Finalise draft funding agreement for Project; and
- Finalise operating agreements between CEC & **tie** and CEC & TEL.

Appendix A Procurement milestone summary

Board date	Milestone	Due date	Delivered date	Comment
12 th July	Conclude initial review	03/07/07	05/07/07	Complete
	Return of Update Package 3	06/07/07	07/08/07	Complete
	Initial normalisation of price	15/06/07	29/06/07	Complete
	Draft evaluation	10/07/07	14/09/07	Complete
9 th Aug	Conclude negotiation of contract terms	17/07/07	Ongoing	Contract terms being finalised to allow draft deals to be signed by 22/10/07.
	Infraco final bid proposals	07/08/07	07/08/07	Complete
	Updated evaluation	09/08/07	12/09/07	Complete
5 th Sept	Conclude negotiations with bidders	27/08/07	14/09/07	Complete
	Presentation of evaluation to evaluation panel	02/10/07	12/10/07	Complete
	Presentation of evaluation to TPB Procurement sub committee	02/10/07	12/10/07	Complete
26 th Sept	TPB update on Procurement and FBC	26/09/07	26/09/07	Complete
	OGC 3 Gateway review – final report	05/10/07	05/10/07	Complete
15 th Oct	TPB Endorsement of preferred bidder recommendation and FBCv1	10/10/07	15/10/07	Complete
31 st Oct	Conclusion of final facilitated negotiations	25/10/07		
	Conclusion of negotiations for final deal	25/10/07		
	CEC Council meeting to endorse recommendation	25/10/07		
	Conditional Award – mobilisation	01/11/07		
28 th Nov	Conclusion of due diligence on critical design items	19/11/07		
	Conclusion of negotiations for Phase 1b option	27/11/07		

Note: This is subject to confirmation or adjustment following clarification on the approval processes by CEC and TS.

Appendix B Headline cost report

1.1. Current financial year

	COWD (YTD)	COWD YTD + forecast to year end	Funding TS authorised current year	Total authorised project funding	COWD YTD + forecast to period to Financial Close (end Period 11)
Phase 1a	£44.8m	£158.6m	£60.0m	£77.6m ²	£73.6m ³
Phase 1b	£ 0.0m	£ 0.0m ¹	£ 0.0m ¹	£ 0.0m ¹	£ 0.0m ¹
Phase 1a+1b	£44.8m	£158.6m	£60.0m	£77.6m ²	£73.6m

Note:

- 1) £2.5m design costs are to be expended against Phase 1a budget as agreed by the Tram Project Board; and
 - 2) This includes the £10.6m TS grant carried over from 06/07 for land purchases and the £6.5m from CEC for free issue land;
 - 3) The COWD YTD and forecast to the period to Financial Close includes a number of assumptions:
 - i. Savings of £1.4m to the MUDFA costs;
 - ii. Payment of part of the SDS claim settlement;
 - iii. Risk efficiencies assumed at 1/3;
 - iv. Property purchase delayed until after Financial Close;
 - v. Early mobilisation of Infraco (TBC); and
 - vi. Additional funding from CEC of £1.5m.
- The COWD YTD includes £14.4m in relation to land purchase and the predicted net increase in the period of £1.7m being a result of the 4th Tranche GVD commitment of land plots. The COWD figure includes CEC, s.75 and third party land acquired under the GVD process. In addition to ongoing project management costs further key items within the COWD YTD are:
 - Depot advanced works (£4.6m)
 - MUDFA works (£11.4m).
 - The full forecast cost for the year is aligned to the assumptions underpinning the procurement programme. The project has now reached Infraco preferred bidder stage with the commercial recommendation informing the full forecast, generating a decrease of £6.9m in the year.
 - The forecast remains sensitive to the finalisation of the payment mechanism in the Infraco contract and the extent of advanced works undertaken prior to the final award of Infraco.

1.2. Next financial year

	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total FYF
Phase 1a	£27.2m	£31.1m	£20.0m	£45.4m	£123.8m
Phase 1b	£ 1.1m	£ 0.2m	£ 0.9m	£ 2.3m	£ 4.3m
Phase1a+1b	£28.3m	£31.3m	£20.9m	£47.7m	£128.1m

* Variance in summation of table figures is due to rounding.

The forecasts for 08 / 09 remains sensitive to the revised programme and are predicated on achieving approvals to let the Infraco contracts to meet contract award date in January 08, with subsequent commencement of Infraco physical works in February 08.

The reaching of Infraco preferred bidder status has resulted in a review of the AFC and COWD profile, which has been reflected this period. This has resulted in an increase for 2008/09 of £0.9m. The actual Infraco and Tramco profiles for 08/09, other than for mobilisation and securing of commitments, as outlined above, are still under negotiation with the Preferred Bidders.

Forecasts for Phase 1b (if approval is received) in 08 / 09 relate to finalisation of the SDS design, costs for utility diversions and risk allowances. The phasing of amounts for utility diversions and the risk allowances, in particular, will be impacted by when the decision whether to go ahead with Phase 1b or not is taken by CEC.

1.3. Total project anticipated outturn versus total project funding

	FUNDING (total project)			Total COST (To Funders)
	TS	Other	Total	Promoter TOTAL AFC
Phase 1a	£500m	£ 45m ¹	£545m	£498.1m
Phase 1a	£500m	£ 45m ¹	£545m	£501.0m ³
Phase 1b	£ 0m	£ 0m	£ 0m ²	£ 87.3m ^{3,4}
Phase 1a + 1b	£500m	£ 45m ²	£545m	£585.4m ⁴
Phase 1a + 1b concurrent	£500m	£ 45m ¹	£545m	£580.4m

Commentary.

The recent ministerial announcement on funding confirmed the position.

Notes:

1. Includes £4.7m of CEC / s.75 free issue land.
2. £3.3m of CEC / s.75 free issue land related to Phase 1b is included in £45m funding from CEC.
3. Includes £3.0m of design costs for Phase 1b, to be expended against Phase 1a funding.
4. If Phase1b does not get go ahead in 3Q2008

The decrease in AFC for Phase 1a (£3.7m) reflects the Infraco preferred bidders status having been reached. This has been possible through successful negotiations on price and risk transfer.

Significant work remains through to Financial Close (Jan 2008) to ensure the current position is maintained. This will primarily include, the pricing of the provisional sections contained within the bids as detailed design is issued and the realisation of targeted savings from the value engineering process.

1.4. Change control

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

	Phase 1a £m	Phase 1b £m	Phase 1a + 1b £m
Project baseline (DFBC)	500.5	92.0	592.5
Authorised changes	1.2	-	1.2
Previous AFC	501.8	92.0	593.8
Current AFC	498.1	87.3	585.4
Anticipated changes	4.6	-	4.6
Potential AFC	502.7	87.3	590.0

The initial scope was that included in the DFBC project estimate of £500.5m. There have been some changes to this that have been approved (CEC resource and additional JRC modelling) bringing the project estimate to £501.8m.

After the negotiations with bidders and an internal budget review, significant savings have been made reducing the project estimate to £498.1m. The changes above and other potential changes previously identified (Citypoint II fitout costs and invasive species) have been eliminated and / or absorbed into this.

There are a number of areas where, through the design and consultation process, additional requirements from CEC and 3rd parties have emerged that have the potential to increase the costs of the tram project. These costs are neither included in, nor justified by the core budget above. The core budget as set at the DFBC stage, and its funding by CEC and Transport Scotland, was clearly defined and is based on the tram system that falls within the Limits of Deviation (LOD) identified in the Tram Acts and in accordance with the requirements function specification.

The impact of such potential changes is currently being assessed in value terms. The acceptance and inclusion of these items in the scheme will, all other things

being equal, result in an increase in the AFC, requiring either additional funding or increased savings through value engineering to maintain affordability.

1.5. Summary breakdown

Original Estimate (including escalation)

	Base Cost	Risk	Opportunity	OB	(or)Contingency	Total
Phase 1a	£449.1m	£51.4m	£0 ¹	£0 ²	£0 ³	£500.5m
Phase 1b	£80.5m	£11.5m	£0 ¹	£0 ²	£0 ³	£ 92.0m
Phase 1a + 1b	£529.6m	£62.9m	£0 ¹	£0 ²	£0 ³	£592.5m

Latest estimate / AFC (including escalation)

	Base Cost	Risk	Opportunity	OB	(or)Contingency	Total
Phase 1a	£449.1m	£49.0m	£0	£0 ²	£0 ³	£498.1m ⁴
Phase 1b	£ 77.7m	£ 9.6m	£0	£0 ²	£0 ³	£ 87.3m
Phase 1a + 1b	£526.8m	£58.6m	£0	£0 ²	£0 ³	£585.4m ⁴

Notes:

1. Opportunities identified at DFBC stage were taken into the DFBC estimate.
2. OB included in risk (QRA at P90 confidence level) as agreed with TS
3. Contingency included as part of risk at present
4. Includes authorised changes

Appendix C Risk and opportunity

1.1. Summary

CEC

A further meeting was held with key representatives regarding risks to the project, particularly those which will be public sector and shared risks on appointment of Infracore and the risk allocation sum which has been calculated following a Quantitative Risk Analysis.

Risk Matrices

There have been several sessions held with DLA and other key parties in order to collate comprehensive risk matrices for the contractual risk profile of each bidder.

SDS Risk Review

A risk review was held with key parties from SDS. Each risk on the SDS risk register was reviewed and the register updated. It was agreed that this review will take place every four weeks prior to the Project Directors Review meeting.

OGC Risk Review for CEC

Following an OGC Gateway Review for the project, the OGC team were asked to conduct a more in-depth review of the risk management processes within the project and to comment on the suitability of the risk allocation sum allowed for in the project estimate.

The output of this review was positive and the report was presented to CEC and the project directors.

1.2. Review project risk register

1.2.1 The principal changes in the risk position since the last period are:

Risks opened	9
Risks closed	6
Risks reassessed	8

1.2.2 Risks added

Of the nine risks opened in the period, the most significant ones are:

- Failure of **tie** to issue the certificate of Tram Commissioning (due to **tie** default or due to tests not having been passed) resulting in title in the Trams not transferring to CEC:
 - The risk here is that title does not pass after the project has paid for all or part of the tram vehicle because Infraco becomes insolvent and the tram supplier is prevented from fulfilling delivery obligations by liquidation / administration. This may not be an issue as may be resolved in the Tram Supply Agreement. Furthermore, **tie** project management will ensure that **tie**'s actions are discharged timeously so as not to disrupt tram testing and commissioning.
- Failure of **tie** to create the novation agreement – risk is pre-award in that Infraco refuses to accept the novation of SDS:
 - **tie** have developed the Facilitated Negotiations activity prior to contract award to deal with impediments to resolution. Under the Preferred Bidder Agreement award is conditional on Infraco accepting both SDS and Tramco novation.

1.2.3 Risks closed

Of the risks closed in the period the most significant ones are:

- OLE pole location requirements result in special foundation requirements:
 - This risk has been closed as SDS have confirmed that no special foundation requirements will be required.
- Resource to operate Tram is insufficient with DPOFA obligations not achieved in time or to sufficient quality:
 - This risk has been closed as Transdev have a recruitment strategy to mitigate the risk.

1.2.4 Risks reassessed

Of the risks reassessed in the period the most significant was:

- Tramway runs through area of possible contamination and special foundation is required to cope with unstable ground:
 - This risk was amended to reduce the capex impact as SDS have produced a report which outlines a design solution to the risk, the cost of which will be approximately £100k.

Appendix D Primary risk register

ARM Risk ID	Risk Description			Risk Owner*	Significance	Black Flag	Treatment Strategy	Treatment Status		Date Due	Action Owner
	Cause	Event	Effect					Previous	Current		
139	Utilities diversion outline specification only from plans	Uncertainty of Utilities location and consequently required diversion work/ unforeseen utility services within LoD	Increase in MUDFA costs or delays as a result of carrying out more diversions than estimated	G Barclay	25	None	In conjunction with MUDFA, undertake trial excavations to confirm locations of Utilities and inform designer	On Programme	On Programme	31-Oct-07	A Hill
164	Utilities assets uncovered during construction that were not previously accounted for; unidentified abandoned utilities assets; asbestos found in excavation for utilities diversion; unknown cellars and basements intrude into works area; other physical obstructions; other contaminated land	Unknown or abandoned assets or unforeseen/contaminated ground conditions affect scope of MUDFA work.	Re-design and delay as investigation takes place and solution implemented; Increase in Capex cost as a result of additional works.	I Clark	25	None	Identify increase in services diversions. MUDFA to resource/re-programme to meet required timescales.	On Programme	On Programme	31-Oct-07	J McAloon
							Carry out GPR Adien survey	Complete	Complete	31-Oct-07	J Casserly
870	SDS Designs are late and do not provide detail Infracore requires	Infracore does not have detail to achieve contract close	Delay to due diligence and start on site and need to appoint additional design consultants	T Glazebrook	25	Project	Review AIPs for Structural Information	Complete	Complete	02-Feb-07	S Clark
							Obtain Design Progress Dashboard from SDS	Complete	Complete	15-May-07	T Glazebrook
							Monitor design progress and quality	On Programme	On Programme	10-Jan-08	T Glazebrook

Yes
 No

ARM Risk ID	Risk Description			Risk Owner*	Significance	Black Flag	Treatment Strategy	Treatment Status		Date Due	Action Owner
	Cause	Event	Effect					Previous	Current		
915	Policy or operational decision	Transport Scotland and CEC do not provide indemnities on payment	Bidders will not commit to contract without this assurance; Delay in bid process; Possible bidder withdrawal from negotiations and bid process.	G Gilbert		Project	Ensure Transport Scotland understand implication of not providing indemnities and obtain buy-in from them	On Programme	On Programme	31-Oct-07	G Gilbert
916	CEC do not achieve capability to deliver	CEC do not honour funding obligations	Potential showstopper to project if contribution not reached; Line 1B may depend on incremental funding from CEC	S McGarrity		Project	CEC to deliver necessary contributions for 1a	On Programme	On Programme	30-Jan-11	CEC
							CEC has formed a multi discipline Tram Contributions Group to monitor identified sources of £45m contribution including critically developers contributions. tie are invited to that group. (see add info)	On Programme	On Programme	28-Sep-07	CEC
							Tram Project Board to monitor progress towards gaining contributions	On Programme	On Programme	28-Sep-07	D MacKay
995	Failure to reach agreement on funding	Short term funding beyond the existing arrangements of £60m plus 2006-07 rollover of £10.6m cannot be agreed.	Future of project placed in jeopardy	G Bissett		Project	Identify extent and timing of potential shortfall including allowance for cost overrun and short term programme slippage and seek agreement with CEC/TS of funding for the shortfall in the context of the New	On Programme	On Programme	01-Apr-08	G Bissett

FOISA exempt

Yes
 No

ARM Risk ID	Risk Description			Risk Owner*	Significance	Black Flag	Treatment Strategy	Treatment Status		Date Due	Action Owner
	Cause	Event	Effect					Previous	Current		
							Award Letter anticipated from TS.				
							If short term funding is resisted, assess scope to reduce short term expenditure and the implications for programme and cost. Tram Project Board to determine appropriate action	On Programme	On Programme	01-Apr-08	G Bissett
996	CEC and TS cannot agree on any of the following: Scope of project, quantum of funding, rate of release of funding, contribution percentages, governance arrangements	Funding agreement between CEC and TS not concluded and financial close cannot be achieved	Project unable to proceed	G Bissett		Project	Seek to negotiate mutually acceptable terms between CEC and TS in the context of the New Award Letter	On Programme	On Programme	31-Dec-07	G Bissett
997	Timescale for funding package is unachievable	Components of the funding package cannot be delivered in the necessary timescale	Significant delay which threatens project continuation	G Bissett		Project	Seek agreement that scope of project follows Phase 1a commitment	On Programme	On Programme	31-Jan-08	G Bissett

FOISA exempt

Yes
 No

ARM Risk ID	Risk Description			Risk Owner*	Significance	Black Flag	Treatment Strategy	Treatment Status		Date Due	Action Owner
	Cause	Event	Effect					Previous	Current		
998	One or some aspects create a tax exposure	Funding arrangements cannot be concluded because a material tax exposure emerges which cannot be resolved	Failure to achieve financial close	G Bissett		Project	Seek advice from PWC timeously to avoid creating funding arrangements, corporate structure or other aspects which create such a tax exposure.	On Programme	On Programme	31-Mar-08	G Bissett
999	Concessionary fare support from TS is insufficient	Extent of concessionary fare support commitment from TS provides inadequate comfort to CEC	CEC withdraw support for FBC and project fails	G Bissett		Project	Negotiate the terms of Government commitment to concessionary fare support to level which is satisfactory to CEC	On Programme	On Programme	31-Jan-08	G Bissett

OGC – Action plan

No.	Recommendation	Status	Action	Who	When	Status
1.	That the preferred bidder is appointed as soon as possible.	ASAP	Preferred bidder to be advised by 15/10	Matthew Crosse	15/10	Complete
2.	That the programme during the preferred bidder period is monitored closely at a senior level.	Urgent	All actions to be completed to be 1) categorised as to importance 2) programmed 3) monitored by the tie Exec Team on a weekly basis	Susan Clark	31/10	
3.	That the tie team should actively consider: i) the levels of certainty required to meet the CEC approval process and how this will be achieved; and ii) the implications of contract signature not being achieved by the target date of 28 January; and iii) The necessary consequences of any areas which cannot be finalised by contract signature and novation and how (and when) full certainty will be established.	Urgent	i) Risk process ongoing within CEC / tie and also external review on going to give CEC comfort Review of critical items to be complete prior to financial close to be undertaken ii) implications to be documented and risk review carried out iii) All issues to be categorised and programmed. Implications of any issues which will be closed out following financial close to be fully transparent	Matthew Crosse Matthew Crosse Matthew Crosse Matthew Crosse	17/10 2/11 2/11 2/11	Risk review report completed Programme under production

No.	Recommendation	Status	Action	Who	When	Status
4.	That the formalisation of Scottish Government support in the Grant Letter from Transport Scotland is agreed as soon as possible to underpin the funding for the project and eliminate existing uncertainties that have been expressed by bidders.	As soon as possible	CEC to chase up the funding letter from CEC	Donald McGougan	08/10	Draft letter received
5.	That the process of managing funding and contingencies should be agreed between tie and CEC and regularly reported.	Ongoing	Agreement on funding drawdown and contingencies to be agreed with TS / CEC / tie by	Graeme Bissett	End November	
6.	That there is continuing high level focus on the management and mitigation of key risks and that the very good work that is done by the risk manager is effectively used and acted upon by senior management.	Ongoing	1) Risk to be an agenda item for TPB each period 2) Minutes to accurately record the discussions and actions on risk	Susan Clark	Starting December	
7.	That all risks that are related to the tram project that are borne or shared by tie , TEL and CEC are incorporated into the reports that are given to the Tram Project Board.	Ongoing	All CEC risks identified as part of the project to be incorporated into the Tram risk Register	Duncan Fraser / Mark Hamill	End November	
8.	That the Benefit Cost Ratio for the project is tested for a sensitivity whereby concessionary fares are not available for bus passengers and tram passengers on the same basis.	Urgent	Concessionary fares to be identified as a risk in the project risk register Impact of concessionary fares on BCR to be documented – see paper from NR to D McG	Mark Hamill Alastair Richards	12/10 31/10	Complete

No.	Recommendation	Status	Action	Who	When	Status
	Other comments made in the main report					
1.	Proposed sub-committee structure of the TPB should be revisited with any retained sub-committee reporting to the project director		Governance to be discussed at TPB on 10/10 and final structure agreed before Financial Close	Graeme Bissett	21/12	
2.	Recognition that the TEL management team will require to be strengthened over the construction period. This to form part of next year's planning process		Recommendations to be made in TEL business plan for 2008	David MacKay / Neil Renislon	March 2008	
3.	Continuity of resource within the structure is important to ensure "corporate memory" is retained. It should also be made clear that the programme director is effectively the deputy project director		tie revised organisation to be developed in full by end November	Colin McLauchlan	November 2007	
4.	After the competitive phase of the project, it will be important for a partnering ethos to be actively developed so that the preferred bidder and implementation phases are constructive and not unnecessarily adversarial		Facilitated workshops to be held between the preferred bidder and tie teams to build this ethos prior to financial close	Colin McLauchlan	November 2007	
5.	Process for achieving the necessary planning approvals needs to be kept under review to ensure the correct balance between value engineering and timely achievement of the planning approvals		Ongoing scrutiny of programme to ensure this is kept under review at the tie weekly management meetings	Jim McEwan	From October	

No.	Recommendation	Status	Action	Who	When	Status
	Feedback on issues from Interviewees					
1.	Synchronism between documented evaluation matrices and current state of affairs. Diligence in updating records, ensuring the procurement decision is unchallengeable		Due diligence exercise being conducted by Jim McEwan. Actions from this review to be finalised	Jim McEwan Geoff Gilbert	12/10 2/11	Complete
2.	Continuity of resources through and beyond closure		tie revised organisation to be developed in full by end November	Colin McLauchlan	November 2007	
3.	Due diligence on the JV arrangements proposed by the bidders. This was flagged in the outstanding issues list and may have been dealt with by others.		Undertake due diligence on preferred bidder arrangements	Andrew Fitchie	Mid November	
4.	Have the bidders commented on the draft parent company guarantee in the Infraco schedules?		Andrew Fitchie to check	Andrew Fitchie	2/11	
5.	Management Framework and Structure associated with acceptance testing and commissioning		Review to be held in June 2008	Steven Bell / Alastair Richards	June 2008	
6.	Design novation – will it work		Bidders have both accepted. Facilitated negotiation process and facilitated negotiations to resolve	Geoff Gilbert	Mid November	

Yes
 No

No.	Recommendation	Status	Action	Who	When	Status
	Risk Review Recommendations					
1.	There needs to be considerable focus on the design preparation and design approval mechanism to ensure that MUDFA works are commenced on time and do not need to be revisited.		Review at MUDFA sub-committee each period	Steven Bell	Ongoing	
2.	Two new risks are added to the register to deal with: <ul style="list-style-type: none"> integration aspects with the Council's UTC delays to the programme consequent to matters emerging during testing especially final full system testing. 		Risks to be added to the risk register	Mark Hamill	24 Oct	Complete
3.	A contract management strategy is developed at the earliest opportunity.		Contract Management Strategy to be written	Susan Clark	End November	
4.	The Project Board determines how they will oversee change management going forward		Paper to be presented to the TPB	Susan Clark	December	
5.	The forthcoming tie organisational changes place programme management at the centre of the project and that sufficient resources are allocated to this function.		Organisation to be rolled out from end October	Willie Gallagher	End November	
6.	tie and CEC need to agree a package of work to deliver design work to support novation and minimises risk.		Transparent programme to be put in place and updated weekly.	Susan Clark	2/11	

Yes
 No

No.	Recommendation	Status	Action	Who	When	Status
7.	The commercial strategy to finalise matters by PB considers whether some aspects would be better finalised commercially to protect the programme.		Programme of issues to be resolved prior to financial close and post financial close to be established along with risk trade off	Matthew Crosse	Mid November	
8.	Further ground condition surveys should be commissioned so as to mitigate some of the contingency that PB will be applying for uncertainty.		tie to consider, in discussion with PB if additional GI required as part of mobilisation agreement	Matthew Crosse	Mid November	
9.	After Financial Close (FC) additional contingency funding should be provided against schedule risk.		TPB to consider	David MacKay / Neil Renilson	Jan 08	
10.	Appropriate schedule monitoring and risk simulation software is procured and taken into use in the project team and that schedule monitoring and simulation be introduced as tools in the risk management and mitigation process.		tie to evaluate software and make purchase	Susan Clark	End Nov	Evaluation underway
11.	The figure of £498m is used as the budget ceiling for all discussions through to FC and that the infrastructure amount of £222m remains the focus for all parties through to FC.		£498 to be used in FBCv1	Miriam Thorne		Complete

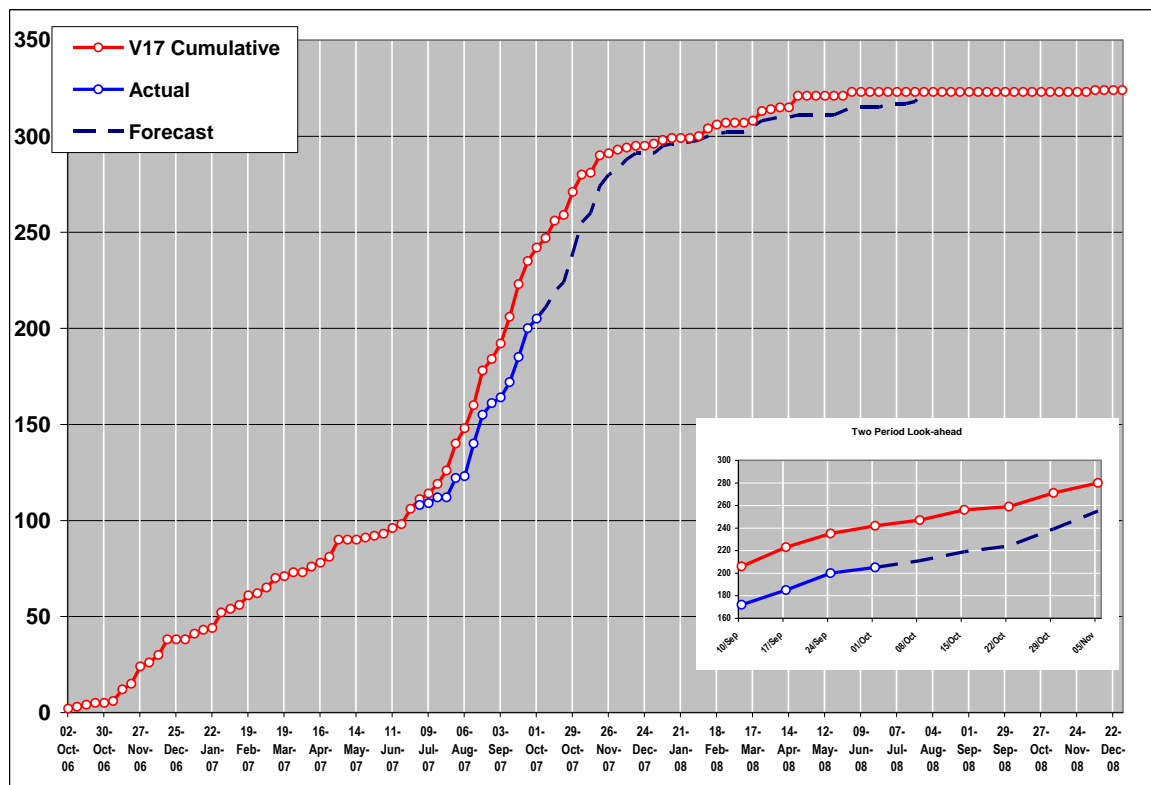
Paper to: DPD **Meeting Date:** 25 Oct 2007
Subject: SDS Update – P7
Agenda Item:
Preparer: D Crawley / T Glazebrook

FOR INFORMATION ONLY

1.0 Summary

The design deliverables summary is shown below. As for last period, this is still referred to V17 as this was the first period after removal of all critical issues. The solid blue line is the record of delivery after this point and the dotted line is the V20 forecast.

This is shown below at V20 (actual and forecast)



Slippage of actuals at V20 with respect to forecast at V19 is minimal.

2.0 Issues

These issues below are receiving constant attention, in terms of design, planning, traffic modelling or stakeholder or neighbour agreements. Each has the potential to become a critical issue impeding progress, and all are being managed effectively through a weekly review to ensure that progress is maintained. The ownership of these items is with SDS to deliver the relevant designs but **tie** and

CEC input is necessary to remove blockages, particularly in respect of negotiation with Forth Ports and SRU.

Section 1a

Lindsay Road – Ensuring that there is a new design which can effect connection of the junction following redesign caused by the need to accommodate ADM Milling near Ocean Terminal. Heads of terms are required to be finalised between **tie** and Forth Ports

Ocean Terminal – Close out of the final details of the redesign caused by Forth Port's request for a change in the tram alignment. Heads of terms are required to be finalised between **tie** and Forth Ports

Section 1a bridges – Accommodation of footway provision to ensure that the structures are adoptable by CEC following transfer from Forth Ports.

Section 1b

Leith Walk footway reinstatement specifications – definition of scope of reinstatement required.

Section 1c

Picardy Place – Remodelling to accommodate development. A 'T' junction design has been identified by CEC as preferred over the extant design. SDS are to define what the programme impacts will be before a decision is taken.

St Andrew's Square – MUDFA delay with a new programme being devised.

Casino Square – An agreement between **tie** and the casino is required and SDS drawings are required to support this.

Section 5a

SRU – Agreement to allow training pitch movements has been gained informally with formal agreement understood to be close. However, the SRU have advised that, notwithstanding this, they need to begin consultation with their tenant (Wanderers) at some time in the future. With the design as currently packaged **tie** Prior Approval will not be possible despite SRU agreeing to the public consultation process beginning. As a result, the Prior Approvals process will be split to isolate that part associated with the SRU tenant accommodation and progress made on the major portion. This still requires SRU agreement to the split.

Section 6

Depot – Design of the water main depends upon receipt of survey information by SSD from MUDFA.

System Wide

Drainage – Acquisition of survey data from MUDFA / AMIS remains a risk.

Issues will be escalated from time to time as required in order to maintain progress.

Paper to: TPB **Meeting Date:**

Subject: System Performance

Agenda Item:

Preparer: Alastair Richards

1.0 Introduction and key issues






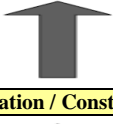



- 1.1 The key operational parameters defining the system performance of the Edinburgh Tram Network are system availability, operational runtime and service frequency. This paper sets out the high level plan for establishing and developing the targets and explains how the associated allocation of risks, incentives and penalties for their delivery have been incorporated into the framework of contracts.
- 1.2 The elements that give rise to System performance are developed through the key stages of the project lifecycle, design, construction, validation through system acceptance testing, the initial period of reliability growth post-opening and then the ongoing process of performance monitoring and improvement.
- 1.3 SDS have been contracted to produce a reliable and robust design that achieves a target runtime, which formed the basis of the procurement of supply and commissioning of the infrastructure and trams. The Infraco and Tramco contract delivers against this design and will be validated by a series of acceptance tests; including factory acceptance tests, site acceptance tests, integration tests and system performance tests. These are followed, post opening to the public, by a reliability demonstration period. The contracts with the Operator, the Infraco and Tramco are fixed price with a performance improvement related component based on achievement of key reliability, availability and quality performance indicators.
- 1.4 With such a large proportion of the Edinburgh Tram route running on street through the heart of Edinburgh, the tram service reliability performance will, to a large extent, be dependent on the level of priority that can be provided through critical city centre junctions. A delicate traffic balance must be achieved with the priorities at these key junctions however, in order to allow buses on the non-tram corridors to also flow. Optimised junctions solely for tram could compromise the effectiveness and economic success of the public transport network overall. Although traffic modelling is being used to optimise the junction design and signal phasing, it will only be with the benefit of actual experience that they can be fixed with a degree of certainty. The decision criteria will be to provide tram and bus runtimes which will be able to achieve the best balance for public transport delivery as a whole. As a consequence the responsibility for achieving tram runtime must inevitably be shared between the contractors, TEL and CEC in order to achieve a successful outcome.
- 1.5 The purpose of this report is to make the DPD and the Board aware of the approach and allocation of responsibility for system availability, operational runtime and the primary processes to develop these before commencement of passenger services and thereafter.

2.0 System performance

- 2.1 To achieve the key project objectives of modal shift from private car and enhancement of the current public transport system, the ETN must perform reliably and consistently. This requires that reliability, availability and maintainability analysis underpins each stage of the project lifecycle.

Design & construction requirements

- 2.2 SDS have been designing to a series of top down availability targets which they derived from operational data from existing UK tram networks. A version of these availability targets have been used in the Tramco and Infraco procurements to date, and form an important part of the design requirements which must be verified at each stage of manufacture, installation and commissioning. Validation will be achieved by the specified system acceptance tests contained in the employers requirements.
- 2.3 The sequence to be followed is shown in figure 1. Following depot commissioning and energisation of power, testing will then be undertaken on the line between the depot and the airport, to provide a test track for acceptance testing of each tram. This will also allow the start of driver training. Following this the remainder of the line will be commissioned and tested, allowing the on-street driver training and route familiarisation to commence.

Edinburgh Tram – Extract from System Life Cycle Model			
Stage	Flow Chart	Tests	Description
8		Network Performance and Reliability Test (T4)	The date upon which the Edinburgh tram Network will open to public service
	Service Commencement date		
7		Pre-operations test (T3)	The period of tram operations that simulates full public service operation including running to published timetable and calling / dwelling at Tramstops before the ETN enters public service
	Shadow Running		
6		Performance Test 1 (T2)	The period post System commissioning used to complete driver and control room staff training and gain confidence to enter Shadow Running Phase
	Test running and driver familiarisation	Post-commissioning Test (T1)	
5			All sub-systems, including the tram are integrated to form the Total system and are tested to demonstrate that they work together successfully and meet the overall system requirements
	Commissioning		
4			The point at which systems have been installed and then tested to prove they meet their requirements
	Set to work tests		
3			Once the System has passed Factory Acceptance Tests installation / construction at site will take place
	Installation / Construction		
2			Through demonstrable testing of the total System at Infraco's premises
	Factory Acceptance tests		
1			Manufacture and assembly of the System by Infraco
	Build/Manufacture		
DD			The scope of works contained with the SDS Contract through to production of Pre-Approval for Construction documentation and thence taken forward by Infraco to Actual Approved for Construction Drawings
	Detailed Design		

2.4 The system performance tests confirm that it is possible to achieve consistent performance for passengers, measured in the same manner as passengers perceive system performance, using the average maximum waiting time for the

next tram (headway) and the end to end runtime. Targets for punctuality, availability and runtime form the success criteria which must be met in the pre-operations system acceptance test, as a conditional step prior to which revenue service may not commence. Failure to achieve a successful test on-time by the contractors will result in liquidated damages to off-set the costs of late opening for the client and milestone payment schedule will also exert cash flow pressure for the contractor.

Test	Test Name	Test Description	Programme
T1	Post Commissioning Test	The test shall demonstrate and prove that the ETN is able to perform in an acceptably safe manner and deliver the required run times. This is the gateway test to driver training.	Post Commissioning Test will immediately follow the successful commissioning of the nominated section and is a requirement for progressing into the Driver Training.
T2	Performance Test 1	The test shall demonstrate and prove that the ETN is able to perform satisfactorily to move into the three-month Shadow Running period. This is the gateway test to shadow running.	Performance Test 1 will immediately precede the Shadow Running period and is a requirement for progressing to this phase of the programme.
T3	Pre-operations Test	The test shall cover a seven day period during the latter part of the Shadow Running phase of the programme. The test is the operation of the initial entry into service timetable and includes infrastructure, trams, and operations systems	Pre-operations Test shall immediately precede the Service Commencement Date.
T4	Network Performance Test	The Test shall be carried out over a 28 day period in Passenger Service to establish that the ETN can reliably operate the Operational Timetable	To be completed within twelve months of the Service Commencement Date.
T5	Network Reliability Test	Reliability Testing of sub-systems in passenger service	To be completed within twelve months of the Service Commencement Date.

2.5 Achievement of the system acceptance tests and safety approval during the shadow running period are the precursor to passenger service commencement. Tram service frequency will commence at a reduced level for the first 12 months in order to lower the risk associated with service startup, familiarisation of staff, passengers, other road users and for the system to bed down. Appendix 2 contains a description of the planned sequence of timetables to be operated.

Reliability growth in passenger service

- 2.6 Successful achievement of the reliability test can only be demonstrated when sufficient major fault free tram mileage and system availability has been achieved in public service. This is expected to be achieved between 9 and 12 months after commencement of service. At this same time the increased peak service frequencies will be introduced as required. Upon successful achievement, a combination of retention bonds and retention payments shall be released to the contractors.
- 2.7 To avoid paying excessive risk premiums during the initial reliability growth period and to incentivise all three contractors to collaborate effectively to achieve a successful tram system, a pre-set deduction from each contractor's fee will be made until 12 months or achievement of the reliability certificate. This period of operational experience shall be used to calibrate the performance payment regime thresholds and targets.
- 2.8 If the reliability certificate is achieved inside of 9 months from service commencement, then all the contractors shall each be entitled to payment of the deductions in fee made up to that point. However, if the reliability certificate takes between 9 and 12 months then the rebate paid to all the contractors shall taper down to zero. If it is achieved beyond 12 months, then all the contractors forfeit any right to receive payment back, they also then become subject to the ongoing level of deductions according to the contractual performance regime, and the possible escalation of sanctions leading up to potential termination and calling of the retention bond in the extreme.
- 2.9 The measures and targets of the reliability test are deliberately based on the specific performance of individual systems supplied and operational elements which are directly within the contractors control.

Ongoing Performance Regime

- 2.10 Once reliable passenger service and availability of the system has been demonstrated, the operator, tram and infrastructure maintenance contractors become subject to a performance payment regime as follows:

KPI	Tramco	Operator	Infraco	Target level
Punctuality	Late Trams (adherence to scheduled headway) monitored at specific points along the route.			98%
Availability	Trams offered for service		Infrastructure offered for service	99%
Quality (Edqual)		Inspections of qualitative service delivery (eg cleaning, information provision, system appearance).		Various levels
Fault Correction		Self-reporting by contractors of response/repair times performance		Various levels
Revenue Collection		Ratio of tickets checked to passengers travelling		To be established annually by joint revenue committee
% of fee at risk	15%	10.5%	40%*	

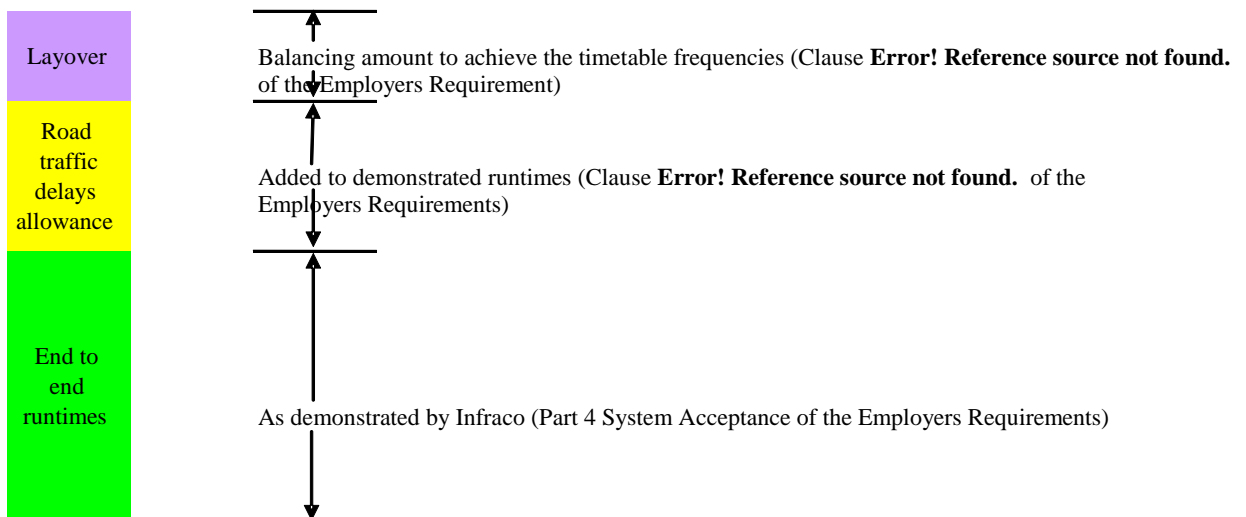
* Subject to final negotiation.

- 2.11 The operator regime places 10.5% of the fee at risk, weighted 70% Punctuality, 15% Revenue Collection, 12.5% Edqual and 2.5% Fault Correction / Information Provision. It proposes a single measure for the Punctuality element, incorporating both the number of trams run and their punctuality, with punctuality determined using a headway approach. It proposes a qualitative regime to be known as Edqual with a low performance level, zero points level and maximum points level for each measure in line with the existing qualitative regime for Manchester Metrolink trams.
- 2.12 The Infraco regime places 40% of the fee at risk, weighted 30% Punctuality, 7.5% Edqual and 2.5% Fault Correction / Information Provision. The same measurement of punctuality as for the Operator regime is proposed. The same Edqual qualitative regime as for the Operator regime is proposed.
- 2.13 The Tramco regime places 15% of the fee at risk. Punctuality is the same measurement used for the Operator and Infraco regimes. A further refinement is added, in that the number of defective trams and the availability of hot spares are included in the measure.
- 2.14 A number of external influences and variable factors must also be taken into account when providing a good service to passengers. These include passenger boarding times due to crowds at different stops at different times of the day, as well as junction, traffic management and pedestrian interaction on the on-street section of the tramway. These strongly influence the operational runtime which can reliably be achieved on the system.

3.0 Operational runtime

- 3.1 To construct a reliable operational timetable, it is necessary to establish the statistical distribution of operational runtimes by time of day and by day of the week. Actual values will start to emerge during the test running in 2010.

- 3.2 A laws of physics model has been produced for the CAF tram, based on the vertical and horizontal track alignment designed by SDS and practical speed limits applied in accordance to adjacent road traffic, expected sightlines and civil limits.
- 3.3 In order to calculate the operational runtime, assumptions have had to be made for the variable additional delays incurred. These have particularly been on the on-road section of the line for road junctions, road traffic congestion levels and passenger loading and unloading times in each direction and by time of day. Realtime GPS based data has been collected from existing experience with the buses on these sections of road in Edinburgh. Using this data, predicted variability of operational runtimes have been extrapolated and the required number of trams, electricity consumption and required number of operational staff have been calculated for each of the planned service frequencies.



Management of the development of operational runtime

- 3.4 Projects in the past which have followed the design, build, operate and maintain approach have contractually placed the risk that the operational runtime is longer than planned fully on the private sector. Although the projects which have had difficulties in achieving the planned runtimes, a fair proportion of all schemes, it has been difficult to determine how much is as a result of external events as opposed to those events within the contractors control. Despite the contract, contractors have not been obliged to provide additional trams, and instead the operational timetable has been adjusted to suit.
- 3.5 With the contractual arrangement in place in Edinburgh, where **tie** have a separate contract with the operator to that with the design, build and maintain contractor, the situation is further complicated. In addition to this, junction priority and the degree to which segregation of tram and bus from each other and other road users can be achieved given the available road space lie with CEC, as the roads authority, and TEL, whose overall business requires that both tram and bus are successful in combination and not in isolation.

3.6 For Edinburgh Tram Network the practical operational runtime risk is shared between CEC, TEL, the Operator and Infraco, allocated as follows:

	<u>Responsibility</u>
Scheduled crew relief and recovery time	Operator and TEL
Variable dwells for passenger loads	Operator and TEL
Junction and traffic management variability	CEC and TEL (supported by the operator)
Laws of physics runtime ¹	Infraco (supported by SDS and Tramco)

3.7 A process will be followed to manage the runtime emerging through the testing and the implications that changes have and how these will be mitigated. Appendix 1 shows a flow chart showing the key stages to be followed. This utilises the experience from the modelling, supplemented by the practical experience of the impact on traffic movement gained during the MUDFA and Infraco road works and finally using the tram testing and initial period of operation to optimise and fine tune the achievable operational runtime.

4.0 Recommendations

4.1 The Board are requested to note the position and proposed actions and allocation of risk share.

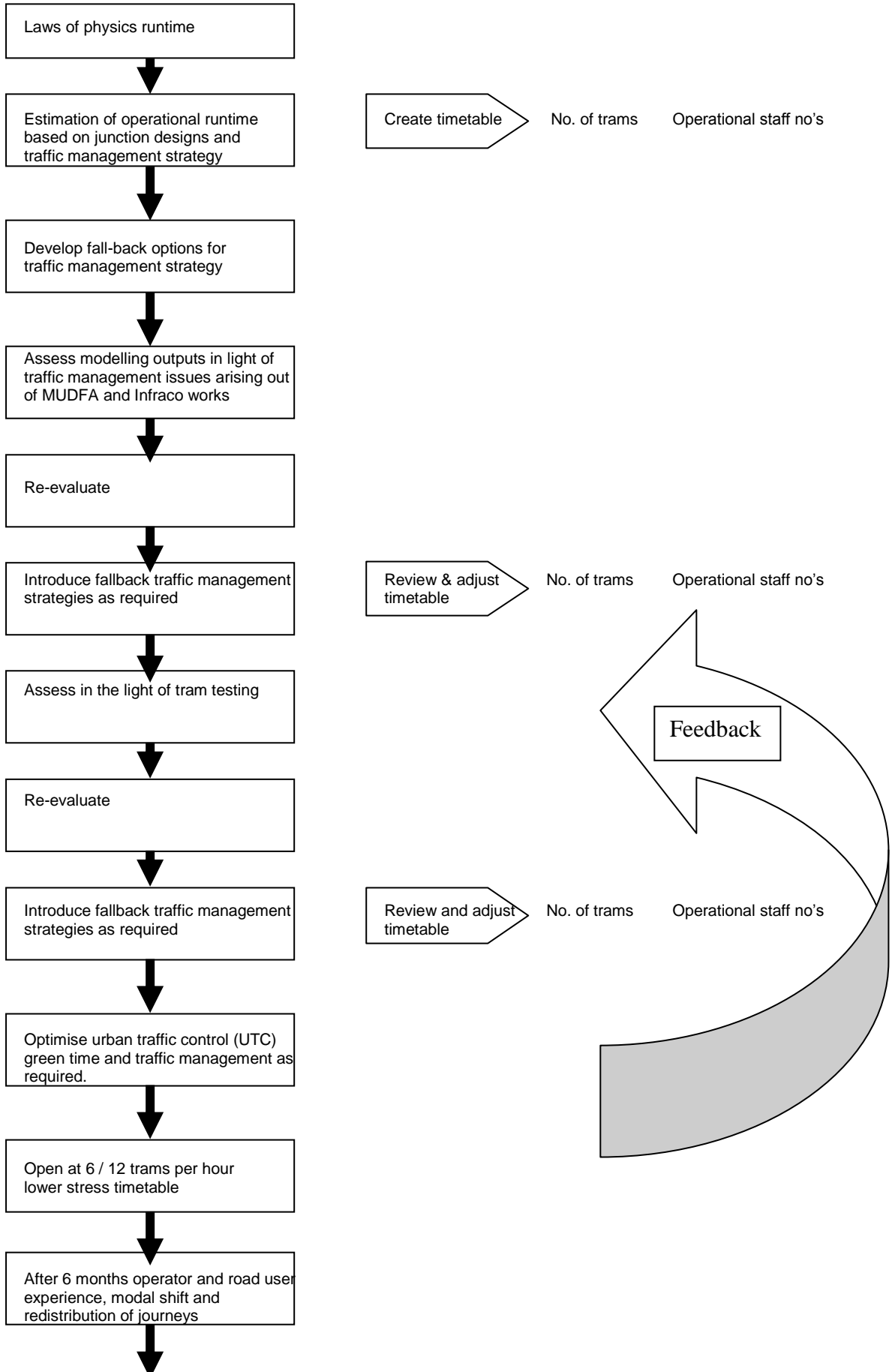
Proposed: Alastair Richards Date: 29 June 2007
 Operations and Maintenance Director

Recommended: Matthew Crosse Date: 29 June 2007
 Project Director

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

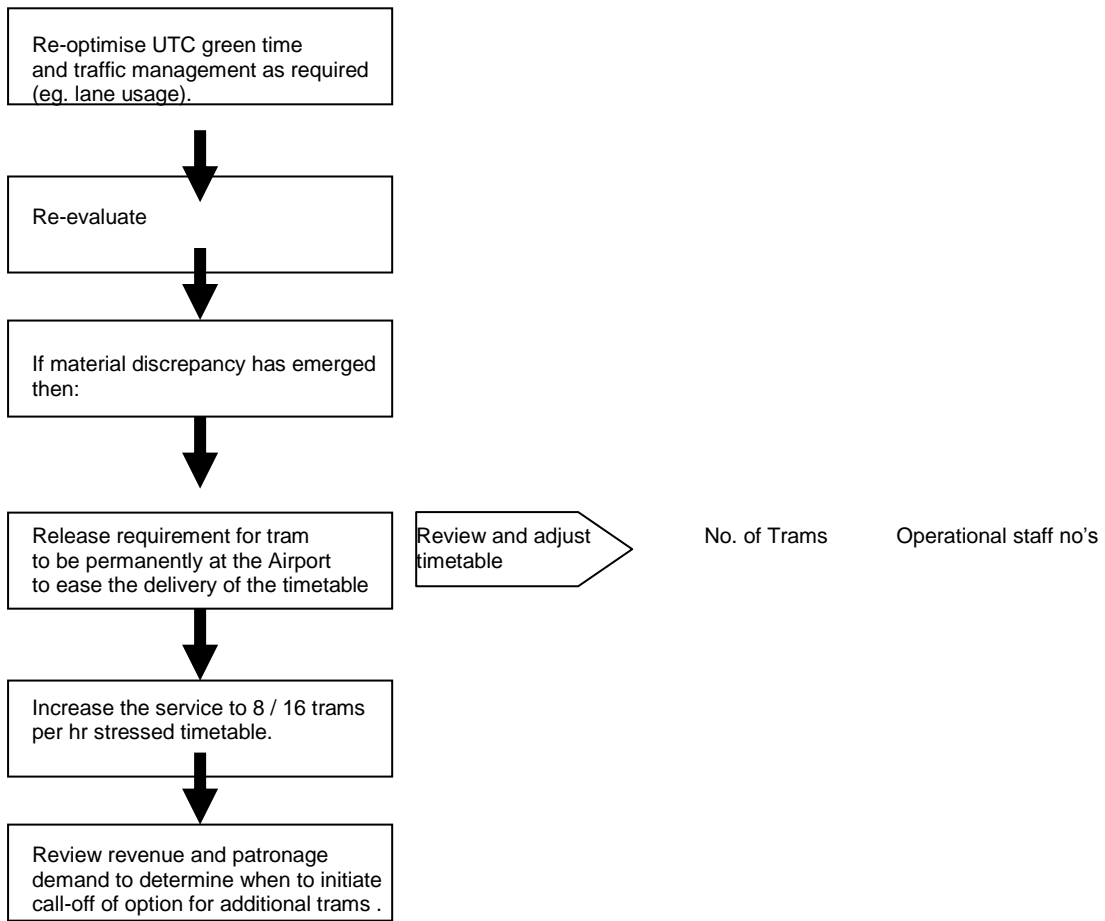
¹ (Including 25s tramstop dwell at each platform, junction design, sightlines and speed limits.)

Appendix 1



Transport Edinburgh
Trams for Edinburgh
Lothian Buses

FOISA exempt
 Yes
 No



Appendix 2

Three timetables are planned to be progressively introduced in response to patronage demand growth. These are intended to allow for reliability growth and operator familiarisation with the Edinburgh Tram Network.

Operational Timetable: A timetable providing trams at a frequency of twelve trams per hour in each direction on the common section between Haymarket and Ocean Terminal. Six trams per hour in each direction are operated on the sections between Haymarket and the Airport and between Ocean Terminal and Newhaven. For Phase 1b, trams at a frequency of six trams per hour in each direction on the section between Haymarket and Granton square shall be operated. The Operational Timetable shall be in effect from Commencement of Service for a minimum of one year.

AM and PM Peak Enhanced Timetable: A timetable providing trams during the AM and PM peaks at a frequency of sixteen trams per hour in each direction on the common section between Haymarket and Ocean Terminal. For Phase 1b providing trams at a frequency of eight trams per hour in each direction on the section between Haymarket and Granton square for the AM and PM peak times only, reverting to the Operational Timetable during the inter peak period. The AM and PM Peak Enhanced Timetable shall be introduced no earlier than one year after the Commencement of Service and shall be operated for a minimum of six months.

Enhanced Timetable: A timetable providing trams at a frequency of sixteen trams per hour in each direction on the common section between Haymarket and Ocean Terminal. For Phase 1b providing trams at a frequency of eight trams per hour in each direction on the section between Haymarket and Granton square. The Enhanced Timetable shall be introduced no earlier than two years after the Commencement of Service.