



Transport Edinburgh
Trams for Edinburgh
Lothian Buses

DPD sub-committee
Period 5 report
Papers for meeting 30th August 2007

09:00am – 12:00pm

Distribution:-

Willie Gallagher (DPD Chair)
Duncan Fraser
Matthew Crosse
Bill Campbell
Jim McEwan
Steven Bell
Graeme Bissett
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Agenda

Design, Procurement and Delivery Sub-Committee

tie Boardroom

2nd August 2006 – 9.00am to 12.00pm

Attendees:

Willie Gallagher (DPD Chair)

Matthew Crosse

Steven Bell

Duncan Fraser

Bill Campbell

Jim McEwan

Geoff Gilbert

Steve Reynolds

Alastair Richards

Susan Clark

Jim Harries

James Papps

Miriam Thorne (minutes)

Circulation:

Neil Renilson

Graeme Bissett

Agenda support:

David Crawley

Agenda Items

- 1 Actions from previous meeting
- 2 Project Director's progress report
- 3 SDS update
- 4 Procurement programme - update
- 5 VE status summary
- 6 AOB

Edinburgh Tram Network Minutes

Design, Procurement and Delivery Sub-Committee

02 August 2007

tie offices – Citypoint II, Brunel suite

Principals

Steven Bell – SB (acting DPD Chair)
 Bill Campbell – BC
 Susan Clark – SC
 Jim Harries - JH
 James Papps – JP

Participants

Alastair Richards – AR
 Graeme Bissett – GB
 Duncan Fraser – DF
 David Crawley – DCr (partial)
 Keith Rimmer – KR
 Elliot Scott – ES
 Neil Renilson – NR
 Campbell Skinner – CS (partial)

Apologies: Willie Gallagher, Matthew Crosse, Damian Sharp, Steve Reynolds, Jim McEwan, Geoff Gilbert, Miriam Thorne

1.0	Actions from previous meeting	Actions
1.1	The previous minutes were taken as read. Verbal updates and outstanding actions are listed below:	
1.2	<u>Action 2.4:</u> KR updated that St Andrews Square now has its own section in the programme. SC to report to the DPD on the upcoming meeting (28 Aug TBC) with Andrew Holmes in relation to Public Realm.	SC
1.3	<u>Action 3.6:</u> SC updated that discussions with BAA are moving ahead as well as agreement with the Council. BAA have requested that the EARL lease is used as a basis for ongoing discussions. The BAA lease is expected to be concluded by the end of September.	
1.4	<u>Action 3.7:</u> Wider area impacts – KR explained that, as the analysis was partially complete, a report is not available at this stage, but expected to update the next DPD.	KR
1.5	<u>Action 3.10:</u> BC updated that Scott Wilson are refining the design of the temporary carpark. Essentially the design is as pre-EARL. NR added that the refined design may have closed the funding gap. DF requested confirmation on the specification of fill material. SC to look into. Verbal update to be given to the TPB.	SC
1.6	<u>Actions 4.3 and 4.5:</u> Covered under 3.0 below	
1.7	<u>Action 6.1:</u> AR System performance paper to be presented to the TPB on 5 September.	AR
1.8	<u>Actions 8.1 and 8.2:</u> SB and WG to meet with Ron MacAuley next week to progress outstanding arrangements and agreements on leases, immunisation and equipment relocation. TS had committed to	SB - done

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	focusing NWR but would not engage contractually. GB suggested asking TS to underwrite any costs of delay due to NWR. SB to update risk register accordingly and to update TPB verbally following the meeting.	SB - done
1.9	DF requested GB to approach TS for support to CEC in ongoing negotiations.	GB
2.0	Project Director's Progress Report	
2.1	SC presented the progress report, key questions and comments are outlined below:	
2.2	<u>MUDFA</u> : The DPD was informed that works on Iona street and Section 5A would start on the 6 th and 20 th August, respectively. The key to this is the availability of IFC drawings from SDS. Current performance is poor and action is being escalated with SDS and Halcrow directors.	
2.3	DF enquired about the impact that SUCs were having on the process. SB explained that there is a commercial betterment issue to be resolved with Scottish Water at the depot which is being actioned by tie .	
2.4	<u>Advanced works</u> : AMIS will be demobilising from Phase 1 by 10 th Aug. SC advised that negotiations are progressing and that tie will be in a position to instruct on Phase 2 by 3 rd August.	SC
2.5	JP asked for clarification on the status of EARL future proofing and whether tie had been formally advised by TS. NR confirmed that Tram was progressing on the basis that the EARL alignment is not protected, but that nothing had been received in writing from TS. SC added that the risk, if EARL were to be resurrected, would be at the IPR site, at the depot and at the airport. <i>Post meeting note: the TPB stated that verbal confirmation had been received from TS to progress tram on the basis of no EARL.</i>	
2.6	Design from SDS should be available by 17 th Aug for the St Andrew Square integration. It is proposed to include these works in a variation of the AMIS contract.	
2.7	<u>Design</u> : Covered under 3.0 below	
2.8	<u>Land</u> : NWR and BAA leases are moving, and work is being done, in conjunction with CEC, to ensure that they proceed to programme.	
2.9	<u>Traffic Management</u> : SDS staff will be arriving in mid August to progress the TRO schedules.	
2.10	<u>Commercial</u> : Work is ongoing to resolve the claim from SDS. Paper planned to go to TPB 9 August. SB / SC to review context / status (see 3.0 below).	SB / SC - done
2.11	GG / WG / MC met with Infraco bidders to share information. Bids are due back on 7 August. Tramco BAFO due 3 August.	
2.12	JP queried how the normalisation process deal with outstanding issues. SC replied that a value was assigned to each outstanding issue in the normalisation process.	
2.13	Work is ongoing with the renegotiated prelims and incentivisation for MUDFA. Final proposal to be agreed and the contract formally amended by the end of August.	SB – on programme
2.14	<u>Cost</u> : 07/08 outturn £120.6m (including £1m for 1b). No change to	

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	AFC	
2.15	GB queried 08/09 figure. SC to clarify.	SC – done
2.16	DF queried the dialogue on 1b, especially cashflow and how this would be reported to the Council. It was agreed that the position on 1b would be determined as part of the negotiations and would be presented to the TPB on 26 September, which would flow on to the Council meeting on 25 October. SC / DF to discuss off line.	SC / DF
2.17	<u>Risk:</u> Risk 914 treatment strategy to be strengthened. SB to update.	SB – updated for DPD
2.18	Risk 980 relating to public hearings for TROs. DF questioned the assumption that this is the worst case scenario. KR confirmed that and reinforced that the publishing of TROs is critically dependent on getting the approved design. SB added that the risk is related to design and is not ministerial. KR to amend the detail in the risk register.	KR
2.19	<u>General:</u> JP enquired as to the status of the comfort letter required for the bidders. GB replied that it was key for August and would be discussed with TS today. SC added that the bidders had shown an increased level of engagement.	GB
2.20	There were a number of points of clarification and updates required to the report prior to the TPB.	SC / ES - done
3.0	SDS update	
3.1	DCr presented the headlines of the SDS update. No critical issues are currently impeding progress, although this weekly process is still ongoing. There has been a marked improvement, although not yet fully on programme, and progress is being monitored weekly.	
3.2	DCr explained the concept of “just in time delivery” and the fact that there is no margin for error. SDS have now committed to the programme, provided that there was no further reason for delay (critical issues, scope changes or delays in the approval process). GG has previously confirmed that the delivery dates were in line with the procurement programme.	
3.3	The DPD discussed the claim and counter claim, the timing of settlement relative to novation and the effect this would have on deliverables. The paper to the TPB needs to spell out the detail and the real position.	SC - done
3.4	JH queried the “just in time delivery” in relation to VE. DCr agreed that there is a value in “what if?” exercises, but there is a need to use additional resources so as not to further delay SDS progress.	
3.5	DF questioned the lack of acknowledgement on CEC collaboration in the report. DCr agreed that CEC intervention has concluded a number of historical matters and this needs to be maintained. DCr to amend the report for TPB accordingly.	DCr - done
3.6	DCr to combine the two papers for the TPB.	DCr - done
4.0	TRO strategy - Greenways	
4.1	KR presented the paper regarding the strategy for dealing with Greenways along the tram route.	

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4.2	<p>KR summarised that there was no clear message coming from the Council and that there are 2 key issues:</p> <ul style="list-style-type: none"> • Risk of obtaining ministerial approval. • Having consistency of regulatory lines along the tram route. Red lines may have to be temporarily repainted to avoid mirroring which may cost approximately £250k. This may be mitigated by effective TTRO / TRO management. 	
4.3	<p>BC and NR agreed that the strategy of having a consistent regime along the length of the route was the best option, especially as the enforcement will be deregulated by the end of October.</p>	
4.4	<p>KR to identify target dates for CEC and to include in the paper for TPB.</p>	KR – done
5.0	Advance works and A8 piling	
5.1	<p>Campbell Skinner presented the papers requesting an agreement in principle for on advance works for Infraco and Tramco mobilisation and A8 piling. The DPD discussed the principles of awarding advance works as well as the rationale. Key questions and comments are outlined below.</p>	
5.2	<p>Bids are submitted on the basis of starting works in February, although the bidders had been asked to identify areas where work could commence earlier (to protect the programme), - this would not be in the core price.</p>	
5.3	<p>The reasoning of awarding advance works was questioned – can the bidders meet the January 2011 date anyway? SC clarified that this is a mitigation plan that de-risks the date and added that a lot had been learnt from the advance works with MUDFA. The impact of not meeting a pre-defined date was questioned. SC explained that the anticipated cost of a 3 month delay was approx. £10m.</p>	
5.4	<p>JP queried the status of the Infraco construction programme on the date the Infraco contract was signed. SC confirmed that there would be a committed programme at this time that Infraco would be measured against.</p>	
5.5	<p>The value of £5m was questioned. SB clarified that there was a range of values but that the scope needed to be defined. SC added that there will be greater clarity on cost and scope by 9 August TBP.</p>	
5.6	<p>DF queried the approval process needed for TS and CEC. GB replied that it was tied up in the overall funding agreement, but that the key point was that if the mobilisation agreement contracts were awarded on 1 October, there would be a 4 week period where continued funding was not approved (until the Council meeting on 26 October) and this would have to be funded from the current grant.</p>	
5.7	<p>JP questioned the approach to move the depot. SC clarified that moving the depot reduced one element of advanced works, but that there were still other work that would be required to be done.</p>	
5.8	<p>It was concluded that both papers be reworked for the TPB to cater for the issues outlined above.</p>	CS - done
6.0	AOB	
6.1	<p>Transport Scotland advised they would have no future representation</p>	

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	at the DPD.	
6.2	It was confirmed all future DPD meetings will be held on Thursdays and the next meeting would be on 30 August.	

Prepared by Elliot Scott, 3 August 2007

1 Executive Summary

Previous Period Update

1.1.1 Delivery

MUDFA

On street works are now ongoing on 3 fronts – sections 1A, 1B and 5A:

- **Section 1A** Construction works along Ocean drive continued throughout the embargo period with all works being limited to 'off – road' activities. This will continue on for the duration of August. Completion of this work is anticipated mid-October (prior to October embargo)
- **Section 1B** Trial holes commenced in Leith Walk in w/c 30/7/07 to verify the location of ex. Services and to ascertain the available space within the footpath area. Some section works have been deferred due to the data collection exercise (trial holes) by approx. 3 weeks but the team expects to recover this within the programme duration for Leith Walk.
- **Section 5A** Work has commenced in section 5A on the 20/8/07, as programmed.
- **Section 6 (Gogar Depot)** Works on Phase II was awarded to AMIS for the next section of the Gogar depot earthworks in line with TPB approval. These works are anticipated to be completed by mid October.
- **Section 6 (Utilities)** redesign is ongoing regarding the relocation of the depot and VE exercise to remove the twin 800mm diameter water main. Discussions are ongoing with Scottish Water regarding this matter.
- Co-location of SDS designer at MUDFA offices has been facilitated to initiate prompt response to technical issues/queries and minimise time delay. This was put in place 13 August 07.

Advance works

Depot

Phase 1 of the depot works were completed on 2nd August. 150,000m³ removed in this phase. This was completed some 3 weeks ahead of schedule. Phase 2 has commenced with works undertaken by AMIS (see above).

Invasive species

2nd treatment cycle was completed in the period. Increased growth rates caused by wet weather conditions required this work to be done slightly ahead of schedule.

Land and property

GVD 3 notices were served during the period and preparation was completed for GVD 4.

Ongoing discussions held with BAA and NR over lease agreements.

IPR temporary

This work is currently on hold pending a decision by the Steering Group on the IPR2 scope. This is expected in this period.

IPR 2

Further design work was completed on the revised scope taking account of the EARL land.

1.1.2 Traffic management

TRO strategy

The Tram Project Board on 9 August approved a review of the TRO strategy in respect of the Greenways sections of the Tram route. It is concluded that the likely timescale for attaining the required approval of Scottish Ministers for an amended Greenways Order is now out of synchronisation with the rest of the Tram programme including the other TRO's. In addition it is desirable to harmonise enforcement around a single regulatory regime for the Tram Route. Accordingly, the 'Greenway' red regulatory lines will be replaced with yellow lines within the draft TRO's being prepared for public deposit.

Advance work for traffic management

Work commenced on 13 August on the preliminary design of the Tram route TRO's. The design is concentrating on sections of the route considered to be at low risk of further change within the Tram design finalisation process.

Other traffic management activities

The traffic modelling of the route (and wider area) is continuing incorporating the current junction designs and testing alternative scenarios to inform the final design process (including any necessary wide area measures). The most significant issues relate to the pm peak and work is being focussed on that issue.

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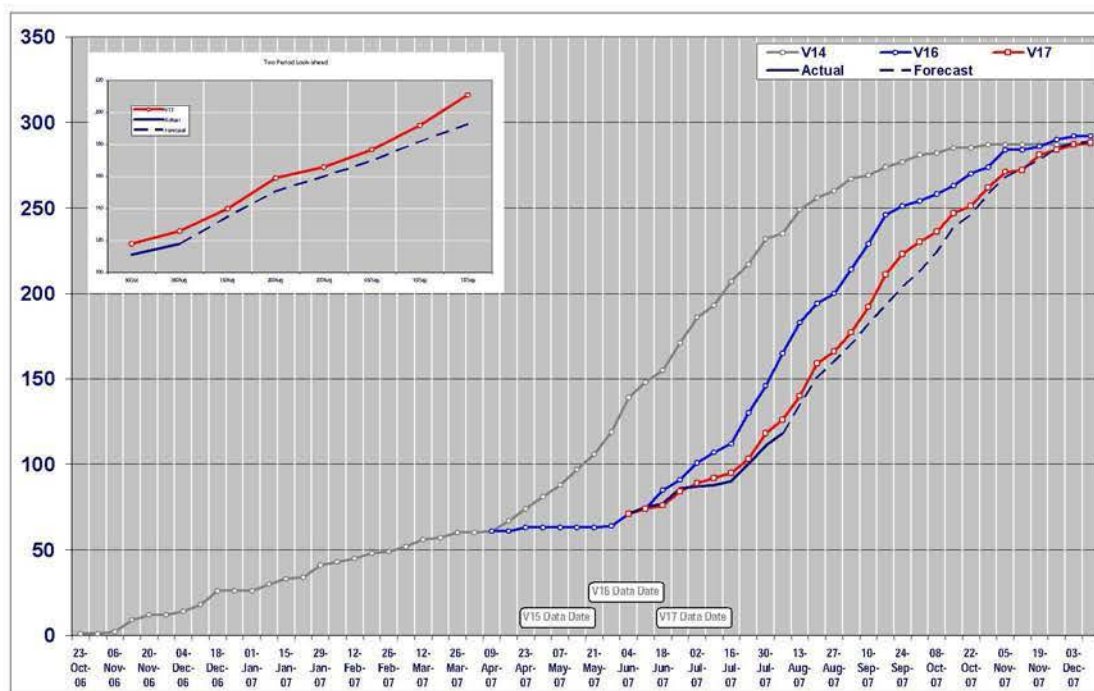
1.1.3 Engineering, approvals and assurance

Previous reports have concentrated on activity designed to remove blockages to progress, most notably the critical issues, the last of which was removed, for all practical purposes, on 28 June 2007.

This has resulted in progress on design deliverables proceeding closely to forecast and programme from this point. As there is a nil-return on critical issues these will no longer be reported. However, there are a number of issues which are the cause of potential delay and these are reported here to ensure clarity of all parties about their impact. These will become critical issues if not treated.

In terms of design progress metrics the 'dashboard' has previously been reported showing all 4000 items associated with the design deliverables. Now that delay on design deliverables has been all but arrested, this is replaced with a sub-set of the 4000 items associated with the 300 design packages covering the tram system.

This is shown below at V18 (actual and forecast)



This shows clearly little slippage for V18 with respect to V17. The slippage since V14 is not recoverable.

The slippage which has occurred are mostly due to the following issues which have been reported more fully to the DPD meeting.

SRU - concluding agreement on the training pitches.

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Section 1a bridges – tie / CEC agreement on funding of walkways

Depot – design changes to deliver the VE savings

Drainage – provision of information to SDS to allow design work to proceed

EARL – redesign occasioned by cancellation of the project

Balgreen Road – getting agreement from Network Rail to access arrangements.

Lindsay Road – getting agreement of ADM Milling for the new layout.

1.1.4 Commercial and procurement

Procurement programme

The Infraco and Tramco procurements are proceeding to the new programme with a view to delivering a recommendation by 25th September.

It should be noted that the overall completion of the Phase 1a works has been maintained at 1st quarter 2011 through mobilisation of Infraco and Tramco in October 2007 and by undertaking advance works at the depot. Detailed proposals for the early mobilisation work and commitments required are currently being sought from Infraco bidders.

Infraco

The evaluation is progressing to programme. Over the last two weeks efforts have been concentrated on negotiating reductions in price, with much attention paid to the system integrator price as outlined in the Negotiation Plan.

The status and progress of evaluation and negotiation is reported to the Tram Project Board Procurement Sub Committee on a weekly basis.

Negotiations on contract terms are progressing to resolution and there are no major sticking points at this time.

Tramco

The negotiations and evaluation is now effectively complete. Conclusions of the evaluation will be presented to the Tram Project Board Procurement Sub Committee on Thursday 30th August

MUDFA

Preparation of prices and programmes and their agreement with AMIS for the work packages is ongoing.

OCIP

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The OCIP contract has been placed. Final alignments are being settled with the Infraco bidders.

Value engineering

Finalisation of VE is progressing and savings being realised. Effort has been concentrated this Period on Trackform and structures where significant savings can be realised. Support is required from CEC in order to deliver savings in respect of structures. Both Infraco bidders have also identified that this as an area for substantial cost savings.

The current status in financial terms is as follows:-

Opportunities “banked”	£ 9,299m
Opportunities to be investigated	<u>£22,836m</u>
Overall opportunities identified	£32,162m

SDS changes and claim

Negotiations have been conducted with SDS in the last Period and a draft settlement has been prepared which is within budget. Although the settlement will not be finalised until the end of August, details of the draft will be presented to the next Tram Project Board.

Other procurement activities

The procurement plan for the advance delivery of the depot piling works was approved by the last Tram Project Board.

1.1.5 Finance and Business Case

The programme to deliver Financial Close in line with the master programme was presented to the TPB in the period. This programme combines the activities required to deliver the funding for the project, the Final Business Case (FBC) and the related areas of project governance and approvals processes.

The programme is based on a staged approval process which combines delivery of the FBC version 1, together with the recommendation for the preferred bidders and funding agreements in principle. These are due in September for TPB approval followed by CEC and TS approvals in October. The final form of these documents will be subject to approval in December, following bidder due diligence and facilitated negotiations, and including negotiations for the Phase 1b options.

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All stakeholders have been involved in the dialogue to date and coordination around and support to this agreed programme of approvals is essential to avoid delay and additional costs for the project.

Key Issues for forthcoming period

1.1.6 Delivery

MUDFA

- Recommence works within roadway in section 1A (following embargo period)
- Commence diversionary works within section 1B (Leith Walk)
- Continuation of diversionary works in section 5A
- Continuation of earthworks operations at Gogar depot (phase II)
- Review of service utility diversions requirements based on revised depth and protection. Area of review 600-1200 depth range below FRL. Potential 10% saving in measured works (approx £1m).
- Maximise recovery of costs associated with SUC C4 estimates via specialist consultant advice/input (Berkeley/Corduroys).
- Establish quick response team SDS, AMIS, **tie** and SUC for all technical queries to mitigate standing time on site.
- Provision of independent survey team to carry out dilapidation survey along tram route (SDS responsibility) – protect **tie**'s position from potential 3rd party claims post MUDFA and INFRACO.

Key issues for the period are:

- Issue / release of Issued for Construction drawings in line with programme requirements: further delays are being assessed for their programme and financial impact
- Internal supply connection within premises outwith the LOD: issue raised in relation to SGN, impact assessment is underway
- Design works are required outwith the LOD at Constitution Street
- Focus on AMIS "in-house" resource levels.

Advance works

Depot

- Works will continue on the Phase 2 works and final levels agreed will take account of the revised depot location.

Invasive species

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- 3rd treatment cycle to take place. Badger/otter monitoring will continue and meetings will be held with advisors.

Land and property

- Agree terms of lease between **tie** & CEC.
- Issue GVD 4 notices.
- Prepare for GVD 5 (final plots)

IPR temporary

- Decision to be made whether this is going forward or is subsumed in the IPR2 works.

IPR 2

- Costs to be returned for revised scope
- Seek Steering Group approval for revised proposal
- Award contract

1.1.7 Traffic management

- Continue TRO design and statutory process planning.
- Close liaison with CEC to progress streetscape work, public realm works priorities and allocation of funding packages for this work.
- Finalise George Street turning movements with TEL / CEC.

1.1.8 Engineering, approvals and assurance

- Progress to conclusion of the potential critical issues:
 - **SRU** - concluding agreement on the training pitches.
 - **Section 1a bridges – tie** / CEC agreement on funding of walkways.
 - **Depot** - design changes to deliver the VE savings
 - **Drainage** – provision of information to SDS to allow design work to proceed
 - **EARL** – redesign occasioned by cancellation of the project
 - **Balgreen Road** – getting agreement from Network Rail to access arrangements.
 - **Lindsay Road** – getting agreement of ADM Milling for the new layout.

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1.1.9 Commercial and procurement

Procurement programme

- Conclusion of negotiation of negotiations with Infraco and preparation of final evaluation report. This will include setting baseline programme and constraints for Infraco on street works.
- Updates on the outcome of the Infraco and Tramco final bid negotiations to the Procurement Sub-committee in line with agreed governance
- Preparation of final evaluation and recommendation for conditional contract award for Evaluation Panel, Procurement Sub-committee and TPB approval
- Agreement of mobilisation and advance works packages with Infraco and Tramco
- Commence Infraco / Tramco facilitated negotiations
- Commence bidder due diligence

MUDFA

Proposals to resolve the issues relating to the MUDFA contract documentation have been agreed in principle and require to be re-executed – the timing and co-ordination has been agreed with AMIS.

Proposals for a negotiated commercial and contractual resolution to the delays in release of design are ongoing with AMIS.

A proposal for incentivisation of the works orders and preliminaries has been discussed and agreed in principle with AMIS. A number of scenarios related to the incentivisation proposal are being discussed to define the process and ensure the parties are in agreement on the understanding and operation of the proposal – this process will be completed by the 14th September 2007.

OCIP

- Following the selection of the preferred bidders for Infraco and Tramco, work will continue to provide adequate insurance support to these and other contracts. Specific items identified for clarification / discussion relate to:-
 - Confirmation of PI insurance from bidders and potential costs
 - Contractors plan / defect period quotes
 - Marine Cargo requirements

Value engineering

- Continued work to crystalise value engineering opportunities. Key areas of focus are: Depot, Highways, Structures, Supervisory & Comms and Trackform. Ongoing liaison with the bidders to confirm these opportunities and deliver further recommendations on VE savings.

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SDS changes and claim

Presentation of proposed claim settlement to the TPB for approval.

Other procurement activities

- We are developing the detail of the Plan for the early mobilisation of Infracore and Tramco. This has been discussed in outline with Transport Scotland during the last Period. It is noted that the principle to undertake early mobilisation and advance works was agreed by the Tram Project Board in January this year.
- Develop procurement plan for advance work in St Andrews Square
- Develop procurement plan for supply of Power

1.1.10 Finance and Business Case

- Work ongoing on the development of the FBC version 1 in conjunction with efforts to achieve agreements in principles on approvals and funding arrangements. Anticipated issue of 1st draft of FBC v1 for **tie** / TEL / CEC review on 31 August.
- Finalisation and informal approval by **tie** / TEL / CEC of FBC version 1, Recommendation for preferred bidder and draft grant award letter (the "September documents") by 18th Sept.
- Approval of the "September documents" by the TPB – 26th Sept and formal issue to CEC Officials / TS.

Cost

	COWD - Period	COWD (YTD)	COWD YTD + f/cast to year end	AFC
Phase 1a	£ 3.8m	£32.4m	£119.7m	£501.8m
Phase 1b	£ 0.0m	£ 0.9m	£ 1.0m	£ 92.0m
Phase 1a+1b	£ 3.8m	£33.3m	£120.7m	£593.8m

- The COWD in the period relates primarily to the continued development of design, the activation of OCIP for MUDFA works, ongoing advance works and MUDFA street works.
- Costs for Phase 1b relate purely to finalising design works as previously agreed by the Board.
- The forecast COWD for the year end has increased by a net £0.1m. This increase relates to TSS costs in line with the requirements to drive completion of the design assurance validation programme. This reflects the current programme for delivery in 2007/08 and will be off-set by reductions in later years.
- The forecast COWD for the year includes a total of £19.2m in relation to land costs, reflecting the latest valuation by the District Valuer.
- The COWD forecast for the year also includes allowances for further advance works in October, as per the assumptions underlying the Procurement Programme.

Health, Safety, Environment and Quality

No accidents were reported in the period and the accident frequency rate (AFR) for the project remains 0.00.

Four site inspections and three safety tours were completed in the period – minor findings were reported and closed out. Three system safety audits were completed in the period. The reports and findings are to be issued. One audit was undertaken as planned in the period with two observations and no non-conformances raised.

There is on-going concern due to the lack of a site Traffic Management Plan for the Gogarburn Depot. This has been subject to action with AMIS.

The residual hazard information from SDS is being presented in a new format. This is an improvement but there is still an issue with the quality of information. This is subject to discussions between SDS, **tie** and the CDM Coordinator.

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Stakeholder and Communication

Stakeholder engagement continues as per the stakeholder strategy. This work has moved on significantly from “selling” the tram project to focussing on the specific demands of residents and businesses arising from commencement of the delivery phase of the project.

Work is on going in liaison with CEC on reviewing the communications plans for the next phases of the project. Feeding into this process is the feedback received from a number of relationship meetings held with community councils and groups representing local businesses and tourism.

Several briefings were also provided to MSPs, CEC councillors and the media with widespread positive feedback.

Approvals / decisions / support required

Decisions / support required from TS

- Support to implement Infraco and Tramco Mobilisation and Advance Works contracts to avoid extending programme with attendant additional costs
- Support to finalise draft funding agreement for Project

Decisions / support required from CEC

- Support for changes to major structures to deliver value engineering savings
- Review and agreement of Infraco and Tramco terms and conditions by CEC legal
- Co ordination of input from CEC to optimise constraints for on street working
- Support to deliver approvals to Business case to meet the Project programme
- Resolution of Forth Ports Bridges walkways issue within Project parameters
- Support to obtain funding from Forth Ports for revised Lindsay Road scheme

2 Progress

General / overall

- Tranche 3 of GVD notifications (CEC owned land exc. ATC hut, Guided Busway and land with Advertising Hoardings) issued on 25th July 2007. Title to be vested on 26th September.
- Tranche 4 (comprised of 41 plots – land around Gogarburn, SRU, non-Forth Ports land at Ocean Drive and Haymarket Yards) has been prepared for issue at the end of August. Tranche 5 (design dependant land – focuses on key locations at Roseburn, Gogar, Gyle, Lindsay Road and Fast Link) can be expected in November 2007.
- A number of short term leases have been offered to businesses on Roseburn street with termination date of 31st October 2007. Rolling leases will be assessed on monthly basis following this. Assessment of these leases will be carried out when the preferred Bidder is selected, and dates provided in the Infracore Construction Programme have been analysed.
- Leases with BAA and NR are still being pursued with target date for completion set for the 31st September. Meetings have been arranged over the coming weeks with both Stakeholders.
- Forth Ports Section 75 agreements have been discussed in recent weeks – moving forward with discussions.
- **tie** and CEC have met to discuss the asset management lease proposed by CEC for the management of all Tram land. The lease needs to take into considerations the potential tax implications following Construction into Operation. **tie** need to further this discussion before decision on lease can be made. Suggestion of using a licence following into a lease have been mentioned, discussions will need to be held with the **tie** senior management and CEC on how to proceed.

2.1.1 Network Rail

Following the change in governance for the project, TS announced that they would no be further involved in the discussions with NR with regard to contract, scope and programme of network rail activities. No progress had been made on these issues prior to this decision and **tie** is now directly leading the discussion with NR on matters outlined below :

Immunisation

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Scope and programme unknown until agreement has been reached between **tie** and NR. Possession dates that are already booked for Dec 2008 / Jan 2009 have been shared with the Infraco bidders for information. These possessions are to finalise the testing and commissioning following completion of the NR immunisation project.

This work has to be completed prior to and is critical for the energisation of the Gogar Depot currently programmed for Late November 2009.

Relocation of existing lineside equipment

Scope and programme unknown until agreement has been reached between **tie** and NR.

tie have previously booked a possession for December 2007 to allow NR to relocate existing lineside equipment and may now incur a cost for cancellation / non-usage. However, this is not certain as the project was advised 19th July via the Network Rail agreed possession strategy document that no cost will be incurred by Tram Project if this possession is not used or cancelled.

Relocation of diesel storage tanks at Haymarket depot

Scope and programme unclear until agreement has been reached between **tie** and NR.

NR have verbally advised that programme will commence June 2007 and complete Dec 2007. – No further update is available.

General

- The Possession booking procedure is under preparation and has been taken to a point where the agreed possession dates with Network Rail have been shared with the Infraco bidders.
- Discussions continue between **tie** and NR on preparation of an Asset Protection Agreement (APA) document.

2.1.2 OCIP

OCIP award had been subject to delays but has now been placed with effective date of 23 July. Final alignments are being settled with the Infraco bidders.

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Procurement consultant

- Infraco contract is programmed to move to preferred bidder status in September 2007 with Infraco contract award in January 2008.
- In line with Infraco, the Tramco contract is programmed to move to preferred bidder status in September 2007 with Tramco contract award in January 2008.
- Consideration is being given to “Advanced Infraco Works” which may be required to be undertaken during winter 2007 – 2008 such as tree felling.

Design

- Parsons Brinckerhoff submitted version 18 of the Design schedule on 15th August 2007 progressed to a Data date of 30th July 2007. This enables the Tram Master Programme to be updated with achieved progress and / or slippage.
- This in turn drives the programme through many logic strings which results in the constant “live” scheduling of amongst others, Utilities Construction, Traffic Management, Advance Works (Non-Depot), Advance works at Gogar Depot site and Structures Construction within Infraco package.

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- The issue of full Design packages “for Construction” for the full section to inform the Infracore procurement process has been revised between V17 and V18 as follows
 - *Section 1 Newhaven to Haymarket*
 - V17 – 24Jun08 – V18 – 20May08
 - *Section 2 Haymarket to Roseburn Junction*
 - V17 – 26Feb08 – V18 – 5Mar08
 - *Section 3 Roseburn Junction to Granton Square*
 - V17 – 25Feb08 – V18 – 25Feb08
 - *Section 4 Future*
 - *Section 5 Haymarket to Gogar*
 - V17 – 22Jul08 – V18 – 4Jul08
 - *Section 6 Gogar Depot*
 - V17 - 22Feb08 – V18 – 22Feb08
 - *Section 7 Depot to Airport*
 - V16 – 05Feb08 – V17 – 20Mar08

Financial / Funding / procurement strategy

- The programme for delivery of Financial close was presented to the TPB in the period. This programme co-ordinates a range of activities, comprising governance & management, expenditure & funding, Final Business Case preparation and stakeholder approval processes. This programme is being integrated into the master programme.
- Funding arrangements have now been clarified between TS and CEC and a New Award Letter is in the process of being drafted. An agreement in principle is expected by the end of August.
- Detailed work has been underway to define the scope of the OGC Gateway 3 review, provisionally scheduled late Sept. / early Oct. This work will be completed in the next period.

Parliamentary process / approvals

This phase is now complete

Procurement construction works

2.1.3 Negotiations and award of contracts

- Infraco contract is programmed to move to preferred bidder status in September 2007 with Infraco contract award in January 2008.
- In line with Infraco, the Tramco contract is programmed to move to preferred bidder status in September 2007 with Tramco contract award in January 2008.
- Negotiations with NR to agree a contract, workscope and programme continue to be a concern.
- Other contracts that require consideration are
 - works required to be done prior to Infraco contract award
 - Power re-inforcement
 - Network Rail interface issues
 - Enabling Works at St.Andrew Square

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Board date	Milestone	Due date	Delivered date	Comment
12 th July	Conclude initial review Return of Update Package 3	03/07/07 06/07/07	05/07/07	Complete Iterative process, will be captured within submission of final bid proposal 07/08/07
	Initial normalisation of price Draft evaluation	15/06/07 10/07/07	29/06/07 Ongoing	Final evaluation due 17/08/07
9 th Aug	Conclude negotiation of contract terms	17/07/07		Ongoing, big ticket issues agreed in principle with bidders, completion of balance of main items by 27/08/07
	Infraco final bid proposals Updated evaluation	07/08/07 09/08/07		Received Work ongoing as part of final evaluation
5 th Sept	Conclude negotiations with bidders	27/08/07		recommendation of preferred bidder
	Presentation of evaluation to evaluation panel	03/09/07		
	Presentation of evaluation to TPB Procurement sub committee	06/09/07		
26 th Sept	TPB Endorsement of Conditional Recommendation to Award	25/09/07		
31 st Oct	Conclusion of final facilitated negotiations	01/10/07		Approval to recommendation pulled forward to Council meeting 25/10/07
	Conclusion of negotiations for final deal	22/10/07		
	CEC Council meeting to endorse recommendation	13/11/07		
28 th Nov	Conclusion of due diligence on critical design items	19/11/07		
	Conclusion of negotiations for Phase 1b option	27/11/07		
19 th Dec	Conclusion of due diligence on non critical design items	17/12/07		
	Approval of final deal by TPB sub committee	17/12/07		
	Transport Scotland approval of conditional recommendation	18/12/07		
23 rd Jan	CEC and TS approval of Final Deal	11/01/08		Full Award approval by Council
	Issue Of Contract Award Notice	11/01/08		20/12/07
20 th Feb	Financial Close	28/01/08		Award of Infraco and Tramco and effect novations

Construction works

2.1.4 Utility diversions

- Main Utility workscope commenced w/c 9th July 2007 in Sub-Section 23 Ocean Terminal to Port of Leith at Tower Place Roundabout to Commercial Wharf and Tower Wharf to Tower Place Roundabout.
- Further worksites commenced in the period at
 - Sub-Section 22 Port of Leith to Bernard Street at Tower Street to Tower Wharf
- Section 5a at Sub-Section 12 Roseburn Junction to Murrayfield due to commence in period 06.
- An awareness needs to be maintained of the agreement with HBG to vacate the land at Haymarket Yards by 23rd November 2007.

2.1.5 Advanced work

Depot

Due to the lengthy nature of these works in constructing the Gogar Depot this is the critical area in the programme. In order for the depot to be built and commissioned in time for the 1st Tram deliveries in December 2009, an advance works contract has been awarded for enabling works and mass excavation prior to Infracore commencement.

- Phase 1 Earthworks were completed in the period with circa 150,000m³ of spoil removed.
- Commencement of Phase 2 with a programmed target of circa 100,000m³ of spoil to remove. This figure will be adjusted as the Design associated with the relocation to the North of the Depot footprint concludes.
- The Phase 3 programme remains unchanged as it is dependant on the successful decommissioning of SGN Gas Main scheduled for 5th January 2008.

Invasive species

- Invasive species Year 1 Cycle of Visits
 - Visit one completed to plan during period 04
 - Visit two completed slightly ahead of programme during later part of period 05 to treat re-growth due to wet/warm weather conditions.

Other advanced work

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- IPR2 have selected a preferred bidder – RJ McLeod. RJ McLeod have agreed to submit a revised costings programme on 28th August. A special Steering group meeting has been arranged for 3rd September 2007 to progress on how the project is to move forward.
- St.Andrew Square Streetscape Works
 - Further meetings held during the period to integrate St.Andrew Square re-alignment/re-prioritisation works with CEC Streetscape works and MUDFA.
 - Draft programme updated and re-issued for comment.
 - SDS Design completed in the period
 - Draft TRO completed in the period.

2.1.6 Infraco

- Advance works which require to be undertaken prior to Infraco contract award are undergoing further clarification.
- Further reviews of the Infraco bidders construction programmes continues to tighten the logic as agreed Design and MUDFA dates are incorporated.
- CEC and TEL are engaged in weekly discussions to review construction output with a view to preparing construction guidelines to what is acceptable for the city centre construction.

Testing and commissioning

This phase has not yet commenced

Handing over and service operations

This phase has not yet commenced

Network output programme interface (with Transport Scotland)

This phase has not yet commenced

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Interface with other projects

- Discussion continue with SGN and NR to allow for integration of programmes, particularly with regard to works within the confines of BAA land at, or adjacent to, the airport.
- SGN had some problems gaining planning permission for Turnhouse TRS this has now been granted.
- Further meetings are planned in the week commencing 27th August to address access issues at Sighthill. Despite legal hold-ups, all materials had been bought and following planning permission and access issues being solved, SGN are confident that they can still meet the decommissioning date at Gogarburn of 25th January 2008.

3 Headline Cost Report

Current Financial Year

	COWD (YTD)	COWD YTD + forecast to year end	Funding TS authorised current year	COWD YTD + forecast to period 7 (covered by current grant letter)
Phase 1a	£33.3 ¹	£120.7m	£60.7m	£50.7m
Phase 1b		- ¹	- ¹	- ¹
Phase 1a+1b	£33.3m	£120.7m	£60.7m	£50.7m

Note - 1) Phase 1b design costs are to be expended against Phase 1a budget as agreed by the Tram Project Board.

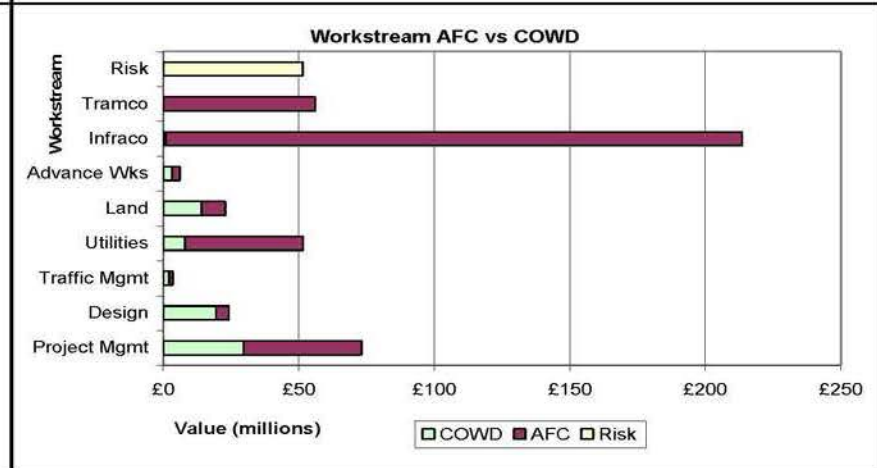
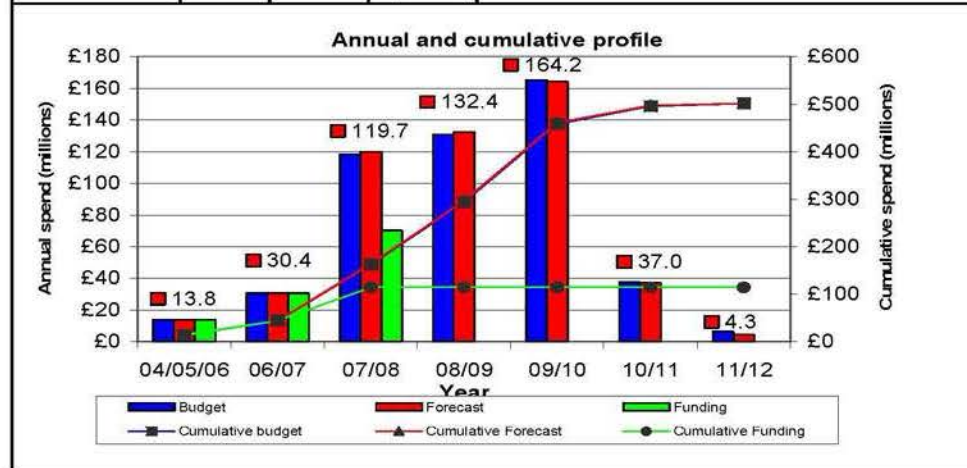
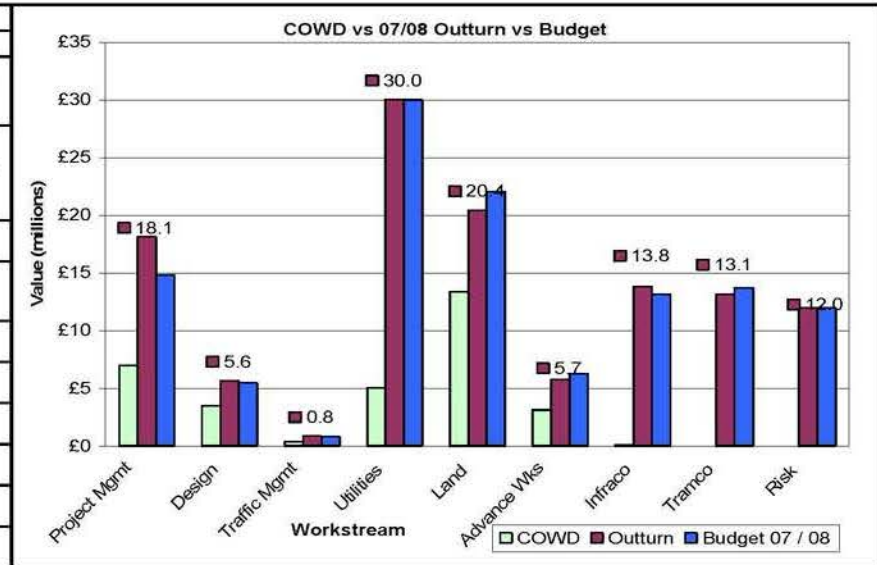
- The COWD YTD includes £13.3m in relation to land purchases. This sum includes CEC, s.75 and third party land acquired under the GVD process. In addition to ongoing project management costs and the continued development of the design, further key items within the COWD YTD are:
 - depot advanced works (£3.1m)
 - MUDFA works (£5.0m).
 All are within budget.
- The forecast COWD for the year end has increased by a net £0.1m. This increase relates to TSS costs in line with the requirements to drive completion of the design assurance validation programme. This reflects the current programme for delivery in 2007/08 and will be off-set by reductions in later years
- The Phase 1 advanced works at the depot was completed ahead of programme, enabling Phase 2 to commence ahead of schedule. A works instruction for the Stage 2 works has been issued to AMIS in accordance with the Phase 2 Board paper approved in Period 4.
- The full forecast cost for the year is aligned to the assumptions underpinning the procurement programme and remains sensitive to the extent of advanced works undertaken prior to the award of Infraco.

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Period 5 - 07/08 COWD (£000s)				
Workstream	F/cast	Act	Var	Comments
Project Mgmt	1,636	1,453	(183)	OCIP premium based on %age of construction costs. Reduction stated from removing Statutory Utility Cost (not Mudfa) cover as this will be provided by said SU's.
Design	331	(1,162)	(1,493)	Figures adjusted down to reflect latest review of design progress data. Previous figures a result of 'Period 1 forecast 'held' through Periods 2-4 due to concerns over accuracy of SDS submitted data. Situation improved but requires close monitoring.
Traffic Mgmt	76	65	(11)	
Utilities	3,401	2,908	(493)	Delayed issue of IFC drawings preventing AMIS commencing construction works at Leith Walk. Disruption minimised by redistribution of resources to survey/investigative works..
Land	3,735	(115)	(3,850)	GVD Tranche Nr 4 not issued as anticipated due to strained administrative resources
Advance Wks	544	619	76	Depot Works - Completion of Phase 1 and start of Phase 2 excavation works ahead of programme.
Infraco	20	10	(10)	
Tramco	0	0	0	
Risk	0	0	0	
Total	9,744	3,779	(5,965)	



Next Financial Year

	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total FYF
Phase 1a	£24.4m	£34.3m	£23.7m	£50.0m	£132.4m
Phase 1b	£ 4.9m	£ 1.2m	£ 2.2m	£ 3.0m	£ 11.3m
Phase1a+1b	£29.3m	£35.5m	£25.9m	£53.0m	£143.7m

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

Forecasts for Phase 1b (if approval is received) in 08 / 09 relate to design, land, costs for utility diversions and risk allowances.

Total project anticipated outturn versus total project funding

	FUNDING (total project)			Total COST (To Funders)
	TS	Other	Total	Promoter TOTAL AFC
Phase 1a	£500m	£45m ¹	£545m	£501.8m
Phase 1b	£0m	£0 ²	£0 ²	£ 92.0m ³
Phase 1a + 1b	£500m	£45m ²	£548.3m	£ 593.8m

The recent ministerial announcement on funding confirmed the position.

Notes:

1. Includes £5.2m of CEC / s.75 free issue land, reflecting latest DV valuations.
2. £3.3m of CEC / s.75 free issue land are included in £45m CEC funding.
3. Includes £2.5m of design costs for Phase 1b, to be expended against Phase 1a funding.

The increase of the Phase 1a AFC to the DFBC baseline (£500.5m) is due to rounding in underlying values and two authorised change orders:

- CEC resource allocation to the Tram Project - £0.9m
- Additional JRC modelling requirement to address wide area impacts - £0.2m

Change Control

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

	Phase 1a £m	Phase 1b £m	Phase 1a + 1b £m
Project Baseline (DFBC)	500.5	92.0	592.5
Authorised Changes	1.2	-	1.2
Current AFC	501.8	92.0	593.8
Anticipated Changes	4.6	-	4.6
Potential AFC	506.4	92.0	598.4

Concurrent with the programme review undertaken in previous periods, an internal review of the budget was performed to confirm the project estimate and take account of the assumptions for advance works underpinning the Procurement Programme. This review took account of the impact of organisational changes in **tie** following the ministerial announcement on **tie**'s other projects.

The result of this review has been fully incorporated in the above project estimate.

An allowance in the design contract for a commercial settlement with SDS has been included in the current AFC, however due to the commercial sensitivity regarding the final number and its components, details have not been disclosed in this report. Disclosure will follow **tie** governance procedures via the Procurement Sub-committee and Tram Project Board.

Some of the potential changes relate to items previously discussed at the Tram Project Board. However, no formal change notices have been raised. These changes include:

- Citypoint II: Fit out and costs of leasing additional office space.
- Costs of eradication of invasive species.
- Additional costs arising from the delay to commencement of the main MUDFA works to July.

As part of the internal review, opportunities have been identified to mitigate the impact of these changes. These opportunities have not yet been fully closed out; therefore the items are not removed from the potential changes list.

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A number of anticipated changes relate to items excluded from the Preliminary Design Stage Project Estimate Update following a review undertaken at that time, for example the provision of a tram vehicle mock up.

Acceptance and inclusion of these items in the scheme will, all other things being equal, result in an increase in the AFC, requiring either additional funding or increased savings through value engineering to maintain affordability.

Summary Breakdown

Original Estimate (including escalation)

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

Latest Estimate/AFC (including escalation)

	Base Cost	Risk	Opportunity	OB	(or)Contingency	Total
Phase 1a	£450.4m	£51.4m	£0 ⁴	£0 ²	£0 ³	£501.8m ⁵
Phase 1b	£ 80.5m	£11.5m	£0 ⁴	£0 ²	£0 ³	£ 92.0m
Phase 1a + 1b	£530.9m	£62.9m	£0 ⁴	£0 ²	£0 ³	£593.8m ⁵

Notes:-

1. Opportunities identified at DFBC stage were taken into the DFBC estimate.
2. OB included in risk (QRA at P90 confidence level) as agreed with TS
3. Contingency included as part of risk at present
4. Opportunities in latest estimate / AFC – savings targeted through the current value engineering exercise and negotiation strategy to maintain affordability.
5. Includes authorised changes

4 Time Schedule Report

Report against Key Milestones

The agreed baseline programme reference for this project is that given in the Period 3 report.

Milestones	Date	Act / Fcst
Approval of Draft Final Business Case by CEC	21 Dec 06A	21 Dec 06A
Approval of Draft Final Business Case by Transport Minister – approval and funding for utility diversions	16 Mar 07A	16 Mar 07A
TRO process commences	26 Oct 07	
Tramco - complete initial evaluation/negotiation	09 Mar 07A	09 Mar 07A
MUDFA - completion of pre-construction period of MUDFA contract	30 Mar 07A	30 Mar 07A
MUDFA - commencement of utility diversions	02 Apr 07A	02 Apr 07A
Infraco – return of stage 2 bids	08 May 07A	08 May 07A
Tramco - appointment of Preferred Bidder	21 Sep 07	26 Sep 07
Infraco - completion of evaluation/negotiation of bid	10 Sep 07	10 Sep 07
Infraco - appointment of Preferred Bidder.	25 Sep 07	26 Sep 07
Tramco/Infraco - facilitation of novation negotiation complete	22 Oct 07	22 Oct 07
Tramco/Infraco - final negotiation and appointment	11 Jan 08	11 Jan 08
Infraco - negotiation of Phase 1b complete.	30 Nov 07	30 Nov 07
Approval of Final Business Case by CEC and Transport Scotland – approval and funding for Infraco / Tramco	09 Jan 08	09 Jan 08
Tramco/Infraco - award following CEC/TS approval & cooling off period.	28 Jan 08	28 Jan 08
Construction commences on Phase 1a	26 Feb 08	26 Feb 08
TRO process complete	19 Jun 09	16 Dec 09
Construction commences on Phase 1b	29 Jun 09	29 Jun 09
Construction complete Phase 1a	08 Jul 10	08 Jul 10
Operations commence Phase 1a	Jan 11	Jan 11
Construction complete Phase 1b	Jun 11	Jun 11
Operations commence Phase 1b	Dec 11	Dec 11

Guidance for Completion:

Legend for colouring of Act/Fcst date text

Green: Act / Forecast date is ahead or in line with baseline
Yellow: Slight slippage – readily recoverable with action.
Red: Notable / significant slippage – difficult to recover, even with action.

Key issues affecting schedule

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- Delivery of Design programme.
As many areas of the programme are dependant on the delivery of timely and adequate design, the programme is vulnerable to slippages in the SDS Design Programme. This could result in a delay to the award of the Infraco / Tramco contracts or introduce further risks to the programme
- Network Rail Immunisation - as no clear contracts are in place between **tie** and NR, and workscope and programme have not yet been agreed, there are real concerns that this may impact the programme as disruptive possessions are required.
- Network Rail Relocation of Lineside Equipment - see above

5 Risk and opportunity

Summary

Recent reviews performed in relation to:

Immunisation Works

A meeting was held with the Engineering and Procurement Director responsible for this area of work. The current risks relating to these works were updated and will continue to be closely monitored following meetings between **tie** and senior management at NR.

CEC

A number of meetings have been held with the CEC Project Manager in order to ensure any CEC risks relevant to the Tram Project are identified on ARM and have appropriate treatment plans in place.

OCIP

Meetings have been held with the OCIP Project Manager to review all risks in ARM which relate to third party claims. Where the risk will be provided for under the OCIP, then these risks were amended accordingly.

Depot Works

All risks in this area of the project were reviewed and updated with the Project Manager.

MUDFA

A training session was held at the MUDFA office for the Project Managers and some members of the commercial team. This will ensure that the MUDFA team are able to update ARM and produce reports as required.

Risk register review

The primary risk register is included as Appendix A.

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

Risks opened

5

Risks closed	9
Risks reassessed	6

5.1.2 Risks added

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

- **CEC do not agree to final negotiated contract:**
 - If CEC feel that the cost of the final negotiated contract is too high or that there is too much risk for CEC to carry, then they may fail to approve the contract. While the issue may be resolved in the future, any delay would have a major impact upon the programme. On-going discussions and close liaison with CEC officials are being applied to address this risk.
- **CEC failure to sign legal agreement – legal officer level:**
 - If CEC's Legal Officer feels that there is insufficient information concerning costs and risk, they could advise CEC not to sign any agreement. A separate Legal Affairs committee has been established to address this risk and ensure appropriate liaison with CEC Legal officers takes place,

5.1.3 Risks closed

Of the nine risks closed in the period the most significant risks were:

- **Significant number of claims from 3rd parties received as a result of utility diversion activity:**
 - Both these claims were closed as the OCIP will provide cover in the event of these claims arising.
- **Requirement for early commencement of depot works is not able to be met.**
 - This risk was closed as the treatment plans ensured the risk did not arise.

5.1.4 Risks reassessed

Of the six risks reassessed the most significant ones were:

- **Infraco does not have detail to achieve contract close:**
 - The significance of this risk has increased as the potential likelihood and capex impact of the risk have increased.

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- **Damage to Network Rail infrastructure by contractor**
 - The significance of this risk decreased due to the installation of a barrier to protect the infrastructure.
- **Failure to process prior approvals applications within eight weeks**
 - Inadequate quality of submission of approval requests from SDS can result in CEC failing to approve the submissions resulting in programme delay. This would have a significant impact on the construction programme.

Review project opportunity register

There has been considerable progress made in terms of agreeing the principles for crystallising the previously opportunities. See separate Schedule attached at Appendix B.

6 Health, safety, environment, quality and resources

Health and safety accidents and incidents, near misses, other or initiatives

No accidents were reported in the period and the accident frequency rate (AFR) for the project remains 0.00.

Four site inspections were completed in the period, two at the depot advance works and two at utility diversion sites. Minor findings were reported at both and closed out. The site traffic management plan for the depot advance works remains outstanding.

Three safety tours completed in the period, no significant issues were raised and all minor issues have been closed out.

The safety tour programme for the project has been revised following the organisational restructuring.

Three system safety audits were completed in the period. The reports and findings are to be issued.

Environment

No incidents to report in the period.

Quality

One audit undertaken as planned in the period with two observations and no non-conformances raised.

All non-conformances from the two previous audits have been closed.

No non-conformances were raised in the period.

Resource management

The resource management plan as approved by the Board continues to be delivered with a focus on replacing contractual staff with permanent employees and negotiating revised rates for contractors.

7 Stakeholder and communication

Stakeholder strategy / plan

360° stakeholder engagement continues as provided for in the stakeholder strategy. The plan has moved significantly from selling the tram project to focussing on the delivery of the tram project. Much of this change has been driven by stakeholders and the team are responding by maximising the use of face-to-face contact. Over 120 contacts were made with businesses and residents as part of the MUDFA works on Leith Walk and Tower Place.

Communication strategy / plan

The communications team, including stakeholder relations, is working with the CEC on a review of the communications plan contained in the Draft Final Business Case.

Communication and stakeholder matters arising from previous period

7.1.1 Stakeholder Relations

Community Councils

06th August – Leith Links CC
16th August – Leith Harbour and Newhaven CC
20th August – Leith Central CC

Parliamentary and Local Council

Personal briefings on the tram project were provided for Malcolm Chisholm MSP and Sarah Boyack MSP.

A briefing on the tram project was provided for CEC councillors on the 15th August.

Route Design

Preparation is underway for the final design presentations of the tram route design.

Correspondence has been received from SPOKES, the Lothian cycle campaign, regarding the provision of cycling facilities on tram vehicles and on road.

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Business Support

A meeting was held with the Royal Bank of Scotland plc regarding sponsorship of certain aspects of tram marketing.

Other key meetings were:

13th August - Edinburgh Tram Retail and Tourism Working Group. This group was originally set up to include retail only but has now been extended to capture the issues of the tourism industry in Edinburgh.

16th August – meeting with the Lothian Assessor’s office to discuss arrangements for reduction of business rates payments during the periods of construction.

7.1.2 Communications

The commencement of utilities diversion works in July, exclusive interview with the Evening News led to a front page spread under the banner ‘Let’s get on with it’. The following day a full media briefing on the construction programme was given to journalists at the MUDFA project offices in Leith. The session included presentations from senior **tie** management as well as a guided bus tour of the tram route. The briefing session was supported by CEC and TEL. The aim was to give journalists a thorough understanding of the project including planning, utilities diversion, innovation, contingency, stakeholder liaison and partnership working. Extensive coverage followed across all Scottish media, including BBC Scotland and STV news, and was unanimously positive.

In anticipation of ongoing spokesperson requests from media regarding the trams project, utilities diversion and stakeholder issues, senior managers attended media training in August.

The communications department has been driving an ongoing review and update of the Trams for Edinburgh website. A comprehensive overhaul of the site will take place over the coming months with support from Lothian Buses’ web team. In the short term, information on the site is now being regularly updated with details of worksites and traffic diversions.

A coordinated approach is being taken to provide a number of local publications with profiles of the stakeholder team in an effort to promote engagement with stakeholders, residents and businesses along the tram route. These publications include the Autumn edition of “Outlook”, CEC’s newsletter; “The Leither” and the next edition of the AMIS “Trams for Edinburgh” newsletter. It should be noted that the success of this strategy is reflected in the fact that there has been no negative coverage in the media regarding the commencement of utilities diversion works, despite several probing enquiries from journalists.

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Communication and stakeholder action plan for next period

7.1.3 Communications

Update of the Trams for Edinburgh DVD to include comment and footage from Jenny Dawe, the new leader of CEC.

Distribution of new route map to media, featuring renamed tram stops and ongoing update of the map in web and print materials.

7.1.4 Stakeholder Relations

Meetings are planned with the following groups for the next period:

- Leith Central Community Council
- Tram Helper Question and answer session
- Scottish Freight Transport Authority
- Leith Magazine Trams For Edinburgh promotion
- Edinburgh Taxis
- Gorgie Dalry Community Council
- West End Community Council
- Edinburgh Retail Forum

The Stakeholder & Communications teams will continue weekly meetings with:

- AMIS Communications
- MUDFA team
- MUDFA traffic Management
- Tram Leadership
- Stakeholder and Communications Team under the Corporate Affairs Department

Monthly meetings are also ongoing with:

- CEC Communications
- Tram Project Retail and Tourism Working Group
- MUDFA Sub-Committee
- Edinburgh Chamber of Commerce

Ad-hoc business meetings and events are also attended by the team.

Appendix A – Primary Risk Register

ARM Risk ID	Risk Description			Risk Owner*	Significance	Black Flag	Treatment Strategy	Treatment Status		Date Due	Action Owner
	Cause	Event	Effect					Previous	Current		
870	SDS Designs are late and do not provide detail Infraco requires	Infraco does not have detail to achieve contract close	Delay to due diligence and start on site and need to appoint additional design consultants	T Glazebrook	25	Project	Review AIPs for Structural Information	Complete	Complete	02-Feb-07	S Clark
							Obtain Design Progress Dashboard from SDS	Complete	Complete	15-May-07	T Glazebrook
							Monitor design progress and quality	On Programme	On Programme	10-Jan-08	T Glazebrook
268	Final Business Case is not approved or is approved subject to the gaining of additional funding	Funding not secured/agreements not finalised for total aggregate funding from TS and CEC including grant/indexation at FBC; risk sharing between parties; cashflow profile; financial covenant; public sector risk allocation.	Possible showstopper; Delays and increase in out-turn cost may affect affordability. Event: also decision on line 1B.	S McGarrity	0	Project	tie are facilitating interaction between TS ANd CEC in the delivery of a funding agreement which will cover all funding matters including decision making on Phase 1b. This process requires each party to facilitate decision making within. Target resoluti	On Programme - Target Date mid August 2007	On Programme - Target Date mid August 2007	28-Sep-07	G Bissett
							Tram Project Board to monitor progress towards conclusion of agreement.	On Programme	On Programme	28-Sep-07	D MacKay
915	Policy or operational decision	Transport Scotland and CEC do not provide indemnities on payment	Bidders will not commit to contract without this assurance; Delay in bid process; Possible bidder withdrawal from negotiations and bid process.	G Gilbert	0	Project	Ensure Transport Scotland understand implication of not providing indemnities and obtain buy-in from them	On Programme	On Programme	15-Aug-07	G Gilbert

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ARM Risk ID	Risk Description			Risk Owner*	Significance	Black Flag	Treatment Strategy	Treatment Status		Date Due	Action Owner
	Cause	Event	Effect					Previous	Current		
139	Utilities diversion outline specification only from plans	Uncertainty of Utilities location and consequently required diversion work/ unforeseen utility services within LoD	Increase in MUDFA costs or delays as a result of carrying out more diversions than estimated	G Barclay	25		In conjunction with MUDFA, undertake trial excavations to confirm locations of Utilities	On Programme	On Programme	31-Aug-07	A Hill
164	Utilities assets uncovered during construction that were not previously accounted for; unidentified abandoned utilities assets; asbestos found in excavation for utilities diversion; unknown cellars and basements intrude into works area; other physical obstructions; other contaminated land	Unknown or abandoned assets or unforeseen/contaminated ground conditions affect scope of MUDFA work	Re-design and delay as investigation takes place and solution implemented; Increase in Capex cost as a result of additional works.	G Barclay	25		Identify increase in services diversions. MUDFA to resource/re-programme to meet required timescales.	On Programme	On Programme	31-Aug-07	G Barclay
							Carry out GPR Adien survey	On Programme	On Programme	31-Oct-07	J Casserly
							Investigations in advance of work	On Programme	On Programme	30-Nov-07	J Casserly
279		Third party consents including Network Rail, CEC Planning, CEC Roads Department, Historic Scotland, Building Fixing Owner consent is denied or delayed	Delay to programme; Risk transfer response by bidders is to return risk to tie; Increased out-turn cost if transferred an also as a result of any delay due to inflation.	T Glazebrook	25		CEC Planning - mock application by SDS	On Programme	On Programme	31-Dec-07	T Glazebrook

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ARM Risk ID	Risk Description			Risk Owner*	Significance	Black Flag	Treatment Strategy	Treatment Status		Date Due	Action Owner
	Cause	Event	Effect					Previous	Current		
							Engagement with third parties to discussed and obtain prior approvals to plans	On Programme	On Programme	31-Aug-07	T Glazebrook
							Identify fallback options	On Programme	On Programme	31-Aug-07	T Glazebrook
							Obtain critical consents prior to financial close	On Programme	On Programme	10-Jan-08	T Glazebrook
44	SDS contractor does not deliver the required prior approval consents before novation	Late prior aproval consents	Delay to programme with additional resource costs and delay to infraco. procurement. Impact upon risk balance.	T Glazebrook	23		Integrate CEC into tie organisation/accommodation (office move)	Complete	Complete	04-Jun-07	T Glazebrook
							Hold weekly CEC/SDS liaison meetings	On Programme	On Programme	31-Dec-07	T Glazebrook
							Hold fortnightly Roads Design Group	On Programme	On Programme	31-Dec-07	T Glazebrook
47	Poor design and review processes; cumbersome approvals process; reiterative design/approvals process.	Completion of MUDFA works is delayed (due to late design/approvals) - late utility diversions in advance of Infraco works.	Increase in price and time delay in the Infraco contract; Infraco could end up delay to commencement or with utility diversion and would have to price for or have to carry out unplanned re-sequencing; Claims from MUDFA as a result of being unable to proceed with works.	G Barclay	23		Review design timscales	Complete	Complete	30-Apr-07	J McAloon
							Micro management of design	On Programme	On Programme	31-Aug-	J McAloon

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ARM Risk ID	Risk Description			Risk Owner*	Significance	Black Flag	Treatment Strategy	Treatment Status		Date Due	Action Owner
	Cause	Event	Effect					Previous	Current		
										07	
							Revise design process	On Programme	On Programme	31-Aug-07	J Casserley
							Review tie design review	On Programme	On Programme	31-Aug-07	J Casserley
							Incentivisation of SDS	On Programme	On Programme	28-Sep-07	M Crosse
917	Transport Scotland and CEC have not agreed funding and risk allocation required from Tram budget for Tram elements of work; Immunisation Works on critical path and it is essential they are complete by October 2009.	Source and level of funding and risk allocation for Network Rail Immunisation Works has not been established	Immunisation works unable to proceed due to lack of funding or works are delayed having a critical effect on programme	S Bell	23		Undertake Immunisation Works Risk Workshop to produce key risks register	Complete	Complete	16-Mar-07	
							Establish risks retained by each party for liability	Complete	Complete	30-Mar-07	D Sharp
							Issue instruction to Network Rail to undertake works	Behind Programme	Behind Programme	30-Apr-07	D Sharp
							Agree Immunisation Project Milestones	Behind Programme	Behind Programme	30-Apr-07	S Bell
							Establish funding contributions and respective budgets from TS/NR/CEC/Other Projects	Complete	Complete	31-May-07	D Sharp

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ARM Risk ID	Risk Description			Risk Owner*	Significance	Black Flag	Treatment Strategy	Treatment Status		Date Due	Action Owner
	Cause	Event	Effect					Previous	Current		
980	Transport Minister unsympathetic to case put forward for change / SNP hostility towards project. Legal challenge of proposal.	Proposed Scottish Exec amendment of Traffic Regs for Tram core measures is unsuccessful thereby triggering public hearings	Delay to date by which TROs can be made increasing difficulty of managing the gap period between Infraco commencement and the date of the TROs being made. Impact (yet to be assessed) on project costs.	K Rimmer	23		Encourage and assist SE as much as possible in order to promote change to regulations	On Programme	On Programme	31-Jul-08	K Rimmer
914	Required approval/acceptance turnaround time does not reflect SUC standard practice; SUCs do not have enough resource or process capability to achieve 20 day turnaround	Statutory Utility Companies unable to meet design approval/acceptance turnaround time to meet programme	Additional period required for design approval/acceptance turnaround	T Glazebrook	18		SUC Liaison	On Programme	On Programme		G Barclay
942	Decision making process, relating to funding and works, not undertaken during purdah period	Network Rail do not commence works at required time	Acceleration of works required to reduce duration; Additional costs; Works not completed by drop dead date of October 2009	S Bell	18		Develop strategy and lock down agreement between Transport Scotland and Network Rail	Behind Programme	Behind Programme	30-Mar-07	S Bell
							Clarify lines of communication and governance for Development Phase within Transport Scotland	Behind Programme	Behind Programme	30-Apr-07	D Sharp

Transport Edinburgh
Trams for Edinburgh
Lothian Buses

ARM Risk ID	Risk Description			Risk Owner*	Significance	Black Flag	Treatment Strategy	Treatment Status		Date Due	Action Owner
	Cause	Event	Effect					Previous	Current		
							Establish and monitor agreement between TS and NR for start of Immunisation Works	Behind Programme	Behind Programme	31-May-07	S Bell
							Ensure that contractual arrangement between Network Rail and contractor for D&B works is established and understood	Behind Programme	Behind Programme	29-Jun-07	D Sharp

FOISA Exempt
 Yes
 No

Appendix B – Opportunities register

Item	Opportunity	Filter	Proposal Origin	Opportunity Champion	Work Stream affected	Current Status	Scoop 3 (Rec 7.8.7)		Roley 3 (Rec 7.8.7)		Normalisation Item Adjustments			Probability of Success (Phase 1a only)			BANKED	IN PROGRESS	Comments
							Min	Max	Min	Max	Min	Max	Incl in Scoop/Roley3	Easy (80%)	Medium (50%)	Difficult (30%)			
OVERALL TOTALS							£8,847,676	£8,847,676	£1,250,000	£2,500,000	£0	£9,500,000		£17,284,249	£3,894,438	£1,372,351	£9,299,606	£0	
BUILDINGS																			
1	Delete fencing at sub-stations and accept security risk. Note that no fencing is in contravention of the Tram Design Manual - may not be acceptable to planners	Buildings	Project 31.1.14	GO	Infraco	REJECTED	-	-	-	-	-	-	-	-	£0	£0	£0		Insignificant cost saved versus security risk.
2	Delete one substation and accept risk of total system failure should another substation go down.	Buildings	Project 31.1.15 & 14.2.4		Infraco	REJECTED	-	-	-	-	-	-	-	-	£0	£0	£0		"139" sub station required for resilience and to enable capex savings in supply of power to substations.
3	Power supply - Rationalise layout of modular housings to reduce overall space requirements	Buildings	Scoop		Infraco	OPEN	£43,000	£43,000							£0	£87,500	£0		See "SCOOP" email received from BD 100407
134	Substations - Some (all?) are shown on "orbit". Is this strictly necessary?	Buildings			Infraco	OPEN	£83,556	£83,556							£0	£0	£0	£0	Proposed by one bidder. Scoop 3 - needs to be challenged with SDS to understand design (AST)
BUILDINGS TOTAL							£126,556	£126,556	£0	£0	£0	£0		£0	£87,500	£0	£0	£0	
DEPOT																			
4	Depot reorientation (External works) May impact on ability to obtain prior approvals from the planning authority INCLUDED IN ITEM 26	Depot	Scoop	SDS	Infraco - advance works	CLOSED	-	-	-	-	-	-	-	-	£0	£0	£0		SDS Depot Feasibility Study. Note: estimate 23% reduction in excavation programme duration This feasibility study looks at raising the depot only - not a report on reorientation. CHANGED TO "RED" DUE TO CURRENT ADVANCE WORKS PROCUREMENT STRATEGY(22/03/07)
5	Depot reorientation (Internal works). Again, may impact on ability to obtain prior approvals from planning authority INCLUDED IN ITEM 26	Depot	Project, Scoop 9.1.1 - see also ideas 26-32 below	SDS	Infraco - advance works	CLOSED	-	-	-	-	-	-	-	-	£0	£0	£0		Connected to "Depot reorientation" See 4 above
6	Depot location (where depot) relates to alternative location-Site at Leith has a different set of issues	Depot	Project - 24.1.1	SDS	Infraco - advance works	CLOSED	-	-	-	-	-	-	-	-	£0	£0	£0		This has been considered before and PARKED. Affected by LCC. Therefore no saving taken. Is this still parked if 43m tram?
7	Track geometry at the Depot - rationalise layout. Currently 32 turnouts at depot, remove 6 nr could result in £0.5m saving	Depot	Scoop	SDS	Infraco	OPEN	£140,000	£140,000							£0	£0	£0	£100,000	Take out head shunts and one access track. Track reduction agreed with Transdev. Scoop 3 - not to same extent as identified in small R agreed TEL/Transdev/AST
8	Delete depot pumping station/storm tanks by utilising existing gravity system which has been confirmed to be at a suitable level where diversion is not required. Who takes risk if it doesn't work?	Depot		PD	Infraco	OPEN									£0	£0	£0	£193,526	Further impact on operating costs to be investigated. Not a VE issue but on-going design of depot drainage.
9	Depot - Build part now with provision to expand in the future/reduce size of car park facilities	Depot	Project - 9.1.3 (see also item 10)	SDS	Infraco	OPEN									£0	£0	£0	£230,000	Confirmed stabling requirements: Short term 27 tram feet - 24 in sidings balance in shed. In addition to Items 4, 5 & 6? False economy? Revisit exit mats for full day for 25 tram feet (8 sidings) but infrastructure installed for 27 tram feet (6 siding

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VALUE ENGINEERING OPPORTUNITIES REGISTER (VERSION 2)

Item	Opportunity	Filter	Proposal Origin	Opportunity Champion	Work Stream affected	Current Status	Scoop 2 (Rec 7.5.7)		Scoop 3 (Rec 7.5.7)		Normalisation Item Adjustments			Probability of Success (Phase 1a only)			BANKED	IN PROGRESS	Comments
							Min	Max	Min	Max	Mih	Mix	Incl In Scoop/Rolled	Easy (50%)	Medium (50%)	High (75%)			
10	Depot - Reduce numbers accommodated in Depot, Buildings & Car Park - to enable reduced floor area	Depot	Project - 2.4.1.21.4 (see also item 9)		Infraco	OPEN									€0	€0	€360,000		Staff numbers to be accommodated in the depot and commensurate with fleet size to be finalised and confirmed by the end of 2007. The depot and buildings and car park are to be issued with 100-400 staff seats to be accommodated. Therefore not happy with car park.
11	Depot Building - reduce cost of depot building, inception that correct estimate too high	Depot	Project - 2.4.1.13	BO	Infraco	OPEN									€0	€0			See comments on item 10. Need to be clear what the occupancy figures are based on - accepted by I&E
12	Depot - equipment - to be reviewed for cost effectiveness	Depot	Project - 2.4.1.22	AR/DP	Infraco	REJECTED									€0	€0			Pending scope development.
13	Depot - sale of top soil	Depot	Project - 14.2.2	GO	Infraco	CLOSED									€0	€0			Only top 250mm of quality top soil. See separate opportunity for disposal of bulk material below. CHANGED TO "RED" DUE TO CHANGES TO THE VALUE ENGINEERING STRATEGY (22/07/07)
14	Depot - Diets under floor lift plant and utilisa mobile jacks	Depot	Scoop		Infraco	REJECTED									€0	€0			See "SCOOP" email received from BD 100407. Rejected - complicates operations and negative impact on health & safety
15	Depot - delete Windstream remover - not required at Nottingham Tram	Depot	Scoop		Infraco	CLOSED									€0	€0			See "SCOOP" email received from BD 100407
16	Depot - sell vehicle accommodation system - requirement dependant on team vehicle selection	Depot	Scoop		Infraco	OPEN									€0	€0	€27,500		See "SCOOP" email received from BD 100407. AR - Not good in the long run really from reliability. Underfoot jacks are generally more reliable and, in conjunction with under floor accommodation, will be a more cost effective solution. Scope 3 - no savings offered. Team choice dependent - Needs decision as Tramco/Infraco dependent.
17	Depot - Track Maintenance Equipment - replace scope requirement.	Depot	Scoop		Infraco	OPEN									€0	€0	€27,500		See "SCOOP" email received from BD 100407
18	Depot power - delete bidders allowance for equipment to be supplied by Scottish Power	Depot	Scoop	DL	Infraco	REJECTED									€0	€0			DL email 19/01/07 refers. Rejected - not acceptable to SP or I&E
19	Depot - downgrade 12 tonne gantry crane to 6.3 tonne (max lift 5 tonne logs) - more efficient building envelope Reduction in structural steel requirements, knock-on effects on foundation design, roof design, structural envelope, building volume, headroom	Depot	Project - 7.2.1.3		Infraco	OPEN									€0	€0	€2,000,000		Change agreed and SDS introduced to accommodate within the design. BOTH BIDS ALLOW FOR A 7T CAPACITY CRANE. NOTE - REDUCED STEEL SECTION SIZE REQUIRED TO SUPPORT THE CRANE. REDUCED FOUNDATIONS, EASIER FIT CONSTRUCTION
20	Depot - deletion of one pavement (inner) - does this allow larger stagers?	Depot	Project - 7.2.2		Infraco	OPEN									€0	€0	€50,000		May not be realised as a saving due to requirements to feed water main under roadway
21	Depot - reduce scope of equipment	Depot	Project - AH109		Infraco	REJECTED									€0	€0			This is a simple halt, not a train-stop. The quantity exists. Not part of original SDS estimate
22	Depot - disposal of excavated material over adjacent farmland. Avoid transportation costs and landfill costs?	Depot	Project - 14.2.2		Infraco	CLOSED									€0	€0			
23	Depot - sale of general materials (see opportunity 53 above for topsoil sale)	Depot	Project - 14.2.2		Infraco	CLOSED									€0	€0			

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Item	Opportunity	Filter	Proposal Origin	Opportunity Champion	Work Stream affected	Current Status	Scoop 3 (Rec 7.9.7)		Rofey 3 (Rec 7.9.7)		Normalisation Item Adjustments			Probability of Success (Phase 1a only)			BANKED	IN PROGRESS	Comments
							Min	Max	Min	Max	Min	Max	Incl in Scoop/Rofey3	Easy (80%)	Medium (50%)	Difficult (30%)			
24	Depot - delete requirement for concrete apron to security fence	Depot	SDS		Infraco	OPEN								£0	£0	£0	£6,050		
25	Depot - gas main diversion - Excavation delayed due to 3rd Party - move required valve location to expedite excavation of depot area	Depot	Project - 21.2.1	2	Infraco - advance wks	CLOSED	-	-	-	-	-	-	-	£0	£0	£0			Relocation of valve considered most unlikely. Await land purchase from Lord Rosebury / approval from tenant farmer. LAND PURCHASE COMPLETED VIA SGN - VE OPPORTUNITY NOT REALISED
26	Depot - Lower the roof sufficiently to allow the depot to rise 1.5 metres from the current level.	Depot	Project - 7.2.0	3		OPEN	£200,000	£200,000						£0	£0	£0	£1,200,000		NOTE: £1m SAVING ALREADY REFLECTED IN ESTIMATE Combination of impacts eg Reduced mass excavation and reduction in size of major retaining wall parallel to AS.
27	Depot - if general OLE height lowered from 7m to 6 or 6.5m - what savings can be made to depot height? INCLUDED IN ITEM 26.	Depot	Project - 21.2.2	3	SDS	CLOSED	-	-	-	-	-	-	-	£0	£0	£0			Initial indications for Items 19 & 27 indicate a total of 500mm can be saved
28	Depot - remove GLE from critical roads in the tram shed (i.e. under crane) - move trams in/out by alternative power (shunter, Shore power, on board battery power) INCLUDED IN ITEM 26.	Depot	Project - 21.2.3	3	SDS/DP/TEL/TRANSDEV	Infraco	CLOSED	-	-	-	-	-	-	£0	£0	£0			Designers NOT IN FAVOUR
29	Depot - if idea 28 not accepted - then delete the shunter from the budget estimate. If considered essential then lease from OPEX	Depot	Project - 21.2.4	3	GG/JP/TEL/TRANSDEV	Infraco	REJECTED	-	-	-	-	-	-	£0	£0	£0			RR - Not possible. "Leases" anyway in CAPEX. Estimate so no benefit even if it was possible. NOT THE CASE - BOTH BIDDERS HAVE INCLUDED AS PURCHASED
30	Depot - if BAA want 42m to give 1.2m rise, what would it take/cost for say 0.5m (out of our 1m target)? CLOSED SEE ITEM 26	Depot	Project - 21.2.5	3	PD/JP	Infraco	CLOSED	-	-	-	-	-	-	£0	£0	£0			Requested by W Gallagher - Formal BAA letter with clear limits required
31	Depot - if height is determined at the boundary closest to the runway, and the runway approach path must be a sloping plane, and the depot building is some distance back from the boundary - how much extra height is the depot roof allowed to rise? CLOSED	Depot	Project - 21.2.6	3	PD/JP/SDS	Infraco	CLOSED	-	-	-	-	-	-	£0	£0	£0			Bringing the roof right up to the flight path clearance plane, with no extra clearance needed, indicates possible 300mm lift 235mm lift.
32	Depot - ensure that the highest point of the roof is away from the airport end of the building CLOSED SEE ITEM 26	Depot	Project - 21.2.7	3	SDS	Infraco	CLOSED	-	-	-	-	-	-	£0	£0	£0			Re-examination of the flight path suggests we can lift Depot 500mm with no runway change. Commitment from BAA sought by WG for the maximum available depot space on the sloping flight path, recognising that the highest point, the depot building roof, is so
33	Depot - transfer hand store outside the building - which is the driver's hazard - to reduce the building size.	Depot	Project - 21.2.9	4		Infraco	REJECTED	-	-	-	-	-	-	£0	£0	£0			Transdev declare this unacceptable for this safety critical system which must remain operational at night and during rain. Dampness kills sanders. Major liability issues for accidents, slow running and loss of tram availability.
129	Depot - delete compressed air system, utilise 1 or 2 local compressors	Depot	Project - 16.3.2		Infraco	OPEN								£0	£0	£0	£54,400		
DEPOT TOTAL							£340,000	£340,000	£0	£0	£0	£0	£0	£821,264	£0	£0	£4,235,006	£0	
HIGHWAYS																			
34	Hardy Place & Lindsay Road - Vertical alignment optimization - minimise highway reconstruction	Highways	Scoop	SDS	Infraco	OPEN								£0	£0	£0			

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VALUE ENGINEERING OPPORTUNITIES REGISTER (VERSION 2)

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Item	Opportunity	Filter	Proposal Origin	Opportunity Champion	Work Stream affected	Current Status	Scoop 3 (Rec 7.8.7)		Roley 3 (Rec 7.8.7)		Normalisation Item Adjustments			Probability of Success (Phase 1a only)			BANKED	IN PROGRESS	Comments
							Min	Max	Min	Max	Min	Max	Incl in Scoop/Roley	Easy (80%)	Medium (50%)	Difficult (30%)			
35	Gogar Roundabout - redesign - implementation of traffic light controlled at-grade tramway crossing	Highways	Scoop	SDS	Infraco	REJECTED	-	-	-	-	-	-	£0	£0	£0			Non starter due to extent of LOD and rights of deviation from plans and sections, high risk of being challenged - already considered by Faber Maunsell	
36	Material recovery and reprocessing FP have a reprocessing facility - you may want to discuss with SC	Highways		SDS	Infraco	OPEN							£0	£0	£0			Who owns the granite blocks within the road construction? What is CEC position and has INFRACO bids taken disposal of high value items such as this within their respective bids?	
37	Reduction in extent of road reinstatement. Max 25%, Min 10%. Need also to consider type of reinstatement - don't know what has been priced? MUDFA temporary reinstatements	Highways	Project		Infraco	OPEN							£0	£0	£102,351			AR - very difficult to support!! Maybe after MUDFA but then fully reinstate by INFRACO	
38	Highways - Review extent and quality of boundary treatments	Highways	Project - 5.1.42		Infraco	REJECTED	-	-	-	-	-	-	£0	£0	£0			Insignificant allowances for this - no great opportunities for Savings	
HIGHWAYS TOTAL							£0	£0	£0	£0	£0	£0	£0	£0	£182,351	£0	£0		
LAND & PROPERTY																			
39	Land & Property - NR Land - lease rather than purchase	Land & property	Project - 7.2.7		Land & Property	CLOSED	-	-	-	-	-	-	£0	£0	£0			Impact on OPEX requires investigation. Anticipated that annual lease cost £1 consideration only - AR - Neutral except the bit by Haymarket Tramstop. Opportunity now reflected in base estimate	
40	Land & Property - Part 1 claims - undertake appropriate investigations on other projects and reduce if necessary	Land & property	Project - 5.1.46		Land & Property	CLOSED	-	-	-	-	-	-	£0	£0	£0			Part 1 claims already "value engineered" by transferring to Risk and applying probabilities	
41	Land & Property - review "cautious" DV figures	Land & property	Project - Risk 352		Land & Property	CLOSED	-	-	-	-	-	-	£0	£0	£0				
136	Land & Property - specific plots of land that may no longer be required	Land & property	Project		Land & Property	OPEN							£0	£0	£0	£340,000		£0 A Sim to advise - Plots 96 and 101 - in the industrial area off Roseburn Street - may not be required Formal instruction has now been issued to SDS	
LAND & PROPERTY TOTAL							£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£340,000	£0	
NETWORK RAIL																			
42	NR Immunisation - ETN only to pay for Direct Current immunisation (£3.5m)	NR	Project - 7.2.4		Infraco	OPEN						£6,500,000	£2,200,000	£0	£0				
43	NR Immunisation - TS to pay for all upgrading associated with AC and DC immunisation (i.e. extra £3.5m to be saving to add to idea 42 above)	NR	Project - 7.2.5		Infraco	OPEN							£0	£0	£350,000				
44	NR Immunisation - Condition survey existing NR assets - agree bottom rail with IIR	NR	Project - 7.2.6		Infraco	REJECTED	-	-	-	-	-	-	£0	£0	£0			Rejected - DC immunisation is all new	
NETWORK RAIL TOTAL							£0	£0	£0	£0	£0	£6,500,000	£2,200,000	£0	£350,000	£0	£0		

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VALUE ENGINEERING OPPORTUNITIES REGISTER (VERSION 2)

Item	Opportunity	Filter	Proposal Origin	Opportunity Champion	Work Stream affected	Current Status	Scope 2 (Rec 7.8.7)		Risky 3 (Rec 7.8.7)		Normalisation Item Adjustments			Probability of Success (Phase 1a only)			BANKED	IN PROGRESS	Comments
							Min	Max	Min	Max	Min	Max	Min	Max	Easy (50%)	Medium (50%)			
	OLE																		
45	OLE - reduce height of Overhead Power Line reduces cost of paragraph	OLE	Project - 31.1.7	SDS	Infraco	CLOSED	-	-	-	-	-	-	-	£0	£0	£0			OLE length is 4.3m to 6.6m thus paragraph above. Tram B&U being run on basis rough figures above. Directly associated with V&E. All possible but not a priority. Window of opportunity rapidly running out.
46	OLE - reduce height of Overhead Power Line reduces cost of support poles etc? Depends if poles are also to be street lights. Needs more consideration	OLE	Project - 31.1.7	SDS/SS	Infraco	CLOSED	-	-	-	-	-	-	-	£0	£0	£0			Reduction in height under investigation. Need to consider views of the TDWG as pre application stage of re-proposals. Very hard to move price above station.
47	OLE - reduce height of Overhead Power Line, allow depth to be raised further out of the ground?	OLE	Project - 21.2.2	SDS	Infraco	CLOSED	-	-	-	-	-	-	-	£0	£0	£0			(Total reduction for 7.2.1 and 21.2.2 in total) 500mm excavation can be saved
48	OLE - minimise building savings. How does this reduce costs?	OLE	Project - 5.1.20	SDS/GO/JP	Infraco	REJECTED	-	-	-	-	-	-	-	£0	£0	£0			
49	Overhead Contact system - Switchgear - rationalise specification - considered "quite overtop"	OLE	Scope		Infraco	OPEN	£336,000	£336,000						£0	£0	£336,000			See "SCOPE" email received from BD 10/06/07
50	OLE - advance purchase of cabling to avoid future cost escalation Move to WEFACO negotiation plan	OLE	Project - 14.2.1		Infraco	CLOSED	-	-	-	-	-	-	-	£0	£0	£0			Scope 3 - rational discussion with Transdevy reproj (AS).
135	OLE - Catenary opportunity in sections 5 to 7 - replace trolley wire with catenary on segregated sections.	OLE	Project		Infraco	OPEN	-	-	-	-	-	-	-	£0	£0	£0			Use of messenger wire as current carrying conductor may reduce need for parallel feeds in theory, fewer supports required.
139	Removal of Stainless Steel Cattlefence (New)	OLE	Scope 3		Infraco	OPEN	£37,200	£37,200											Scope 3 - not all items with history for design manual. Is this why Scope OLE so high (AS)?
140	Removal of Stainless Steel Equipment Cabinets (New)	OLE	Scope 3		Infraco	OPEN	£8,400	£8,400											
	OLE TOTAL						£381,700	£381,700	£0	£0	£0	£0	£0	£0	£0	£336,000	£0		
	RISK																		
51	System Wide - review risk allocation and mitigations	Risk	Project - AH11	N/A	Infraco	CLOSED	-	-	-	-	-	-	-	£0	£0	£0			New part of Period Management process
	RISK TOTAL						£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0		
	STRUCTURES																		
52	Soil stabilisation - sub grade - stabilise with lime & cement. Taken to Phase 1D	Structures	Scope		Infraco	OPEN								£0	£0	£0			
53	Soil stabilisation - retaining slopes - use of geotextiles - use of retaining walls etc in lieu of retaining walls. Taken to Phase 1D	Structures	Scope		Infraco	OPEN								£0	£0	£0			

VALUE ENGINEERING OPPORTUNITIES REGISTER (VERSION 2)

PHASE 1A

Item	Opportunity	Filter	Proposal Origin	Opportunity Champion	Work Stream affected	Current Status	Scoop 3 (Rec 7.8.7)		Roley 3 (Rec 7.8.7)		Normalisation Item Adjustments			Probability of Success (Phase 1a only)			BANKED	IN PROGRESS	Comments
							Min	Max	Min	Max	Min	Max	Incl in Scoop/Roley	Easy (80%)	Medium (50%)	Difficult (30%)			
54	Value Engineering developed for the final designs for all structures, particularly substructures and foundations	Structures	Scoop, Roley Project - 14.2.9	SDS	Infraco	OPEN	£4,000,000	£4,000,000					£8,000,000	£0	£0			Initial bids based on Prelim Design. Both bidders have stated that they anticipate savings will be generated through co-operative detailed design. There has already been co-operative design Scoop 3 -Subject of separate discussions with bidder (AS1)	
55	Edinburgh Park Bridge - utilise steel beams in lieu of concrete Edinburgh Park Viaduct	Structures	Project, Scoop, Roley		Infraco	OPEN							£0	£0	£500,000			Higher initial construction cost but through use of weathering steel can achieve lifetime savings in not maintaining paint system. CEC approval required	
56	Structures - Carnicknowe Bridge Parapet - down grade from P6 / P5 to N2 (reduced cost of parapet plus knock on effect on deck design/cost) Opportunity reflected within Item 54 pending further design	Structures	Project - 7.2.3	SDS (Th)/JP	Infraco	OPEN							£0	£38,250	£0			Requirement for N2 protection - bids to be checked to establish if P6/PS coated	
57	Structures - AB Underpass - over sized? Opportunity reflected within Item 54 pending further design	Structures	Project - 24.1.32	SDS	Infraco	OPEN							£0	£0	£0			Key issue is precise location and depth of a bank of ducts containing fibre optic cables	
58	Structures - Eastburn Ave Works - flood defence works - ensure no over scoping, betterment or over funding Opportunity reflected within Item 54 pending further design	Structures	Project - AH13	9	Infraco	OPEN							£0	£0	£0				
59	Structures - reduce structure thickness by 25mm Opportunity reflected within Item 54 pending further design	Structures	Project - AH115	9	Infraco	OPEN							£0	£0	£0			Redesign costs will impact on any potential savings	
60	Structures - EARL Structure S33 - remove from estimate	Structures	Project - 14.2.6	17	Infraco	OPEN							£912,442	£0	£0			to be confirm which budget is to carry cost of S33	
61	Structures - Gyle Stop retaining wall - excessive structure - delete from design	Structures	Project - 14.2.7	20	Infraco	REJECTED							£0	£0	£0			Retaining wall requirement can't be deleted or modified in such a way as to realise a significant saving	
131	Structures - minimise alteration work to Holiday Inn Access Bridge to bare minimum proposed in HMRI Design Substantiation Report "Roseburn Corridor" Holiday Inn Access Bridge" Doc Number ULE9130-02-REP-00205 i.e. provide compressible board and joint seal	Structures				OPEN		Phase 1B		Phase 1B			£20,800	£0	£0				
132	Structures - delete requirement for compensatory floodwater storage at Coqburn in line with proposal contained in report "Compensatory Floodwater Storage Assessment" Doc Number ULE9130-07-REP-00029 V1	Structures				OPEN							£0	£0	£0				
STRUCTURES TOTAL							£4,000,000	£4,000,000	£0	£0	£0	£0	£8,934,242	£38,250	£500,000	£0	£0		
SUPERVISORY & COMMS																			
62	Reconfirm the necessity for each of the subsystems comprising Supervisory - Control and Data Management	Supervisory & Comms	Project - 5.1.23	17	BB/TEL/Transdev	Infraco	REJECTED						£0	£0	£0				
63	Signalling & Comms -De-spec some requirements off EBIScreen eg the requirement for making Radio calls from it, selecting CCTV cameras, etc	Supervisory & Comms	Scoop		Infraco	OPEN	£91,000	£91,000					£0	£27,500	£0			See "SCOOP" email received from BD 100407 Proposal in principle acceptable to TEL/Transdev	

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VALUE ENGINEERING OPPORTUNITIES REGISTER (VERSION 2)

PHASE 1A

Item	Opportunity	Filter	Proposal Origin	Opportunity Champion	Work Stream affected	Current Status	Scoop 3 (Rec 7.8.7)		Roley 3 (Rec 7.8.7)		Normalisation Item Adjustments			Probability of Success (Phase 1a only)			BANKED	IN PROGRESS	Comments
							Min	Max	Min	Max	Min	Max	Incl in Scoop/Roley	Easy (80%)	Medium (50%)	Difficult (30%)			
64	Signalling & Comms - fewer speech channels for the radio system	Supervisory & Comms	Scoop		Infraco	CLOSED	-	-	-	-	-	-	-	£0	£0	£0			See "SCOOP" email received from BD 100407 Further discussion with Bidder suggest how design defined there is no saving. To be revisited. Withdrawn by INFRACO bidder.
65	Signalling & Comms - fewer CCTV cameras	Supervisory & Comms	Scoop		Infraco	OPEN	£266,000	£266,000						£0	£87,500	£0			See "SCOOP" email received from BD 100407 Both bidders have priced cameras in excess of operational requirements (ITN pricing document quite excessive qty) Scoop3 - unclear what fig is based on. Maybe technical team fig of 90 (AST)
66	Signalling & Comms - Delete Mimic Display Panel in the CTC	Supervisory & Comms	Scoop		Infraco	OPEN	£78,000	£78,000						£0	£27,500	£0			See "SCOOP" email received from BD 100407 Agreed mimic display not required.
67	Signalling & Comms - fewer CCTV cameras DUPLICATION OF 65 ABOVE	Supervisory & Comms	Scoop		Infraco	OPEN								£0	£0	£0			See "SCOOP" email received from BD 100407
68	Signalling & Comms - Dual feed the Tramstop equipment Panels from adjacent substations instead of having a separate UPS in each cabinet	Supervisory & Comms	Scoop		Infraco	OPEN	£166,000	£166,000						£0	£87,500	£0			See "SCOOP" email received from BD 100407 Proposal in principle acceptable to TEL/Transdev Savings in OPEX as well
69	Signalling & Comms - rationalise fibre optic rings - are 3 really necessary? More economic architecture that performs the same function could be employed	Supervisory & Comms	Scoop		Infraco	OPEN								£0	£0	£0			See "SCOOP" email received from BD 100407 Essentially requires Phase 1b to be in place to be practical. No savings at this time. Scoop3 - fig of £270k quoted but applies if 1a & 1b built simultaneously. (AST)
70	Signalling & Comms - Provide separate pieces of Control Equipment on each Operator's desk instead of integrating them on a touch screen console.	Supervisory & Comms	Scoop		Infraco	OPEN	£70,000	£70,000						£0	£27,500	£0			See "SCOOP" email received from BD 100407 Proposal in principle acceptable to TEL/Transdev but desk layout needs to be confirmed.
71	Signalling & Comms - fewer Operator positions (Also fewer operators - OPEX)	Supervisory & Comms	Scoop		Infraco	OPEN	£20,000	£20,000						£0	£27,500	£0			See "SCOOP" email received from BD 100407 Proposal in principle acceptable to TEL/Transdev provided space for later expansion provided
72	Signalling & Comms - No fallback position in case of CTC evacuation	Supervisory & Comms	Scoop		Infraco	CLOSED	-	-	-	-	-	-	-	£0	£0	£0			See "SCOOP" email received from BD 100407 Subsequent discussions with Bidder confirmed that VE proposal was in line with ER, therefore no opportunity for savings.
73	Signalling & Comms - Current requirement for location and interface of the SCADA and Points controllers etc is unnecessarily complex. A solution based on Nottingham Tram would provide a less complex and user friendly option	Supervisory & Comms	Scoop		Infraco	OPEN	£13,000	£13,000						£0	£27,500	£0			See "SCOOP" email received from BD 100407 Proposal in principle acceptable to TEL/Transdev
74	Signalling & Comms - rationalise loop quantities by combining some loop functions	Supervisory & Comms	Scoop		Infraco	OPEN								£0	£87,500	£0			See "SCOOP" email received from BD 100407 Essentially one of detail design and not VE. Scoop 3 - provided £33k VE however this cannot happen if item 133 taken. (AST)
75	Signalling & Comms - Remove ambient noise sensing on the passenger announcement system	Supervisory & Comms	Scoop		Infraco	OPEN	£7,000	£7,000						£0	£27,500	£0			See "SCOOP" email received from BD 100407 Proposal in principle acceptable to TEL/Transdev
76	Signalling & Comms - Remove induction loops for PA system	Supervisory & Comms	Scoop		Infraco	OPEN	£13,000	£13,000	-	-	-	-	-	£0	£0	£0			See "SCOOP" email received from BD 100407 Induction loops for hearing aids are required. Item re-opened (20.8.7) following Scoop 3 figs (7.8.7). Scoop3 - reduced spec still subject to agreement DOK etc (AST)
133	Signalling & Comms - GPS based signalling and train positioning detection (i.e. Virtual Loops)		Scoop		Infraco	OPEN	£316,723	£316,723								£100,000			Scoop 3 (AST) - Cannot happen if item 23 taken. Bidder failed to provide requested technical justification. Unacceptable at present. Scoop 3 fig from PR 1a & 1b.

VALUE ENGINEERING OPPORTUNITIES REGISTER (VERSION 2)

PHASE 1A

Item	Opportunity	Filter	Proposal Origin	Opportunity Champion	Work Stream affected	Current Status	Scoop 3 (Rec 7.9.7)		Roley 3 (Rec 7.9.7)		Normalisation Item Adjustments			Probability of Success (Phase 1a only)			BANKED	IN PROGRESS	Comments
							Min	Max	Min	Max	Min	Max	Incl in Scoop/Rolley3	Easy (80%)	Medium (50%)	Difficult (30%)			
137	Signalling & Comms - Interface with INEO bus Location & Passenger Information System - delete requirement or reduce extent of integration.	Supervisory & Comms	Bidder			OPEN								£0	£0	£0			Removal from Specification REJECTED but reduced extent of scope to be investigated
SUPERVISORY & COMMS TOTAL							£1,040,723	£1,040,723	£0	£0	£0	£0	£0	£0	£427,500	£100,000	£0	£0	
SYSTEM WIDE																			
77	Optimise the work site lengths wherever practical to ensure efficient construction outputs	System Wide	Project - 5.1.1 77		Infraco	OPEN	Stakeholder Agreement needed		£750,000	£1,500,000				£0	£0	£0			Resolve with bidder/CEC methodology reviews. Roley 3 - 10, 15 & 20 % efficiency range taken on Roley Bid Info (Plant & labour only). Await Scoop2 details - JP
78	Remove/reduce contractual bonds (rely on PCO)	System Wide	Project - 5.1.1.12	16	GG	Infraco/Tramco	CLOSED							£0	£0	£0			Part of Contract negotiations
79	Infraco bidders offering discounts for using specific tram suppliers. Can't influence evaluation process	System Wide	Project - 24.1.19 Scoop, Roley	15	GG	Infraco	CLOSED							£0	£0	£0			Hold pending TRAMCO/Infraco negotiations
80	Accept more disruption over shorter period to maximise efficiency of construction operations -	System Wide	Project - 5.1.1	8	SC/AH/KR	Infraco/Tramco	OPEN		£500,000	£1,000,000				£0	£0	£0			Roley 3 - full weekend working (+ 1.5 days) - saved 16% on track form programme durations. This will increase local disruption ie traffic/shopping - JP
81	Highing SDS and the employers Requirements - make best use of the design already completed. Accept that there are scope miss-matches between SDS & Infraco	System Wide	Project - 5.1.7	8		Infraco	REJECTED							£0	£0	£0			Has already increased project costs - not VE!
82	Savings in management through integrated teams	System Wide	Project			be	CLOSED							£0	£0	£0			Based on reduction in shadowing engineering staff Mar to Sep 07
83	System Wide - reprogrammed to reduce impact from inflation	System Wide	Project - AH4	16		Infraco	CLOSED							£0	£0	£0			See Item 77
84	System Wide - review delivery programme - complete earlier reducing OH's	System Wide	Project - AH12	9		Infraco	CLOSED							£0	£0	£0			See Item 77
85	System Wide - Review KPI's - relax requirements	System Wide	Project - AH101	9		Infraco	CLOSED							£0	£0	£0			Maintenance Issue
86	System Wide - reduce cost of approvals - reduce OH's and tie organisation costs	System Wide	Project - AH107	9		Infraco	CLOSED							£0	£0	£0			
87	System Wide - relax run time requirements	System Wide	Project - AH110	9		Infraco	REJECTED							£0	£0	£0			Undermines Business Case

Item	Opportunity	Filter	Proposal Origin	Opportunity Champion	Work Stream affected	Current Status	Scoop 3 (Rec 7.9.7)		Roley 3 (Rec 7.9.7)		Normalisation Item Adjustments			Probability of Success (Phase 1a only)			BANKED	IN PROGRESS	Comments
							Min	Max	Min	Max	Min	Max	Incl in Scoop/Rolloy	Easy (80%)	Medium (50%)	Difficult (30%)			
88	System Wide - remove Guided Busway Programme constraints	System Wide	Project - AH112	20	Infraco	REJECTED	-	-	-	-	-	-	-	£0	£0	£0			Current programme ignores constraint and represents most efficient programme. Introduction of constraint should be recognised as a potential risk
89	System Wide - challenge employers requirements	System Wide	Project - S.1.7	8	Infraco	REJECTED	-	-	-	-	-	-	-	£0	£0	£0			See Item 81
SYSTEM WIDE TOTAL							£0	£0	£1,250,000	£2,500,000	£0	£0		£0	£0	£0	£0	£0	
THIRD PARTY																			
90	Murrayfield Pitch Relocation - mods only to Warrender's Club House TBC. Pitches need to be moved but cost may still be too high in cost estimates	Third Party	Project		Infraco	OPEN											£2,415,600		Comments made by various individuals suggests that a compromise has been reached with SRU. Await final confirmation from?
THIRD PARTY TOTAL							£0	£0	£0	£0	£0	£3,000,000		£0	£0	£0	£2,415,600	£0	
TRACK FORM																			
91	Track bed construction details - reduce track slab thickness with structurally efficient members	Trackform	Scoop	SDS	Infraco	OPEN	£1,600,000	£1,600,000						£3,640,000	£0	£0			Reduced excavation and concrete within track bed
92	Track form - specific application of types - adopt ballasted track wherever possible. Predominantly Phase 1b saving? Taken to Phase 1b	Trackform	Scoop		Infraco	OPEN								£0	£0	£0			Exchange precast rail beam with ballast track in Roseburn corridor (NOT GLUED).
93	Track geometry at the Ocean Terminal - rationalise layout to reduce complexity/amount of trackwork whilst maintaining operational flexibility	Trackform	Scoop	SDS	Infraco	OPEN								£0	£0	£0			Need TEL/Transdev/Forth Ports buy-in
94	ii) Track for stabilized ballast as an alternative to directly fixed track - guard ballast (Roseburn Corridor). This is a Phase 1b saving Taken to Phase 1b	Trackform	Scoop		Infraco	HOLD								£0	£0	£0			Exchange precast rail beam with ballast track in Roseburn corridor (GLUED) - Phase 1b issue - not priced - NOW DEEMED UNLIKELY TO BE REALISED
95	Single line sections between Roseburn Junction and Granton Station (Track form for Roseburn Corridor) - Non starter due to parliamentary evidence, LHMP, etc Taken to Phase 1b	Trackform	Scoop		Infraco	REJECTED								£0	£0	£0			Reduction in track only - no savings taken at this point for reduced embankment works or structures savings (Reduced loadings). Run times will be adversely affected - relates to Phase 1b so not priced
96	omit OCT to Newhaven section, create turn back route at OCT - Politically a non-starter - see CEC report January 2006	Trackform	Project	SG	Infraco	REJECTED	-	-	-	-	-	-	-	£0	£0	£0			Potentially add back as part of future phase to link Granton to OCT. Need to understand impact on business case
97	Thinner track slab impact on MUDFA (linked to 91 above)	Trackform	Project - 24.1.26	15	MUDFA	OPEN								£0	£2,462,500	£0			Allow 10% to 15% reduction in required diversions. Depends on when a decision is made

VALUE ENGINEERING OPPORTUNITIES REGISTER (VERSION 2)

PHASE 1A

Item	Opportunity	Filter	Proposal Origin	Opportunity Champion	Work Stream affected	Current Status	Scoop 3 (Rec 7.9.7)		Roley 3 (Rec 7.9.7)		Normalisation Item Adjustments			Probability of Success (Phase 1a only)			BANKED	IN PROGRESS	Comments	
							Min	Max	Min	Max	Min	Max	Incl in Scoop/Rolley3	Easy (80%)	Medium (50%)	Difficult (30%)				
98	Merseytram Rail stockpile (1,000 tonnes of rail – information from SDS. ETN requirement approx 6,000 tonnes)	Trackform	Project	AD	Infraco	CLOSED	-	-	-	-	-	-	-	£0	£0	£0			Allowance made for deanning and transportation NOTE: MERSEYTRAM RAIL NOT SAME AS PROPOSED FOR ETP. ENGINEERING SUPPORT SUGGESTS THAT THE BENEFITS ARE OUTWEIGHED	
99	Install cable route along Section 4 linking 1a to 1b (eliminates need to dual route elsewhere)	Trackform	Project – 24.1.29	5	te	Infraco	CLOSED		Not part of 1A	Not part of 1A				£120,000	£0	£0			Not a Phase 1a saving – need to consider if CEC has requisite powers, etc.	
100	Noise attenuation (outside of Roseburn Corridor) 3,650m of fencing	Trackform	Project – 31.1.9	6		Infraco	OPEN							£0	£13,688	£0			Noise barriers	
101	Trackform – ongoing maintenance of Roseburn corridor-vegetation-by-CEC	Trackform	Project – 5.1.49	18		Infraco	REJECTED							£0	£0	£0			OPEX impact on Line 1b – Not evaluated	
102	Trackform – Amend requirements at Roseburn Delta Junction	Trackform	Project – AH111	9		Infraco	CLOSED							£0	£0	£0			Simplify the Delta design, but recognise that Airport link a Business Case essential and that significant disruption would be caused if only part of the junction was constructed now only to be extended in the future. Total cost for Delta to be identified	
108	Trackform – changing embedded to ballast rail. (New)	Trackform	Scoop 3			Infraco	OPEN	£1,200,000	£1,200,000							£240,000			Scoop 3 – Difficult due to ballast not acceptable in areas proposed by Scoop (AST)	
TRACK FORM TOTAL														£3,760,000	£2,476,188	£240,000	£0	£0		
TRACTION POWER																				
103	11kV Traction Power feeds to sub stations (12 nr at £302k each)	Tracton Power	Project – 31.1.16	6	Th	Infraco	OPEN							£1,468,742	£0	£0			SDS allowance £302k per feed. Discussions suggest that £130k per feed more appropriate. Investigate CEC ability to lever price from DNO. Will Power Supply need to be tendered?	
104	Network Reinforcement – not to be paid for by ETN	Tracton Power	Project – 31.1.16	6	AD/BE	Infraco	OPEN								£0	£0	£1,973,000		Argument that ETN alone should not be penalised for upgrading SP network when there are significant other developments ongoing in the City. Adjusted to reflect difference between original QRA provision and works estimate.	
105	Tramco – reduce power demand (environmental grants available?)	Tracton Power	Project – 31.1.11	16	DP	Tramco	CLOSED							£0	£0	£0	£0	£0		
106	Review size of pre-packaged Traction Power Units to make smaller	Tracton Power	Project – 5.1.21	13	SDS/Transdev	Infraco	CLOSED							£0	£0	£0			See Item 107 Generally reduce size of sub station unit Duplicated by item 3	
107	Power supply – AC switchboards / DNO supply – if this board could be shared savings could be realised in both space in the substation and further optimisation of the AC switchboard equipment	Tracton Power	Scoop			Infraco	CLOSED							£0	£0	£0			See "SCOOP" email received from BD 100407. Not to be pursued as almost certainly unacceptable to SP	
108	Power supply – Track / Bypass isolators – switches could be combined with the DC switchgear in the substation	Tracton Power	Scoop			Infraco	OPEN	£101,888	£101,888					£0	£87,500	£0			See "SCOOP" email received from BD 100407 Note: bypasses will be power operated remotely operated and monitored by SCADA. This solution is standard practice elsewhere.	
109	Power supply – Russell Rd TP1 – could equipment for future upgrade to substation be supplied when this is actually realised? i.e. don't supply transformer rectifier now.	Tracton Power	Scoop			Infraco	OPEN	£56,809	£56,809					£0	£27,500	£0			See "SCOOP" email received from BD 100407. Agreed in principle. Tie requires to make final decision.	

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Item	Opportunity	Filter	Proposal Origin	Opportunity Champion	Work Stream affected	Current Status	Scoop 3 (Rec 7.9.7)		Roley 3 (Rec 7.9.7)		Normalisation Item Adjustments			Probability of Success (Phase 1a only)			BANKED	IN PROGRESS	Comments
							Min	Max	Min	Max	Min	Max	Incl in Scoop/Rolloy	Easy (80%)	Medium (50%)	Difficult (30%)			
130	Power supply – utilise existing SP tunnels for cable routes	Traction Power				CLOSED	-	-	-	-	-	-	£0	£0	£0			News item suggesting that existing SP tunnels could be utilised for cable routes. Established that no redundant tunnels are of any relevance to ETN.	
TRACTION POWER TOTAL							£158,697	£158,697	£0	£0	£0	£0	£1,468,742	£115,000	£0	£1,973,000	£0		
TRAM STOPS																			
110	Delete 2 tram stops (Ocean Drive & S Gyle) leaving provision for adding stops back in the future. This is unlikely to be acceptable politically. Plus 2 x Phase 1b stops	Tram Stops	Project - 31.1.13	16	be/Tel	Infraco	OPEN						£0	£0	£0			Await Be/TEL decision. Allocate between 1a & 1b This has been debated at TPB and agreed to be scope variations rather than VE and have therefore been classified as last resort actions.	
111	3rd Party Branding of tram stops (e.g. RBS at Gogarburn). Differentiate between branding and advertising – could raise revenue from advertising	Tram Stops	Project - 9.1.9	13	AR	Infraco	CLOSED						£0	£0	£0			No future opportunity. This has been debated at TPB and agreed to be scope variations rather than VE and have therefore been classified as last resort actions.	
112	Prefab drop-in tram stops and other items. It has been agreed that substations will be package substations	Tram Stops	Project - 24.1.30	15	GD	Infraco	OPEN						£0	£0	£0			Perceived wrong image. This has been debated at TPB and agreed to be scope variations rather than VE and have therefore been classified as last resort actions.	
113	Tram stops – finishes to be minimum standard throughout.	Tram stops	Project - 5.1.24	15	SDS	Infraco	OPEN						£0	£0	£0			Perceived wrong image. This has been debated at TPB and agreed to be scope variations rather than VE and have therefore been classified as last resort actions.	
114	Tram Stops – delete cycle racks	Tram Stops	Project - AH113	20		Infraco	REJECTED						£0	£0	£0			Negligible saving and reduced functionality	
TRAM STOPS TOTAL							£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0		
TRAMS																			
115	Second-hand Tram vehicles	Trams	Project		DP	Infraco	CLOSED						£0	£0	£0	£0		Generated from high level discussions. Now closed Ref Discussions Gilbert/Crosse	
116	Tram mock-up - use an existing mock-up rather than purchasing new	Trams	Project - 24.1.10	14	DP	Tramco	OPEN						£0	£250,000	£0			Unlikely to procure a UK tram without major re-work. Not easy to find, would not meet all required objectives. DP reports that one Tramco may have an existing mock-up which may be adaptable to ETP.	
117	Reduce fleet size – run B+B on 1a only (26 trams) or 6+6 on 1a and 1b (26 trams) build in option to buy additional trams in the future	Trams	Project - 24.1.4	14	AR	Tramco	OPEN						£0	£0	£0			Revisit later. Scope reduction rather than VE opportunity, therefore last resort measure.	
118	Buy 26 tram units, lease extra when needed	Trams	Project - 24.1.5	14	AR	Tramco	CLOSED						£0	£0	£0			Not being considered at this stage	
119	Reduce fleet size – delete 1 tram from spare capacity and accept risk to lower performance	Trams	Project - 5.1.17	14	AR	Tramco	OPEN						£0	£500,000	£0			Opportunity of last resort	
120	Trams – purchase without seats or luggage racks – fit out under separate order	Trams	Project - 31.1.4	15	DP	Tramco	REJECTED						£0	£0	£0			No CAPEX saving to claim. False economy? Separate procurement process required?	

PHASE 1A

VALUE ENGINEERING OPPORTUNITIES REGISTER (VERSION 2)

Item	Opportunity	Filter	Proposal Origin	Opportunity Champion	Work Stream affected	Current status	Scope 2 (Rec 7.8.7)		Scope 3 (Rec 7.8.7)		Normalisation Item Adjustments			Probability of Success (Phase 1a only)			IN PROGRESS	BANKED	Comments	
							Min	Max	Min	Max	Min	Max	Mix	Incl In Scope / Rolly2	Easy (50%)	Medium (50%)				High (75%)
121	Trams - place passenger counters on only 20% of fleet - not whole fleet. Counters deemed inoperative	Trams	Project - 31.1.13	5 AR	Tramco	OPEN									£0	£0	£0	Agreed with TEL		
122	Advanced noise mitigation measures - use " quieter trams" This enables Noise Fence savings, Roseburn Corridor (see item 100)	Trams	Project - 31.1.13	6 RO/STSS/CDP	Infraco	OPEN									£0	£0	£0	Potential higher tram noise costs as a consequence to be considered. Please to issue - noise priced. Tram noise data has been received from the Tramco's and has been passed to the new RO/STSS specialist		
123	Tramco - discount for earlier stage payments. Part of evaluation?	Trams	Project - S.1.2	13 DP/SG	Tramco	CLOSED									£0	£0	£0	Early indications suggest discount of 41M		
124	Tramco - to provide some of the depot equipment (might gain advantage from Tramco proz ement, knowledge by/ or buying power	Trams	Project - 31.1.14	15 DP	Infraco/Tramco	CLOSED									£0	£0	£0	Need to amend procurement process/tenders etc - hiring etc		
125	Tramco - Value Engineering with top 2 bidders	Trams	Project - 31.1.10	15 DP/OG	Tramco	CLOSED									£0	£0	£0	Not priced - currently known ideas captured above		
126	Omit all customising of cab exterior - a base appearance OK?	Trams	Project - S.1.13	13 DP/WH	Tramco	OPEN									£0	£0	£0			
127	Tramco - reduce services to 4 trams per hour on Blue 1b. saving 2 trams - then press Developer to buy 2 trams to increase service frequency Taken to Phase 1b	Trams		Project - 14.2.3	Tramco	OPEN									£0	£0	£0			
128	Combine TPDE & SCADA See bid		Project - S0811	B		CLOSED									£0	£0	£0			
TRAMS TOTAL								£0	£0	£0	£0	£0	£0	£0	£750,000	£0	£0	£0		
OVERALL TOTALS								£9,847,676	£1,250,000	£2,000,000	£9,200,000	£0	£9,200,000	£17,284,249	£3,994,438	£1,170,331	£0	£9,299,606	£0	

NOTE: Financial Impact calculated on average impact multiplied by the probability of success

OPEN: ONS
IN PROGRESS: Taken to CDP, Sub-Committee (used Probability Factor)
CLOSED: Potential for further saving (undiscovered)
REJECTED: No Value / Dead
OPEN: Value exists but not obtainable
OPEN: Active item under review

Acted on Total: £9,299,606 (29.20%)
Overall Total: £31,850,644

Paper to: DPD **Meeting Date:** 30 Aug 2007
Subject: SDS Update – P5
Agenda Item:
Preparer: D Crawley / T Glazebrook

FOR INFORMATION ONLY

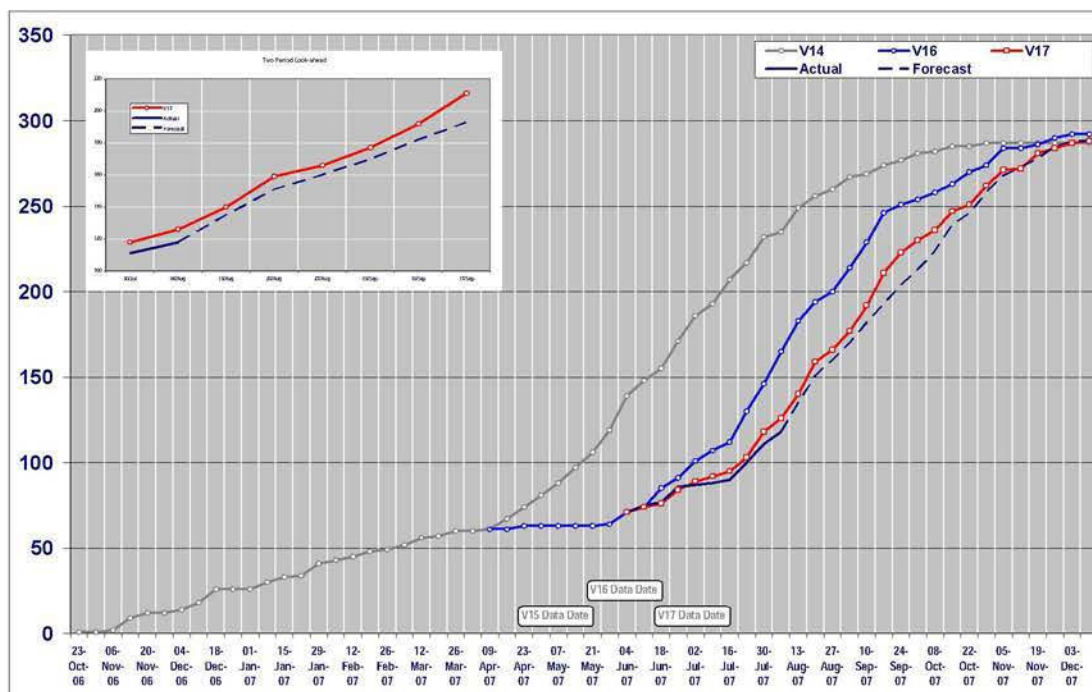
1.0 Summary

Previous reports have concentrated on activity designed to remove blockages to progress, most notably the critical issues the last of which was removed, for all practical purposes, on 28 June 2007.

This has resulted in progress on design deliverables proceeding closely to forecast and programme from this point. As there is a nil-return on critical issues, these will no longer be reported. However, there are a number of issues which are the cause of potential delay and these are reported here to ensure clarity for all parties about their impact. These will become critical issues if not treated.

In terms of design progress metrics, the ‘dashboard’ has previously been reported showing all 4,000 items associated with the design deliverables. Now that delay on design deliverables has now been all but arrested, this is replaced with a subset of the 4,000 items associated with the 300 design packages covering the tram system.

This is shown below at V18 (actual and forecast)



This shows clearly little slippage for V18 with respect to V17. The slippage since V14 is not recoverable. These items comprise the design packages which group into the 18 Design Assurance Deliverables by Tram sub-section as shown below at V17 (V18 dates are largely unchanged).

Activity Name	V17 to tie	Section	Sub-Section
Produce Section Wide Design Assurance Statement	12-Nov-07	Section 2	2
Produce Design Assurance Statement	13-Nov-07	Section 3	3B
Produce Design Assurance Statement	15-Nov-07	Section 3	3C
Produce Section Wide Design Assurance Statement	06-Dec-07	Section 7	7
Produce Section Wide Design Assurance Statement	06-Dec-07	Section 6	6
Produce Design Assurance Statement	07-Dec-07	Section 3	3A
Produce Design Assurance Statement	11-Dec-07	Section 1	1D
Produce Design Assurance Statement	18-Dec-07	Section 1	1B
Produce Section Wide Design Assurance Statement	21-Dec-07	Section 3	3
Produce Design Assurance Statement	04-Jan-08	Section 5	5C
Produce Design Assurance Statement	07-Jan-08	Section 1	1C
Produce Design Assurance Statement	29-Feb-08	Section 5	5A
Produce Design Assurance Statement	04-Apr-08	Section 1	1A
Produce Design Assurance Statement	08-Apr-08	Section 5	5B
Produce Section Wide Design Assurance Statement	18-Apr-08	Section 1	1
Detailed Design Verification and Validation Report	22-Apr-08	Project wide	
Produce Section Wide Design Assurance Statement	22-Apr-08	Section 5	5
System Detail Design Review	06-May-08	Project wide	

However, it should be noted that some slippage has occurred and this is mostly due to the issues below. The procurement and construction programmes are not compromised.

2.0 Issues

These issues are provided mostly for information to ensure that all parties understand the impact they cause, but some are shown as requiring additional action. Where this is so, a proposed course of action is shown and will be followed in the absence of advice to the contrary.

SRU

Further action required

The alignment of the tram route and reconfiguration of the training pitches was determined some time ago, but the completion of the Prior Approvals process is on hold until the issue of SRU agreement is completed including confirmation of the parties responsible for paying for the pitch move. It was notionally agreed between **tie** and CEC on 22 June that an acceptable arrangement of staged reconfiguration of the pitches and flood alleviation work could be undertaken and a paper summarising all the issues was produced. This has now been reviewed by CEC and can go the SRU for their agreement. A minimum of three weeks delay has been introduced to the programme as a result so far with a meeting with SRU scheduled for 29 Aug to progress matters

- The action required is for **tie** to ensure that SRU have the relevant information to enable their agreement, noting that it is for SRU to apply for planning permission. Further senior level approaches may be necessary.

Section 1a bridges

Further action required

The two bridges in question (Tower Place and Victoria Dock) are proposed not to have walkways provided. This has been logged previously as a VE opportunity (£2.5m) but, viewed from the perspective of the structures as they exist, this is more properly logged as not carrying out betterment at the cost of the project. It remains to resolve the issue of the future provision of walkways between CEC and **tie**, noting that an adjacent development would be the obvious vehicle to use to carry out this betterment. This issue is a programme and cost risk.

- The action required is for **tie** to cause SDS to produce a design which meets the requirements of CEC noting that the project is not in a position to take the financial risk.

Depot

Information only

The recent VE exercise and the cessation of activity on EARL have given rise to opportunities for moving the depot to realise savings. This involves moving the depot northwards by a few meters, simplifying the alignment of connecting roads and services and saving costs on piling. This will have an impact on the design deliverables programme, as it represents a late change. A change order is being issued to confirm the details and to enable SDS to progress with the new design. A further issue arising is the need for **tie** and Scottish Water to agree on the design principles for the adjacent 800mm main. SDS will be instructed to design for a single pipe but in a corridor capable of accommodating two in an attempt to 'future proof' this issue.

Drainage

Information only

Information on drainage provision, which is required to complete designs, has not been fully available to SDS, with some significant gaps existing. This information is now being provided through the MUDFA AMIS contract and a programme for its provision has been produced. It has not yet been confirmed that this programme will deliver all the required information. This late provision will have an impact on the design deliverables programme, particularly roads, drainage and cross section design. Action is being taken to minimise impact which will be quantified in the next programme issue (V19).

EARL

Information only

The effective cancellation of EARL requires some redesign to ensure that in the absence of some structures, the tram alignment and design are self-consistent. SDS now have the detail they require, but there will be some impact of the design deliverables as a result, which will be quantified in the next issue of the programme. SDS are compiling a change request. It should be noted that vertical alignment changes are not likely to be significant because of drainage needs and this will limit the capital saving resulting.

Balgreen Road

Information only

Network Rail need to give their agreement to the access arrangements provided for them resulting from the details of the design we are proposing. Network Rail agree that this is the only arrangement possible and agree that its provisions are workable. They have written to **tie** summarising their position as (1) agreeing that the alignment chosen is the best possible, (2) agreeing that re-opening of discussions with Baird Drive residents is now possible, (3) asking for all their additional costs arising from their operational changes to be borne by the project (not yet quantified), (4) asking for confirmation that we are prepared to proceed on this basis. A reply is being prepared to allow progress to be made in terms of resident consultation. Further discussions will be had over their possible operational cost increases.

Lindsay Road

Information only

Forth Ports have provided a scheme which has now been processed by SDS and found to be workable. It remains to gain the agreement of ADM Milling who would be affected. A first meeting with ADM Milling have taken place who are not yet content with the plans because of the restricted access for their vehicles which results. The whole issue of Ocean Terminal has already introduced significant delay into Section 1 design and now that the principal issues have been resolved it remains to complete this consultation for agreement. This will require Forth Ports to take an active role in discussions with ADM Milling.

Roseburn Corridor maintenance strategy

Information only

This is with CEC for comment and agreement. At this stage it is necessary only to consider the activities identified rather than who the future duty holder(s) will be. SDS are proceeding with their designs on the assumption that this strategy will prove acceptable in order to continue to make progress.

Haymarket Station Steps

Information only

Network Rail (Robert Little) has indicated that the steps at Haymarket Station may no longer be required following a review with Scot Rail. Current plans are to demolish and re-instate these steps as part of the works on the crew relief facilities. Any change to these plans would introduce further delay and would affect crew relief facilities, the viaduct design and the substation design. No action is currently being taken. Should Network Rail formally request this change it would need to be considered in the light of attendant delays.

Proposed Name David Crawley Date: 24-8-2007
 Title Director, Engineering Approvals & Assurance

Recommended Name Matthew Crosse Date: 24-8-2007
 Title Project Director

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