



Transport Scotland

Monthly Progress Report

To end Period 9, 2006

Contents

1. Transport Scotland Financial Forecast 06/07
2. Tram Project Board Design, Procurement and Delivery Sub-committee meeting No.3, 13/12/2006

Project Summary Report

Project: Edinburgh Tram Network
 Promotor: City of Edinburgh Council (via tie)

Period end date: 08/12/2006
 TS PM: John Ramsay
 TS ProgM:

2006 / 2007														
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	Total
Total Project Spend £m														
Promoter Spend Cashflow View *	1,773	2,292	2,587	2,212	2,180	2,389	2,839	1,738	2,830	2,575	3,011	3,525	14,091	44,041
Actual Spend (VOWD)	1,773	2,292	2,586	2,212	2,181	2,204	2,489	2,273	2,830					20,840

TS Funding £m														
Forecast (publicly committed) **	1,773	2,292	2,587	2,212	2,180	2,389	2,839	1,738	2,830	2,575	3,011	3,525	14,091	44,041
Actual draw-downs(cash)	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA						

2007 / 2008														
	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	Total
Total Project Spend £m														
Promoter Spend Cashflow View *														
Actual Spend (VOWD)														

TS Funding £m														
Forecast (publicly committed) **														
Actual draw-downs														

* Promoters spend profile revised to £44m per Funding (grant) Requirements to end of F/Yr 2006/07 Paper (November 2006).

** Re-baselined to reflect £44m approved funding (November 2006).

Notes

ProgM Spend Cashflow View * comprises part of latest AFC/DFBC £592m and corresponds with Tram Monthly Report for projected spend to Apr 06 - Mar 07 £44.04m
 Promoter Spend Cashflow (2007/08) - Project team currently reviewing future forecast based on updated project estimate and project master programme for construction.
 Revised future forecast to be provided by 22/12/06.



tie Limited
DPD Sub-committee
November Report
Papers for Meeting
13th December

09:00am – 11:00pm

Distribution:-

Willie Gallagher (DPD Chair)
Damian Sharp
Duncan Fraser
Neil Renilson
Andie Harper
Bill Campbell
Graeme Bissett
Stewart McGarrity

Alastair Richards
Geoff Gilbert
Susan Clark
Trudi Craggs
Jim Harries
James Papps
Mark Bourke (Secretary)



Contents

1. Agenda
1. Previous Meeting Minutes
1. Project Manager's Monthly Progress Report
 - Appendices:
 - Appendix A – Safety
 - Appendix B – Milestone Schedule
 - Appendix C – Risk
 - Appendix D – Opportunities
 - Appendix E – Financial
- 4) Support papers appended for DPD meeting
 - a. Traffic Management update including TTRO/TRO protocols paper
 - b. Network Rail Issues paper – *to be provided separately, prior to meeting*
 - c. Mudfa sequencing Programme
 - d. Recruitment Plan
 - e. Change Register and Approvals – *to be provided at meeting*
 - f. Infraco Evaluation Methodology - *to be provided separately, prior to meeting*
 - g. Revised Infraco/Tramco tender process

tie Limited
Edinburgh Tram Network

Minutes

Design, Procurement and Delivery Sub-Committee

8 November 2006

tie offices - Verity House, Boardroom

Directors Present:	In Attendance:
Willie Gallagher (DPD Chair) - WG Bill Campbell – BC (partial)	Graeme Bissett -GB Matthew Spence - MS Duncan Fraser – DF Andie Harper - AH Alastair Richards - AR Trudi Craggs – TC Susan Clark - SC Jim Harries - JH James Papps – JP Mark Bourke – MB

Apologies: Damian Sharp, Neil Renilson, Geoff Gilbert and Stewart McGarrity

Agenda items:

1	Actions from Previous Meeting	Action
1.1	The actions of the previous meeting were reviewed and outstanding actions discussed. A mark-up of the previous actions is appended to these notes.	
1.2	DF confirmed that a written response confirming CEC reserved matters would be by the end of the week.	DF – draft received, queries raised but now included in DFBC documentation
1.3	AH noted that a workshop was planned with CEC/SDS to progress further dialogue to progress the project. AH noted that a separate working group with CEC was assessing the Code of Construction Practice including noise constraints.	AH - Complete

1.4	WG noted that discussions were progressing within CEC regarding the funding/phasing and that approval had been received for spending in relation to land. MS to confirm scope and funding.	MS - Scope confirmed, awaiting updated Grant letter to cover
1.5	MB to discuss the required process of escalation of safety and environmental risks within Primary Risk register reporting with AH/SB	MB - outstanding
2	Project Director's Monthly Progress Report	
2.1	Safety Report	
2.1.1	AH noted that no further safety issues had been identified to report.	
2.2	Programme & Progress	
2.2.1	AH confirmed that the team were generally meeting targets and discussed immediate deadline issues relating to DFBC production, planned gateway review follow-up. MS noted need to set expectation for review resources regarding timing of DFBC issue and agreed to meet with SM this afternoon.	MS/SM - Complete
2.2.2	AH discussed plan to revise format amendment of current short-term report.	
2.2.3	WG requested clarification on location/timing of MUDFA works. AH to arrange briefing via A. Slessor and confirmed planned March 2007 start and would include Phase 1B diversions and report at next DPD.	AH- Complete
2.2.4	AH to submit recruitment plan for consideration at DPD meeting when available and report to next DPD.	AH – On Agenda
2.2.5	AH noted progress was moving well on communications.	
2.2.6	WG requested a short paper on the outcome of alignment review of SDS/TSS contracts and report to next DPD. AH confirmed that this included elements emerging issues from Tramco/Infraco.	GG – not due for completion until 15 th January
2.2.7	AH noted that land issues were progressing well with intention to issue notices for purchase on 24 November 2006.	
2.2.8	WG requested clarity of any papers required for the next planned TS Quarterly Project Review (24 November 2006) for tie Projects. MS confirmed that this would be clarified through the TS Project Managers e.g. J. Ramsay for Tram. MS to advise GB of any specific concerns/agenda items prior to meeting.	MS- Complete MS- Complete
2.3	Key Issues and Concerns	
2.3.1	AH reported becoming increasingly concerned regarding SDS performance over the past 4-6 weeks. SDS response to tie/SDS Senior Executive discussion has been less than adequate. AH noted that currently there was no confidence in their delivery. AH noted that lengthy subsequent discussions had been with Senior SDS staff with regard to their apparent lack of accurate internal reporting had resulted in flagging of concerns in co-ordination, working, resource	

	and management and that currently awaiting response.	
2.3.2	AH confirmed that if there is no response in the next week then it will become necessary to micro-manage their activities (and pass costs to them). WG asked what steps had been taken to pursue this. AH noted that SDS have been informed and that discussions with C.McLauchlin on options had commenced. AH to sketch out plan and report to next DPD.	AH – Reported to TPB, verbal update to be provided at meeting
2.3.3	WG requested clarity of alternative arrangements. AH noted that more radical options would dilute the risk transfer achieved.	
2.3.4	AH confirmed that in response to Infraco bidder feedback, that further detail on structures design had been provided.	
2.3.5	AH confirmed that outcome of planned charette next week would require to be considered and dealt with through the Planning Summit.	
2.3.6	AH noted that SDS design of PU diversions were progressing on time and that review of strengthening the project management resource was underway.	
2.3.7	AH confirmed that Amec had noted their intention to withdraw from the Infraco bid. AH to obtain written confirmation. AH highlighted that two independent sources had noted that Amec were citing terms and conditions reasons for withdrawing rather than their JV failure as indicated directly. AH to highlight concerns to Amec regarding their confidentiality obligations, prepare response ready to deal with potential media interest and approach remaining bidders to confirm situation.	AH – Outstanding , being chased AH- Complete
2.4	Risks and Opportunities	
2.4.1	AH introduced risk report. JP requested that this be expanded with commentary on key progress, closed, new and worsening risks.	GG- Complete, see this months risk report
2.4.2	MB noted the principal elements of mitigation progress related in the increased engagement with stakeholders, performance of the JRC in model development and achieving sign-off on necessary assumptions and in adopting an approach of a 'mock' planning application.	
2.4.3	MB noted that risk associated with late delivery of issue of Infraco tender documentation was now closed.	
2.4.4	MB noted new risks were escalated to the Primary Risk Register due to uncertainties in scope and location of PU diversions emerging from design; potential construction inflation and bidder withdrawal.	
2.4.5	MB noted need for increased mitigation in areas worsening due to delays in implementation including awaiting CEC statement of reserved matters; CEC planning risk; quality concerns and late delivery of SDS deliverables with consequence of loss of opportunity/value engineering examination.	
2.5	Matters for Approval or Support	
2.5.1	AH outlined the decisions required for the next Tram Board.	

2.6	Financial and Change Control Position	
2.6.1	AH reported the financial expenditure position and summarised the anticipated final cost.	
2.6.2	AH tabled a summary of the change control matters to close out a previous action. AH noted that these were for information and impacts had been incorporated in current cost estimate. GB requested that these be reported in context of Delegated Authority Rules to provide scrutiny to those above AH authority limit.	AH – See update on agenda to close this out
3	Design (SDS)	
3.1	WG raised concerns regarding resources being applied to achievement of consents. DF noted that the lack of programme had resulted reduced the ability to plan meetings and that resource had been cut back due to volume of information. DF to prepare paper for consideration at Project Board to provide assurance on resources.	DF - Outstanding
3.2	AH noted that the quality of submissions were poor and would need additional resource.	
3.3	TC introduced updated TRO paper that accounted for revised working assumptions requested by CEC that street construction works could not commence until TROs were in place and the steps to obtain TROs could not commence pre-election. TC to obtain QC advice.	TC – Actioned, verbal update at meeting
3.3	TC confirmed that MUDFA could commence as planned but that commencement of Infraco street works would be delayed from October 2007 to July 2008. AH confirmed that planned operation of December 2010 would be achieved as critical path depot construction could commence.	
3.4	TC noted that TROs could be broken down further to adopt a sectional approach. TC noted that potential additional float existed in delay to construction due to events of up to 6 weeks. DF noted that if amended TRO process was necessary then a paper could be submitted at February 2007 Full Council. TC to update paper for Project Board to reflect QC feedback and examination of options (including potential legislative changes on mandatory hearing elements) and convene pre-discussion with WG and A. Holmes. JH noted that the paper should include extended risk assessment in relation to SDS performance and constraints within TRO process e.g. availability of Reporters.	TC – See paper
3.5	DF noted that there was ongoing discussion with Police regarding greenways. MS to review TS Legal progress in developing revised legislative arrangements.	MS – status unknown
4	Preparation for Infraco and Tramco	
4.1	JP queried the extent of planned work in scenario planning in relation to alternative risk allocation. AH noted that greater clarity would emerge with further dialogue and responses from bidders and that	

	this was being examined by GG/BD.	
4.2	JP queried extent of pressure that could be placed on Amec and recommended proposed prepared statement. JH supported the approach to brief other bidders to situation.	
4.3	AH introduced the Tramco evaluation paper. AR confirmed that TEL was fully involved and supportive of the process. AH to provide verbal report on Tramco evaluation progress to Project Board.	
5	Capital Cost and Risk Allowances	
5.1	AH tabled a paper presenting estimates indicating Phase 1A + 1B greater than £545m quoted by the Minister, but noting 1A's affordability. AH noted certainty levels, exclusions and potential need to disaggregate costs further.	
5.2	AH confirmed that benchmarking of costs allowed for risk transfer and compared favourably to OBC estimate.	
5.3	JP queried the timing of decision on 1B. WG noted discussions were ongoing with CEC.	
5.4	AH noted savings for inclusion of 1B at present and premium necessary for delay to operations in July 2011. AH confirmed that the detailed design and MUDFA diversions would be carried out for both Phase 1A + 1B.	
6	Funding Grant Requirements	
6.1	AH discussed the Funding Grant paper and noted that this would be updated to reflect the increased funding from TS, confirmed earlier. SC confirmed that additional funding was for land purchase (to be clarified that relates to Phase 1A only).	SC – confirmed and complete
7	Risk Management Development Plan	
7.1	AH noted need to further internalise risk matters within the project and confirm the intended management arrangements. MB confirmed that this would be further developed within an updated Risk Management Plan to fit within the overall Project Controls framework. MS noted potential debate to be had in relation to who should own and be responsible for risk allowances. WG requested MS to clarify further with AH and if necessary a paper prepared or discussion convened with B. Reeve/A. Holmes/ D. Mackay and WG to resolve.	MS/AH – discussed but no further action required at present
8	Other relationship to BPIC Workstreams	
8.1	No matters were raised.	
9	Matters for Tram Project Board	
9.1	AH to provide updated papers on Risk Management, TRO Progress, Tramco Evaluation Methodology, Grant Funding Requirements, Risk Management Development Plan, Functional Specification and Change Log.	AH - Completed

9.2	AH to provide verbal briefing on progress on Tramco evaluation.	AH - Completed
10	AOB	
10.1	AH noted need to examine land issues at Sighthill in relation to ease planned gas main diversions. AH/DF to explore.	AH/DF - outstanding
10.2	AH queried timing of next meeting (scheduled 13 December) in light of Project Board on 11 December and whether this should be brought forward.	GB - resolved
10.3	MB to develop update forward plan for papers necessary for future meetings with GG/AH.	MB- Complete

Prepared by: Mark Bourke

Date: 9 November 2006

Notes of Outstanding Actions: DPD 11 October 2006

	Actions from Previous Meeting	Action
1.2	DF confirmed that a written response confirming CEC reserved matters would be provided tomorrow.	DF- Complete
2.2.4	SM noted that conclusion of modelling was critical to allow design development to proceed and confirmed that the 9 November 2006 date for submission of the FBC was still achievable. SM to review content of FBC and timing and content of Supplementary Information.	SM- Complete
2.4.7	GB to bring conclusion of TS/CEC funding arrangements and position of over-runs on agenda for planned meeting in relation to Phase 1B.	GB- Complete, subject only to comments contained in DFBC support letter
3.1	WG outlined discussions with Chairman/CEO of Parsons in seeking more effective structuring and resource commitment. WG to review the scope of potential follow-up discussions with AH after outcome of pending dispute resolution and programme review.	WG/AH- Complete
4.6	GG tabled paper on maintenance and led discussion on options for contracting party e.g. TEL or TET and duration. AR outlined the 'medium' to 'long' term plan to obtain single point responsibility through the Operator for combined Operation and Maintenance services. JP queried flexibility and bonding arrangements. JP recommended that development takes place to examine payment mechanism through scenario planning. WG requested consistency of Infracore maintenance duration and business case to avoid uncertainty.	GG/AR- Complete

Notes of Outstanding Actions: DPD 13 September 2006

	Actions from Previous Meeting	Action
2.4.7	TC noted that further development would be necessary in relation to the legislative position of greenways and cycleways to prevent interference with planned TRO development. DS to consider how this may be delivered.	DS- Outstanding
3.2	AC noted concern regarding 'limited mobilisation' of Infracore and activities in relation to Standing Orders and Delegated Authorities. AC to brief A. Holmes in advance of further discussion at Project Board on 25 th September. DS cited this as an example of where CEC require to clarify the delegated authorities of individuals.	AC - Outstanding
3.3	AC requested programme of project consents to be prepared in relation to CEC e.g. Traffic, Planning. This will allow CEC to plan/manage their resource.	TC - Complete
4.1	TC tabled the proposed structure and noted that the Functional Specification would require sign-off at the next Project Board meeting.	AH – Awaiting TS confirmation that they are happy with document



EDINBURGH TRAM PROJECT MONTHLY PROGRESS REPORT – NOVEMBER 2006

1. Safety

HSQE objectives are being developed for the project from which the Key Performance Indicators shall have targets set.

A total of four Non-Conformance Reports (NCR's) (cumulatively) to date have been issued to SDS. Two number Non-Conformances remain open as detailed in the summary table below.

Issue date	Number issued	Open/Closed	Action
March 2006	1	Closed	Complete
October 2006	1	Closed	Complete
	2	Open	Response required from SDS for all – Currently being chased by Team
Total	4		

Further details are contained within the HSQE Performance Report in Appendix A. Key Performance Indicators (KPI's) have been identified and are contained within this report, section 3.4 of the report contains detailed information on NCR's.

2. Programme and Progress

2.1 Current status of key project milestones planned for November:-

- The Draft Final Business Case was submitted on the 16th of November 2006 to TEL/CEC/TS.
- The Project Estimate Update was finalised on the 16th November 2006, reviewed by Stakeholders and noted for inclusion in the DFBC by the Tram Project Board on 20th November.
- Scottish Gateway 2 follow up review was undertaken on the scheduled dates. Although the report has not been formally issued to the Project there are not thought to be any significant issues arising from the review.
- Mid-Bid Infraco meetings undertaken as planned on the 7th 8th and 9th of November 2006.
- Tramco
 - Tramco Evaluation Panel meeting held on 29th of November 2006 to consider Preliminary Evaluation Report. This concluded that no bidders should be eliminated at this stage.
 - Supplementary Information Release to bidders due for 24th November 2006. This milestone has been deferred until the 14th of December 2006 after the briefing meetings to explain the change to a staged delivery of

Phase 1b. This will not impact on the overall programme. Deferral will also permit a more comprehensive Supplementary Information package to be issued to the bidders. This package will now include the following:

- Information on the amended phasing options(Phase 1a and phase 1b)
- Interior Specification for the train saloon to be incorporated.
- Clarifications on minor technical issues.

2.2 Future key project milestones in December to achieve project funding are:-

- 21st December 2006 - CEC full Council meeting to approve DFBC stage 1
- 22nd December 2006 – Completion of Infraco Price Summary Evaluation Methodology, this being the process for extracting the information from the Infraco bids returned in January and the updating of our Project Estimate. This will in turn be used to confirm the Business Case figures.

2.3 Programme for delivery into revenue service

- The Master Project programme has been updated. This shows
 - delivery of Phase 1a into revenue service by December 2010 assuming Infraco contract award in October 2007
 - delivery of Phase 1b into revenue service in December 2011 assuming a start date of late June 2009.
 - and commencement of MUDFA works in March 2007.
- There are a number of assumptions inherent in this programme including the need to commence the piled wall adjacent the A8 and site clearance (part of Infraco contract) works at the depot early. A scope of works, procurement plan and estimated cost is being produced for project team approval by end of Dec 2006.
- Assumptions around the TRO process are also inherent in the programme. These are principally :-
 - no on street works until after the TRO has been granted in July 2008 and
 - assumes that there is no judicial review of the TRO process.

The updated Key Milestone Schedule up to approval of the DFBC is shown in Appendix B.

2.4 Other achievements in November

- The meeting to present the Phase 2 Infraco ITN information to stakeholders has been deferred to December 2006 to suit stakeholder diaries.
- A recruitment plan has been developed by the Tram Project to secure the resources required by its draft construction phase organisation chart. This paper will be presented to DPD in December 2006.
- Given the concerns in respect of the potentially unaffordable level of Capex costs the Project will undertake a further value engineering exercise in the third week of December 2006 - this exercise has been deferred from November in order to permit the Team to respond to Transport Scotland's comments on the Project Estimate.
- The consistency review of the Infraco/Tramco/MUDFA/DPOFA contracts is ongoing and is scheduled to be completed by 15th January for issue to Infraco and Tramco bidders.
- The Project is currently drafting a protocol which will set out how the necessary TTRO will be arranged and managed on a section by section basis. This

Protocol will include traffic modelling based on SDS's Traffic Modelling Plan. The Protocol will be provided to DPD in December 2006.

- Further Comms activities are:
 - A further visit to Nottingham was completed on 14th November 2006 to take stakeholders to view the network, understand the benefits and speak to the company that delivered the system.
 - The tram DVD was delivered on 1st November 2006. The tram/bus was delivered on 27th November 2006 and will be operational by 14 December.
 - A public tram event was held in the new Telford College on 29th November 2006.
 - Four new photo visual images of areas of the network are to be used in publications, news and events. Photo visuals being developed and being progressed.
- Land Purchase - Supporting materials ("deposit documents") delivered to the city chambers and the 6 partner libraries. Documents delivered were:
 - TL1 Act
 - TL1 Parliamentary Plans
 - TL2 Act
 - TL2 Parliamentary Plans
 - Compulsory Purchase Regulations (2003)Notice letters were issued 28th November 2006 to coincide with publication of the Notices and Schedules in The Scotsman. Omissions were evident in the Scotsman Notice and reprinted on 30th November.
- Papers approved and actions arising from the last Board Meeting
 - Update on TRO process –not approved, to be resubmitted with a revised programme (DPD Paper).
 - Evaluation Methodology for Submissions - Approved subject to Neil Renilson being added to the Tramco Evaluation Panel and method of dealing with Infraco discounts clarified.
 - Funding Grant Requirements – Approved
 - Risk Management Development Plan - Approved
 - Functional Specification Paper - further meeting held with Transport Scotland and comments due back from them by 1st Dec 2006.
 - Preliminary Design Stage Project Estimate Report - noted
 - Executive Summary of DFBC -noted
 - Executive summary of TEL Business Plan – noted

2.5 Other actions for December

- Mudfa Contractor –
 - Has delivered updated Risk management plan to tie in early November
 - Initial buildability report due on 15th December
- Presentations of revised tender and evaluation process and programme to Infraco and Tramco to explain the changes arising from the staged delivery of Phase 1b to commence on the 5th December 2006 until the 15th December 2006.
- Infraco Contract –
 - 5th December 2006 -Technical and Commercial Questions and Answers review meeting.
 - 12th December 2006 - Bid Progress review meeting
 - 19th December 2006 -Technical and Commercial Questions and Answers
 - Meeting with Siemens in Berlin week commencing 11th December to explain revised tender and evaluation plan.

- Tramco – Detailed evaluation of tender submissions continues.
- SDS – to reissue MUDFA TTRO and schedule to tie on 4th Dec.
- OCIP – Preliminary Qualification Questionnaire returns due 8th December 2006

3. Key Issues and Concerns

3.1 Resolution of issues and concerns arising last month (October)

- System Design Services (SDS) – Numerous meetings have been held with SDS senior management in an attempt to address issues associated with:
 - Progress of design
 - Prioritisation of the detailed design programme
 - Quality of product
 - Resourcing to meet the programme
 - Non-compliance issues
 Monitoring of SDS progress in relation to issues ongoing together with close liaison with Parsons Brinkerhoff project team and Parsons Brinkerhoff senior Management.
- TSS are preparing a report on the Preliminary Design, which was due to be complete by end of November 2006. This will now be delivered during week commencing 4th December 2006.
- Progress has been made with SDS in phasing the utility diversion plan to meet with the construction requirements. In addition, tie has appointed a Project Manager, on a short term basis, to manage the design of utility diversions to ensure that momentum is maintained. Co-location of teams has been ruled out as an option to improve the delivery of design but the series of design Partnership Meetings involving SDS, AMIS and the Project's MUDFA team along with the statutory utility companies to fast track design have commenced. The tie workstream Project Manager has received positive feedback from Amis & SDS Management regarding Partnership meetings.
- Scottish Power had requested 5 additional feasibility studies in the following areas:
 - Craigleith Drive
 - Roseburn Drive
 - Gogar/Gyle area
 - Haymarket Yards
 - Cultin Road
 Progression of these is on hold until design of the abutment structures is progressed – this may avoid the need to carry out these studies.

3.2 Current key issues and concerns arising in the November are:-

- Assumptions around the TRO process are also inherent in the programme. These are principally :-
 - no on street works until after the TRO has been granted in July 2008 and
 - assumes that there is no judicial review of the TRO process.
- Infraco – One bidder requested an extension on the tender submission return date of 9th of January 2007. This has been discussed with the stakeholders and the project team believe that they can accommodate this and still provide required costing information to support the DFBC update. The team will consequently advise all bidders that the tender submission return information will now be returned in phases commencing the 12th of January 2007 with return of final bids on 4th of April 2007.

- The team highlighted in the DFBC that there are no costs contained in the estimate for the eradication/treatment of invasive species. Eradication is required by landowners, including CEC, under statutory legislation and treatment is a prerequisite prior to commencing construction of works for the Tram System. A meeting is being arranged with CEC to discuss their commitment to delivering the projects time requirements for this work.
- JRC – Variation requests have been received to cover requests for additional works in connection with the development of the DFBC by stakeholders in connection with the JRC. These are currently being negotiated and finalised in value terms. It should be noted that any future variations will be required to follow the appropriate change control process.
- SDS design – CEC have asked that certain structures are subject to a charette 'review' and a robust process for agreeing design solutions between CEC planning and the Project Team needs to be established with appropriate timescales to ensure no delay affects the project.
- Immunisation works (Network Rail interfaces) – a meeting with Transport Scotland and Network Rail concluded in agreement on actions required to firm up a plan to co-ordinate immunisation works between Tram and the Airdrie – Bathgate projects. A workshop will be held in December 2006 to review this issue (date to be agreed)
- DPOFA – Negotiations are ongoing with Development Operating Framework Agreement (DPOFA) and a revised contract is to be agreed before the end of the calendar year.

4. Risks and Opportunities

4.1 See separate Risk Management Paper - See separate Risk Management Paper (Appendix C)

4.2 Principal Opportunities – See appendix D for current status on Opportunities.

4.3 Risk Management System – The Active Risk Management system has been installed onto tie's IT system and is currently being deployed across the Tram project as a tool to manage risk/opportunities, issues, assumptions and concerns. The tool is deployed on an enterprise basis and allows many people to manage risk/opportunity through a single easily available data source. Configuration of the system is ongoing and full deployment and use of the tool is expected to be achieved during January. Basic training sessions have been undertaken with Project/Functional Managers and this will be backed up by detailed training from the Tram Project Risk Manager on a one-to-one basis. The main priority for all Project Managers will be to detail Mitigation actions for all risk items detailed.

5. Matters for Approval or Support

5.1 Decisions required from Tram Project Board.

The following paper was submitted to the Board.

- Draft recommendation letters supporting DFBC from Chairmen of TEL and tie to CEC

5.2 Decision /support required from TS

- The Project team have amended the Financial Year end budget as stated in the "Funding (grant) Requirements to end of Financial Year 2006/2007" Paper approved to the October Board Report on 3rd November 2006. Confirmation in writing of the increased amount (from £32.7 to £44.04 million, a difference of £11.04million) required to end of Financial Year 2006/2007 is requested.

5.3 Decision /support required from City of Edinburgh Council (CEC)

- Confirmation of commitment by CEC of the eradication/treatment of invasive species.
- A robust process for agreeing design solutions for structures between CEC planning and the Project Team.

5.4 Decision /support required from others

- None

6. Financial and Change Control Position

6.1 Financial Status

The increase in forecast for the current financial year from £40.02m (October) to £44.04m is primarily due to bringing forward Phase 1a land acquisition. This increase excludes the value of CEC owned and gifted (Section 75) land. The Total VOWD amount included in financial year 2006/2007 for land is £10.7 million.

First formal notices have been issued with GVD notices taking title planned before the end of March 2007, enabling realisation of the value of the new forecasted commitment to year end.

The current AFC for the scheme has been reduced to £592.4m to reflect the Draft Final Business Case (DFBC) submission amount and updated Preliminary Design Stage Project Estimate.

The VOWD to November is £60k higher than the corresponding forecast last month. Increased Scottish Gas Networks costs for long lead materials and a review of the MUDFA pre-construction costs to financial year end have contributed significantly to this variance.

Current Year Position

B - VOWD in current month 06/07				
Month £k (Incremental)	Current Actual £k (Cumulative)	Previous Forecast £k (Cumulative)	Variance £k (Current minus Previous)	Comment
£3,329	£20,132	£20,072	£60	For reasons for variance refer to Appendix C

C – AFC - Current Financial Year position - To March 07				
Approved Budget £k	Current Forecast £k	Previous Forecast £k	Variance £k (Current minus Previous)	Comments
£44,041*	£44,041	£40,022	4,019	Refer Appendix C for individual budget line variances.

*Budget to end March 2007 reflecting new Approved Funding Paper (Nov 06)

D – AFC - Anticipated Final Cost				
Budget £k	Current Forecast £k	Previous Forecast £k	Variance £k (Current minus Previous)	Comments
£545,000	£592,400	£623,000	(£30,600)	As Approved Preliminary Design Stage Project Estimate

(Fuller financial details and notes on variances are provided in Appendix E)

6.2 Change Control Summary

See separate paper

7. Early Warning Claims

No change from previous month.

Submitted by:- Andie Harper
Project Director

Date:- 05/12/06



Edinburgh Tram Project
Appendix A



Edinburgh Tram Network
HSQE Performance Report
Period 8 2006/2007
15th October 2006 – 11th November 2006

Prepared by

Tom Condie, HSQE Manager - Tram

Authorised by

Susan Clark, Delivery Director - Tram

Date Prepared 17/11/2006

DOC.NO.	VERSION	STATUS	APPLICATION	SHEET
n/a	A	FINAL	Edinburgh Tram Network	1 of 8



- 1 Briefing Summary 3
 - 1.1 Health and Safety 3
 - 1.2 Quality 3
 - 1.3 Environment 3
- 2 Safety 4
 - 2.1 Safety Performance 4
 - 2.2 Body Count Injury Summary 4
 - 2.3 RIDDOR Reportable Events 4
 - 2.4 Management Safety Tours 4
 - 2.5 CDM 4
 - 2.6 Review 5
- 3 Quality 5
 - 3.1 Quality Management System Update 5
 - 3.2 Audit 5
 - 3.3 Monitoring 5
 - 3.4 Non-conformance Reports 5
- 4 Environment 7
 - 4.1 Pollution Prevention and Control 7
 - 4.2 Audit 7
 - 4.3 Site Inspections 7
 - 4.4 Continual Improvement 7
 - 4.5 Legal compliance 7
- 5 Appendices 8

DOC.NO.	VERSION	STATUS	APPLICATION	SHEET
n/a	A	FINAL	Edinburgh Tram Network	2 of 8



1 Briefing Summary

1.1 Health and Safety

General

There was **0** RIDDOR reportable accident(s) during the period.

The tram AFR is **0.00**.

The total Contractor hours AFR is **0.00**.

The total number of injuries reported for the period is **0**.

The total Project hours worked in the period were **19,320**.

The total Contractor hours worked in the period were **14,820** of which **750** were site hours.

1.2 Quality

Audit

There were **0** audits in period **8**.

There was **1** monitoring exercise undertaken in the period.

There were **0** Non-conformances raised in the period.

There was **1** Non-conformance closed out.

There are **2** Non-conformances open both of which are **overdue**.

1.3 Environment

There were **0** minor and **0** major environmental incident reported in the period.

DOC.NO.	VERSION	STATUS	APPLICATION	SHEET
n/a	A	FINAL	Edinburgh Tram Network	3 of 8

2 Safety

2.1 Safety Performance

Graphs and tables to monitor and measure events that the programme has tried to minimise or eliminate (e.g. accidents / incidents), but which have occurred due to some failing in the Safety Management System will be introduced in this report as data is gathered.

They are important in determining the active measures that need to be put in place to prevent similar events occurring in the future.

2.2 Body Count Injury Summary



2.3 RIDDOR Reportable Events

There were 0 RIDDOR Events reported this period.

2.4 Management Safety Tours

There have been 0 Safety Tours this period. A schedule of Safety Tours will be prepared by 20th December 2006.

2.5 CDM

Three CDM workshops covering utilities, structures and the depot were held to identify the key issues that had been identified during the preliminary design stage.

DOC.NO.	VERSION	STATUS	APPLICATION	SHEET
n/a	A	FINAL	Edinburgh Tram Network	4 of 8

2.6 Review

A site visit to Alfred McAlpine Infrastructure Services office at Blantyre to review corporate Alfred McAlpine management systems was undertaken on 17th October. Outcomes as follows:

- Satisfactory presentation of management system.
- AMIS induction presented – it was agreed that this was very thorough and with the addition of **tie** project induction, wholly appropriate for tram/MUDFA works.

3 Quality

3.1 Quality Management System Update

A Working Group has been convened to ensure that Project Plans and Procedures are drafted and progressed to implementation.

Project Safety and Quality Interface Document, relating to the implementation of quality management on the MUDFA contract, was issued to Alfred McAlpine Infrastructure Services.

3.2 Audit

There were 0 audits planned and 0 completed during the period.

3.3 Monitoring

There was 1 monitoring exercise undertaken during the period. The SDS Interdisciplinary Check procedure for the Preliminary Design was checked. A score of 46% was obtained. The reasons for the low score are SDS procedure was not followed and the lack of traceability between records.

3.4 Non-conformance Reports

At period end:
2 NCRs were open from incidents with 2 of these overdue.

NCR No. 003 Date of Close Out: 13/10/06
Number of cores taken at Coltbridge Viaduct.

NCR no. 004 Date of Close Out: 09/10/06
Anchorage points for abseilers were not as identified in method statement.

DOC.NO.	VERSION	STATUS	APPLICATION	SHEET
n/a	A	FINAL	Edinburgh Tram Network	5 of 8



Closure of NCR's is being progressed with SDS.

DOC.NO.	VERSION	STATUS	APPLICATION	SHEET
n/a	A	FINAL	Edinburgh Tram Network	6 of 8

4 Environment

4.1 Pollution Prevention and Control

There were 0 minor and 0 major environment incidents reported in the period.

4.2 Audit

No audits undertaken in the period.

4.3 Site Inspections

No site inspections undertaken in the period.

4.4 Continual Improvement

A liaison meeting with MUDFA contractor, Alfred McAlpine Infrastructure Services (AMIS) was undertaken following the site visit of line one of the tram. The main topic of discussion was the approach taken by the contractors site specific and generic Environmental Management Plans. It is clear they have carefully considered the recommendations within the TRAM EMP and we have confidence that the approach that has been taken is robust.

A further site visit with the AMIS Environmental Management team was undertaken to highlight the “hot spots” for the MUDFA works and results were as follows:

- No concerns in Roseburn corridor as there were only lamp standards to deal with.
- Invasive species were highlighted but did not cause concern as appropriate best practice would be applied
- Constitution St highlighted that archaeological issues may result in utilities diversions but appropriate method statements will be in place.
- Landscape issues highlighted at St Andrew Square and close liaison with CEC required in formulating design plans.

4.5 Legal compliance

No legislation breaches reported this period.

DOC.NO.	VERSION	STATUS	APPLICATION	SHEET
n/a	A	FINAL	Edinburgh Tram Network	7 of 8



5 Appendices

Tram Consolidated KPI Reporting Spreadsheet (as attached)

DOC.NO.	VERSION	STATUS	APPLICATION	SHEET
n/a	A	FINAL	Edinburgh Tram Network	8 of 8

**Edinburgh TRAM Project
(Commercial In Confidence)**

Paper to : Tram Project Board

Subject : Risk Management Paper for Primary Risk Register

Date: 1st November 2006

1.0 Introduction

- 1.1 The purpose of this document is to provide the monthly update to the Board with regard to the Primary Risk Register and the top risks facing the project.
- 1.2 The risks on the Primary Risk Register have been extracted from the Project Master Risk Register and are those that have a high risk significance but which also require treatment in the near future.

2.0 Risk Significance and Treatment Status Summary.

- 2.1 Overall the significance of individual risks on the Primary Register has not changed.
- 1 risk of red significance has been added. This is:
Risk 349 (Diversion of gas main at Gogar Depot depends on construction of Turnhouse Pressure Reducing Station – land is not in LoD and there are no alternatives). The treatment of this risk relies on the performance of Scottish Gas Networks.
 - The following are recommended for closure or removal from the Primary Risk Register:
Risk 263 (Failure to demonstrate robust business case for scheme) is closed and removed from the Primary Risk Register as actions are complete and the risk converts to an affordability issue.
Risk 265 (Poor project governance) to close as risk treatments are complete.
Risk 266 (JRC model is insufficiently robust to support the Business Case) as treatment is complete.
Risk 272 (Delay in land acquisition due to uncertainty of political commitment to scheme) as approval has been given to acquire land on an accelerated basis and the risk no longer applies.
Risk 275 (Negative PR coverage due to perceived mistakes or problems in project becoming public) because treatment is part of the day-to-day corporate processes within tie and the risk is not project specific.
Risk 276 (Unacceptable or inaccurate assumptions are used during JRC modelling and SDS design is based on the model)

DRAFT

because treatment is complete.

Risk 282 (Procurement strategy has a high level of risk transfer to contractors which results in a failure to sustain suitable interest from the market throughout the bid process) because treatment is complete and the risk has converted to become Risks 278 and 344.

Risk 187 (Poor relationships with stakeholders including political, Network Rail, other major organisations, businesses, frontages, special interest groups etc) because the treatment is part of day-to-day project and tie corporate activity and its status will not change throughout the project.

- Risk 271 (Failure to reach a suitable agreement with CEC on various aspects) has been removed from the Stakeholder Risk Register and placed in the Project Risk Register as it is felt that the risk is better managed from a project perspective.
- Risks 279, 280 and 271 are regarded as summary risks. These will be split into their component parts and reported separately as appropriate. In particular, it should be noted that the TRO aspect of Risk 279 is thought to be of high significance on its own and a detailed strategy to address this is currently being developed.

2.2 Last month six risk treatments were showing red status. One of these has remained red, four have improved to green and one treatment is now not applicable as the nature of the required treatment has changed. Three treatments have now fallen behind schedule after having been on or ahead of schedule and one new treatment has been identified immediately at red status. Therefore, there are currently five treatments at red status. These are as follows:-

- Risk 267 – Identify optimal position for a combined tram/bus position.
- Risk 284 – Gain TS agreement for early commencement of works including earthworks.
- Risk 344 – Develop Fallback Plan to cover the eventuality of only one bid being returned.
- Risk 139/164 – Review design information and re-measure during design workshops with Utility Companies and MUDFA. Develop PC sums into quantified estimates.
- Risk 271 – Final alignments in place.

On the whole, the treatment status of the primary risks has remained neutral or positive with only four treatments moving in a negative status direction. The vast majority of risk treatments are on or ahead of programme.

2.3 The Primary Register is attached as Appendix (i). This document contains a risk status summary showing the changes from last month.

3.0 Consultation

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3.1 The DPD Sub Committee will review this register and their comments will be incorporated.

4.0 Recommendation.








4.1 The Board is asked to note this paper.

Proposed Geoff Gilbert
Project Commercial Director Date 03/11/2006

Recommended Andie Harper
Project Director Date 03/11/2006

Approved _____ Date 03/11/2006
David Mackay on behalf of the Tram Project Board

PRIMARY RISK STATUS SUMMARY					
Risk Significance (No of Risks)			Treatment Status (No of Treatments)		
	October	November		October	November
Black	7	6	-	-	-
Red	17	19	Red	6	4
Amber	2	2	Amber	37	30
Green	0	0	Green	25	29
Risks Added	3 (red)	1 (red)	Treatments Added	8	4 for new risk (2 amber, 2 green) 8 for existing risks (1 red, 4 amber, 3 green)
TOTAL	29	28	TOTAL	76	75
Risks Removed and No Longer on Register	0	2 (1 black; 1 red)	Treatments Removed and No Longer on Register	1	5 from active risks 6 from closed risks

RISK SIGNIFICANCE	TREATMENT STATUS
 BLACK – SHOWSTOPPER; difficult to quantify impacts	 RED – Treatment Strategy behind programme
 RED – High Risk	 AMBER – Treatment Strategy on programme
 AMBER – Medium Risk	 GREEN – Treatment Strategy ahead of programme or complete
 GREEN – Low Risk	

Tram – Stakeholder Risks

Master Risk ID	Risk Description	Effect(s)	Risk Sig	Treatment Strategy	Treatment		Due Date	Risk Owner*
					end Oct	end Nov		
263	Failure to demonstrate robust case for scheme against required tests of Affordability, Financial	<ul style="list-style-type: none"> Business case is not acceptable Approvals delayed 		Regular engagement with stakeholders to ensure clarity of requirements			Aug-Nov 06	Stewart McGarrity A&B

*Note: A – Stakeholder Risk Owner; B – Project Support to Stakeholder Risk Owner

Master Risk ID	Risk Description	Effect(s)	Risk Sig	Treatment Strategy	Treatment		Due Date	Risk Owner*
					end Oct	end Nov		
	Viability, Economic Viability and Modal Shift ACTIONS COMPLETE – RISK CONVERTS TO AFFORDABILITY AND APPROVAL ISSUE. CLOSE THIS RISK.	<ul style="list-style-type: none"> Slips into purdah period 		<ul style="list-style-type: none"> Progressive development of draft business case Updated Project estimate 				
264	Long term political risk to continued commitment of TS/CEC support for the Tram scheme	<ul style="list-style-type: none"> Protracted decision making and unnecessary debate during consideration of Business Case Project becomes key political issue during election campaign Reversal of decisions by incoming administrations in either or both of CEC and Holyrood 		<ul style="list-style-type: none"> Monitor likely outcomes and do our best to brief all relevant parties about the project in a balanced way 'Hearts and minds' campaign including Senior Executive Officer meetings with Councillors and MSPs and utilising the tram sounding board meeting with CEC and selected elected transport leads Regular briefings and discussions with senior CEC and TS officers particularly in relation to Full Council presentations Provide confidence on Infraco costs in Business Case ensuring that 70% costs are firm Make contact and engage with Senior SNP Leaders (effect 2) Continue to provide accurate information on status of project (effect 3) 			21 Dec 06	<p>Willie Gallagher A</p> <p>Andie Harper B</p>
265	Poor project governance RISK TREATMENT COMPLETE – CLOSE RISK.	<ul style="list-style-type: none"> Insufficient information flow to decision makers Slow or overturned decision making Failure to grasp or create opportunities 		<ul style="list-style-type: none"> Seek clarity of Delegated Authorities of TS and CEC representatives attending Board meetings 			Aug 06	<p>Graeme Bissett A</p> <p>Geoff Gilbert B</p>
266	JRC model is insufficiently robust to support the Business Case. RISK TREATMENT COMPLETE	<ul style="list-style-type: none"> Business case not approved. Time delay and resultant 		<ul style="list-style-type: none"> Intense engagement of TS, CEC and TEL in the development and delivery of patronage, revenue and BCR projections during August and September. 			End Oct 06	Stewart McGarrity A&B

*Note: A – Stakeholder Risk Owner; B – Project Support to Stakeholder Risk Owner

Master Risk ID	Risk Description	Effect(s)	Risk Sig	Treatment Strategy	Treatment		Due Date	Risk Owner*
					end Oct	end Nov		
	- CLOSE RISK	costs caused by redesign and remodelling.		Hold meeting with JRC and stakeholders to discuss results to gain confidence in performance. Encourage approval for tram to be given appropriate priority at junctions during operation. Scenario modelling of JRC cost estimate				
267	If there is inadequate progress on the operational system including bus/tram integration, development of network service pattern and TEL Business Plan may not be sufficiently robust.	<ul style="list-style-type: none"> Delay to JRC programme. Reworking of Plans or poorly developed Infracore arrangements with consequential delays due to re-working/change. Increased operating costs and loss of potential revenue. 		Develop clarity on the role and planned deliverables of TEL to bring about integration including development of ticketing strategies and bus/tram service patterns.			Aug 06	Neil Renilson/ Bill Campbell (TEL) A
				Model integration plans through JRC with rigorous review process using LB knowledge.				
				Identify optimal position for a combined tram/bus position.			Nov 06	Stewart McGarrity B
				Prepare TEL Business Plan (incorporating business case tram for system) with development of necessary policies to cover operations.				
268	Funding not secured or agreements not finalised regarding the total aggregate funding including £45m CEC contribution; developer contributions; cashflow/funding profile; financial covenant; and public sector risk allocation e.g. inflation. RISK IS SUB-RISK OF BUSINESS CASE APPROVAL.	<ul style="list-style-type: none"> Possible showstopper. Delays and increase in out-turn cost may affect affordability. 		Ensure close and continual interactions with TS and CEC to establish funding delivery confidence and agreement.			Sep 07	Graeme Bissett A Geoff Gilbert B
				Confidence required in contingency figures. CLOSE ACTION – P90 ADOPTED FOR FUNDING APPLICATION.		N/A		
				Address risk allocation with bidders through negotiation ACTION RELATED TO GETTING BEST PRICE NOT FUNDING – INAPPROPRIATE ACTION FOR RISK, CLOSE.		N/A		
				Develop and implement strategy for additional contributions				

*Note: A – Stakeholder Risk Owner; B – Project Support to Stakeholder Risk Owner 06

Master Risk ID	Risk Description	Effect(s)	Risk Sig	Treatment Strategy	Treatment		Due Date	Risk Owner*
					end Oct	end Nov		
269	Agreement on financial over-run risks sharing has not been reached between CEC and TS due to doubts over costs staying in budget. CLOSE OUT OF RISK ANTICIPATED NEXT MONTH	<ul style="list-style-type: none"> Potential showstopper to project if agreement is not reached. AGREEMENT REACHED, TEXT TO BE SIGNED		Hold discussions with CEC & TS to ensure adequate release of funds at appropriate periods of time.			Dec 06	John Ramsay (TS) A
				Understand commitments by TS and CEC re: 1A and 1B				
				Facilitate agreement between CEC and TS.				
270	Uncertainty about requirements for wider area modelling and need and extent of construction works required on road network	<ul style="list-style-type: none"> Increased construction cost. Delay while additional funding is found. 		Clarify and agree boundaries of scope and funding provision between TS and CEC			Feb 07	Willie Gallagher A Trudi Craggs B
				Provision of £500k in Draft Final Business Case estimate to deal with WAM requirements				
				Employ further Traffic Management expertise				
272	Delay in land acquisition due to uncertainty of political commitment to scheme. APPROVAL HAS BEEN GIVEN TO ACQUIRE LAND – RISK CLOSED.	<ul style="list-style-type: none"> Delays to Infraco and the overall Tram project. 		Achieve approval as part of the Draft Final Business Case 1		N/A	Dec 06- Feb 07	Willie Gallagher A Trudi Craggs B
				Develop alternative programme scenarios and commentary.		N/A		
				Manage the political risk and enfranchise all political stakeholders in the benefits of Tram.		N/A		
273	Business case is not approved during February 2007 due to Infraco tender returns not adequately informing the business case.	<ul style="list-style-type: none"> Delay until Summer 2007 due to lack of political commitment due to impending elections. Resultant cost impacts (inflation) on total cost. Political support may evaporate. Leads to Risk 264 		Maintain procurement programme to deliver critical business case inputs			Jan 07	Stewart McGarrity A Bob Dawson B
				Managing expectations on the part of TS and CEC as to the certainty with respect to costs which are reflected in the business case.				
				Ongoing fortnightly reviews with bidders and mid term contractual mark up to inform above treatment				

*Note: A – Stakeholder Risk Owner; B – Project Support to Stakeholder Risk Owner

Master Risk ID	Risk Description	Effect(s)	Risk Sig	Treatment Strategy	Treatment		Due Date	Risk Owner*
					end Oct	end Nov		
274	Failure to engage with Transdev in order to adjust DPOFA in line with the development of the Infraco and Tramco procurements. This includes negotiation to secure Transdev acceptance of a subcontract to support system commissioning responsibilities. RISK CLOSING – EXPECT COMPLETION IN DECEMBER.	<ul style="list-style-type: none"> Failure to achieve most effective commercial solution Delay in resolution of Agreements 		Engage with Transdev to ensure adjustment to DPOFA and negotiate requirements.			Dec 06	Alasdair Richards A & B
275	Negative PR coverage due to perceived mistakes or problems in project becoming public RISK RELATES TO CORPORATE PROCESS – REMOVE TO CORPORATE RISK REGISTER	<ul style="list-style-type: none"> Damage to tie's reputation Loss in confidence of tie's delivery Funder/promoter dissatisfaction 		Control confidential information and closely monitor Fol(S)A requests			On-going	Suzanne Waugh A Mike Connolly B
				Develop relationship with press with support for PR advisors to control stories				
				Communications Strategy being followed with Partners to ensure any problems are flagged up early and dealt with appropriately via the media or other stakeholders.				

*Note: A – Stakeholder Risk Owner; B – Project Support to Stakeholder Risk Owner

Tram – Project Risks

Master Risk ID	Risk Description	Effect(s)	Risk Sig	Treatment Strategy	Treatment		Due Date	Risk Owner
					end Oct	end Nov		
276	Unacceptable or inaccurate assumptions are used during JRC modelling and SDS design is based on the model. TREATMENT COMPLETE – CLOSE RISK.	<ul style="list-style-type: none"> Runtime performance requirements are not achieved. Business case is not approved due to doubts over model. Delay during remodelling and redesign resulting in cost and time impacts. 		Continually monitor JRC output through close interaction and progress meetings.			End Oct 06	Stewart McGarrity
				Assumptions Approvals process.				
278	Infraco tenderers seek extensions of time during tender period	<ul style="list-style-type: none"> Delay to market pricing and confirmation of business case capex requirements 		Agree bid programme with bidders – programme has been agreed			Aug-Sep 06	Bob Dawson
				Manage bid process to ensure bidders deliver to agreed dates			9 Jan 07	
279	Third party consents including Network Rail, CEC Planning, CEC Roads Department, Historic Scotland, Building Fixing owner consent is denied or delayed. SUMMARY RISK – RISK TO BE SPLIT TO DETAIL LEVEL	<ul style="list-style-type: none"> Delay to programme. Risk transfer response by bidders is to return risk to tie Increased out-turn cost if transferred and also as a result of any delay due to inflation 		Engagement with third parties to discuss and obtain prior approvals to traffic management plans, landscape and habitat plans, TTROs, TROs and construction methodologies in relation to archaeological and ancient monuments			Dec 06	Trudi Craggs
				Identify fallback options				
280	SDS critical deliverables are considered to be below quality levels required or late in production SUMMARY RISK – RISK TO BE SPLIT TO DETAIL LEVEL	<ul style="list-style-type: none"> Delay in submission of information to Infraco Delay in achieving consents and approvals Dilution of effort to de-risk Infraco pricing 		Identification of key areas requiring SDS attention. Re-focus SDS effort.			Jul 07	Geoff Gilbert
				Apply micromanagement to SDS delivery. Weekly reviews to press for deliverables.				
281	Insufficient planning of procurements and controls on management and contract	<ul style="list-style-type: none"> Weak procurement plan Scope/cost creep 		Improve robustness of procurement plan.	NEW		Dec 06	Geoff Gilbert
				Finalise project estimate and functional specification and apply change control.	NEW		Dec 06	

*Note: A – Stakeholder Risk Owner; B – Project Support to Stakeholder Risk Owner

Master Risk ID	Risk Description	Effect(s)	Risk Sig	Treatment Strategy	Treatment			Risk Owner
					end Oct	end Nov	Due Date	
	costs.	<ul style="list-style-type: none"> Damage to reputation 		Undertake further Value Engineering Closely manage expenditure including examination of opportunities for value engineering, influence of change and optimisation of value for money TREATMENT CLOSED AND REPLACED ABOVE	NEW		Jan 07 Sep 06	
282	Procurement strategy has high level of risk transfer to contractors which results in a failure to sustain suitable interest from the market throughout bid process. RISK CLOSING AND CONVERTS TO RISKS 278 AND 344	<ul style="list-style-type: none"> Increased price of bids Withdrawal of bidders during bid process 		Identify feasible alternatives to risk allocation and allow negotiation of risk allocation			Oct 07	Bob Dawson
283	Infraco tender returns are outside forecast estimates and business case capex limit	<ul style="list-style-type: none"> Draft Final Business Case requires major change and update Business case not sustainable Confidence is lost by Funders and politicians 		Identify feasible options to enable scheme to proceed Conduct review of scenarios and approach to be taken for business case Discuss contingency options with Funders and politicians			Oct 06- Jan 07	Stewart McGarrity
284	If programme requires to be accelerated, early commencement of depot works is required (current programme has no contingency and shows depot works commencement Nov 07)	<ul style="list-style-type: none"> Potential delay and increased cost should longer timescale 		Develop procurement strategy, including scope and cost, to obtain funding. Gain TS agreement for early commencement of works including earthworks. [TREATMENT STATUS RED AS ACTION BEHIND PROGRAMME TO ACHIEVE TARGET END DATE.]	NEW		End Dec 06	Susan Clark

*Note: A – Stakeholder Risk Owner; B – Project Support to Stakeholder Risk Owner

Master Risk ID	Risk Description	Effect(s)	Risk Sig	Treatment Strategy	Treatment		Due Date	Risk Owner
					end Oct	end Nov		
285	<p>tie fails to secure sufficient resource to manage all relevant processes. Especially evaluation of Infraco tenders by required time.</p> <p>RISK TREATMENT COMPLETE – CLOSE RISK SUBJECT TO BOARD APPROVAL OF RSOURCING STRATEGY.</p>	<ul style="list-style-type: none"> Failure to advance processes at required rate resulting in programme delays and missing of milestones 		Flexible approach to resourcing including drawing on TSS support, support from other contract services providers e.g. Nicols, Dearle & Henderson etc ACTION COMPLETE – APPROCH HAS BEEN DEVELOPED, CLOSE			On-going	Colin McLauchlan
				Develop Long Term Resourcing Strategy			Mid Oct 06	
187	<p>Poor relationships with stakeholders including political, Network Rail and other major organisations, businesses, frontages, special interest groups (including Spokes, SNH etc, Equalities Transport (DDA), medial, community councils and residents associations.</p> <p>THIS RISK IS TREATED THROUGH DAY-TO-DAY ACTIVITY – IT'S STATUS WILL NOT MOVE DURING THE PROJECT. RECOMMENDATION IS TO REMOVE FROM PRIMARY.</p>	<ul style="list-style-type: none"> Project loses political and public support Loss of funding support Delays due to protests 		Regular involvement with stakeholders to keep them informed and to better understand their concerns			On-going	Andie Harper
				Develop strategies through Mike Connelly to counteract any negative comments			On-going	
				Seek support from pro tram lobby groups to promote positive views			On-going	
				Continue with Hearts and Minds campaign			On-going	
286	<p>Infraco refuses to accept or fully engage in novation of SDS and as a consequence award is successfully challenged</p>	<ul style="list-style-type: none"> Significant delay to delivery of Tram Loss of Reputation Significant extra costs 		Consult with legal on options relating to due diligence to be carried out on design and, availability of consents (esp building fixings)			Feb 07	Bob Dawson
				Introduce and engage Infraco bidders to SDS as early as possible				
344	<p>Withdrawal of bidders or submission of non-compliant bids due to non-project related issues</p>	<ul style="list-style-type: none"> Less than 2 Infraco bids are submitted Less than 2 compliant 		Develop approach to maintain confidence in delivery of value two-way procurement			Jan 07	Bob Dawson
				Ongoing liaison with bidders to maintain engagement				

*Note: A – Stakeholder Risk Owner; B – Project Support to Stakeholder Risk Owner

Master Risk ID	Risk Description	Effect(s)	Risk Sig	Treatment Strategy	Treatment		Due Date	Risk Owner
					end Oct	end Nov		
		<ul style="list-style-type: none"> Infraco bids are submitted Public sector procurement guidelines are not met resulting in significant delay 		Develop Fallback Plan to cover the eventuality of only one bid being returned [TREATMENT STATUS NEW BUT RED DUE TO IMPORTANCE]	NEW		Dec 06	
139 & 164	Uncertainty of Utilities location and consequently required diversion work/ unforeseen utility services	<ul style="list-style-type: none"> Increase in MUDFA costs or delays as a result of carrying out more diversions that estimated Re-design and delay to Infraco works 		Ground Penetration Radar surveys to confirm location of Utilities under Tramway. To be plotted onto drawings by SDS.			End Nov 06	Alasdair Slessor
				In conjunction with MUDFA, create and implement schedule of trial excavations to confirm locations of Utilities			Mid Dec 06	
				Review design information and re-measure during design workshops with Utility Companies and MUDFA. Develop PC Sums into quantified estimates.			End Nov 06	
				Identify increase in services diversions. MUDFA to resource/re-programme to meet required timescales			Dec 06-Aug 07	
1	Change in anticipated inflation rate from 5% (included in base estimate)	<ul style="list-style-type: none"> Out-turn cost higher than reported 		Update project estimate inflation allowance using TS methodology.	NEW		Jun 07	Geoff Gilbert
				Monitor market and inflation indexes such as BCIS to ensure early identification and that correct adjustment is applied and further updated to project estimate and update project funder at regular intervals				
349	Diversion of gas main at Gogar Depot depends on construction of Turnhouse Pressure Reducing Station – land is not in LoD and there are no alternatives	<ul style="list-style-type: none"> Turnhouse PRS not constructed or not completed on time resulting in critical delay to construction of depot Land purchase cost may be above face value 		Ensure Scottish Gas Networks understand the criticality of diversion programme	NEW		Jan 07	Phil Douglas
				Monitor SGN progress with regard to land acquisition and adjust Tram programme accordingly	NEW			
				Ensure Tram Project remains in background in order to prevent escalation of land price	NEW			
				Develop strategy to allow commencement of Depot earthworks without prior diversion of Gas Main	NEW		Dec 06	

*Note: A – Stakeholder Risk Owner; B – Project Support to Stakeholder Risk Owner

Master Risk ID	Risk Description	Effect(s)	Risk Sig	Treatment Strategy	Treatment			Risk Owner
					end Oct	end Nov	Due Date	
271	Failure to reach a suitable agreement with CEC regarding: 1. Roads maintenance responsibility where the tram has been installed in CEC maintained roads; 2. What is and is not realistically within the scope of the tram infrastructure delivery contract; 3. The way in which tram UTC priorities are handled at key junctions. MOVED FROM STAKEHOLDER RISK REGISTER. SUMMARY RISK – TO BE SPLIT TO DETAIL LEVEL.	<ul style="list-style-type: none"> Delay to project while agreement with CEC is reached. Sacrifices being made to ensure agreement is concluded. 		Final agreement to be approved by Roads Authority, CEC Promoter, CEC in-house legal and tie			Dec 06	Trudi Craggs
				Final alignments in place [CEC DISAGREES WITH FINAL ALIGNMENT] [TREATMENT STATUS RED AS ACTION BEHIND PROGRAMME TO ACHIEVE TARGET END DATE.]			End Dec 06	

*Note: A – Stakeholder Risk Owner; B – Project Support to Stakeholder Risk Owner

**Edinburgh TRAM Project
Appendix D - Opportunities**

	Opportunity	Status
1	Relocation of Depot to Leith	On hold pending realisation of saving on Gogar depot excavation depth
2	Bespoke to off shelf tram-stop shelters in locations that are not aesthetically critical	Potential for cost saving to be assessed
3	Use of ballasted track where possible	Not being pursued further (currently ballasted track where line runs through open countryside on the Airport leg)
4	Omission of Ocean Terminal To Newhaven Section	Not being pursued further
5	Alternative depot solution at Gogar to reduce depth of excavation	This is being implemented and is taken into account in the Project Estimate
6	Delay procurement of the 6 additional tram sets to deliver 8/16 service pattern to 2014	This is not being pursued further at this stage
7	Deliver Network Rail Immunisation works concurrent with Network Rail Bathgate project	Being progressed
8	Steel Bridge for Edinburgh Park viaduct	Benefit being progressed

Cummulative Approved Budget
 Cummulative Current Forecast Value to expend Budget

Figures in '000s	Approved Budget Apr 06 - Mar 07	Cumulative Approved Budget vs Forecast						Value of Work Done (VOWD) in current Month			AFC - Current Financial Year Position to March 2007		
		Spend/Bud to date (Nov)	Dec-06	Jan-07	Feb-07	Mar-07	07/08	Previous	Variance (current minus previous)	Comment	Previous	Variance (current minus previous)	Comment
IMPLEMENTATION													
1 tie RESOURCES	5,706	3,763	4,241	4,698	5,155	5,706							
		3,763	4,246	4,703	5,160	5,711	3,763	5		5,706	5		
2 DPOF	389	268	298	328	358	389							
		268	298	328	358	389	268			389			
3 LEGALS	2,634	1,637	1,884	2,160	2,416	2,634							
		1,619	1,866	2,142	2,398	2,616	1,637	(18)		2,634	(18)		
4 SDS	13,002	8,702	9,552	10,402	11,702	13,002							
		8,702	9,552	10,402	11,702	13,002	8,702			13,002			
5 JRC	902	604	634	672	702	902							
		604	634	672	702	902	604			902			
6 TSS	4,296	2,666	3,066	3,476	3,886	4,296							
		2,671	3,071	3,471	3,881	4,296	2,666	5		4,296			
7 UTILITIES													
8 DESIGN SUPPORT													
9 3RD PARTY NEGOT	280	158	209	232	255	280							
		118	169	232	260	280	158	(40)		280			
10 LAND & PROP	10,713	17	22	27	32	10,713							
		17	22	27	32	10,713	17		6,892	3,821	Increased to reflect land take per Nov. funding for 1a (cash items)		
11 TROs													
12 COMMS / MKTG	638	485	523	566	609	638							
		487	525	568	610	640	485	1		638	2		
13 TEL	620	420	470	520	570	620							
		420	470	520	570	620	420			620			
14 SERV INTEG PLANNING	58	58	58	58	58	58							
		58	58	58	58	58	58			58			
15 PUK	80	56	62	68	74	80							
		56	62	68	74	80	56			80			
16 FINANCIAL ADVISORS	38	38	38	38	38	38							
		38	38	38	38	38	38			38			
17 INSURANCE	1,024	32	35	1,018	1,021	1,024							
		37	43	995	1,001	1,007	32	5		908	100	Increased to reflect DFBC construction cost estimate finalisation.	
18 CONSTRUCTION Utilities incl MUDFA	3,235	1,065	1,260	1,550	1,850	3,235							
		1,166	1,684	1,840	1,938	3,463	1,065	101	Latest evaluation of Mudfa (AMIS) Pre construction costs to Dec 06 £750k (delivery dependent) and SGN advance payment for long lead items increased by £205k to £805k	3,235	228	Review of Mudfa/Utility forecast undertaken Refer Infraco comment below.	
19 Infraco	282	0	21	41	262	282							
		0	21	41	62	82				200	(118)	Advance work item incorrectly labelled Infraco - moved to Mudfa/Utilities. Badgers relocation added.	
20 Tramco													
99 OTHER	145	105	115	125	135	145							
		105	119	123	135	149	105			145			
SPECIFIED CONTINGENCY													
BUDGET TOTAL	44,041	20,072	22,487	25,977	29,120	44,041							
CURRENT FORECAST		20,132	22,873	26,229	28,978	44,041	20,072	60		40,022	4,019		

Note - Budget lines updated to reflect November 2006 Transport Scotland Approval of £44m for the current financial year 2006/07.

CHANGE REQUEST

TRAM PROJECT BOARD



	Signature:	
Edinburgh Tram Project Change Owner Lindsay Murphy		

**LETTER FROM TIE EXECUTIVE CHAIRMAN
TO CEC CHIEF EXECUTIVE**

11 December 2006

Dear Tom

EDINBURGH TRAM NETWORK

As you are aware, the Tram Business Case has now been formally reviewed by the Tram Project Board and by the TEL Board under the project's established governance arrangements. tie has played a prominent role in the compilation of the business case, and the Board also has specific responsibility to review and approve funding requests for the project. The business case constitutes such a request in relation to the period from 1 April 2007 onwards. Tie has further formal involvement as the prospective contracting party for the construction and vehicle contracts. These responsibilities require that the tie Board independently reviews the Tram Business Case and reports its conclusions to you.

The tie Board has monitored the development of the business case and has now had sight of the final draft of the business case and all supporting documentation. We have also seen the letter from David Mackay, Chairman of TEL, dated 11 December 2006, which sets out the TEL Board's very positive recommendation to the Council that Phase 1 of the project should proceed. I am delighted to report that the tie Board today unanimously endorsed the recommendation from the TEL Board.

The compelling arguments in favour of the project are fully set out in David's letter and in the business case itself. I would like to highlight two points in particular in this letter.

Firstly, the preparation of the business case has involved a lengthy and rigorous process. The business case sets out the benefits which will flow from the scheme and also the risks which require to be managed to ensure its success. The TEL Board recommendation is for a phased and controlled approach to contractual commitment and construction which we believe is in keeping with a prudent management approach to the project.

Secondly, tie is tasked with actual delivery of the project through design, procurement, construction and commissioning. Our Board have taken care to assess the deliverability of the project, as defined in the business case as to scope, cost and programme. We believe the assumptions contained in the business case are robust and that the project can be delivered on time and budget.

The tie Board looks forward to hearing of the Council's support for the project following the meeting on 21 December.

**Willie Gallagher
Executive Chairman, tie Limited**

**DRAFT LETTER FROM CHIEF EXECUTIVE TRANSPORT SCOTLAND
TO CHIEF EXECUTIVE CITY OF EDINBURGH COUNCIL**

Dear Tom

EDINBURGH TRAM NETWORK - BUSINESS CASE

CONDITIONAL FUNDING PROPOSAL

Background and status of letter

You have requested a letter of intent from Transport Scotland which sets out the funding support available to the project and the principal conditionality which attaches to that funding proposal, as part of the framework for the business case which will be placed before the Council on 21 December 2006.

As you will appreciate, this letter does not formally commit Transport Scotland or Scottish Ministers to any course of action nor to any specific level of funding for the project. The business case will be reviewed by Scottish Ministers in the early New Year and this letter will not fetter in any way the judgement which Scottish Ministers will bring to bear on the content of the business case.

I have taken account of the content of your letter of even date, a final draft of which I have seen and which addresses the same issues. It is clearly important that the Council and Transport Scotland have a good mutual understanding of the best means to fund and execute the project and I believe that our dialogue over recent months has enabled our organisations to reach that mutual understanding.

Scope of the tram network

Transport Scotland recognises the importance of the project to the delivery of critical economic and social policy objectives which will benefit the City of Edinburgh and Scotland as a whole over the medium and long term.

We understand that the Council's objective is to construct a tram network which includes the core Airport / Leith line and which will also support the regeneration of the North West Waterfront area ("the Granton waterfront"). We have seen and are considering further the Council's proposed approach to delivering the project which phases construction such that the Airport / Leith tram line will commence prior to the Roseburn / Granton tram line. We acknowledge the sense of this approach which enables construction of the core line to proceed whilst retaining discretion over the aggregate capital cost entailed by the addition of the Roseburn / Granton line.

Project funding

The Council's financial commitment discussed with Transport Scotland is £45m, which was approved by the full Council earlier this year. We welcome the Council's proposal to examine the means of providing further support to meeting capital costs on certain conditions.

The current estimated capital cost of the full network is £592m and the Council recognises that there are a number of critical variables which will require to be determined before the final aggregate funding requirement is clear. These include, but are not restricted to :

- Receipt of acceptable final estimated costs including the negotiated outcome from the tender process for vehicles and infrastructure

- Satisfaction that the property development community's contribution to the project's funding is commensurate with the benefits they will enjoy from the substantial public investment

In addition, we understand that the Council will assess carefully the anticipated pace of development at Granton to ensure that the risk of sustained operating losses is properly mitigated. We endorse the importance attached to this assessment.

Transport Scotland's current position

At this stage of the project's development, Transport Scotland can confirm its previously stated conditional commitment to project funding of £375m in 2003 price terms. The intention is that this grant will be indexed to allow for construction industry inflation and we anticipate that this sum, taken together with the Council's own contribution of £45m, will aggregate £545m and will be adequate to enable commitment to the construction of the core Airport / Leith tram line. It should be emphasised that this is not a binding commitment by Transport Scotland and any actual commitment will depend on the terms of a final business case to be prepared in support of the commitment to the contracts for construction of the infrastructure and delivery of tram vehicles, anticipated to be in late 2007.

We regard as critical that the contracts to deliver the tram network are structured such that the Council and Transport Scotland retain full control over the decision to proceed with the tram vehicle and infrastructure contracts relating to the Roseburn to Granton tram line. We also understand that the construction programme will be phased to achieve greater certainty of outturn capital costs before committing to the construction of the Granton line.

Any further financial contribution from Transport Scotland will be assessed strictly on the basis of value for money in the context of the final business case. At this stage it is not possible for Transport Scotland or Scottish Ministers to provide any specific guidance about additional capital funding which may be forthcoming. However, Transport Scotland recognises the strength of the Council's intent with respect to the Granton waterfront area. Accordingly, we encourage the Council to set out the financial requirements of the full network and to demonstrate their value for money in the final business case. Based on this, Scottish Ministers will be in a position to decide upon the final level of funding support for the project including the funding that may be required to complete the Roseburn to Granton tram line.

Malcolm Reed
Chief Executive, Transport Scotland

**DRAFT LETTER FROM CHIEF EXECUTIVE OF CITY OF EDINBURGH COUNCIL,
TO CHAIRMAN OF TEL**

Dear David

EDINBURGH TRAM NETWORK - BUSINESS CASE

CONDITIONAL FUNDING PROPOSAL

Background and status of letter

I am writing in connection with the tram project business case which will be placed before the Council on 21 December 2006.

You requested the Council to update its previously stated position on funding now that the updated business case is complete. As you will appreciate, this letter does not formally commit the Council to any course of action nor to any specific level of funding for the project. This letter must also be read in conjunction with the letter from Transport Scotland of even date which addresses the same issues. I also refer to the report to the Council from the Director of City Development which sets out comprehensively the Council's rationale for supporting the tram project.

Scope of the tram network

The conclusions in the business case firmly reinforce the rationale for a project which the Council has been driving for more than six years. The business case provides the financial, economic and social policy justification for the project and sets out the benefits to the City of Edinburgh and to Scotland as a whole over the medium and long term.

We believe that the regeneration of the North West Waterfront area ("the Granton waterfront") is a vital element of the City's economic future. Regeneration would also progress materially the Council's social policy objectives for a relatively deprived and strategically important area.

The Council's financial commitment discussed with Transport Scotland is £45m, which was approved by the full Council earlier this year. When added to our understanding of the contribution from Transport Scotland, the package comfortably accommodates the cost of delivering the Airport - Leith core section of the network. My report to the Council recommends that this section of the network be commenced as soon as is prudent and practical.

There is little doubt that the introduction of the Granton tram line would accelerate development and indeed we see the regeneration work and the enhancement of transport links as integrated processes. Equally we recognise that financial prudence must be applied to the decisions needed for the line to proceed. The addition of this line takes the total estimated capital cost to £592m.

Project funding

The Council is keen to support the construction of the full Airport - Leith - Granton network including the Granton tram line and will examine the means of providing further support to meeting capital costs, should that prove necessary and assuming also that there is a commitment from Transport Scotland to provide the support needed to reach the aggregate funding requirement. The letter from Transport Scotland sets out their proposed approach to the project's funding and contains similar critical conditions to those set out here.

In assessing an enhanced funding package, both the Council and Transport Scotland will retain full control over the decision to proceed with the tram vehicle and infrastructure contracts. In addition, the construction programme will be phased to achieve greater certainty of outturn capital costs before committing to the construction of the Granton line. We would expect that any such increased financial commitment will be placed before the full Council in late 2007 within a final business case for the project and that the decision at that time will be conditional upon inter alia :

- Receipt of acceptable final estimated costs including the negotiated outcome from the tender process for vehicles and infrastructure
- Satisfaction that the property development community's contribution to the project's funding is commensurate with the benefits they will enjoy from the substantial public investment
- Satisfaction that the anticipated pace of development at Granton is adequate to avoid sustained operating losses

Although this conditional funding proposal does not formally commit either the Council or Transport Scotland to construction of the full network I believe it should provide the TEL Board with a clear statement of the Council's intentions with regard to construction. There is much work to do between now and final contractual commitment, but the contractual and funding approach we are adopting is a rational and risk-controlled approach to maintaining momentum behind a project which is of vital importance to the City of Edinburgh and to Scotland as a whole.

Tom Aitchison
Chief Executive, City of Edinburgh Council

Cc Mr Malcolm Reed, Transport Scotland

EDINBURGH TRAM NETWORK - DRAFT FINAL BUSINESS CASE
TEL BOARD RECOMMENDATION TO CITY OF EDINBURGH COUNCIL

DRAFT 5 December 2006

FOR DISCUSSION PURPOSES ONLY

INTRODUCTION AND BACKGROUND

The information presented in the business case represents the culmination of considerable effort by many parties over a long period to assess the merits of a tram system for Edinburgh. The Tram Project Board (TPB) comprises representatives of the key stakeholders in the project and was given the challenge by TEL of ensuring that a fair presentation is made in the Business Case of all the key criteria. The information on which the Business Case is based represents the best estimation available of all the key variables. We believe it is fit for the purpose of concluding on the future of the project.

In this recommendation letter, references to the "Business Case" relate to the set of inter-locking documents comprising the Tram Business Case and its appendices, notably the TEL Business Plan and the STAG Report. The content and purpose of these documents are described in the body of this letter.

The tram line configurations under assessment are described as :

- Phase 1 : The Airport / Leith / Granton tram network
- Phase 1a : The Airport / Leith tram line
- Phase 1b : The Roseburn / Granton tram line

The next section of this letter sets out our recommendations along with a brief summary of the key supporting reasons. We then provide more detail on our rationale and describe some of the key parameters, which themselves are more fully explained in the Business Case itself.

RECOMMENDATION

The TEL Board has concluded that there is a strong case in favour of proceeding with the Airport / Leith / Granton tram network to achieve the maximum benefit from the substantial investment involved. The Board also recognizes that a complex project such as this requires careful risk management, particularly to ensure that value for money is achieved and that costs are properly managed.

Accordingly our principal recommendations are as follows :

- 1) That the Council should approve the Business Case and proceed, in partnership with Transport Scotland, to work towards the delivery of the Airport / Leith / Granton tram network in a phased manner with work on Phase 1a – Airport / Leith commencing first.
- 2) That the Council should ensure that the following actions are taken to maintain control over the capital cost of the project :
 - A. That the enabling works, including utility diversions should be authorized to proceed according to a timetable which will not disrupt the construction programme for the network itself
 - B. That the negotiations with the bidders for the infrastructure and vehicles should continue with a focus on achieving a high proportion of fixed cost in the final contracted capital cost so far as the public sector is concerned
 - C. That the Council should continue to work with property developers across the tram network to ensure that an equitable contribution to tram costs is received from those developers where the tram contributes to the value of development
- 3) That the Council should reinforce its efforts to catalyse the regeneration of the Granton waterfront area, with the tram project fully incorporated as a primary feature of a holistic land use, transport and economic regeneration project. By doing so, and by connecting the area by means of a tram line, the Council will ensure this relatively deprived and strategically important area of the city is given the best chance of economic improvement.
- 4) That the Council requires the contractual right to defer the construction of the Roseburn / Granton tram line, or to restrict construction to the Airport / Leith line, in the event that capital costs (net of additional developer contributions) do not ultimately fall within an acceptable affordability envelope.
- 5) That the Council should not commit to construction of Phase 1b until such time as there is confidence that the level of development at Granton Waterfront will reach that required to generate sufficient patronage for the Roseburn-Granton line to **mitigate the risk of sustained operating losses**.
- 6) That Council approval of the Business Case includes a condition that contractual commitment in due course will be conditional upon there being no significant adverse changes to the key criteria on which the Business Case is based.

The TEL Board believes that by following these six recommendations, the Council and Transport Scotland can reach an affordable contractual conclusion which will lead to the construction of the most desirable network of Airport / Leith / Granton.

Our Recommendation 3 is designed to enable the Council's overall vision for this first phase of the tram network to be achieved. Experience dictates prudence in the commitment to major capital projects, but there are a number of reasons why a strong commitment now to the full Airport / Leith / Granton network makes sense.

Firstly, we must recognize that delay has a direct and substantial effect on cost. A stop-start approach to construction will generate potentially significant additional costs.

In addition, there is ample evidence that the creation of high quality transport infrastructure drives economic development. We believe that the regeneration of the North West Waterfront area ("the Granton waterfront") is a vital element of the City's economic future. Regeneration would also progress materially the Council's social policy objectives for a relatively deprived area and there is a need to support the substantial investment in life-long learning capability represented by the new Telford College, which has a student population already approaching 20,000.

The emergence of a tram network across the whole city connecting the key employment, residential, retail and leisure locations can only add to the acceptance by our citizens of this new mode of travel and consequently accelerate patronage growth and mode shift from cars.

Renewed emphasis on the drivers of development at Granton including the tram system, coupled with actual progress to time and budget on the Airport / Leith tram line, will we believe create the conditions for commitment to funding and construction of the Roseburn / Granton line under the terms of a single contract.

With respect to Recommendations 4 and 5, our proposed approach is designed to ensure that control is retained over the ultimate capital cost while still delivering a transformation in the city's transport infrastructure through the construction of the Airport / Leith tram line which represents the spine of the network. The early commitment to construction of the Airport / Leith line alone in the first phase, while not in our view the optimum ultimate outcome, is considered to be a feasible and prudent approach in view of the fact that a large majority of the projected patronage on the Roseburn / Granton line is dependent upon the development of the Granton Waterfront. It will also deliver many of the strategic aspirations of the tram project, will be a powerful economic driver for the city and will be financially viable. An additional feature of this phased approach should be the earlier delivery of the Airport / Leith tram line than would be the case if the full Phase 1 network is delivered in one package.

In making these recommendations, we are mindful of the need to apply "reality checks" to the project, its aspirations and its costs. We have had the opportunity to meet with people involved in similar schemes elsewhere in the UK and in continental Europe. We have noted that the Edinburgh project reflects some of the best features of the most successful of those schemes. The rationale for a tram scheme has been tested and assessed many times in recent years and remains valid. Fundamentally, Edinburgh is a growing city which brings demand for transport infrastructure if it is to prosper and bring benefit to its citizens and to the country as a whole.

The TEL Board unanimously believes that "standing still" is not a credible option, that the proposed scheme will deliver sustainable long term transport and environmental benefits and that there is therefore every reason to proceed, but to do so in a risk-controlled and responsible manner as described in our recommendations above.

One further point should be noted.

Many people will be aware that plans have previously been developed for a tram line linking the city centre tram network to the developments in the South East of the city, including the University of Edinburgh, the New Edinburgh Royal Infirmary, the biomedical research park, the area of regeneration at Craigmillar, the retail and transport interchange facilities at Newcraighall and ultimately the new Queen Margaret College campus. We would recommend that the Council takes steps to prepare for the possible extension of the system to South East Edinburgh for the following reasons :

1. The work done previously on this tram line indicated a high likelihood of economic and financial viability.
2. Evidence from other cities, most recently Nottingham and Dublin, has consistently been that the successful introduction of a tram system is rapidly followed by plans for extension.
3. There are long lead times involved in such projects

In this context, the tram line linking Granton to Leith and the extension to Newbridge should also be assessed.

The TEL Board has ensured that all the key players have been involved in the preparation of the Business Case. This includes Council officials from the Departments of City Development and Finance, Transport Scotland officials and their advisors, Lothian Buses plc, Transdev (the proposed operator of the tram network), expert advisors and tie Limited who have the task of developing and delivering the project to cost and programme specification.

So far as the Board of TEL is aware, all of these parties are supportive of the recommendations in this letter.

MORE DETAIL ON OUR RATIONALE

In assessing the economic, social and financial aspects of the project the methodology adopted has reflected :

- formal transport appraisal requirements established by the Scottish Executive
- the preparation of a completely new transport demand model reflecting the most up to date picture of Edinburgh's transport patterns
- rigorous financial modelling of the revenue and cost implications of the transport demand patterns established and verified in the model
- a completely refreshed view of capital costs reflecting market tender activity, benchmarked comparator tram schemes and expert advice on critical features

The specific features of the Business Case which we believe are most significant are set out below.

Transport appraisal guidelines and economic assessment

A key element of this appraisal is the calculation of the economic benefit to cost ratio. The Phase 1 network produces a strong result at 1.63, indicating that every £1 of cost will produce £1.63 of benefit, a level which we understand is considerably higher than that generated by other comparable schemes. The net benefit is primarily driven by benefits to the users of public transport. In financial terms the aggregate value in today's prices of the net benefits driven by the Phase 1 network is £273m.

The Airport / Leith tram line creates the spine of a tram scheme through the city centre area that can be extended on an incremental cost basis and therefore bears a heavier burden of fixed costs. Despite this cost weighting, the Airport / Leith tram line produces a positive benefit to cost ratio in its own right of 1.10. This is lower than that of the full network because of the Roseburn / Granton tram line's relatively faster tram run-times, less congested road environment and the lower capital cost arising from economies of scale and relatively more off-road running.

The appraisal also encompasses :

- environment
- safety and reliability
- social inclusion and accessibility
- the integration of transport and land use

The main transport appraisal measures have been assessed extensively in the last few years, not least in support of the Acts of Parliament passed in April 2006. The earlier conclusions were that the project met and exceeded the requirements of the appraisal and the recent work has reinforced those positive conclusions.

In addition, when fully operational, the Airport / Leith / Granton network is projected to carry some 20 million passengers annually, a mixture of transfers from buses (circa 83%) and cars and new trips (circa 17%). The number rises to more than 30 million within 20 years, representing a substantial shift from car and bus use with positive implications for congestion control and the environment.

The work on these various critical features has been extensive and has been performed over a lengthy period. It is instructive that the conclusions have been broadly consistent over that period and this provides a strong degree of comfort as to their validity. Equally critical, however, are the financial constraints rightly imposed by the Promoter and Ministers.

Capital costs and affordability

Tenders are awaited on the "Infraco" infrastructure construction contract and tender returns are under assessment for the vehicle supply contract. This is a complex process and best value for the public sector will be achieved only with diligence and professional negotiation during the period to contractual commitment which is expected to be in October 2007.

The Business Case cannot disclose detailed internal cost estimates for reasons of commercial confidentiality, but our assessment is that those internal estimates have been performed with rigour, incorporate those tender returns and other known market costs available have been assessed by peer professionals and have been analysed and reviewed by representatives of the principal funding stakeholders. The TEL Board is satisfied that they have been properly and prudently compiled and contain a rigorously developed level of risk contingency and therefore provide a robust basis for concluding on the Business Case.

The aggregate funding and costs of the project will provide the financial framework for a decision on next steps. The funding available for the project has previously been discussed between the Council and Transport Scotland. The Council are committed to providing £45m toward the gross capital cost and Transport Scotland will provide a grant of £375m indexed to reflect an appropriate measure of inflation. This has previously been estimated at up to £500m providing a benchmark for affordability of up to £545m. Negotiations continue with property developers on contributions to the project based on the uplift in development value which arises when high quality transport infrastructure is provided

The current capital cost estimate for the Airport / Leith / Granton network is £592m, including a sum of £92m for the incremental cost of delivering the Roseburn / Granton tram line. The work scrutinised by the TEL Board and the information and statements of intent it has received from the Council and Transport Scotland provide us with reasonable confidence that appropriate contingency has been reflected and that these principal funders will assess constructively a case brought to them in the future for additional funding to support Phase 1b. The variables include the finalisation of negotiated tender prices, the extent of developer contributions and the extent to which the benchmark affordability measure of £545m may be extended by the Council and Transport Scotland, on evidence that value for money continues to be demonstrated. These factors cannot be determined in the short term but will be determined prior to contractual commitment.

The estimates confirm that the capital cost of the Airport / Leith line is comfortably within the benchmark affordability measure. Accordingly, there is considerably more confidence at this stage in the affordability of this line but it should not be presumed that construction will proceed until such time as an acceptable contractual position has been reached with a preferred bidder. However, assuming acceptable contract terms can be reached, this is the spine of the Edinburgh Tram Network and should be commenced as soon as possible. The contractual structure we propose, with the Roseburn / Granton line reserved to the Council's discretion, enables the Airport / Leith tram line to proceed early. The Granton line can then follow if the Council and Transport Scotland are satisfied on the issues of affordability and the financial viability of the extension to Granton.

In the TEL Board's view, the willingness of developers to contribute to the tram cost is a key confidence-building feature in justifying construction of the tram to the major development areas in the city. This feature must be given due attention in making a final decision to proceed to contractual commitment and the logic applies to all phases of the tram network.

Financial viability – operational cash flow

Edinburgh has an opportunity, virtually unique in the UK, to achieve effective service integration between its Council-owned bus company and the tram operations. The Business Case sets out how this will be achieved and also demonstrates the operational cash flow characteristics of the integrated bus and tram system.

It should be recalled that the modelling requires estimation of economic activity, property development, demographics and transport demand patterns which commence in some 5 years' time and run through a period of 30 years. The resulting projections can only ever be regarded as that – projections – and there can be no guarantee of their delivery. That feature however is common to any major capital infrastructure project and cannot of itself be a barrier to progress.

To provide as reliable a basis for the projections as possible, a completely new and highly sophisticated transport model has been built to reflect the specifics of Edinburgh's projected transport demand. The work was carried out by independent experts, messrs Steer Davies Gleave, who are recognised as experts in this field and who have reported comprehensively on their work and their conclusions. As with the capital cost estimates, extensive and rigorous consultation has taken place with officials of the primary funding stakeholders. Officials of Lothian Buses, Edinburgh's award-winning Council-owned bus operator, and Transdev have worked together to provide essential input to the integrated bus and tram service pattern. Transdev operate and maintain many tram systems worldwide and are advising us under a contract which should lead in due course to their appointment as tram operators. We believe that their insights further underpin the credibility of the business case.

Economic development assumptions are a critical influence on the model's output. The growth assumptions in the transport model are consistent with the Council's existing development models.

The projections incorporate the patronage and revenue estimates from the transport modelling and the operational and maintenance costs of bus and tram operations. The overall profile is that the operational cash flows will be positive once the tram and bus service patterns have settled down after a normal "ramp-up" period of around 3 years and in later years significant surpluses can be demonstrated. On this basis the TEL Board believes that subject to the projected levels of development taking place as planned the requirement to demonstrate that, over time, the integrated service will not require subsidy has been fulfilled.

There are two other key features affecting operational viability.

- The genesis of the tram project was related to the regeneration of the North West and North East of the city. The Roseburn / Granton tram line attracts relatively lower patronage than more heavily populated areas of the City such as Leith Walk. However, it is an objective of the tram project that it will reinforce the regeneration of North West Edinburgh and help fulfil specific social policy aspirations such as accessibility of relatively poorer areas to areas where employment prospects are brighter. The modelled results reflect this backdrop with substantial dependence on the scope and pace of development. This represents a significant risk to financial viability with 32% of total revenues dependent on planned development occurring at the time and to the extent projected. Although the underlying economic development plans are now reasonably well-advanced and the creation of the tram network should in itself reinforce the pace of development, this risk factor cannot be ignored and is another influence in recommending the phased approach to construction.

- The ramp-up period brings particular challenges as travellers adapt to new patterns of public transport provision. This is a common feature of any new tram system and the evidence from many other cities is that patterns stabilise some 2-3 years after introduction. Cash flow is invariably negative in this early period, but the Board believe that limited borrowing facilities will support this period, to be repaid from subsequent positive cash flows. The projections take account of the interest costs incurred. Longer term dividend planning will be necessary to take account of this ramp-up period.

CONCLUSION

The TEL Board was given the responsibility of overseeing the work required to produce a Business Case and supporting documents which describe the facts, judgements and forecasts relating to the proposed Airport / Leith / Granton tram network and to make recommendations to the City of Edinburgh Council on the appropriate way forward.

Taking all of the relevant factors into account, the TEL Board recommends approval by the Council of the Business Case for the Airport / Leith / Granton tram network. We also recommend that the Council and Scottish Ministers, should they accept the Board's recommendation to approve the Business Case, incorporate in their approval some key conditions which will assist their agents to retain control over costs and funding and ensure that value for money is manifested in the final contractual documentation.

This phased approach will serve to minimise risk and ensure appropriate pressure is maintained on contractor's prices and developer's contributions in the run up to the point of contractual commitment. This will serve to maximise the opportunity to develop the full Phase 1 network on an affordable basis and could result in an earlier delivery of the Airport/Leith tram line.

We believe this approach is a responsible, risk controlled approach but one which promotes efficient execution of a high-quality improvement to the transport infrastructure of Edinburgh, with substantial economic and social benefit to the City and to the Scottish economy.

We would also emphasise that efficient execution of the project from this stage depends on allowing the scheme Promoter and its agents to move matters forward without undue interference, all the while remaining within the conditionality agreed at this stage. Any other approach will inevitably lead to delay and increasing cost.

DAVID MACKAY
CHAIRMAN

NEIL RENILSON
CHIEF EXECUTIVE

TRANSPORT EDINBURGH LIMITED
On behalf of the Board of Directors
11 December 2006

DRAFT
Edinburgh TRAM Project
(Commercial In Confidence)

tie Limited

Paper to : Tram Project Board
Subject : Update on the TTRO and TRO processes
Date : 13 December 2006

1.0 Background

- 1.1 At the Tram Project Board meeting on 20 November 2006, a paper was presented on the traffic regulation orders (TRO). The paper set out the progress which had been made in relation to the assumptions behind the TRO programme and provided an update in relation to the TRO programme itself.
- 1.2 Since the Tram Project Board meeting, various meetings have taken place between tie (Willie Gallagher, Andie Harper and Trudi Craggs), The City of Edinburgh Council (CEC) (Andrew Holmes, Keith Rimmer and Duncan Fraser) and Dundas & Wilson CS LLP (Ann Faulds).

2.0 Progress since the last Tram Project Board

- 2.1 The following actions have been agreed:-
- A consultation with Malcolm Thomson QC has been arranged for Friday 8 December 2006 to discuss various aspects of the TRO programme including the following:-
 - whether construction on-street can commence prior to the necessary TROs in respect of the permanent measures being in place;
 - if senior counsel's opinion is that the construction cannot commence until the necessary TROs (and TTROs to mirror the permanent measures are in place), whether off-street construction can commence ahead of the making of the TROs;
 - the categorisation of the necessary TRO measures into the following categories - core, direct consequential and indirect consequential measures and the implication of doing so;
 - if senior counsel endorses this categorisation, the nature and extent of the core measures; and
 - whether CEC needs to hold a discretionary hearing in respect of the core measures.

An opinion addressed to CEC will be obtained.

- A further meeting is to be set up with the Scottish Executive prior to Christmas in order to discuss further the regulation of traffic regulation orders on mandatory hearings and the possibility of amending the Local Authorities Traffic Orders (Procedure) (Scotland) Regulations 1999 in relation to major projects, bearing in mind the current

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programme. A representative from Transport Scotland will also attend this meeting to give support to the request to amend the legislation.

3.0 Programme

3.1 Despite CEC's reaction to the programme presented to the last Tram Project Board, it is our understanding that their concerns are limited to the following:-

- the quality, robustness and appropriateness of the modelling and design information and the TRO schedules to be provided by SDS by 13 March 2007;
- the ability of CEC to review and approve the package received from SDS on 13 March 2007 within two weeks of receipt;
- the commencement of the statutory consultation prior to the election on May 2007; and
- the potential number of objections and the ability of CEC to review and report to the members on these in three weeks.

3.2 In order to address these concerns the following is proposed:-

- a meeting will be set up with SDS, JRC, tie and CEC in order to discuss the modelling, CEC's expectations, the requirements for the TRO process and any scope gaps between the contracts;
- SDS will be asked to provide a set of exemplar TRO submissions for review. This will be similar to the process which has been undertaken in relation to the prior approval submissions;
- a process will be agreed with SDS to ensure that the development of the TROs and the schedules are iterative processes;
- commencing the statutory consultation prior to the election will be revisited following the consultation with senior counsel;
- Once senior counsel's opinion has been received and considered, the programme and the number, content and geographical breakdown of the TROs will be considered further;
- Dundas & Wilson CS LLP has offered to review and report on the objections. A process will be developed with CEC in order to satisfy their requirements. This reflects the role undertaken by Dundas & Wilson CS LLP in relation to both the congestion charging scheme and the private Bills for both lines 1 and 2.

3.3 A further update on the actions set out at paragraph 3.2 will be provided to the next Tram Project Board.

4.0 Temporary Traffic Regulation Orders (TTROs)

4.1 In respect of the TTROs a strategy has been developed by tie and SDS to ensure that the necessary orders are in place for both the MUDFA and Infracore works.

4.2 The strategy aims to maximise flexibility during the construction period and to minimise the risk of public confusion given the scale of the works.

4.3 Given that the construction methodology to be adopted by the Infracore is unknown at this stage and that the detailed design for the utility diversions is not yet complete, if individual TTROs for specific works on specific roads at

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(Commercial In Confidence)

specific dates were obtained at this stage by SDS, it is likely that the TTROs would require to be significantly altered or even remade by CEC in order to cover, and be in place for, both MUDFA and Infraco at the necessary time.

- 4.4 For this reason, it is intended that one master TTRO is made for all the utility diversion works and one master TTRO for the Infraco works. That order would specify:
- all of the roads likely to be affected;
 - all of the measures likely to be imposed;
 - that any particular measure will be in force when signed on street; and
 - the date on which the order will come into force and that it will remain in force for more than 18 months i.e. it will cover both the MUDFA and Infraco works.
- 4.5 This master TTRO would go through the statutory process once rather than having a series of street specific orders going through the process over several months or even years. It is anticipated that the master order would cover the vast majority of the measures (see paragraph 4.10 below). This approach has already been used in Edinburgh by major utilities' companies.
- 4.6 However this approach would have to be underpinned by effective lines of communication between MUDFA, Infraco, **tie** and the roads authority. This would allow a rolling programme of works to be agreed in advance within the terms of the master order and taking account of current circumstances especially other competing demands for road occupation or other utility works.
- 4.7 As the rolling programme is agreed between the parties, details of the proposed works/measures would be publicised in accordance with pre-agreed communication and publication protocols to ensure that the public had reasonable advance notice of all measures and diversions. That is, not too late, nor too far in advance to be useful. For instance, measures may be agreed in one month slots, two months in advance so that the public could be given one month's notice.
- 4.8 An effective communication and publication process is an essential pre-requisite of this approach to ensure that road users are given adequate and reasonable notice of temporary road works and diversion measures in the interests of procedural propriety and road safety. Accordingly there will need to be a protocol developed as part of the tender process to deal with the communication strategy. This is currently being developed. A draft has been circulated between all of the parties for comment and will be finalised in accordance with the following programme.
- 4.9 At present the programme for making the TTRO is as follows:-

Description of Milestone	Date
Draft schedule of roads to be submitted by SDS to tie for approval	15 December 2006

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Statutory package to be drafted and submitted to tie for approval (to include the order, the schedules and the supporting statement)	15 December 2006
Consultation with AMIS in order to finalise the draft schedules	Ongoing until end of January
Protocol to be finalised	By the end of the January
Receipt of traffic management plans from AMIS for review	Mid – end of January
Submission of the statutory package to CEC	By 9 February 2007
Presentation to Council members/sounding board	10 – 15 February 2007
Ministerial Approval	15 February 2007
Making of the TTRO	By end of February 2007

4.10 It should be noted that there may need to be further TTROs made during the utilities works as the traffic management plans are further developed. In addition the TTRO does not cover the following, which, in accordance with the legislation, will require to be dealt with in separate TTROs:-

- blue badge holders – there may be two or three disabled bays which are affected in addition to the bays at St Andrew Square;
- taxi ranks – these are dealt with by a licence and not a TTRO;
- loading bays – these will require to be dealt with as the master TTRO is pulled down as these need to be referenced to precise measurements;
- cycle tracks – there is a cycle track at St Andrew Square on the west side. Given the decision to locate the tram tracks down the west side there may be no need to affect this area;
- footpaths – there are a potentially a couple of affected areas.

4.11 There will need to be considerable buy-in from both the members of CEC and MSPs especially as there may be adverse impacts on the road network and for particular wards. Both tie and CEC will require to regularly brief the members and MSPs in order to keep them informed.

5.0 Recommendation

5.1 The Board is asked to note this paper and in particular:-

- 5.1.1 the actions outlined at paragraph 3.2; and
- 5.1.2 the programme for obtaining the TTROs.

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Prepared by: Trudi Craggs, Development and Approvals Director

Recommended by: Andie Harper, Project Director

Date: 5 December 2006

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

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Paper to : **Tram Project Board**
Subject : **MUDFA Construction Programme**
Date : **13th December 2006**

1.0 Background

- 1.1 A MUDFA Construction Programme forms part of the MUDFA Contract Documents. The programme was based on an available period of time, with no supporting design. Programme constraints were a start date of April07 and a completion date of July 2008.
- 1.2.1 To create a more realistic and acceptable programme it was decided to create the programme in conjunction with two major stakeholders, namely CEC and TEL. It was considered that most major political and public transport constraints would be covered by these two stakeholders.
- 1.2.2 A joint CEC/TEL/tie review was held 30th October06. Subsequent programme reviews were held separately.

2.0 Major Constraints

- 2.1 The original starting location of Haymarket Terrace,(moving towards Princess Street) was considered unacceptable for two reasons; Anticipated levels of congestion and complaints prior to Local Government Elections was considered to high a risk. There is also a desire from CEC to investigate a "public transport only" corridor running from MUDFA, through INFRACO, remaining as a TRO when tram is operational.
- 2.2 Princess Street ; Available only Sept, Oct, Nov 07
- 2.3 South St. Andrews ; Considered to be a separate project due to the complex nature of the Coms work in particular.
- 2.4 Leith Walk; an area where a large amount of small businesses are vociferous. Considered to be high profile and difficult during run up to the local election. Considered start date of April may move to May for that reason.
- 2.5 Foot of the Walk/ Constitution Street: No politic or logistical constraints, however lack of maturity on design forces this area back in the programme.
- 2.6 ALL PROPOSALS ARE SUBJECT TO TRAFFIC MANAGEMENT MODELLING

3.0 Trial Areas

- 3.1 There is a desire to conduct a trial works order area principally to confirm the works order process, but also to confirm design assumptions, traffic management plans and the communication plan.

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- 3.2 The area selected; Crewe Toll Junction, has a number of advantages:
1. Shows commitment to Section 3, (Line 2)
 2. Challenging from a technical point of view
 3. Will not cause excessive traffic congestion
 4. Not considered at political risk and relatively low profile
- 3.3 In the event of Section3 being deferred to beyond April 09, the back-up trial area will be Haymarket Yards.
- 3.4 The back up area will require a minor re-alignment of the design programme.

4.0 MUDFA Construction Programme

- 4.1 This programme in chronological order, (see Appendix 1 for graphic support).
- 4.2 As traffic , bus route areas and areas of political sensitivity do not match the sections, it is best to describe the programme in terms of location rather than by section.

Crewe Toll;	3b (part)	March 07
Crewe Toll- Granton Square	3c/3b(part)	April 07
Newhaven Road-Ocean Drive	1a(part)	April 07
Gogar Depot	6	April 07
50m N London Road- Foot of the Walk	1c (part)/!b (part)	April 07
South St Andrews Street**	1c (part)	June 07
Roseburn-Gogar *	5a/5b/5c	July 07
Princess Street	1d(part)	Sept 07
Crewe Toll – Roseburn***	3a/3b(part)	Sept 07
Constitution St ****	1a (part)	Sept 07
Lothian Rd Junction	1d (part)	Jan 08
Lothian Rd- Haymarket	1d (part)	Jan 08
South St Andrews st.- 50m N, Top of Walk	1d(part)	Jan 08

- ***Negligible MUDFA Work.
- ** Further negotiation required to secure this area as a "stand alone" which will need to run through festival and xmas periods
- * Programme contingency area
- **** Recent move to try to accommodate BT Cabling programme(See Item 5)

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5.0 Post MUDFA, (Pre INFRACO) Utility Programme

A programme is currently being created in conjunction with the Communications Companies, (most noticeably BT) regarding their cabling activities.

The activities, (cabling, splicing, jointing and recovery) can only be executed after MUDFA, and must be completed before INFRACO can commence.

Initial discussions with BT indicate reasonable programme float, except Foot of the Walk / Constitution Street.

Programme information will be verified and forwarded to INFRACO as an initial programme constraint

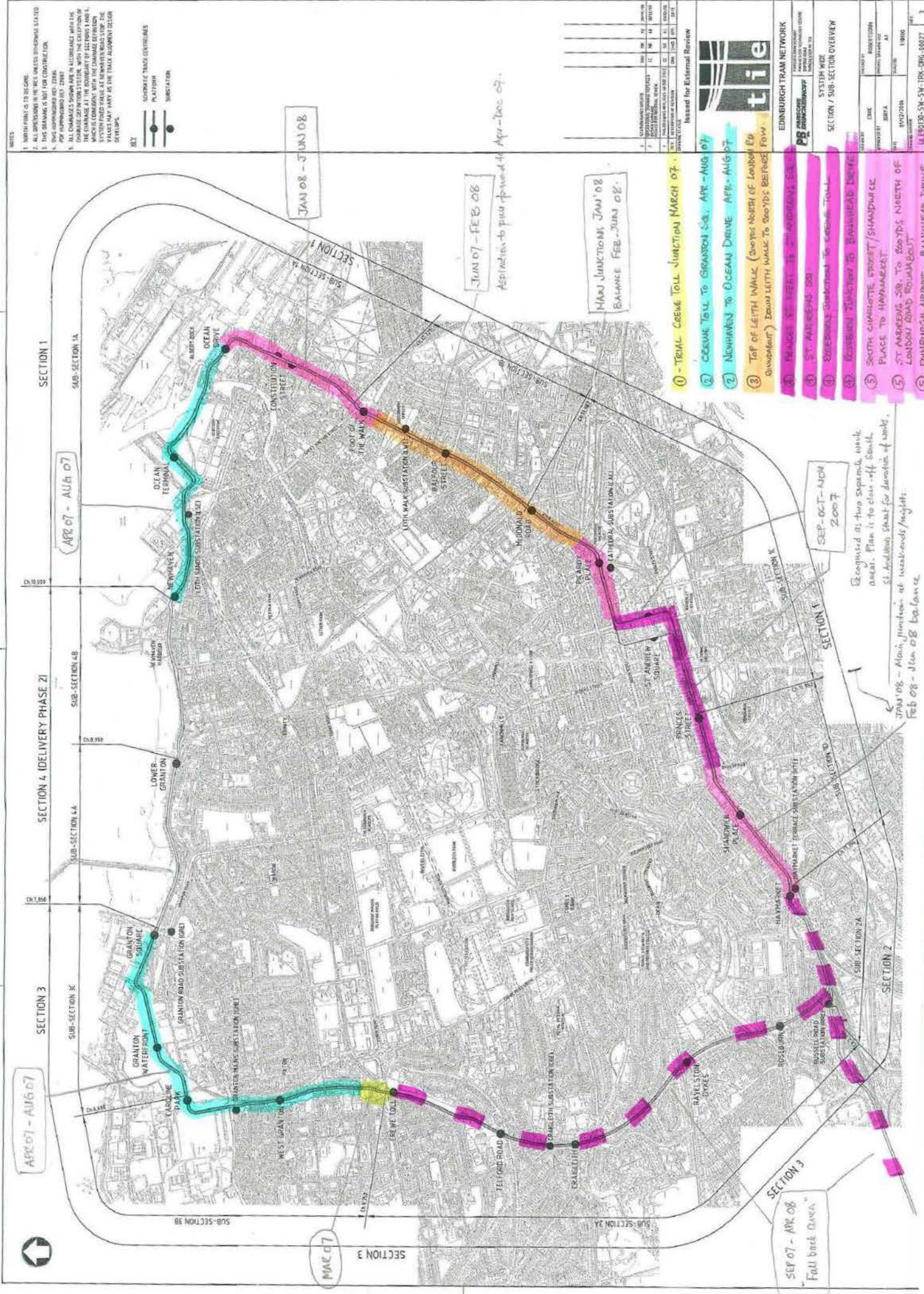
6.0 Diagrammatic Programme (see attached appendix)

6.1 The Board is asked to note and approve the Infraco Evaluation Methodology.

Proposed	Geoff Gilbert Project Commercial Director	Date:- 23/1/07
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Recommended	Andie Harper Project Director	Date:- 23/1/07
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Approved David Mackay on behalf of the Tram Project Board	Date:-
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- NOTES
1. WORK POINTS TO BE COMPLETED BY THE END OF THE YEAR.
 2. ALL WORKS TO BE COMPLETED BY THE END OF THE YEAR.
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Legend

- Orange line: SCHEDULE TRACK EXTREMES
- Green line: PLANTION
- Black circle: STATION

NO.	DESCRIPTION	DATE	BY	CHKD BY
1	ISSUED FOR EXTERNAL REVIEW	08/01/07
2
3
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Issued for External Review



EDINBURGH TRAM NETWORK

SECTION 7 / SUB-SECTION OVERVIEW

SYSTEM WIDE

PROJECT: EDINBURGH TRAM NETWORK

DATE: 19/10/07

SCALE: 1:1000

PROJECT NO: 06/0100-5W-5W-TM-DRG-00027

REV: 3

JAN 08 - JUN 08

JUN 07 - FEB 08
Aspirations to push forward to Apr - Dec 07.

HAWK JUNCTIONS JAN 08
BALANCE FEB - JUN 08.

- 1 - TRAIL CRENE TOLL JUNCTION MARCH 07.
- 2 - COLINE TOLL TO GRANSON SS. APR - AUG 07
- 3 - NEWHAVEN TO OCEAN DRIVE APR - AUG 07
- 4 - TOP OF LEITH WALK (DOORPS NORTH OF LEITH WALK (QUAYMOUTH) DOWN LEITH WALK TO 200YDS BEFORE FSW)
- 5 - BALANCE OF LINE TO 200YDS BEFORE FSW
- 6 - ST. PAULS SEAS 000
- 7 - ST. ANDREW'S TO 200YDS BEFORE FSW
- 8 - SOUTH CANTON STREET / SHANDWICK PLACE TO HANNAH STREET
- 9 - ST. ANDREW'S SS. TO 200YDS NORTH OF LONDON ROAD / SHANDWICK PLACE
- 10 - EDINBURGH AIRPORT - BANKHEAD DRIVE

SEP-06T-MOV ZOO 7

As required as two separate work areas. Plan it to clear off South St Andrew Street for duration of work.

JAN 08 - Hawk Junctions at week-ends / nights.
Feb 08 - Hawk Junctions at week-ends / nights.

TRAM RESOURCING PLAN 2007

As part of overall **tie** resourcing strategy and the DBFC process, Tram Project leadership team and HR have produced an overall organisational plan and resourcing timeline (attached as Appendix 1) and are aligned in managing and delivering resource requirements to support establishment of MUDFA and Infracore delivery streams through to 2010/11. This resource plan identifies the phasing of roles required to successfully deliver the project. Weekly joint management reviews are in place to manage actions and activities. Existing resourcing channels have been deployed to support delivery of talent into the project.

Tram **tie** headcount will grow by around 40 through 2008 reaching a peak of 67 in August. This will be a blend of direct and indirect employees on a balance, in principle, of two thirds to a third. The transforming nature of both **tie** and the Tram Project has led to a blended resource model which is designed to maintain flexibility of resource availability, ensure the quality of people deployed and to optimise cost.

What is clear is that as the project moves through 2007 is that the shortage of experienced, qualified, competent and available project delivery staff will continue to increase in Scotland and across the UK. This will see a continued growth in total salary and benefits packages, day rates and agency fees. Standard recruitment fees are already moving towards 17% and are increasingly based on total package. As the recruitment market gets tighter effective and appropriate relationships and channels of supply will get more crucial to success.

Based on the growth of Tram in 2007 and the consequential resourcing plan it is intended to establish for 2007 a formal resourcing partnership with a leading recruitment consultancy to allow national and multi-industry reach with structured and cost effective solutions to deliver organisational and project resourcing challenges through 2007 onwards. The focus of this partnership would be on project specific roles encompassing project, commercial, construction, engineering, design, planning and other delivery and support professions and roles. The Tram project, location, duration and scale will in itself be a significant attraction in itself but the business will continue to be effective and market competitive in its salaries and incentive opportunities whilst managing internal relativities.

As the Tram project moves to the delivery stage there begins a corresponding reduction in the project development and pre-construction activities. Up to seven roles will go by mid 2007 with a resultant need to identify redeployment opportunities across **tie**. In case of worst case scenarios a redundancy contingency has been established to cover any resulting termination costs.

Tram People Plan

October 2006 - Implementation



AUTHORISATION PAGE

Title : Tram Delivery Plan			
Role	Who	Version	Date
Author	Susan Clark	Draft 1	20/09/06
Consultation	Andie Harper Geoff Gilbert Trudi Craggs	Draft 1 Draft 1 Draft 1	
Author	Susan Clark	Draft 2	05/10/06
Consultation	Andie Harper Stewart McGarrity Trudi Craggs Geoff Gilbert	Draft 2	
Author	Susan Clark	Draft 3	27/10/06

CONTENTS

1.0 Executive Summary	4
2.0 Structure	4
3.0 Phases of Delivery	4
4.0 Organisation for Delivery	5
5.0 Systems, Processes, Monitoring	6
6.0 Integration with the Operator	6
7.0 Testing & Commissioning	7
8.0 Handover to TEL	7
9.0 Contract Close and Review Process	8

Appendix 1: Phasing

Appendices 2 – 13: Organisational Charts

Trams for Edinburgh

Delivery Plan from October 2006 to Implementation

1. Executive Summary

This paper outlines the overall people plan for the Tram Project from October 2006 - delivery and handover to TEL, the organisation who will be responsible for ongoing operations. It creates a framework for the delivery of the project from organisation to process management, control and monitoring, test & commissioning through to handover to TEL and final review.

2. Structure of Paper

This paper will cover the following:

- phases of the project
- organisation to manage this delivery phasing and recruitment
- systems, processes and monitoring to be employed
- integration with the operator
- handover to TEL
- review process

3. Phases of Delivery

There are a number distinct work streams required to deliver the Tram project, as follows:

Design
Procurement
MUDFA
Land Acquisition
Early works
Construction and Tram provision
Test, integrate and commission
Handover

These work streams will inevitably start and end at different times across the course of the project but the indicative phasing is shown below:

Timescale

2006/7	Design	Procurement	MUDFA mobilisation			
2007/08	Design	Procurement	MUDFA	Land Aquisition	Early Works	Construction
2008/9	MUDFA	Land Aquisition	Early works	Construction		
2009/10	Construction	Test & commission				
2010/11	Handover					

4. Organisation for Delivery

4.1 Delivery Philosophy

tie will award and manage 2 main contracts over the delivery of the remainder of the project – MUDFA and Infraco (this includes the novated Tramco and SDS contracts).

The approaches to management of these will be different due to the reimbursement mechanisms of both.

MUDFA is based on re-measurement and so will require greater overall inspection to ensure that payment is made according to what is implemented.

For the Infraco contract, **tie** aims to appoint a competent contractor to be responsible for:

carrying out and managing a comprehensive turnkey contract including the design, construction, installation, commissioning, tram supply, system integration, infrastructure maintenance, tram maintenance and supply of related equipment and materials in respect of the Edinburgh Tram Network, trams and related infrastructure

tie must organise itself to ensure delivery of the requirements by the successful Infraco contractor and will do so by employing a philosophy for Trams that will be one of “inspection not expectation”. In essence this means that **tie** will create a Tram Delivery team to manage the process required for good project and cost control and undertake sufficient inspection of what is being delivered to provide assurance to **tie**, and confidence in the end product delivery and quality to **tie**’s client and key stakeholders.

4.2 Delivery Team Structure

Currently, the Tram Project Director has 3 main reports – Commercial Director, Project Development Director and Delivery Director with support provided from **tie**’s “hub” in the shape of HR, Finance, Communications & Stakeholder Management, Engineering & Safety.

It is envisaged, that as the project progresses through design and SDS is novated to Infraco that, the Project Development team will migrate to the Delivery Team. The timing of this will be agreed by all parties and communicated well to ensure that everyone understand new reporting lines and any change in responsibilities.

Within this structure of Delivery and Commercial, project management teams will be created for the specific work streams and key deliverables within these work streams, e.g. delivery includes Infraco which will be split into functional areas such as depot, systems and civils along with a Tramco Project management function to keep control of the delivery of the Tram via Infraco.

Support resources in the shape of commercial, H&S etc may belong to more than one team, but it will be clear who is in each team to create a culture of ownership and accountability.

Organisational charts for each phase of the project are attached as appendices.

4.3 Recruitment

Recruitment will take place in line with the phases of the project and this will allow **tie** to manage succession planning across the project and company. Tie aims to attract high calibre people to implement the Tram Project and the Project and Delivery Directors will work with the tie HR director to look for

All positions will be advertised internally, but the Delivery Director will decide where external recruitment is required to ensure that the best person is recruited for the positions. This external recruitment will consist of a combination of direct appointments to **tie**, bringing resources in from our partner organisations – TSS, legal etc, contracting directly with individuals and agency staff. It will be important to maintain a balance across these different types of positions.

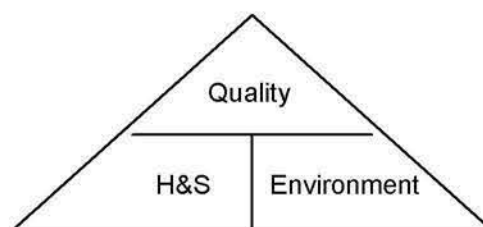
A job description will exist for each role and candidates assessed against this to ensure that competencies are matched to roles.

Each member of the team will be included in a review process. This means that objectives will be set and people assessed against delivery of these objectives. This will cover **tie** personnel but also service objectives will also be set for contract, agency and TSS personnel to allow a measurement of their performance and delivery of service contracts/agreements.

A personal development plan will also be in place for each member of the **tie** team. This will be updated at least annually to reflect development undertaken and new development required.

5. **Systems, Processes, Monitoring**

The Tram project will utilise the Project Management Plan and hierarchy of **tie** and Tram management processes to control the project. These include:



Sitting below this hierarchy of systems sit the following processes that will be used to manage the projects:

- Project Management Processes
- HR processes

- Finance/cost control processes, including change
- Risk Processes
- Document control

These process will control the level of monitoring undertaken by **tie** and be used to determine, based on actual information and monitoring results, to increase or reduce monitoring levels based on the performance of the Infraco contractor.

6. Integration with the Operator

An operator has already been appointed for the operation of the Tram Network through the DPOF agreement. As the project moves through delivery and towards implementation, the role of the operator will increase. This involvement will involve the creation of standard operational documentation through to recruitment and training of operational staff and DPOF have been asked to provide a programme for this activity.

The process of interface between Infraco and DPOFA will be managed through renegotiation of the DPOF agreement to ensure that DPOF resources are available to the Infraco contractor when required.

This whole process will be managed by the DPOF Project Manager through the life of the project.

However, as the programme moves toward test & commissioning, **tie** will appoint a Commissioning Manager. This role will be responsible for the overall co-ordination from **tie's** perspective. They will focus on ensuring integration between all parties and dealing with any snagging and close out issues.

7. Systems Acceptance

Testing criteria exist for both the infrastructure and trams. These criteria cover from factory acceptance tests through to site tests.

The process for acceptance of the Edinburgh Tram Network as an integrated system is designed to ensure that the project is delivered in a safe, compliant and efficient manner. The objectives of the process are to ensure that system performance, integrity, reliability, availability and safety are rigorously tested and that throughout all the stages of delivery process the many sub systems and the overall system are validated and verified against **tie's** requirements. Details of the testing regimes are contained within the systems Acceptance document. Whilst integration and acceptance of the network is an Infraco responsibility, **tie** will appoint a Commissioning Project Manager to facilitate relationships across the contracts and people that **tie** is managing.

The systems acceptance testing is divided into 5 distinct phases:

- T1 Post commissioning Test
- T2 Performance Test 1
- T3 Pre-operations Test
- T4 Network Performance Test
- T5 Network Reliability Test

Tests T1 – T3 have to be passed before the Edinburgh Tram Network (or section thereof) can open for passenger carrying service and are therefore scheduled during the test running, driver training and shadow running phases

Furthermore, T1 can be carried out in isolation for the geography of each sectional completion stage. However, T2 and T3 can only be undertaken for those sections that are to open for passenger carrying services immediately thereafter. T4 & T5 shall not be carried out until the passenger carrying service has commenced on the whole Edinburgh Tram Network and T5 must be carried out within 12 months of the system

opening to passenger service.

8. Handover to TEL

TEL will be responsible for the management of operation of the network through a series of contracts – DPOFA and Infrastructure/Tram maintenance and the JRC contracts.

It will be critical to the project that preparatory work is undertaken to ensure the following:

- Staff recruited and trained to manage these contracts
- Appropriate systems in place to ensure robust management – i.e. HSQE Management system

These processes and timescales will be factored into the overall project delivery programme.

9. Contract Close & Review Process

A small core of staff will be retained to manage the final contract close out and snagging. In addition, consideration will need to be given to the retention of experience to deal with longer term compensation claims as a result of the introduction of the tram.

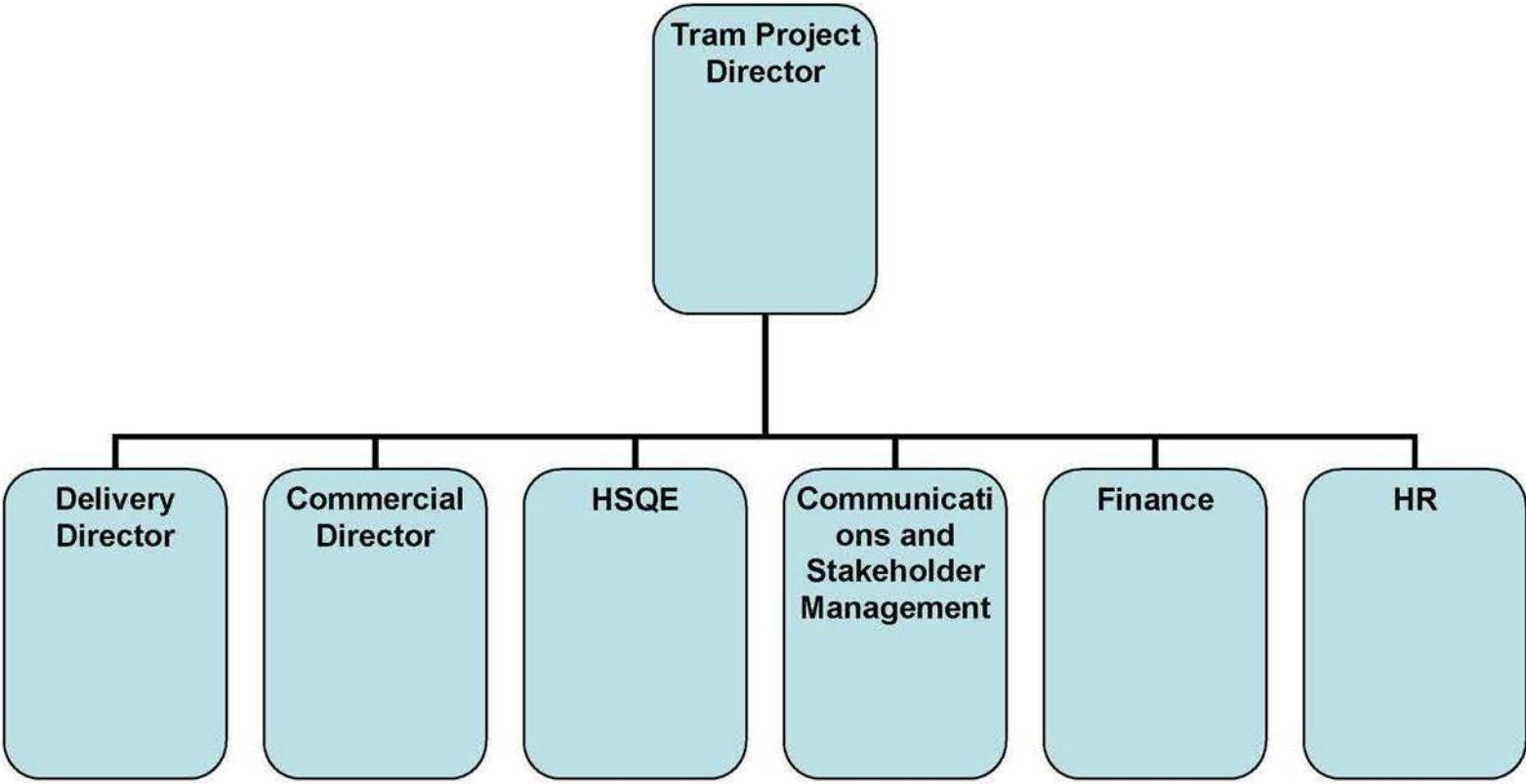
A final benefits realisation report will also be completed as part of this stage.

APPENDIX 1

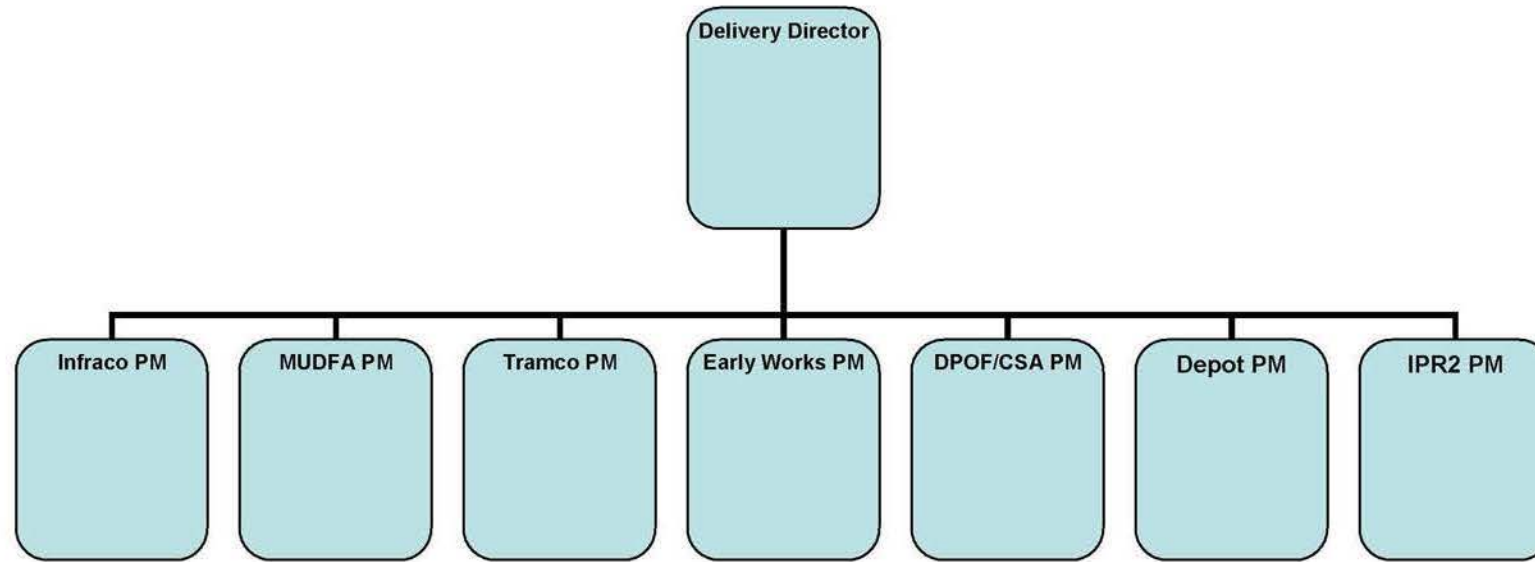
Phasing of roles within the Delivery Team

Current Tram Organisational Structure

Tram Delivery Team from January 2007

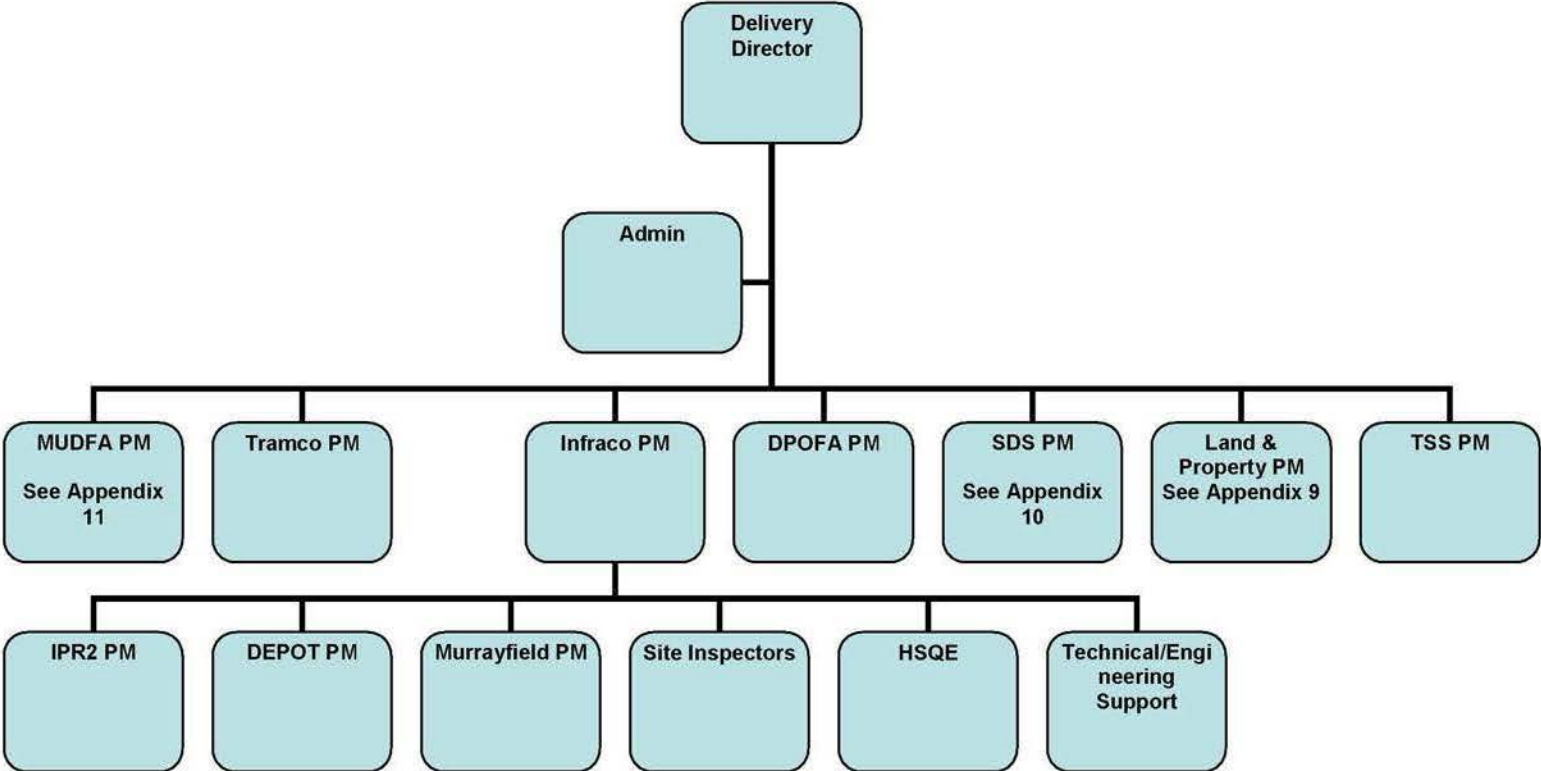


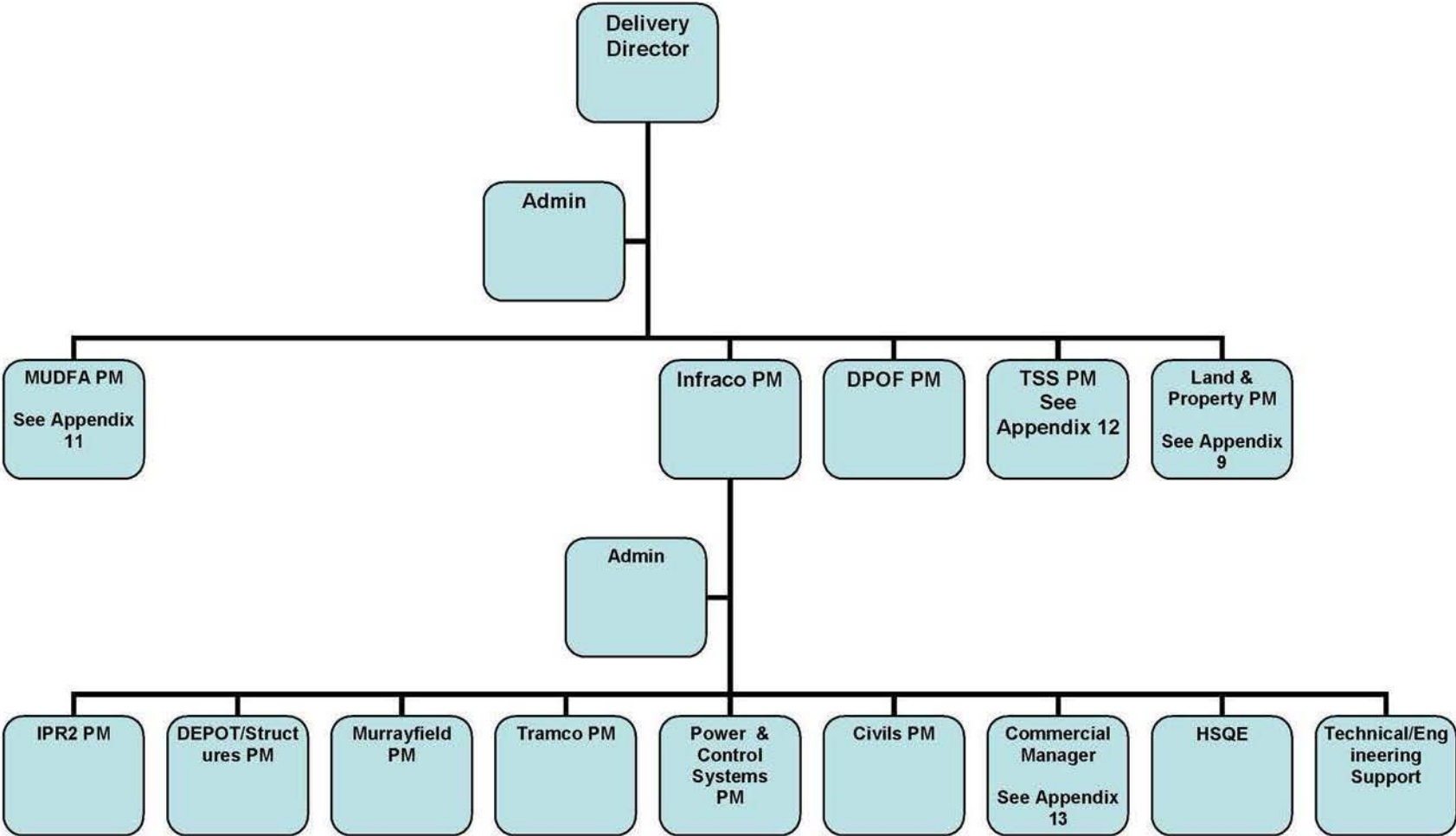
Delivery Team Structure September 2006 until merger with Project Development: Phase 1

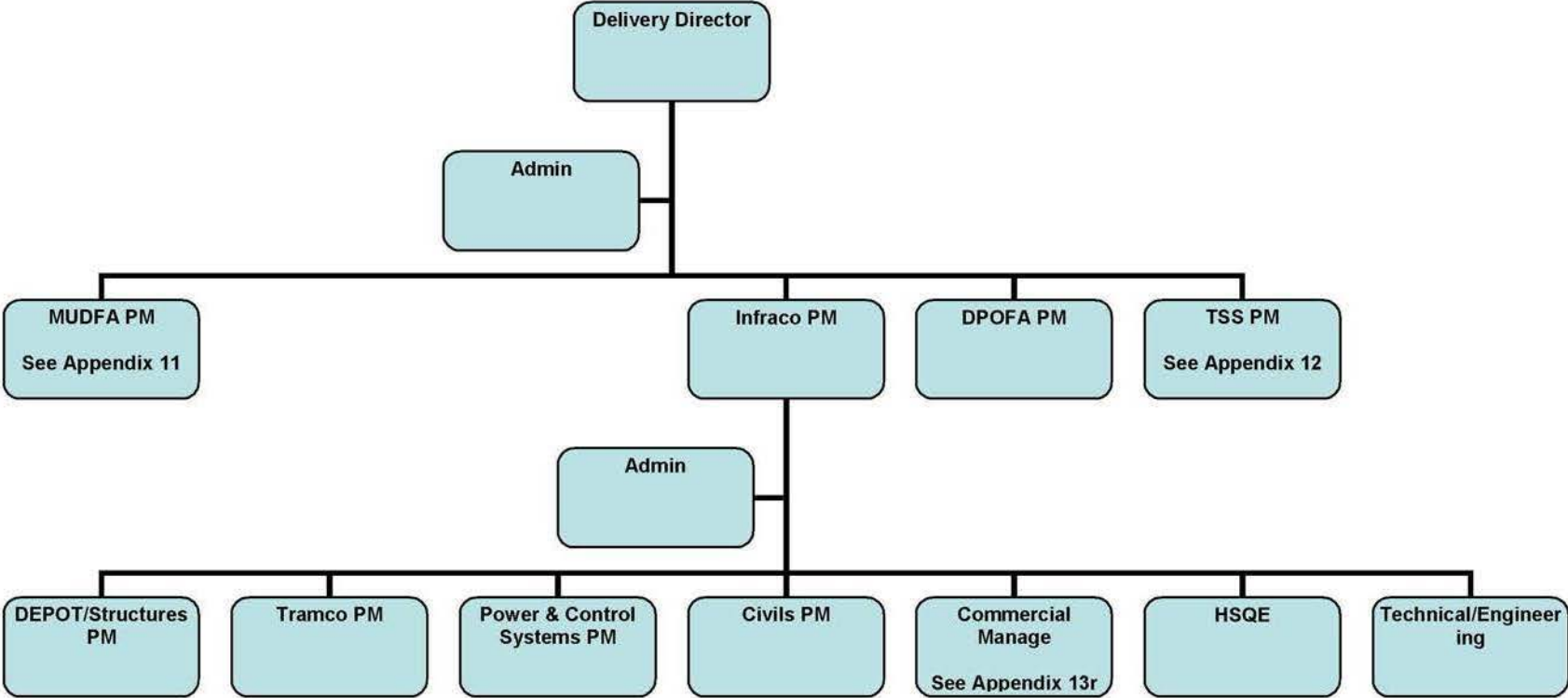


Delivery Team Structure January 2007 – July 2007: Phase 2

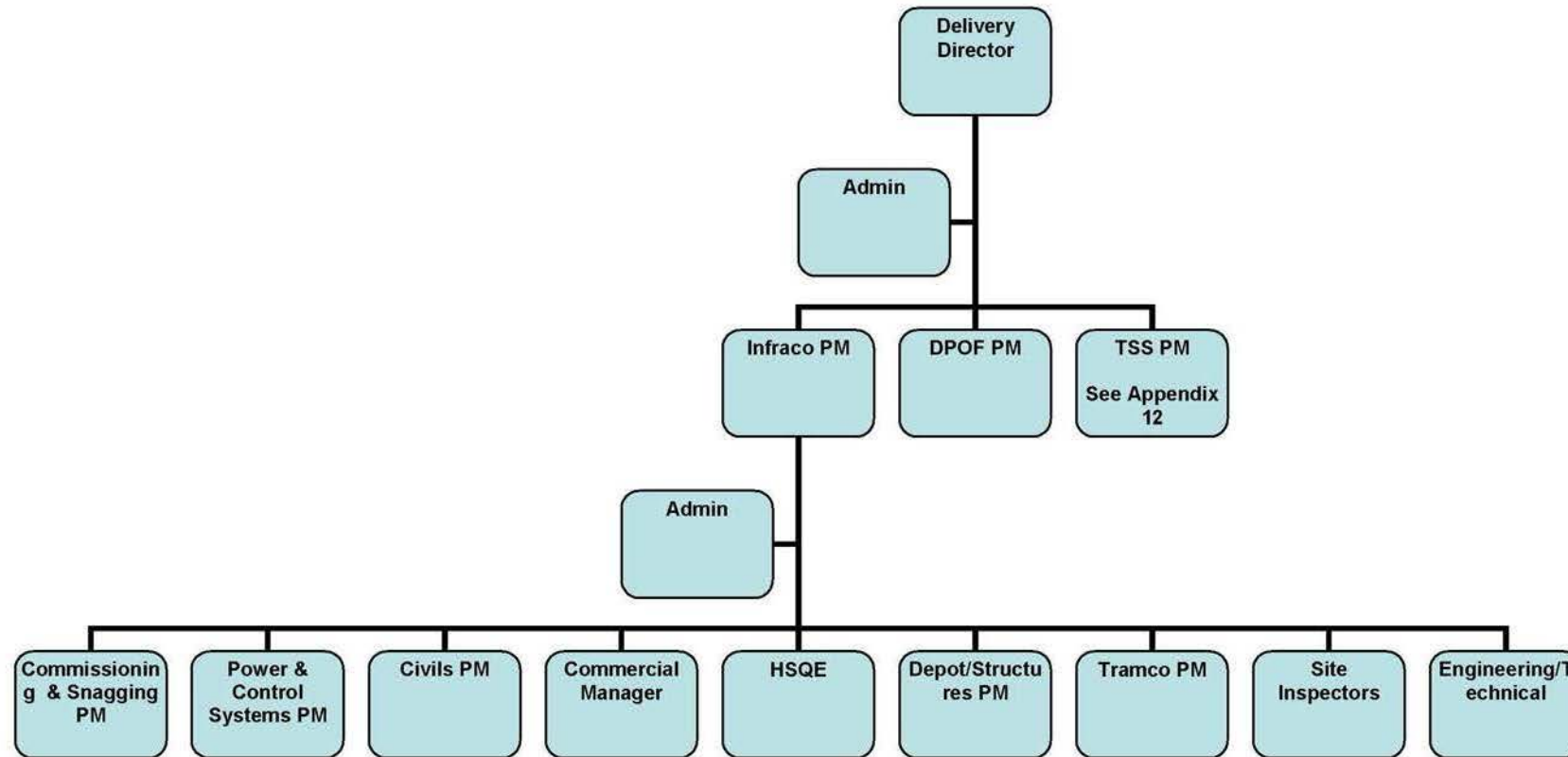
APPENDIX 5



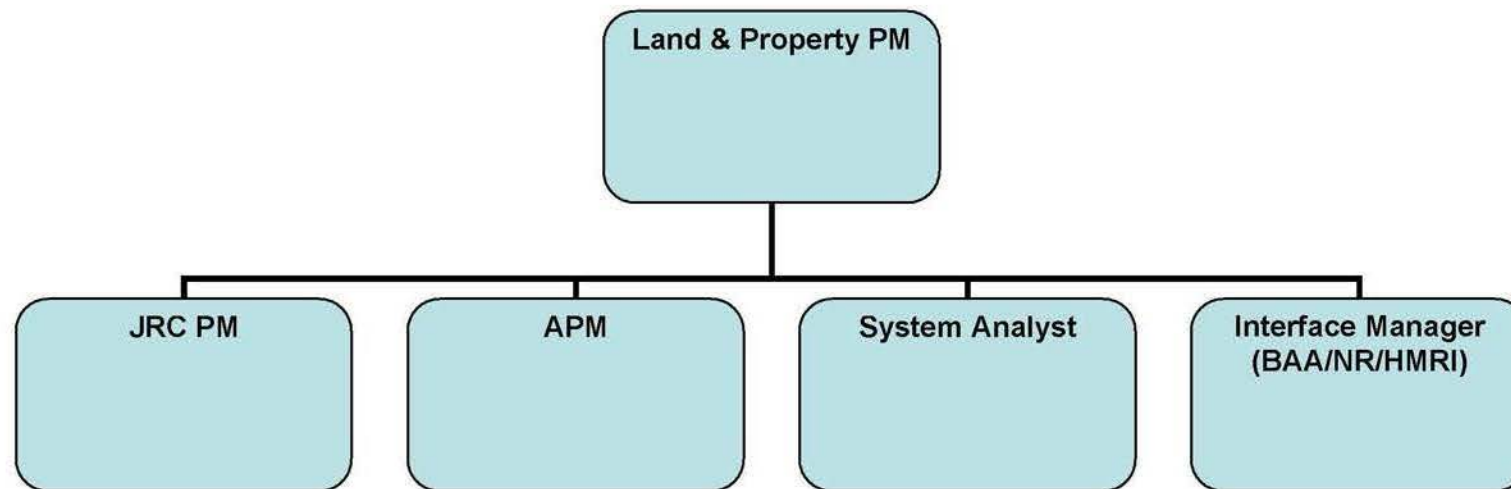




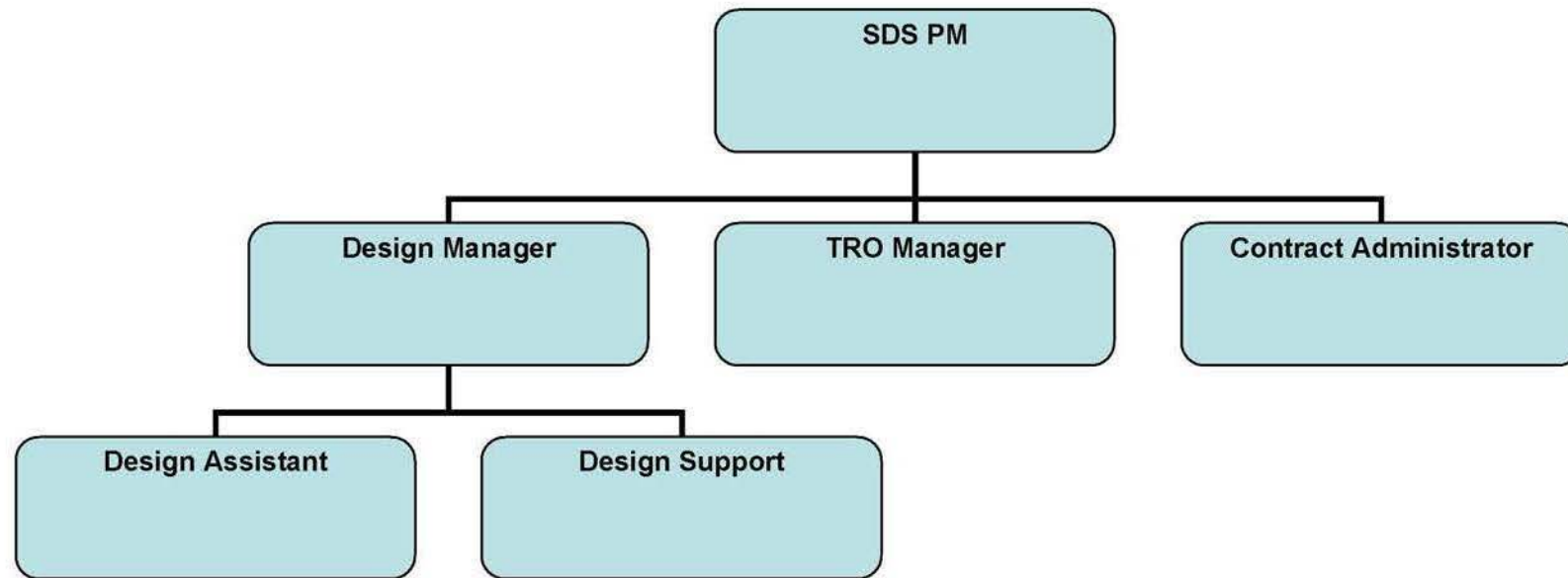
Delivery Team Structure Dec 2009 – Service Introduction: Phase 5



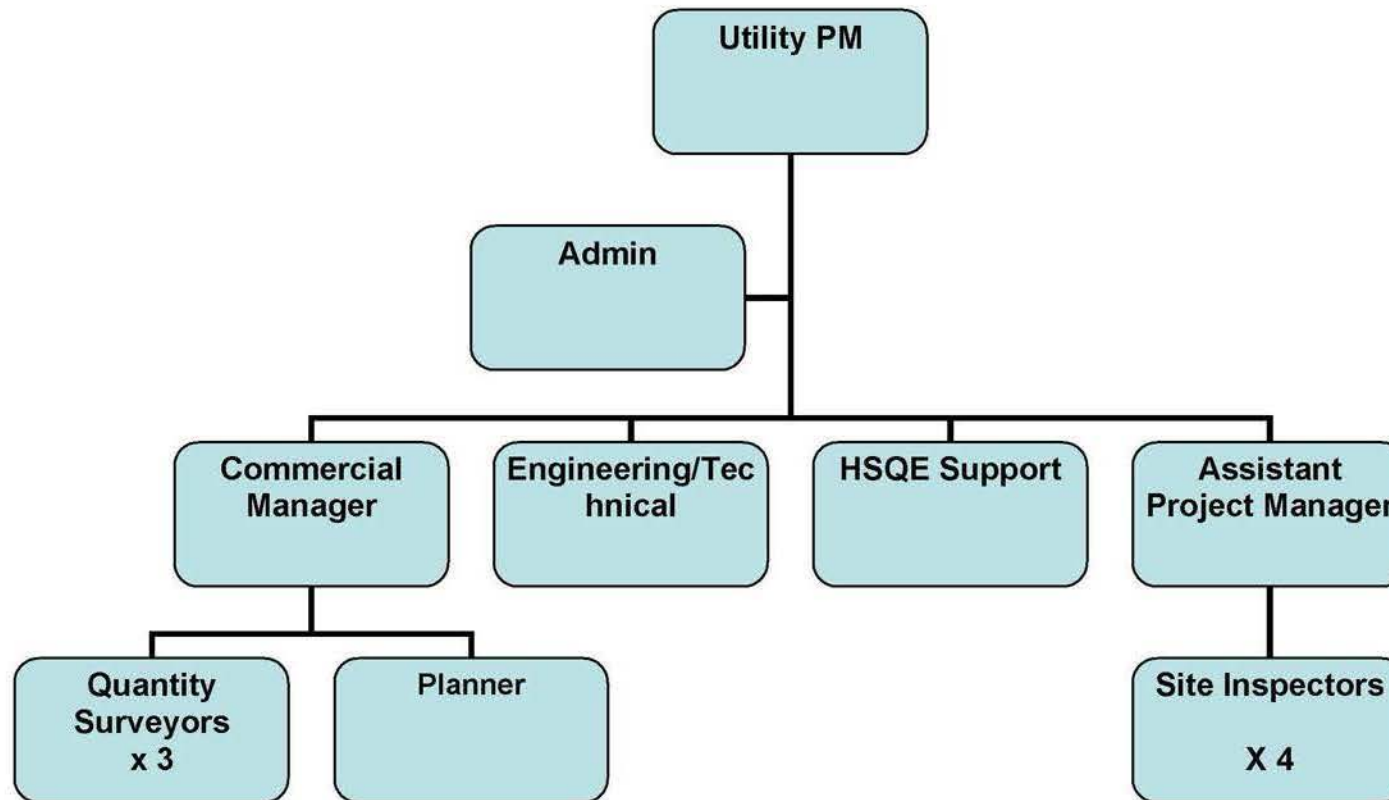
Land Assembly & Management Team



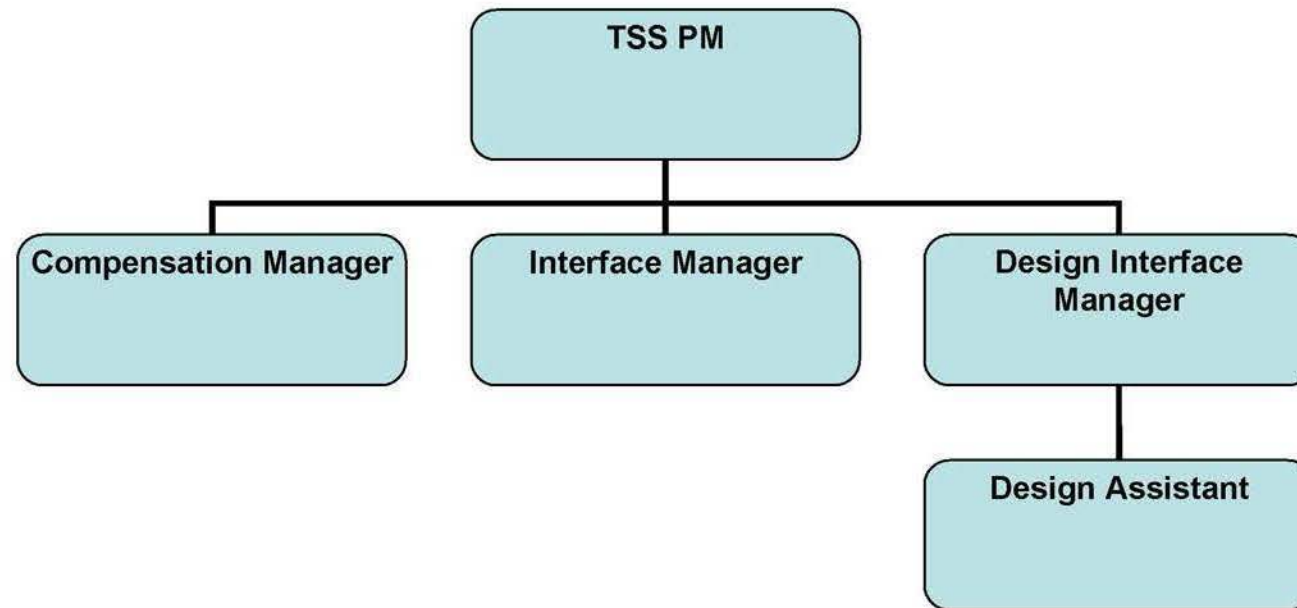
SDS Team



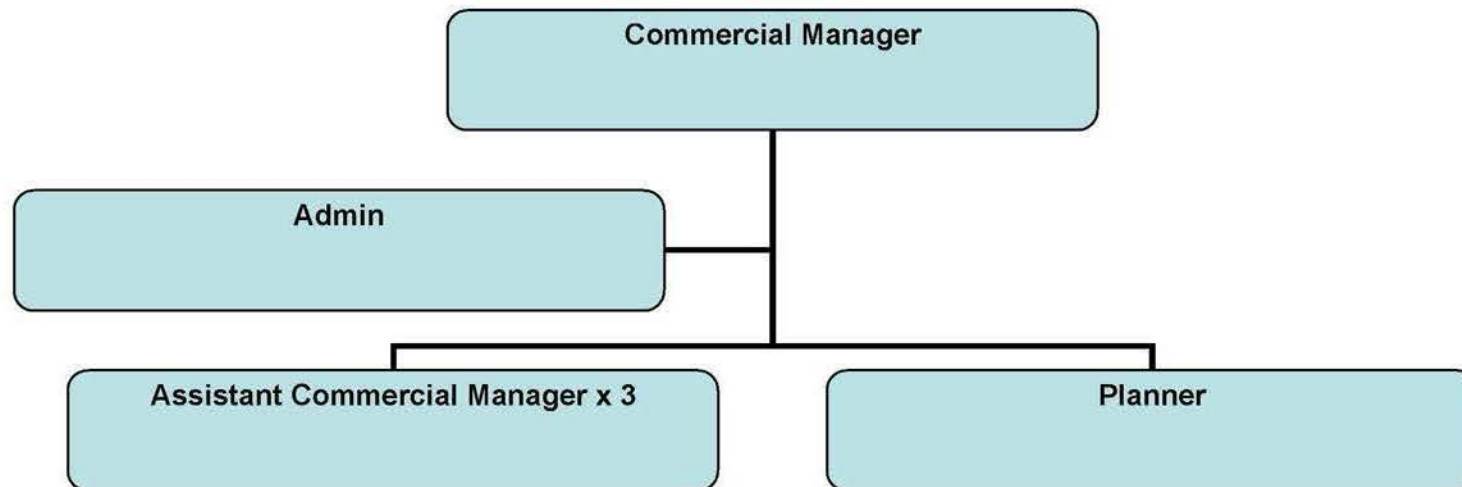
MUDFA Team



TSS Team from October 2007



Commercial Team (Infraco)



Feb Mar Apr May June July Aug

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Paper to : Tram Project Board
Subject : Infraco and Tramco Revised Process To Award
Date : 15th November 2006

1.0 Introduction

1.1 This paper sets out the revised process to award of the Infraco contract and concurrent award of the Tramco contract resulting from the staged approach to the delivery of Phase 1b).

2.0 Background

2.1 Following discussions with Transport Scotland and CEC regarding the Preliminary Design Stage Project Estimate Update it has been concluded that it is the project stakeholder's intention to commit to Phase 1b) for delivery at a later date.

2.2 From the discussions to date with bidders it is clear that there is insufficient clarity in the design information issued with the Infraco bid to obtain a de-risked price by the 9th January 2007 as envisaged by the Procurement Strategy, particularly in respect of key structures.

2.3 In order to secure the detailed design delivery for Phase 1a) it has been necessary to prioritise the development of the Phase 1a) designs ahead of those for Phase 1b). This means that the design information necessary to minimise the pricing risks within the Infraco tender will not be available to meet the deadline for closing the Infraco deal in July 2007.

2.4 As a consequence the price for Phase 1b) will now be negotiated during August and early September 2007 when the necessary detailed design information is scheduled to be available.

2.5 The above has resulted in a change to the process and timing for the evaluation, negotiation and award of contracts for Infraco and Tramco. In essence the tender will now be a three stage process:-

- Stage 1 bid – for Phases 1a) and 1b)
- Stage 2 bid – for delivery of Phase 1a)
- Stage 3 – Negotiation of Phase 1b)

This is outlined in more detail in Appendix A.

2.6 The key dates will now be:-

- Return of Stage 1 Infraco bid – 12/1/07
- Return of Stage 2 Infraco bid – 4/4/06
- Selection of preferred Infraco bidder – 11/5/07
- Selection of preferred Tramco bidder – 11/5/07
- Agree final Infraco and Tramco deal – 19/7/07
- Commence stakeholder review of Infraco award recommendation – 3/8/07
- CEC Approval – 20/9/07
- Transport Scotland Approval – 27/9/07

- Infraco contract award – 11/10/07

2.7 To take pressure off the evaluation and negotiation period the terms and conditions for Infraco will be settled prior to the return of Stage 2 bids.

3.0 Communication

3.1 Given the sensitivities in respect of commitment to Phase 1b) it is proposed that a form of words is agreed for communication of the revised tender process to bidders. This is enclosed as Appendix B.

6.0 Consultation

6.1 The following have been consulted on this paper:-

- Damien Sharp – Transport Scotland
- Lorna Davis – Transport Scotland
- John Ramsey – Transport Scotland
- Alastair Richards – TEL
- James Stewart – PUK
- James Papps – PUK
- Willie Gallagher – tie
- Graeme Bissett – tie
- Steven Bell – tie
- Andrew Fitchie - DLA

7.0 Tender Evaluation Papers

7.1 The Tramco tender evaluation paper will be updated for the new dates and revised instructions issued to Tramco bidders. Similarly the revised approach will be included in the Infraco tender evaluation methodology paper.

8.0 Recommendation

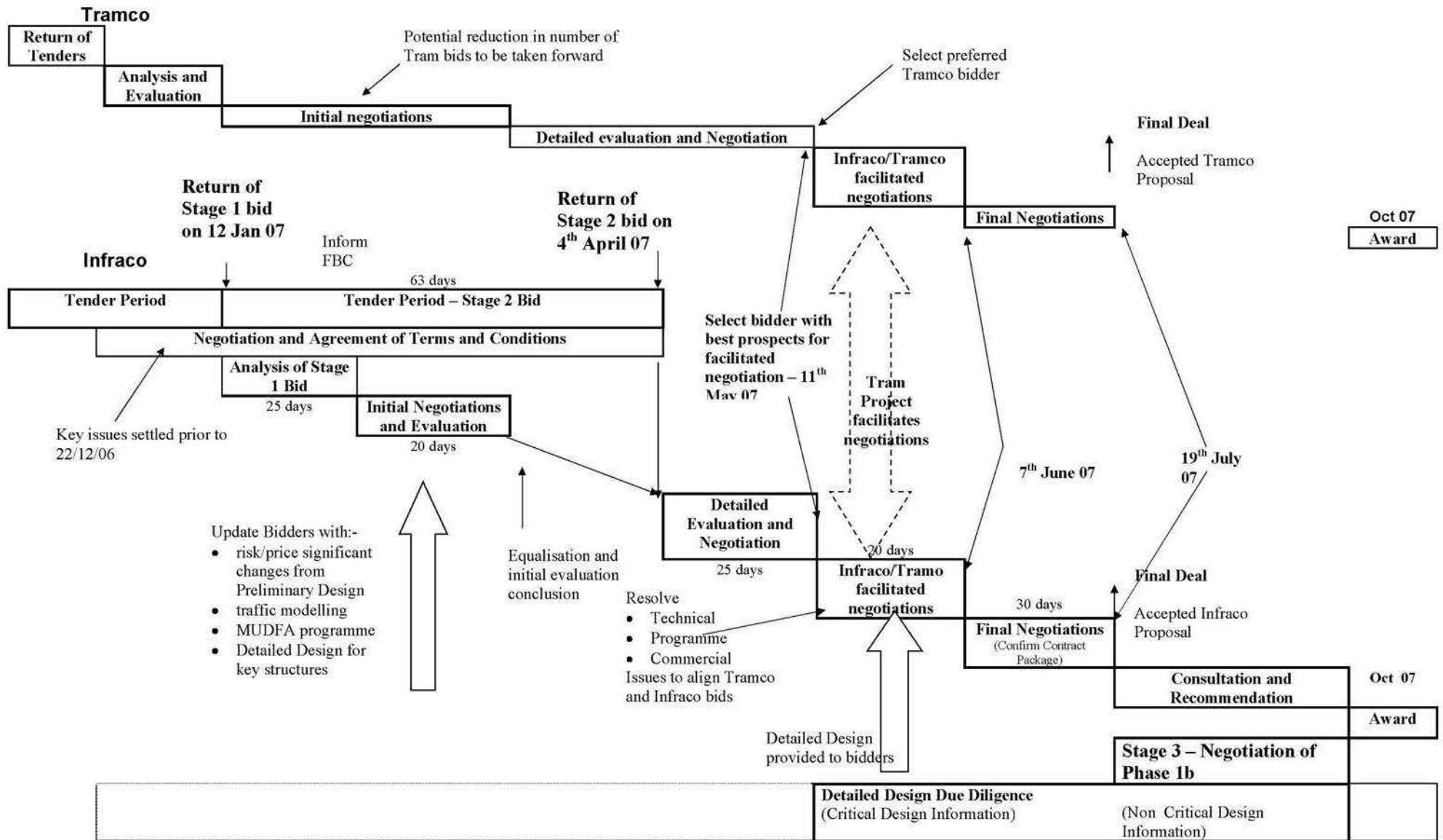
8.1 It is recommended that the Board approve the revised tender approach and the proposed form of words to be used in communication with bidders regarding the revised tender process.

Proposed Geoff Gilbert Date:- 15/11/06
Project Commercial Director

Recommended Andie Harper Date:- 15/11/06
Project Director

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

TENDER EVALUATION AND NEGOTIATION PROCESS



CEC01786920_0107

NOTES ON TENDER PROCESS

- 1 Stage 1 bids contain the information necessary to update the Project Estimate and confirm the affordability element of the Final Business Case. This will include prices for both Phases 1a and 1b. A process has been developed for extracting the required information from bids analysing and adjusting it to enable updating of the Project Estimate.
- 2 Stage 2 bids will deliver the firm price for Phase 1a.
- 3 Stage 3 will deliver a negotiated option for Phase 1b. Negotiation will be based on the detailed design for Phase 1b (which will be available at that time) and the rates and prices returned at Stage 1 and as updated at Stage 2.
- 4 The basis for this option for Phase 1b will be that an instruction to proceed with it will be given before the end of March 2009 for works to commence in July 2009. We will need a mechanism to keep this option whole in the event that a commitment is made at a later date than this. Such mechanisms would include adjustment for inflation, preliminaries costs and validity of the option. We would settle this in the early negotiations with Infraco (and Tramco) bidders. The notice periods may need to be different for Tramcos, given their design and manufacturing, lead times, and this would be clarified in the initial discussions with them.
- 5 To take pressure off the tender evaluation and negotiation programme the terms and conditions will be negotiated concurrent with the Stage 1 and Stage 2 tender periods.
- 6 The revised approach will be communicated to both Tramco and Infraco bidders.
- 7 The programme for due diligence of detailed designs is to be confirmed with bidders once the design programme has been agreed with SDS.

DRAFT WORDING ON 'PHASE 1b'

tie and its Stakeholders, Transport Scotland, CEC and TEL are now agreed on the basis for implementation of the Edinburgh Tram Network.

Currently the tender documents provide for a number of mandatory variants including two principal options on the extent, namely:

- The Network currently approved by Parliament – Phases 1a and 1b (Contractual Sections A, B, C and D)
- Phase 1a only (Contractual Sections A and B)

Recent consideration by **tie** and its Stakeholders recognizes that the currently proposed variants do not adequately reflect what may ultimately form the basis of the contract and that this does not help bidders to properly consider all aspects of their proposals.

The Project Stakeholders are agreed that the desired outcome is to deliver both Phases 1a and 1b of the Edinburgh Tram Network and that these Phases would be delivered in a staged manner. The timing of the Project's commitment to Phase 1b will be subject to future funding release and the overall level of Infraco bids for Phase 1b.

Accordingly **tie** would like Infraco bidders to base their initial tender on the following:

- Design, Construction and Maintenance of Phases 1a (Contractual Sections A and B) to form the basis of the 'core works'
- An option for the Design, Construction and Maintenance of Phases 1b (Contractual Sections C and D) to form the basis of an 'extra over' pricing, assuming commencement in July 2009.

In preparing this proposal Bidders are to assume that the Depot will be sized to suit the entire Network and that all Utilities diversions for the Network are complete before commencement.

A similar option will be requested from the tram supply bidders for a staggered option on the delivery of tram vehicles for each Phase.