



Transport Edinburgh
Trams for Edinburgh
Lothian Buses

MUDFA Sub Committee Report Papers For Meeting 9th May 2007

Distribution

Willie Gallagher
Matthew Crosse
Susan Clark
Graeme Barclay
Suzanne Waugh
Mike Connelly
Steven Bell

Stewart McGarrity
Tom Condie
Miriam Thorne
Keith Rimmer
Andy Malkin
Alan Dolan
Tom Clark

Lorna Davis
John Ramsay
Duncan Fraser
Bill Campbell



Agenda

Sub-Committee Meeting

to be held at MUDFA Project Office, Leith

on Wednesday 9 May 2007 at 2pm

1. Actions from previous minutes.

2. Construction Director's Report
 - Executive Summary
 - HSE
 - Progress (period)
 - Programme (next period)
 - Commercial
 - Risk
 - Communications

3. Board Papers
 - Communications
 - Traffic Management

4. AOB



MUDFA Sub-Committee Meeting

AGENDA ITEM NO 1

Actions from Previous Minutes

tie Limited

Minutes of Sub-Committee Board Meeting

Date: 4 April 2007

Time: 11am

Venue: Board Room, Verity House

In attendance	Willie Gallagher Susan Clark Graeme Barclay Suzanne Waugh Mike Connelly Steven Bell Tom Condie Andy Malkin John McAloon Miriam Thorne Keith Rimmer Lorna Davis Tom Clark Bill Campbell Duncan Fraser	WG SC GB SW MC SB TC AM JM MT KR LD TCL BC DF
Apologies	Matthew Crosse Alan Dolan	MC AD
Circulation	As above. MUDFA Team	

1.0	ACTIONS	ACTION BY	DATE DUE
1.1	Review agenda and structure of sub-committee meeting. Report to be in Project Directors Report format.	GB/TE	COMPLETE
1.2	[1.17] Wide Area Signage scope of costs. Will be completed once AMIS programme finalised.	AM	09/05/07
1.3	[1.20] VE Workshop – MC to update at the next meeting.	MC	09/05/07
1.4	[1.22] Trial Site Lessons Learned. Meeting to be set up. Attendees to be AM/GB/DF/SW/MC/AD.	GB	COMPLETE
1.5	[1.23] Operator Licence – will be completed end of April.	PD	COMPLETE

1.6	Design Progress Tracker – Awaiting input from SDS. GB to arrange for Jim Johnston and Allan Hill of MUDFA Team to raise with SDS	GB	ONGOING
1.7	RATS – tie/AMIS to confirm areas where we can progress ahead of programme in areas of minimal risk outwith the road.	GB/AM	COMPLETE
1.8	Organogram – Profile of roles and responsibility to be put together for the MUDFA team to give the team a clear understanding of what is expected from each team member.	GB	COMPLETE
1.9	Constitution Street – works outside that street – will be done in two phases. Can we look at putting utilities into different ground and not back onto street? Meeting to be arranged to look at this.	WG/KR	27/04/07
1.10	Mabey Bridges – Look at normal solution of keeping traffic moving in key hotspots along the route – AMIS Further meeting with Mabey to come to solution.	AM	27/04/07
1.11	[9.2] Traffic Management - Can BTO work in line with our programme? Need to elevate this to put in pressure at senior level.	WG	27/04/07
1.12	Virgin Media agreement is still not signed. Senior decision to be made on this.	WG	27/04/07
1.13	Traffic Management Programme - TCL and KR to arrange meeting re developments, planning, utilities, building repairs. Paper to be prepared for the next meeting.	KR/TCL	COMPLETE
1.14	Cost reporting system to be put in place for future costing.	GB/MH	27/04/07
1.15	Separate commercial meeting to be put in place for review of budgets and profiling trends.	GB/MH	COMPLETE
1.16	Communications - Paper required for next meeting from Steve Gorry (SG) working with CEC and partners to cover KPIs etc.	SG	COMPLETE
1.17	Fencing/Netting – we should look at sites individually as to fencing requirements rather than the same requirement for all.	AM/GB	COMPLETE

1.18	Incident Management Protocol has been agreed internally. Copies of incident cards to be distributed to Transport Scotland.	TC	27/04/07
1.19	Programme presentation. Paper to be presented to Tram Project Board. Needs to be more strategic in terms of Traffic Management issues and implications of wider programme and budget of MUDFA.	WG/GB	COMPLETE
1.20	Communication of the programme. Needs to be looked at. Need more detail of how we progress on the sections of Leith Walk and exact location of works. SW to look at maps that Alasdair Sim has developed from modelling and take to the project board.	SW	13/04/07
2.0	Next Meeting to be held Wednesday 9 May 2007 at 2pm, MUDFA Project Office, Leith		



MUDFA Sub-Committee Meeting

AGENDA ITEM NO 2

Construction Director's Report

Edinburgh TRAM Project

Paper to : **Utility Sub-Committee**

Subject : **Construction Director's Report**

Date : **9 May 2007**

Executive Summary

- No safety incidents in the period.
- Second phase of trial site commenced on programme 23rd April. Works are progressing well.
- Rev 05 Utility Diversion programme reviewed and accepted by key Stakeholders.
- Project control trackers are established and implemented for key activities: Design, Work Orders, Traffic Management, Operator Licences.
- Advance works at Gogar (Depot site) commenced 16th April and progressing well.

1.0 Safety

- 1.1 There are no safety and environmental incidents to report this period.
- 1.2 Construction Phase Health and Safety Plan has been developed to an acceptable standard to allow the construction works to begin.
- 1.3 The AMIS MUDFA Business Management System documentation was delivered as planned. This has been reviewed and comments returned to AMIS. The documents are now being revised and due for re-submission by early May.
- 1.4 An NCR (No. 006) was raised on the trial site regarding the treatment of unidentified services. The AMIS procedure for the treatment of unidentified services is being revised.
- 1.5 The Archaeological Strategy and level of watching brief has been agreed with the CEC Archaeologist. The AMIS Archaeological & Heritage Management Plan will be finalised on the appointment of the watching brief.

2.0 Progress Period

2.1 AMIS

- 2.1.1 **tie** Limited and Stakeholder Imposed Programme updated and re-issued at Rev 05. Wide area signage being considered as part of the traffic management plan development.
- 2.1.2 AMIS have completed gas and water Thumbnail Utility Design Sketches (TUDS) for Sections 1A/North, 3B & 3C complete with Bill of Materials (BOM's) and SUC C4 Utility estimates.
- 2.1.3 AMIS work orders progressing for utility construction services at work sites 1AWSI003/002, 1AWSI004/001 & 1AWSI004/002 (1st Phase, Ocean Drive) and 1AWSI005/001, 1AWSI005/002 & 1AWSI006/001 (2nd Phase – Ocean Terminal frontage).
- 2.1.4 Traffic management plans completed for Section 1A and are ongoing for Section 1B (Leith Walk) due for completion in May 2007.
- 2.1.5 Trial site at Casino Square is on schedule for completion in accordance with the issued programme subject to resolution of technical queries and gas pipe identification. There have been no public or stakeholder concerns regarding communications.
- 2.1.6 Site fencing and netting will be used for specific sites throughout the city centre to curtain wind blown dust from the public and to ensure good aesthetical appearance. Graphic printing to be jointly reviewed.
- 2.1.7 Co-location of SUC, **tie** Limited, SDS and AMIS utility specialists to focus jointly on technical issues, design and cost approvals, proposed to mitigate delays and additional costs to project.
- 2.1.8 Concerns remain in relation to the planned availability of detailed design approvals (i.e. IFC) and bills of materials to support work order production and purchasing of materials in advance of operations.
- 2.1.9 MABEY bridge traffic sustainability discussions are ongoing with AMIS MUDFA and a planned presentation is scheduled for mid-May 2007.
- 2.1.10 AMIS RATS proposals will be placed on hold and looked at on a case by case basis in the future. Agreed to adopt and follow the design tracker planned requirements.

2.1.11 **tie** Limited and AMIS held a commercial review meeting on 28th March 2007 and have reached commercial and contractual agreement going forwards.

2.1.12 AMIS MUDFA payment applications to date total £962,372.49 with an actual certified value of £911,660.55.

2.2 Key Deliverables (Period)

2.2.1 Trial site recommenced as programmed on the 23rd April. Works are progressing well and anticipated to be complete in w/c 6th May.

2.2.2 ARM review workshop was convened and the project risks reassessed and assigned appropriate ownership and action.

2.2.3 Operator Licence tracker established for all 125 no sites with the information passed onto Land & Design team for evaluation in terms of notification requirements.

2.2.4 Cost reporting system established and operational with period costs input.

2.2.5 RATs 1A/1 and 1A/2 proposed and accepted by Willie Gallagher for progressing.

2.2.6 Awaiting confirmation by SDS that TRAM realignment will not impact Utility alignment noted on latest issue drawings – confirmation due 1/5/07.

2.2.7 Programme rev05 developed and accepted by all key Stakeholders

2.2.8 **tie** Utility team structure

- John Casserly joined the team as Commercial Manager on the 23rd April.
- Tom Caldwell joined the team as Senior QS on the 16th April
- John McAloon Planning Engineer will be located at MUDFA offices from w/c 30/4/07.
- Team structure will be complete by end of May with the arrival of the two Utility Project Managers.

Additions to the team will be required to cover EARL Utility Project. To be reviewed in this period.

2.3 Design

2.3.1 During the period SDS has submitted three further sections of utility design work to the Statutory Utility Companies (SUC's). The Sections delivered are as follows;

- Section 5C on 1st May 2007
- Section 3A on 19th April 2007
- Section 2A on 12th April 2007

2.3.2 SDS has diverted design manpower resource onto the first section of MUDFA construction activities (following priority instruction from **tie**) in order to support the MUDFA Construction Programme proposed in April 2007. The design deliverables have been broken down into smaller design sections to interface with the construction sequencing of MUDFA worksites. The SUC's have advised **tie** that the smaller design sections may be easier to resource than the full Infrastructure Scheme Sections previously provided. The response time from the SUC's is still a concern by SDS. The first design section (Section 1A) is being returned back to the SUC's (week commencing 30th April 2007) seeking final acceptance, SDS having taken on board all design comments from each SUC. This will allow the design to be inserted into the MUDFA Work Packages ready for the construction start date of 2nd July 2007.

2.3.3 The newly presented MUDFA Construction Programme (Issued April 2007) has been submitted to SDS and **tie** has requested that the present SDS design programme be aligned with this. Following a request from **tie** and in addition to the alignment of the SDS Programme with the MUDFA Construction Programme, SDS are making a proposal to **tie** to break down the SDS Infrastructure Scheme Sections (13 Number) to the MUDFA Worksite Sections (125 Number). This design change proposal will be presented to **tie** in the next period.

2.3.4 During the period SDS has received the first submission from **tie** (via MUDFA) of RATS Review documentation. The risk review is ongoing with the output from SDS to be delivered to **tie** on 4th May 2007.

2.3.5 SDS has provided proposals to **tie**, in order to streamline the construction response time for design amendment following any finding of unknown/un-chartered utilities during the construction process. The Trial Site exercise exposed a weakness in the Utility Strategy which showed that in order for a more immediate design response time, a full time SDS presence was required during MUDFA Construction Works, in order to mitigate time delays and demobilisation of the MUDFA Contractor when unidentified services are uncovered. This problem will

increase as the MUDFA worksites start to duplicate. There is a possibility of seven work sites being open at one period of time. The response time of site information and design decision making will be a major contributing factor to the success and economies of the MUDFA Contract.

- 2.3.6 The Trial Site did uncover un-chartered services, which were not picked up by the GPR Survey Team. During the period there has been quality inspection sweeps of all other sites, which were surveyed by the Trial Site Survey Team. A Quality Report is to be provided to SDS by the surveyors on 2nd May 2007 providing confirmation of the accuracy of the initial GPR survey work. To date (50% of the sweep) the survey checks have been positive.

3.0 Programme (Next Period)

3.1 Key Deliverables

3.1.1 Design & Buildability

AMIS continues to provide thumbnail sketches for inclusion in detailed design submissions to Utility Companies in line with the programme delivery sequence. Areas of concentration this period are; Sections 1B South, 5A, 5B, 5C & 6. This will also include BOM's & C4 estimates.

- 3.1.2 SDS continues to work to revised Utility design delivery programme. Furthermore SDS & tie continue liaison with SUC's to gain design approvals.

- 3.1.3 Section 07 (Edinburgh Airport to Hilton Hotel) & EARL Utilities design by Jacobs Engineering need to commence in this period to maintain programme..

3.1.4 Construction

Casino Square trial site is programmed for completion week commencing 6th May 2007.

- 3.1.5 Advance Works (RAT 1A/1) from Ocean Dr. Roundabout (e) -to- Victoria Quay Roundabout is programmed to commence 28th May 2007 for a period of 9 weeks.

4.0 Commercial

- 4.1 Correspondence has been sent to the MUDFA Contractor with a proposal to resolve the shortcomings and omissions in the MUDFA contract documentation.

- 4.2 Proposals are under preparation by both parties for a negotiated commercial and contractual resolution to the delay in release of design by SDS including:
- 4.3 Control/valuation and payment of contract and work sector preliminaries Incentivisation (pain and gain) of work orders
- 4.4 Contractor involvement in rats (risk and trade off) and design completion
- 4.5 A change order to a maximum spend of £20,000 has been issued to SDS instructing that the design is prepared in accordance with AMIS' latest Construction Programme (Revision 5).
- 4.6 Change orders and change notices are being issued to cater for contract additions (copy of master schedule attached):
- A change order has been issued for the Gogar de-vegetation and advanced works (including procurement of 2 no. wheel washes).
 - Following **tie** Board approval, a change order covering Gogar earthworks (circa 150,000 cu metres) will be issued to AMIS this week
- 4.7 A tender package is to be prepared for Ingliston Park and Ride extension for issue to selected pre-qualified contractors. Work is required to commence in early June 2007.
- 4.8 John Casserly has commenced with **tie** in the capacity of MUDFA Commercial Manager. A handover period from the current Commercial Manager until May 31st 2007 is in progress.
- 4.9 An outline Cost Report has been developed to facilitate a full report in next period.
- 4.10 Regular commercial meetings are taking place between **tie** and AMIS. A "G10 Summit" meeting intended to establish collaborative working methods took place in the period.
- 4.11 A workshop has taken place to identify project risks. A training session will be held in the next period for **tie** site personnel to familiarise themselves with the risk software (arm) and processes.

5.0 Risk

- 5.1 See Appendix 1 – Risk Register

6.0 Communications

6.1 MUDFA trial site

- 6.1.1 Work continues at the trial site with the Tram Helper on site dealing with any day to day questions. All questions have been answered and not specific issues have arisen.

6.2 Tram Helpline

- 6.2.1 The tram helpline number is 0131 623 8726. The system is in operation and is checked every two hours. A small number of calls have been received and have all been dealt with. Information on the traffic management arrangements has been added to the helpline to cover the trial site.

6.3 Correspondence Flow

- 6.3.1 Steve Gorry continues to work with our partner organisations to deliver the customer care package. A detailed report on the customer flow and kpi's is included in this month's papers. Steve will continue to report back on progress and deliverables against targets.

6.4 Customer Interaction Cycle

- 6.4.1 Following last months comment, we still await the proof of the 8 week newsletter from AMIS. This is now time critical and we have requested the first proof by cob 27 April to enable us to make any changes needed and gain approval in time for use within the Customer Interaction Cycle for the MUDFA programme.

6.5 Mobile Information Centre

- 6.5.1 The Tram/Bus remains in the wings and will be launched at the same time as the MUDFA programme and the customer support, following the trial site.

6.6 Site information

- 6.6.1 Following last months meeting we await feedback from AMIS on the use of debris netting at each site.

6.7 Wider area communications

- 6.7.1 As mentioned at the last meeting, thought needed to be given to the approach to informing residents who live or do business in areas impacted by traffic re-routing and the possible loss of traffic calming as a result of Tram works. The attached paper deals with this issue and makes a recommendation which should be discussed at the meeting. Due to the sensitivity and interest of our partner organisations, this paper may need to be raised at the Tram Project Board.

6.8 Launch of programme and customer support following elections

6.8.1 Following approval of the MUDFA programme, and the cessation of the purdah period, it will be necessary to launch both the MUDFA programme and the customer support and communication initiatives surrounding the project.

6.8.2 Once the programme is clear and baselined it will be possible to provide more detail on the approach we will take however, current thinking is to work with the Evening News to provide them with an exclusive briefing. This approach has been used in the past successfully when providing detailed and often complex information as it provides the opportunity to ask and answer questions.

6.8.3 We will also provide a pack of information which includes a breakdown of the programme, shown visually via the planner and map based visuals showing where in Edinburgh we will be working on a month by month basis. Stock photos of the tram bus, the tram helpers, and visuals of the customer interaction cycle and the packs will also be provided. Representatives from **tie**, CEC and TEL will be in attendance to provide quotes, photo opportunities and explanation.

6.8.4 A date is yet to be set.

6.8.5 Following the Evening News carrying the story the information and packs will be sent to the rest of the media.

6.9 Decision(s)/ Support Required

6.9.1 Consideration and agreement of the Wider Area Communications paper is required.

6.9.2 Feedback on the latest draft of the AMIS Communication Strategy was provided on 22 March. Monthly meetings have been arranged and are ongoing between AMIS, **tie** Comms and Stakeholder and CEC.

6.10 MUDFA – Wider Area Signage & Diversion Routes

Background

6.10.1 Wider area road signage is planned during the MUDFA work to alert the public to possible delays before they reach the work site. In sites of significant work, e.g. Leith Walk, it is also planned to use signage on key routes into the city to advise motorists of diversion routes that should be used.

Issues

6.10.2 There are two key issues which need to be addressed – should the signage be branded as part of the tram project, and what steps should we take to communicate with frontagers on diversion routes.

- On the issue of branding of signs, we have been consistent in our attitude to ensuring that the tram brand is clearly displayed on all communication materials wherever possible. Although any delays caused by tram works will not be welcome, there is likely to be other work going on in the city at the same time, and it may be advisable to help ensure that we are not associated with this work. Any branding on the signs would be simple for reasons of clarity and cost.
- There will be occasions during significant work sites where the majority of traffic may be directed to advisable diversion routes. This could result in significant levels of increased traffic on the diversion routes. The question of how this information is communicated with those affected frontagers needs to be addressed.

Conclusions

6.10.3 In order to continue with the open and clear communication methods which have been a symbol of the tram project, it is recommended that the wider area signage is branded clearly with the Trams for Edinburgh brand. The exact design of these signs will be the subject of discussion and approval of the partners; however it will almost certainly be a monotone version of the Trams for Edinburgh logo.

6.10.4 Again, during the tram project, we have tried to communicate openly with all stakeholders, and this attitude should be continued with regard to contact with the frontagers on major diversion routes. These businesses and residents will need to be informed that their street will be a diversion route for a temporary period, and the effect this will have on them. It is recommended that a specific leaflet is produced for these areas, giving clear information on the changes and where more information can be obtained. This will also be discussed with and approved by partners.

7.0 Recommendations

DPD is requested to:

- Note the contents of this paper
- Note the challenges and workload involved in ensuring delivery of the MUDFA Programme and associated works and the actions being taken to mitigate costs and delays.

Proposed	Graeme Barclay Construction Director MUDFA	Date 01/05/07
Recommended	Matthew Crosse Project Director	Date 01/05/07



MUDFA Sub-Committee Meeting

AGENDA ITEM NO 3

Board Papers

- Paper 1: Communications
- Paper 2: Traffic Management

Paper to: Tram Project Board – MUDFA Sub Committee
Subject: Update on Communications Strategy – Customer Management
Date: 27 April 2007

1.0 Introduction

The objective of this paper is to update the sub-committee with the progress in developing the customer management elements of the Trams for Edinburgh communications and stakeholder strategy.

2.0 Background

On 20th March a consultancy project was set up to deliver the following elements of the communications and stakeholder strategy:-

Establish a customer handling framework

Establish the customer handling capability

Establish a monitoring and measurement framework

Ensure fitness for purpose throughout all customer management activities in support of Trams for Edinburgh.

3.0 Current Status

The attached report (Appendix 1) contains the latest status against each of the key deliverables. The key features of the report are as follows:-

3.1 Achievements

- Branding agreed
- Telephony platform built, tested and working
- Email platforms (roadworks and information) built (sign off subject to automatic acknowledgement from roadworks being confirmed)
- Customer handling processes drafted
- Customer management processes drafted
- Customer database final version signed off and training database, version 1 available
- Operational KPI framework drafted
- Customer satisfaction strategy drafted

3.2 Planned Deliverables over the next month

- Customer handling and customer management processes signed off and implemented
- Customer escalation process drafted and signed off
- Customer impact assessment, contact demand forecast and resourcing profile agreed
- Phase 1 KPIs agreed
- Phase 1 Customer satisfaction proposals agreed
- Workshops are being scheduled (24/5 and 29/5) to conclude sign off of customer handling and customer satisfaction monitoring proposals

4.0 Future reporting

It is proposed that the status checklist attached will be produced monthly as a series of project deliverables.

As the KPI and customer satisfaction proposals are rolled out, a structured reporting system will be produced covering all aspects of customer related performance on a monthly basis. The target date for the first report will be August.

Proposed Steve Gorry Date:

Recommended Graeme Barclay Date:
Construction Director

	Deliverable	Planned	Actual	Forecast	Comments
1.0	Branding				
1.1	Brand Strategy agreed	w/c 26/3	w/c 26/3	N/A	<i>Trams for Edinburgh</i> agreed brand for all customer facing communications and response mechanisms
1.2	Segmentation agreed	w/c 26/3		w/c 23/4	Decision to be made re. structure of database (Options include main s/holder groups or SIC codes)
2.0	Customer Handling Framework				
2.1	Customer Handling - Telephony	w/c 16/4	w/c 16/4		Customer Handling Flows drafted for sign off
2.2	Customer Handling - Correspondence	w/c 16/4	w/c 16/4		Customer Handling Flows drafted for sign off
2.3	Customer Handling - Email	w/c 16/4	w/c 16/4		Customer Handling Flows drafted for sign off
2.4	Sign off customer handling framework	w/c 21/5	w/c 21/5		Workshop planned (24/5)
3.0	Customer Management Processes				
3.1	Document existing flows	w/c 9/4	w/c 9/4		Completed
3.2	Draft customer management processes	w/c 16/4	w/c 16/4		Completed
3.3	Sign off customer management processes	w/c 21/5		w/c 21/5	Workshop planned (24/5)
3.4	Define escalation processes	w/c 29/5		w/c 29/5	
3.5	Define compensation policy	w/c 29/5		w/c 29/5	
3.6	Sign off hierarchy and roles	w/c 29/5		w/c 29/5	Workshop to be scheduled w/c 29/5
3.7	Develop Training Material	w/c 4/6		w/c 4/6	
3.8	Deliver Training (existing staff)	w/c 2/7		w/c 2/7	
4.0	Resourcing				
4.1	Customer Impact Analysis	w/c 23/4		w/c 23/4	
4.2	Demand Forecast	w/c 14/5		w/c 14/5	
4.3	Recruitment Proposals	w/c 21/5		w/c 21/5	
4.4	Training and deployment of additional resources	w/c 2/7		w/c 2/7	
4.5	Customer database delivery (version 1)	w/c 16/4		w/c 16/4	
4.6	Customer database (final version)	w/c 21/5		w/c 21/5	
4.7	Customer database training preparation	w/c 28/5		w/c 28/5	
4.8	Customer database training roll out	w/c 25/6		w/c 25/6	
4.9	Customer database roll out existing staff	w/c 25/6		w/c 25/6	
4.10	Customer database roll out new staff	w/c 2/7		w/c 2/7	

	Deliverable	Planned	Actual	Forecast	Comments
5.0	<i>Monitoring & Measurement - KPIs</i>				
5.1	Draft KPI frame work – Phase 1	w/c 16/4		w/c 16/4	First draft linked to 2.1, 2.2 and 2.3 above
5.2	Phase 1 KPIs signed off	w/c 21/5		w/c 21/5	Workshop planned for 24/5
5.3	Phase 1 KPI reporting	monthly			Agree forum and reporting cycle
5.4	Phase 1 KPI Review / Phase 2 roll out	w/c 25/9		w/c 25/9	
5.5	Phase 2 KPI Reporting	w/c 1/10		w/c 1/10	
6.0	<i>Monitoring & Measurement Customer Satisfaction</i>				
6.1	Customer Sat Strategy – 1st draft	w/c 9/4		w/c 9/4	Completed for appraisal and costing
6.2	Customer Sat Strategy Version 1 – outline proposal	w/c 16/4		w/c 16/4	Draft for discussion with Carole Millar Research
6.3	Customer Sat Phase 1 – detailed proposals and costing	w/c 30/4		w/c 30/4	Carole Millar Research proposal to Mike Connelly
6.4	Customer Sat Phase 1 - sign off	w/c 21/5		w/c 21/5	Workshop Planned (24/5)
6.5	Phase 1 Rollout – Stakeholder Evaluation	w/c 18/6		w/c 18/6	
6.6	Phase 1 Rollout - Impression Cards	w/c 2/7		w/c 2/7	
6.7	Phase 1 Rollout - Non Contact Survey	w/c 23/7		w/c 23/7	
6.8	Phase 1 Reporting	w/c 3/9		w/c 3/9	Agree forum and reporting cycle
6.9	Phase 2 Proposals drafted (Contact Survey)	w/c 9/7		w/c 9/7	
6.10	Phase 2 Rollout (Contact Survey)	w/c 7/8		w/c 7/8	

- 3.5 CEC (through SfC) has a statutory duty to co-ordinate these activities (relative to each other and with other network activities) and can impose a delay to the start of the works (in non urgent cases) or specify reasonable conditions to be followed in order to minimise delay and disruption to the public. Many road openings are however made as emergencies and in such situations every effort will be made by CEC to minimise the impact on the traffic network.
- 3.6 The Statutory Undertakers have been briefed about the Tram project and have been requested by CEC to provide their Programmes of Works for 2007/8 so that this can be included within the GIS. To date however only a limited amount of information has been provided.

Road Maintenance & Transport Project Works

- 3.7 This is another substantial area of roadworks activity promoted by CEC as the Roads and Transport Authority. The programme of works has been determined for 2007/8 and the details lodged within the GIS. In general works schemes have been selected to avoid any possible conflict with the Tram works. In the event of an unforeseen conflict emerging the Tram works will, as a general principle, be given priority.

New Private Developments

- 3.8 The timing of the implementation by developers of new developments in the vicinity of the LOD already having the benefit of planning consent presents a potential conflict with the Tram works or their traffic management arrangements. The construction of new developments is not per se the dominant issue; it is the typical application for the occupation of road space to facilitate its construction which requires careful consideration. All requests for road occupations are considered by CEC pursuant to the Roads (Scotland) Act 1984 which gives the Council the sole right to approve, refuse or determine the application with reasonable conditions.
- 3.9 It is however incumbent upon the Council to support renewal and investment in the city and the Council must not unreasonably withhold permissions or, unreasonably impose restrictions that could prejudice the implementation of a planning consent. In many cases occupation of the road is granted because it provides the most practical solution for construction or is needed to meet health and safety requirements.
- 3.10 For developments at the planning application stage the Council Solicitor is currently investigating the possibility of imposing a condition within future planning consents that would make it clear that road occupations on or near the tram route, (or associated traffic diversion routes), may have to be restricted until the tram construction works are complete.

Building Repairs

- 3.11 Where buildings have been allowed to deteriorate such that public safety is at risk, CEC may require to issue a statutory repair notice on building owners. This may result in scaffolding having to be erected to the front of the building (as has currently happened in Shandwick Place). CEC is to undertake a review of outstanding statutory repair notices that may affect the Tram works and this will be included within their GIS database.

4.0 Summary of Issues, Challenges and Actions

- 4.1 The Statutory Undertakers response to requests for future works programme information has been patchy and will be followed up by a high level letter from CEC to the Utilities senior management(s).
- 4.2 Due to the sheer volume of utility works and the inflexible nature of some of these works, e.g. emergencies, it will not always be possible to avoid conflicts between Utility and Tram activities. Public safety and security will have absolute priority. This may require limited duration short notice alterations to the detailed works section plans of the MUDFA and INFRACO contractors in the interests of public safety and convenience.
- 4.3 Similarly, CEC may statutorily instruct emergency or urgent building repairs in the interests of public safety requiring, e.g. scaffolding, which could conflict with or impede Tram works. In extremis scaffolding may require to be dismantled, the Tram works undertaken and the scaffolding re-erected. In such circumstances the responsibility for meeting the additional cost of such work is likely to reside with the Tram project.
- 4.4 CEC is to carry out a review to identify any buildings along the Tram route (or principal traffic diversion routes) to identify outstanding statutory repair notices. The Council are also to investigate measures that might mitigate possible conflicts with the Tram, for example imposing a time limit for repairs.
- 4.5 The implementation of major planning consents on or adjacent to the tram route presents a potential risk of conflict with the Tram works. Granted consents and advanced major planning applications are being screened for inclusion within the Council's GIS database. The Council Solicitor is also reviewing possible conditionality to be included within future planning consents about the limitations on the availability of road occupation in the vicinity of the Tram works.
- 4.6 Where major proposed utility works or private developments present a possible conflict with the Tram works (and its consequential measures) traffic modelling will be undertaken to make an assessment of the likely impact. This assessment will form the basis of CEC's response to third parties founding upon the Council's statutory authority in terms of approval, deferment of commencement or imposition of appropriate conditions. To ensure consistency of approach it is proposed that all such modelling requirements are referred to the JRC modelling consultant (Colin Buchanan & Ptnrs).
- 4.7 CEC through their co-ordination system will refer co-ordination issues that impact upon the Tram works to the TMRP. Co-ordination issues will normally be dealt with by the Panel but it is proposed that any strategic or complex issue should be referred to this Sub-committee for consideration. The Sub-committee will also oversee the work of the TMRP.

5.0 Recommendations

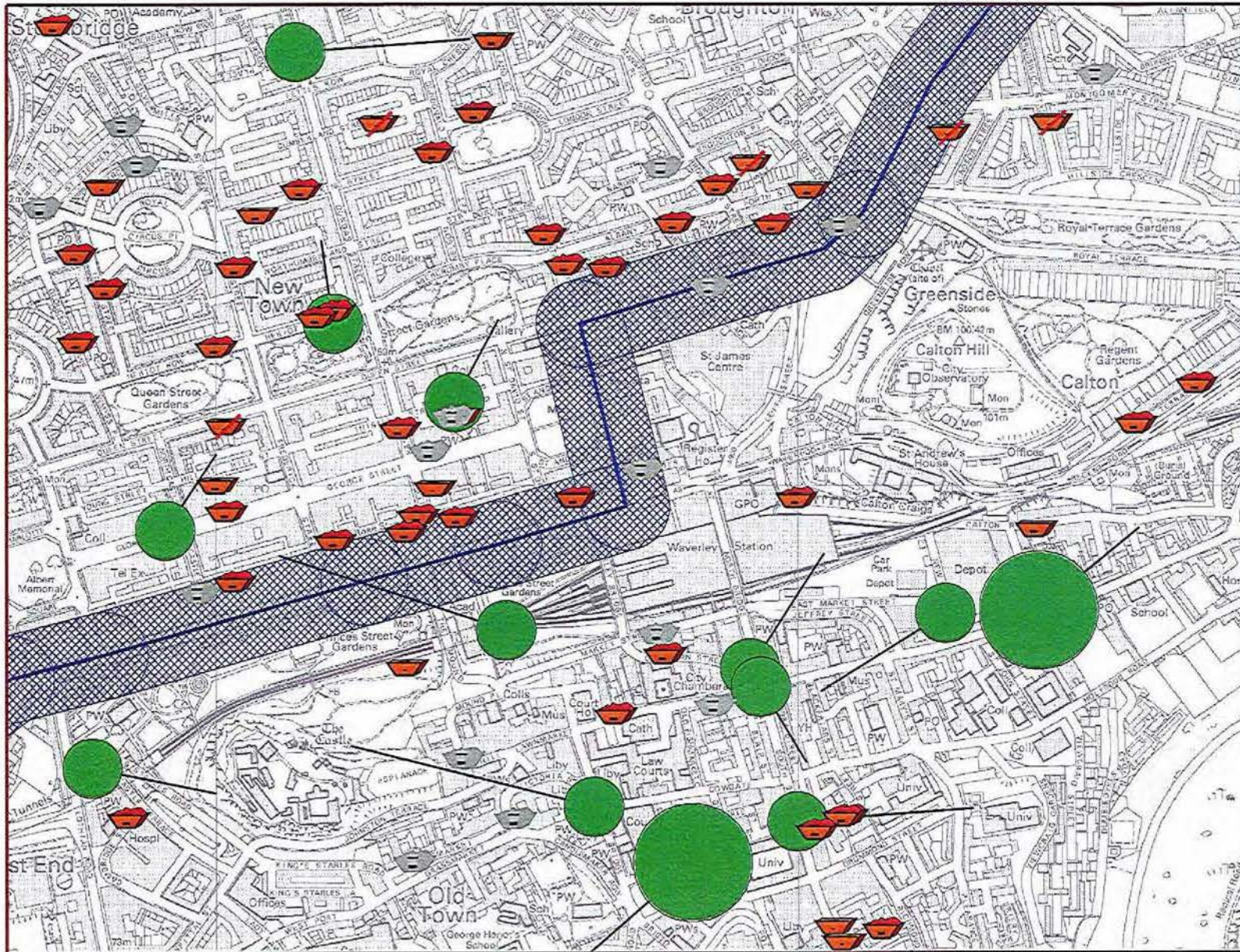
- 5.1 To note the responsibilities and the procedures that are in place for monitoring and co-ordinating activities taking place on the road network.
- 5.2 To note the issues to be addressed and the actions underway.
- 5.3 To approve the recommendation that this sub-committee takes an overview of the work of the TMRP with particular regard to consideration of strategic or complex co-ordination issues.

Proposed Tom Clark
Network Management Consultant, CEC Tram Team

Keith Rimmer
Traffic Management Director, **tie** Date: 27 April 2007

Recommended Matthew Crosse Date: 27 April 2007
Project Director

Approved Date:
Willie Gallagher, Chair of the MUDFA Sub-committee



NOTES



Edinburgh Tram
Capital Schemes + Skip Permits

Scale: 1:9622



RP

ET/RP/001



MUDFA Sub-Committee Meeting

APPENDIX 1

Primary Risk Register

Risk ID Comments

139 Capex impact values have increased significantly from Min: £2m; Most Likely: £5m; Max: £8.5m to Min: £5m; Most Likely: £10m; Max: £14m as a result of receiving provisional estimate information from AMIS.

Programme impact values have increased from Min: 4 wks; Most Likely: 8.5 wks; Max: 13 wks to Min: 4 wks; Most Likely: 13 wks; Max: 26 wks.

Current Significance Score remains at 25 (maximum)
Risk requires to be broken down into more specific detail risk components to allow distribution of ownership and treatment actions to specific owners.
The treatment strategy chart shows 2 actions as being behind programme. These actions are not able to be progressed as detail design information is not yet available and confidence in utilities location surveys is low.

164 Probability has increased from 80% to 95% as a result of the utilities trial.

Time impact increased from Min: 3 wks; Most Likely: 7 wks; Max: 10 wks to Min: 4 wks; Most Likely: 13 wks; Max: 26 wks.

Current Significance Score has increased from 24 to 25 (maximum).

911 Scottish Power feasibility study is now behind programme because they require further information relating to the design. It has been established that the tram alignment co-incides with the tunnel for a distance of approximately 100m plus a crossing.
The MUDFA team have proposed 2 realistic solutions to overcome this risk. 1. Realign Tram; 2. Accept an operational risk that the tunnel may collapse and have to have remedial works carried out equivalent of up to £75k pa over a 30 year life cycle (but could have a single event cost of approximately £2m). A third option exists to replace and strengthen the top of the tunnel or design a special foundation solution for the track.

It would be expected that the "direction" of this risk is established as part of detail design. If a design solution is adopted, the value of this risk will transfer to the base estimate.

342 The treatment strategy chart shows the first action as being behind programme. BT are awaiting design information for the A8 crossing in order to progress works approvals, estimates and design.

Both within this risk and through a general BTOpenworld risk (not identified in time to include in ARM risk register prior to this report), there is a general delay risk that would significantly impact on Infraco's progress.

923 The Significance Score of this risk has been reduced to a level that is as low as is reasonably practicable (probability: improbable; impact: catastrophic). There is little that can be done in terms of impact if the Contractor does hit a cable. Probability has been reduced to improbable through examination of method statements. It is important that the third treatment action is followed during construction.

Residual Significance Score is also 21.

168 Risk reduced to a level that is as low as is reasonably practicable through reducing the probability of its occurrence. Residual Significance Score is also 21.

This risk is a summary risk and requires to be broken down into detail risks when appropriate (e.g. Risk 923). This will be undertaken through the safety process.

912 It is suspected that this risk is closed or is closing as it has been treated as an issue and included for in Infraco costs. Confirmation is still required from Risk Owner David Crawley hence, the risk remains on the register.

914 This risk is owned by David Crawley. A treatment plan is required and as the probability of the risk event occurring varies from Utility to Utility (as advised by MUDFA team), it may be appropriate to break the risk down into detail risks.

929 Unchanged

21 Unchanged

CLOSED RISKS

913 Risk has been closed as it was treated as an issue, designed for and included in base estimate. There is no residual risk.
Risk Event Description: Special engineering solution or movement of bridge abutments required for Russell Road BT exchange.

GENERAL COMMENTS

It is apparent that the key project impacting on MUDFA is the SDS project. Design is behind schedule, approvals are not clear and the development of PC sums to form a budget is unable to progress.

The highest impact risks relate to the existence of and location of Utilities and it appears that there is little confidence in the process of produce the design and the quality of the design when it has been produced. This is leading to delay and also for works that were not envisaged being effected through the AMIS contract.

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	PROJECT PRIMARY 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	-	Review design information and re-measure during design workshops with Utility Companies and MUDFA.		Behind Programme	30-Nov-06	M Hutchinson
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.	PROJECT PRIMARY 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	-	Develop PC Sums into quantified estimates.		Behind Programme	30-Nov-06	M Hutchinson
RISK 139 AND 164 HAVE SAME TREATMENT PLAN							In conjunction with MUDFA, undertake trial excavations to confirm locations of Utilities		On Programme	31-May-07	A Hill
							Identify increase in services diversions. MUDFA to resource/re-programme to meet required timescales.		On Programme	31-Aug-07	G Barclay
911	Scottish Power own and maintain a cable tunnel in the vicinity of Leith Walk that may or may not interfere with Tram construction and operation; exact location and depth of tunnel is unknown; condition of tunnel is unknown.	PROJECT PRIMARY Presence of Scottish Power tunnel in Leith Walk requires radical solution	Tunnel may have to be decommissioned and re-laid in a more suitable location; tram alignment may require to be adjusted; special foundation solution e.g. cantilever may be required; increased capex; potential for tunnel collapse during operation and consequent disruption for Tram.	J Low	24	-	Scottish Power to establish exact location of tunnel		Complete	02-Apr-07	J Low
							Scottish Power to undertake engineering feasibility study		Behind Programme	02-Apr-07	J Low
							Solution to be engineered - ACTION PLAN TO BE DEVELOPED ON COMPLETION OF FEASIBILITY		Pending	03-Mar-08	D Crawley
342	Tram alignment at A8 crossing at Gogar co-incides BT data nests/cable (main coms link between Glasgow and Edinburgh)	A8 crossing tunnel requires special design or BT data nest/cables require to be moved	Capex cost to cover BT data nest/cable move; additional design costs; delay while works to undertake move are carried out; additional tunnelling costs.	J Low	23	-	Agree design with BT and SDS		Behind Programme	15-Mar-07	J Low
							Investigate the design of underpass such that duct banks are avoided by passing underneath		On Programme	31-Jul-07	D Crawley

ARM Risk ID	Risk Description			Risk Owner*	Significance	Black Flag	Treatment Strategy	Treatment Status		Date Due	Action Owner
	Cause	Event	Effect					Previous	Current		
							Ensure adequate protection of cables will be provided during construction		Pending	31-Oct-07	G Easton
							Undertake diversion and include costs in base estimate		Pending	30-Sep-08	G Barclay
926	Major single safety incident during construction	DETAIL RISK Safety incident during MUDFA Gas/Scottish Power Diversions	Delay (potentially critical) due to HSE investigation and rework. PR risk to tie and stakeholders.	G Barclay	22	-	Specific Gas/Scottish Power Action Plan to be developed by incoming PM - see also SUMMARY RISK actions		Pending	29-Jun-07	G Barclay
923	Tram crosses high voltage transmission cables in 4 areas (Leith Walk - 275kV; 2 times bridge abutment - 132kV; 275kV at Edinburgh Park)	Underground electricity transmission cables are encountered and damaged during MUDFA diversions	Potential to cause damage and consequent accident during work; Scottish Power delay works if cable struck; Significant injury (potential for multiple deaths) caused to workforce; Delay in project section.	J Low	21	-	Ensure AMIS understand and agree with construction requirements near to cables.		Complete	30-Apr-07	J Low
							Ensure method statements refer to and deal with very high voltage cables adequately		Complete	30-Apr-07	J Sneddon
							Ensure AMIS follow relevant safety procedures and method statements during construction		Pending	30-Sep-08	P Douglas
168	Major single safety incident during construction	SUMMARY RISK Safety incident during MUDFA Utilities Diversions	Delay (potentially critical) due to HSE investigation and rework. PR risk to tie and stakeholders.	G Barclay	23	-	Site Supervisors to be appointed by tie		Complete	28-Feb-07	S Clark
							Develop and Implement Incident Management Processes		Complete	27-Apr-07	T Condie
							All Site Staff to get CSCS		On Programme	30-Apr-08	P Douglas
							Safety Induction to be carried out for all site staff		On Programme	31-Dec-10	J Sneddon
							Site Safety Audits and Management Tours to be carried out		On Programme	31-Dec-10	P Douglas
912	Tram crosses high voltage transmission cables in 4 areas (2x Leith Walk - 275kV; 2 times bridge abutment - 132kV) and design requirements are not finalised especially cable depth not known, track slab depth not finalised	Very high voltage underground electricity transmission cables require special engineering solution	Significant potential capex cost and delay in areas where cable crosses over, delay in project section	D Crawley	21	-	Agree design principles with SDS and Scottish Power through completion of feasibility study		Complete	15-Mar-07	J Low
							SDS to make design adjustments including establishment of track slab depth tolerance		Undefined	02-Apr-07	D Crawley
							Costs of solution to be incorporated into base estimate		Pending	30-Apr-07	G Gilbert

ARM Risk ID	Risk Description			Risk Owner*	Significance	Black Flag	Treatment Strategy	Treatment Status		Date Due	Action Owner
	Cause	Event	Effect					Previous	Current		
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	D Crawley	20	-	PLAN NOT AVAILABLE ON ARM				
929	Ground conditions; space constraints; encountering uncharted services	MUDFA Contract encounters other services/conditions that mean Utility Diversions cannot be constructed with LoD	Increase in Capex; delay during re-design and additional diversions	G Barclay	19	-	Develop and implement process to deal with diversion of utilities quickly		On Programme	30-Apr-07	J Johnston
							AMIS to seek to divert under Statutory Utility powers where outwith LoD		Pending	28-Dec-07	J Low
21	Design constraints e.g. presence of other utilities, proximity of LoD boundary, diversion technical requirements etc.	Design requires that Utilities are diverted outside of LoD	Additional design; additional land purchase required and consequent contact with landowners; design may result in increased work quantities due to extent of diversions; potential increased duration of works.	D Crawley	18	-	SDS to aim to design diversions within LoD	n/a	On Programme	29-Jun-07	D Crawley
							SDS to undertake design checks to ensure diversion in LoD	n/a	On Programme	29-Jun-07	D Crawley
							GIS used to identify diversions outwith LoDs and respective landowners	n/a	On Programme	31-Aug-07	E Cropley
							AMIS to seek to divert under Statutory Utility powers where outwith LoD	n/a	Pending	28-Dec-07	G Barclay