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Edinburgh Tram Project
Full Progress Report No. 4
(9th December 2011 to 27th January 2012)
(FINAL)

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Rev	Originator	Approved	Date
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1 Executive Summary

This report covers progress made during the period from 9 December 2011 to 27 January 2012. It incorporates progress reported within Infraco and CAF Progress Reports No. 4-10 and 4-11 to 7 January 2012.

There were no reportable accidents during the period from 9 December 2011 to 27 January 2012. Twelve incidents occurred in total of which one, involving a member of the public, has been categorised as significant.

Enabling works are progressing under McNicholas. T&T are forecasting that Shandwick Place will be made available to Infraco on 14 February, four weeks in advance of the Rev4 programme date. St Andrew St will be made available, in totality, by the end of March resulting in a potential delay to Infraco of circa seven weeks. The extent of delay has been exacerbated by the discovery of incorrectly recorded and poorly executed utilities works under MUDFA.

A number of Scottish Water legacy utility works items are required to be resolved prior to release of the On Street areas to Infraco. Several of these items are likely to require derogations from standards by Scottish Water at short notice. The resolution of these items is being hampered by poor historical record keeping under MUDFA. T&T have requested CEC assistance in the deployment of additional Clerk of Works resource in support of this work stream.

Infraco works in Haymarket1 are currently 56 days late, when assessed against the Rev4 programme. Measures to recover this delay are being explored. This slippage does not currently impact on the critical path for the On Street Works.

The progression of seventeen Cost Engineering initiatives has been confirmed by CEC. The initiatives to de-scope the airport ticket kiosk and to share recovery vehicles with third parties is not being taken forward.

The inclusion of rationalisation of traffic management proposals within the Cost Engineering initiatives is required to offset the negative impact of the utilities works on programme. An integrated programme, including all positive and negative effects will now be developed.

Good progress has been made throughout the Off Street areas this period with key activities including the casting of the last section of the deck to the A8 underpass, the commencement of track laying between Gogarburn Bridge & Gogar Farm Road and the commencement of secant pile walling adjacent to the airport tram stop.

Completion of the Mini test track on the 12th December 2011 and completion of Section A handover on programme (16th December 2012) are two key milestones achieved during this reporting period.

Infraco are reporting a ten week delay to the Off Street works programme through the Network Rail corridor. This delay is largely the result of failure to obtain Network Rail approvals in line with the Rev 4 programme. Particular concern remains over the lack of approved construction methodology for the Murrayfield Retaining Walls. This delay may compromise the project's ability to accelerate the commencement of commissioning within the Off Street areas.



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A decision on the scope of the Edinburgh Gateway remains outstanding. The design of a “do minimum” solution is being progressed by Infraco in order to inform this decision.

Network Rail have advised the project of their plans to develop Haymarket station. Minor modifications to the scope of the Tram works will be required to accommodate Network Rail’s proposals.

Six trams have now been delivered to the depot with delivery currently running a month ahead of programme. Five trams have completed their static commissioning routine testing and two trams have completed their dynamic commissioning routine testing.

£2.49m of change occurred in the financial reporting period (22 December 2011 to 27 January 2012) bringing the total instructed change since September 2011 to £3.51m. The AFC for Infraco Works, Utilities Diversions and Trams is currently £500.2M. The AFC does not contain the potential benefits from the value engineering and does not account for the final QSRA/QCRA. An adjustment will be made following re-programming to include for the Cost Engineering initiatives.

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2 Health, Safety & Environment

2.1 Incident reporting

Within the period 9th December 2011 to 27th January 2012, covered by this report, there have been twelve incidents of which one, an injury to a member of the public, was considered to be significant. A summary is provided below:

Ref	Location	Description of Incident	Contractor	Classification
1579	Haymarket Yards	A member of the public fell on raised wooden walkway	Grahams	A member of the public incident
1586	St Andrews Square	A member of the public allegedly tripped over a heras fencing base on a pedestrian walkway.	McNicholas	A member of the public incident
1576	Edinburgh Airport	An operative was standing on a piece of heras fencing and half fell into manhole when it gave way.	Farrans	A minor injury
1585	Shandwick Place / Coates Crescent	Spillage of approximately 1 litre of diesel from generator within groundhog unit	Bilfinger Berger	Environmental
1581	Murrayfield	Network Rail stopped work on the Murrayfield tramstop due to the Form B not having been signed off by Network Rail.	Grahams	Near misses
1583	Gyle	Scottish Water identified a non standard illegal connection into a manhole that had been undertaken without the ATC process being followed	Bilfinger Berger	Near misses
1588	Shandwick place	Report received that heras fencing had blown over in high winds.	McNicholas	Near misses
1584	N/A	Anonymous allegation to the Health and Safety Executive relating to work site personnel operating without correct qualifications and accreditations.	McNicholas,	Others
1587	St Andrew Square	Break in to a welfare unit at St Andrew Square	McNicholas	Others
1577	Murrayfield	A vehicle damaged BT cable box when manoeuvring	Grahams	Service damage
1580	Shandwick Place	A Lead water pipe that leads to a domestic property has been struck when excavating for OLE base.	McNicholas	Service damage
1582	Canning St / Shandwick Place	A live cable identified by City of Edinburgh Council / Scottish Power within a traffic sign column that had been cropped	Not known	Service damage

2.2 Safety Initiatives

A programme of targeted inspections has been carried out jointly by T&T and BBS with their respective contractors at excavation sites across the project. Whilst more than 20 excavations were inspected those with active excavation taking place were

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assessed for compliance with HSE guidance HSG47. The findings for this inspections are recorded in the Deliver the Tram Safely report in Appendix 2.

BBS have arranged an on-site safe excavation demonstration, focussing on correct use of trench boxes.

A programme of targeted inspections for temporary works is being planned for the next period. This will be followed by targeted inspections for vehicle movements on site.

2.3 CDM Regulations

The updated Construction Phase Plans for the project and for the works affecting Network Rail assets have been reviewed and commented upon. The revisions to the plans have now been formally issued to Network Rail by BBS.

The Health and Safety File information for the Depot, Section A has been submitted as part of the Body of Evidence submission. This information has been issued to the depot operator.

Responses and close out statements were received from BBS following an audit conducted on compliance with CDM (Reg9; Client Duties in Managing Projects). Some residual issues were transferred into the snagging programme developed during the depot handover process.

2.4 Environmental

A Joint Environmental Inspection has been carried out with BBS 18th January 2012 at Balgreen Road/Water of Leith (Contractor Expanded). BBS have compiled and issued a report (ETN-S5A-001) – the site was in good order with good environmental knowledge.

A New monitoring programme now issued – environmental inspections will be carried out every 2 weeks with either BBS or a Non Infraco contractor.

Part of the old tram network has been found at St Andrews Square South/Princes Street. GUARD Archaeology have been consulted and findings being documented by the site team.

The Project Environmental legal Register is to be an updated one during period 12 and issued by BBS to T&T for information.

2.5 CoCP

T&T has agreed improvements to the surface of the temporary wooden walkway at Haymarket.

Provision of site signage including public contact telephone numbers are being addressed by the respective contractors. A significant improvement has been noted this period.

The results of the CoCP monitoring have been passed to CEC communications team to be up loaded to the project web site. Details of this are in Appendix 2.



3 Client Decisions

Items identified which require input by The City of Edinburgh Council as part of their solution. This information can be found in Appendix 3.

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4 Commercial

4.1 Cost Summary

The Anticipated Final Cost (AFC) for the Infraco Works, Utilities Diversions and Tramco is £500.2M and is consistent with the budget of £500.2M. The AFC does not include the potential cost benefits from the value engineering work stream and does not include the draft Quantative Cost Risk Analysis. Following instructions on the value engineering indicatives the plan is to incorporate the cost benefits as opportunities and to update the QCRA to help advise Contingency requirements.

The detailed Cost Report, 27th January 2012, has been issued under separate cover and this section of the report summarises the issues and cost movements within the last 4 week reporting period.

A summary of the cost movements are as follows (all figures £Ms):

Reporting Date	Approved	In Progress	Anticipated Change	Contingency Balance
27 th January	3.51	5.75	15.03	7.21
22 nd December	1.02	6.81	16.67*	7.00
Movement	2.49	-1.06	-1.64	0.21

[* Note: £0.7M adjustment to Utilities to align with budget of £2.9M. This has no effect on the overall forecast]

4.2 Infraco

4.2.1 Approved Changes (Movement in the Period)

Change Requests are submitted to CEC each Thursday afternoon for review and approval at Friday morning meetings. This enables scrutiny of specific changes and also compliance with CEC Delegated Authority Rules.

The movements in the period are included overleaf:

Approved to 22 December reporting date	£1,016K
Additional BT ducts at depot and min test track	6
Design Gogar Castle Access Road – tram crossings and approaches	31
Edinburgh Gateway – Advance Temporary Works Design & minimum design	15
Design changes resulting from utilities – OLE, circular pile cap, ducting, drainage, track form	55
Edinburgh park office accommodation – running costs	79
On-street variations – periods 15 Oct and 12 Nov 2011	111
Drawdown for Utility diversions/protection within track zone (to March 2012)	1,800

Cathedral Lane Sub-station retaining wall	5
Haymarket Station – delete cladding installation, substation retaining wall and plinth	-20
Depot water main – surface reinstatement works	60
On-Street Variations – period end 10 Dec 12	357
TOTAL	3,514

4.2.2 Changes in Progress

Changes in Progress include items which cannot be mitigated and the change is agreed in principle or is likely to occur.

Key items:

- Rationalisation of design, site investigations for utility diversions - £0.20M;
- Transfer of costs included in On-Street Works Period end estimates -£0.36M;
- Reduction in bus tracker power disconnections (undertaken by McNicholas) -£0.18M
- Early installation of TM at Shandwick Place – additional maintenance £0.18M

4.2.3 Anticipated Changes

The key items include:

- Cathedral Lane sub-station - £0.4M
- Cycleway Mound/Hanover St - £0.93M
- Delay and prolongation – utilities affecting OLE foundations, piling etc £0.83M
- Roseburn Delta footpath £0.3M

Further estimating work is needed on the Cathedral Lane Sub-station, piling, York Place Terminal Point, piling to OLE and delay analysis. In addition a review of changes to date and risks is required to prevent any overlap in cost provision and avoid any gaps.

4.2.4 Contributions Register

Contributions from 3rd party, stakeholder or other CEC budgets are being developed in order that the amounts can be finalised. The current position is as follows.

Works	£M	Status / Action
Edinburgh Gateway Costs	0.94	Agreement required with TS
New Ingliston – ducts & crossings	0.54	Agreement required with NIL

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Cathedral Lane Sub-station	0.25	Agreement required with Henderson Global
RBS Tramstop	0.50	Agreement required with RBS
St Andrews Sq Public Realm design	0.13	Separate CEC budget
CEC miscellaneous (George St)	0.32	Separate CEC Budget
NR Haymarket Station	t.b.c	Substation hardstanding, remove parapet and staircase
Total	£2.68	

4.2.5 Contingency Analysis

A draft Quantative Risk Analysis (QCRA) was issued to CEC, 29 November 2011 for initial comment. It was agreed that the QCRA would be updated following approval by CEC for the Cost Engineering improvements.

In the interim the risk analysis undertaken by F&G has been used to monitor the impact of approved and required change against original contingency baseline, determined in early August 2011. Work is ongoing to mitigate risks, final costs for changes in progress and avoid anticipated change to reduce time and cost impacts. Examples of this include alternative solutions for the Footpath at the Roseburn Viaduct to avoid the £1.5M impact of the original design.

Category	Original Contingency			Forecast		
	Ctgcy	Approved	Available	Required	Post Mitigation	Balance
Design completion/scope risk	6.3	0.8	5.5	0.9	0.9	5.4
Time delay	11.6		11.6	5.4	5.4	6.2
Utilities: Haymarket to York Place	2.0	1.8	0.2	11.7	11.3	-9.3
Utilities: Off Street	0.4		0.4	0.0	0.0	0.4
Possession risks	0.3		0.3	0.0	0.0	0.3
Routine Maintenance	0.5		0.5	0.0	0.0	0.5
Relax of time constraints	0.3		0.3	0.0	0.0	0.3
Pricing Assumptions (York Place etc)	7.2	0.9	6.7	6.7	6.7	0.5
Land Purchase	0.1		0.1	0.0	0.0	0.1
Traffic Management	0.2		0.2	0.0	0.0	0.2
Move to Cost reimbursable	3.3		3.3	0.0	0.0	3.3

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Contract						
Procurement	0.2		0.2	0.0	0.0	0.2
Exceptionally Adverse Weather	0.3		0.3	0.0	0.0	0.3
Tramco	0.0		0.0	1.2	1.2	-1.2
Totals	32.7	3.5	29.6	26.0	25.5	7.2

4.2.6 Opportunities

Prior to commencement the budget incorporated £11.0M for Opportunities were included in the budget. This represented the £2.4M de-scoping of works at Forth Ports, £7.0M anticipated reduction from the capping levels included in the On-Street works and a £1.6M variance resulting from the On-street tender returns.

Funding contributions from 3rd parties and other budgets amounts to £2.7M and the de-scoping of the works at Forth Ports has been approved for instruction. This results in an opportunities budget of £5.9M to secure. The value engineering work stream will contribute towards this budget.

The Baseline Project Instructions report issued 20 January 2012, contains the recommendations for value engineering and programme improvements. CEC have confirmed that following review of the recommendations a briefing will be held with the team.

4.2.7 On Street – Schedule 45 Pricing Assumption Variations and Commercial Issues

BBS have submitted the following Pricing Assumption Variations. The 'RAG' status indicates, Green – variation principle and amount agreed; Amber – variation principle agreed and amount to be agreed; Red – variation principle not agreed.

Description	RAG (£M)
Revised design to minimise utility diversions / conflicts - used for slit trenching and trial holes	0.02
Princes Street - 500mm Water Main Diversion	0.27
Haymarket H1 - Utilities affecting the construction of OLE foundations	1.71
Site Wide - Power to bus trackers affecting the ability to remove site clearance items	0.04
Site Wide - Increased number of drainage boxes including installation	0.00
Haymarket H1 - Third Party (McNicholas) affecting ability to progress the works	0.00
Haymarket H1 - BT Fibre Optic Service requires diverting	0.11



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Princes Street - Amend the design of the St. Johns Church OLE bases	0.02
Princes Street - 2011 Christmas Embargo - Temporary Surfacing of Track Infills	0.29
St Andrew's Square & Shandwick Place - Traffic Management Requirements	0.18
Haymarket 1 - OLE Base Relocations	0.00
On Street Generally - Worksite Modelling	0.01
Bt Diversion at Waverley Bridge	Inc
Unidentified utility discovered when piling (OLE 131 100A)	0.00
Payment for Utility diversions off site outwith BBS's scope (cost report assumes cost neutral)	0.34
DDA Footpath Roseburn Viaduct	0.30

Upon receipt of the PAV from BBS relating to the discovery of utilities affecting foundations we advised CEC that BBS piling design could avoid diversion of utilities and that BBS may have been aware of utilities therefore the works should not result in a PAV. The Independent Certifier published an opinion that a PAV had occurred. Following this and the emergence of other PAV's such as the Princes Street Water Main we requested BBS to confirm how the 'discovery' requirement in Schedule 45 could be established when the re-connection works were a known item of work. This led to a request from BBS that CEC provide a briefing session with their lawyers McGrigors to review the Mediation Heads of Terms and the Settlement Agreement to clarify interpretation regarding BBS's liabilities under the contract in relation to utilities interfering with their work scope. A meeting was held with McGrigors who provided a report, 6 January 2012 and we have issued a summary report of the issues to CEC, 16 January 2012. The report confirms the variance between the provisions in the Heads of Terms i.e. **"tie shall take the risk relating to all utility diversions works required to complete the on-Street Works"** and the provisions in Schedule 45 of the Settlement Agreement that entitlement to a PAV is subject to the utility being **"discovered"**. The cost report contains £2M of costs associated with the consequences of utilities on OLE foundations (delay to BBS, piling costs and standing time etc). Our report provided a number of recommendations on each point and CEC are yet to advise instructions regarding investigations into the level of awareness that SDS and BBS had regarding the location of utilities and the variance in BBS's views regarding utilities based upon the Mediation Heads of Terms and the Settlement Agreement.

Regarding tNC 545 disconnection of power cables to bus trackers our position is that BBS could not have discovered the power cables as the bus trackers were live prior to taking over the site and the disconnection works were included in SDS's specifications for the work.

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Payment for utility diversion costs requires being resolved as the Utility Companies are invoicing CEC direct. This issue is being discussed at the commercial meetings.

BBS have claimed that the DDA compliant footpath which runs 150m North along the embankment for Phase 1b is not included within the Contract Scope. An alternative design and BBS's cost liability are being established.

4.3 Utilities

4.3.1 Budget

The budget comprises; £1.1M for the legacy remedial works at Leith Walk and £1.8M original tie budget for On-Street diversions.

It has been agreed with CEC that the cost model will be developed and change requests submitted for funding specific work sections when required. This means that control can be exercised for short term programme commitments whilst further work can be done to mitigate the impacts of non critical conflicts later in the programme, refer 1.3.4 below.

It should also be recognised that in addition to conflicts the prospect of unforeseen work will impact on final costs. Examples include the extent of foam concrete in place from the MUDFA contract, steelwork within the road construction (St Andrews Sq) and redundant excavations to expose utilities and none were found owing to inaccurate records.

The contractor has been requested to revise the management fee and rates as the scope of work is greater than that originally envisaged. A small reduction in fee has been quoted and is in the process of being confirmed. A greater reduction could be made however this may require re-allocation of risk in relation to disallowables owing to the nature of the contract form e.g. the contractor is liable for defect rectification and damage to plant.

4.3.2 Approved Changes

£1.8M has been approved for diversion and protection works within the track zone to 31 March 2012, refer Utilities Change Order dated 22nd December 2011.

Further change requests will be submitted when the scope of future works has been defined and when committed expenditure exceeds the approved budget.

4.3.3 Changes in Progress

The contract form is NEC Option E – Cost Reimbursable. The contract is being administered by an NEC change management system which tracks orders/changes for specific items of work. This enables control over commitments and managing expenditure.

4.3.4 Anticipated Change

A cost model has been developed for the works based upon the utilities conflict database. The cost model contains composite rates per conflict type. The works are being managed in two priority categories:

Priority	Conflict Type
Priority 1:	Overhead Line Bases Road Level Conflicts Tram Ducting Chambers Tram Ducting Track Construction
Priority 2:	Traffic Signal Pole Street Lighting Column Road Sign Base Kerb Re-alignment Drainage Drainage Gully

A summary of the cost model is provided below.

Description	£M
Utility Company Costs	2.0
Priority 1 conflicts: 399 Nr (includes proportion of McNicholas management and design costs – note these are time/task related and will be extracted for the detailed estimate)	4.5
Priority 2 Conflicts: 793 Nr (comment as previous, programme for these works to be finalised and interface with BBS works. Some of these items may be mitigated)	7.3
BT works not completed under MUDFA (ducts damaged Lothian road junction, York Place and Constitution St)	0.4
Total	14.2

The cost model is being refined to account for the emerging scope of work in Shandwick Place and St Andrews Square to cover unforeseen work e.g. removal of foam concrete, steelwork within the road construction, utilities being in the wrong location. The estimate is also being revised to account for the opportunity to mitigate Priority 2 conflicts, e.g. traffic signs and also the emerging Utility Company Costs. The basis of the cost model is:

1. Costs based upon a unit cost per conflict type from Haymarket 1. It should be noted that there is a high degree of variability in work scope for each conflict.
2. Scottish Water have submitted a proposal for management and supervision costs for On-Street, Off-Street and Legacy Works. These costs are being challenged,

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however they are £1.5M in excess of the figures above. It is unlikely that these costs will be agreed in advance of the historical issues associated with betterment and cost share.

3. The scope of the Leith Walk legacy works are being established. Current provision is £1.1M as per the original budget.

4. There may be works required at Princes St which are not yet defined and are excluded from the estimate.

5. The unit cost per conflict may not account for inefficiencies resulting in the accelerated programmes for Shandwick and St Andrews Sq.

4.3.5 Utilities Off – Street

To date a total of £0.23M has been invoiced by Utility Companies for diversions and supervision on the Off Street section. These works were not excluded from Infraco's Off Street Contract Price and discussions are ongoing regarding the correct allocation of these costs.

At this stage these costs have not been included in the Anticipated Change Section of the Cost Report.

4.4 Tram Vehicles

The budget for Tram Vehicles is £62.4M which is lower than the contract sum at £63.6m. There have been no changes during the period.

4.5 Opportunities and Value Engineering

The Baseline Project Instructions report was submitted to CEC for comment / approval on the 25th of January 2012. Following this review a meeting will be held with the project team to confirm instructions. This meeting is planned w/c 30st January 2012.

4.6 Risk

The contingency amounts included in the budget for Infraco, Utilities and Tram Vehicles amounts to £32.7M. This is adjusted to £29.7M as a result of the additional costs from the Infraco contract, variance in the On-Street works, maintenance costs and the drawdown for the On-street Utilities works.

Approved Change, Changes in Progress and Anticipated Change amounts to £24.2M and with the £2.7M contribution results in a balance of £7.3M. [check figures]

The required contingency will be reviewed following the conclusion of the Quantative Cost Risk Analysis.

4.7 Payments and Cash flow

A summary of the certified amounts are provided below.

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	Certified	Planned	Comment
Infraco	246,285k*	250,462k	Delays at: Haymarket Corridor, Earthworks at Balgreen Rd to Edinburgh Park Station, Gogar to Edinburgh Airport Earthworks
Utilities	1,190k	1,842	Reporting periods for the McNicholas Contract now aligned with the Infraco Contract dates. First certificate Value equals £238K. Additional £62K for Utility Companies.
Trams	54,066k	54,129k	Payments in accordance with milestone schedule. Includes £481k in Period 9 for depot equipment.

Final certification value still to be established

A draft cash flow was submitted 10 January 2012. This is being developed to meet CEC finance team’s requirements. It has been agreed that the BBS milestone forecast will be updated following conclusion of the revised working programme resulting from the value engineering improvements.

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5 On Street - Enabling Works

5.1 Progress in Period

Scottish Water works in Princes Street were completed allowing traffic to be switched in early January 2012.

Detailed planning of McNicholas enabling works in Shandwick Place and St Andrews Square was completed in the period and traffic switched successfully in both areas to allow enabling work to commence.

Both areas have now been planed by Infraco and works are underway to deal with utility conflicts.

5.2 Key Issues

Legacy Works

The SOFT report dated 19th January 2012 identified the Scottish Water legacy issues as a threat to the project. The report stated that Turner & Townsend was finalising legacy works packages using the utilities database developed for the utility works already underway. While the majority of the legacy issues relate to Scottish Water there are other utility works outstanding following the MUDFA contracts.

Regarding the legacy works within or adjacent to the tram line between Haymarket and York Place, some works can be programmed to coincide with the utility diversionary works being carried out to facilitate Infraco. As the programme for handing over areas to Infraco is at a critical stage however it is not possible to schedule all legacy works at this time. In response to this Turner & Townsend is now categorising each legacy issue, of which there are in excess of 750, and assessing the appropriate course of action. It is anticipated this exercise will be completed by the end of January 2012.

Regarding the legacy works north of York Place a strategy for delivering the works in conjunction with CEC Road Department is currently being finalized and an oral update will be provided at the Tram Briefing Meeting on 2 February 2012.

St Andrew Square

Due to the complexity of the diversions and the constrained nature of the site the utility enabling works at the south end of St Andrew Street will not be complete in time to hand the area over to Infraco in accordance with the Rev 4 programme on 7th February 2012. Current projections show the work site being made available at the end of March 2012. Turner & Townsend has written to Infraco informing it of this delay and Infraco is currently investigating if works in the St Andrew Street area can be re-sequenced to mitigate the delay. Furthermore, proposals brought forward as part of the cost engineering initiative will assist in mitigating the delay as Infraco will be provided with early unhindered access to the east end of Princes Street adjacent to South St Andrew Street.

Footways – Conflicts

In carrying out some localised repairs it has become evident that there may be utilities located in an area on South St Anderws Street outside the Tram DKE +2m that will conflict with the hard landscaping currently specified on the tram project.

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These potential conflicts are not currently included in the McNicholas scope of work. Turner & Townsend is investigating this matter further and an update will be provided at the meeting on the 2nd February 2012.

5.3 Look Ahead

Detailed planning of enabling works in Haymarket and Shandwick Place is now underway in anticipation of traffic management measures being brought forward to end March 2012 (see below). The utilities team is also beginning planning work in relation to the utilities at York Place.

6. On Street - Main Works

6.1 Progress in Period

Works are progressing well in Haymarket 1 following the Christmas shutdown period. Piling was completed in less time than anticipated on 15th January 2012 and Infracore is now exposing, excavating and backfilling the air raid shelter in the area and constructing OLE pile caps. In Princes Street, works from South St David Street to St John's Church are progressing well and discussions are underway with Infracore to establish if the works can be completed early ahead of the Rev 4 programme July completion date. This would include completion of all remedial works, the tram stop and OLE foundations. The Electrical & Mechanical Works, including the overhead wires, are then due to commence in early November 2012.

Princes Street works have been re-sequenced to ensure bus traffic can be switched in early March to facilitate the closure of east Princes Street at the bottom end of South St Andrew Street. This is part of the wider cost engineering traffic management initiative discussed below.

Due to utility clashes at Haymarket 1 the On Street Works were delayed. Turner & Townsend has carried out an assessment of the 56 day prolongation claimed by Infracore and concluded that while the prolongation will not impact the project end date. The delay in the Haymarket section may be mitigated as the works progress, however there is still a potential commercial liability for prolongation of prelims costs and an allowance has been included in the cost report.

Third party approvals and consents for Dublin Street Steps, Picardy Place and Princes Street OLE re-design were progressed during the period. A meeting was held with CEC Planners and Historic Scotland in early January and a way forward agreed in all areas. Formal submissions are now being prepared.

As part of the cost engineering initiative proposals were brought forward to accelerate the implementation of traffic management in Haymarket/Shandwick and at the east end of Princes Street. This facilitates the early commencement of utility enabling works and the potential re-sequencing of Infracore works to mitigate against the delays at South St Andrew Street. Proposals to extend the initiative to York Place were also included as part of the cost engineering submission and work is now underway to plan how this may be brought forward. Based on the work done to date the following changes are due to be implemented:

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Traffic Management installed at Shandwick/Haymarket	24 March 12	This will provide McNicholas with access to the site to clear utility conflicts – approximate McNicholas programme is 10 weeks
Princes St bus lane at south end of St Andrew St	03 March 12	Minor enabling works but allows Infraco works to commence at end of March 12 to mitigate delays to enabling works in south St Andrew Street
York Place	End Oct 12	Start depends on all Infraco non M&E works being completed in St Andrew Street and east end of Princes Street

All design work north of York place has been temporarily put on hold pending the outcome of a review into curtailment of non-critical activities on the project.

Works required in the Forth Ports and Lindsay Road area to make good previous Infraco and MUDFA works were assessed during the period and a programme is currently being developed. An assessment of the likely expenditure is also underway.

6.2 Key Issues

Turner & Townsend has carried out a joint inspection with BBS and the Independent Competent Person of the concrete pavement adjacent to the railhead in Princes Street in relation to concerns about the variable standard of finish of the concrete and the levels being out of tolerance. This has been formally communicated to BBS and a response is awaited.

6.3 Look Ahead

Haymarket 1

Infraco works will continue in the area including pile cap construction, filling of the air raid shelter and earthworks to allow construction of the track slab and pavements.

Shandwick Place

Utility conflict works required to hand the site over to Infraco will continue in the area and it is currently anticipated that this will be completed on 14 February 12. As the traffic management is already in place in Shandwick Place this date is four weeks ahead of the Rev 4 programme. Turner & Townsend is working with Infraco to ensure this time saving is optimised.

Princes Street

Works by Infraco will continue in Princes Street and Turner & Townsend will seek to carry out some legacy remedial works in the area ahead of the completion of the non M&E works in the summer of this year.

St Andrew Square

It is currently anticipated that utility conflict works required to hand the site(s) over to Infracore in St Andrew Street North and St Andrew Square will be complete on 14 February 12. As the traffic management is already in place this date is in accordance with the Rev 4 programme. Works at the south end of St Andrew Street are delayed and it is currently anticipated these will be complete on 27 March 12.

York Place

Planning work will continue in York Place

**(FINAL)**

7. Off Street Works

7.1 Progress in Period

Works are progressing well on the Off Street section with the following activities taking place during the period;

- Russell Road Bridge, the east abutment piling complete;
- Roseburn Street Structures, sewer diversion and bored piling;
- Water of Leith Bridge, bored piling to centre pier commenced;
- Baird Drive Retaining Wall, earthworks commenced;
- Balgreen Road Bridges, installation of temporary works and bored piling progressing;
- South Gyle Access bridge, columns installed and now awaiting a methodology for ground improvements;
- Edinburgh Gateway, 'do minimum' scope options being progressed with Transport Scotland;
- Edinburgh Park Corridor, drainage and subbase construction has commenced with traffic management on the Gyle Broadway to facilitate the construction of the crossing
- Eastfield Avenue to the Gogarburn; ballast and sleeper laying has commenced in sections;
- Ingliston Park and Ride, substation fit out has commenced; and
- EAL tramstop and kiosk, secant piling commencement

In the period to 27th January 2012 the main achievements were:

- Mini test track - completion on the 12th December 2011; and
- Completion of Section A and handover of the depot on the 16th December 2011.

A reinvigoration of the Network Rail submission and approval process has been required post Christmas as a result of differences between planned and actual document production. Turner & Townsend have raised this with Infracore in conjunction with Raymond Sheridan of Network Rail. There shall be a rebrief of requirements to staff has been undertaken.

The Scottish Power and BAA wayleave is still outstanding. This has been promised to the project over the last few weeks by EAL however is not forthcoming and signing by Scottish Power should occur imminently.

Discussions relating to the diversion of the high pressure gas main, Section 7 within NIL land are progressing. Scottish Gas Networks and NIL are discussing the wayleave. The wording has been agreed and a drawing is being submitted to NIL this week. Scottish Gas Networks have appointed a designer and contractor, and have indicated a construction start date of the 5th March 2012.

Transport Scotland have confirmed their intention to decouple the Edinburgh Gateway Project from the Rev 4 programme. This has led to the progression of a 'do minimum' feasibility study where SDS are looking at how much future proofing can be incorporated into a design with minimal abortive works. This will allow Network Rail to progress the Edinburgh Gateway Project at some future stage with minimal disruption to the tram network.

7.2 Key Issues

The following key issues were of relevance throughout the period:

- One of the most important issues for the Off Street Works at the moment is the delay to the Murrayfield Retaining Walls resulting from the lack of approved construction methodology. In the latest submission of the programme Infracore are estimating a 10 week delay to the completion of the Off Street works. Infracore are attempting to recover this by amending the ground improvement methodology being utilised. This would be in place of the dig out and replace methodology allowed for within the Rev 4 programme. Any such change to methodology will need to be approved by Network Rail.
- Approval to commence the gas main diversion within section 7 remains outstanding (see 7.1 above).
- Delays to a decision on the Edinburgh Gateway works could lead to consequential delays to the Infracore works. SDS have produced an outline option that Transport Scotland prefer as this reduces the amount of abortive works and works to the Edinburgh Gateway train station. Confirmation is required with Infracore that this preferred solution fits within the timeline available. If timelines cannot be accommodated the Edinburgh Gateway will revert to the original alignment with a temporary crossover.
- High Voltage supply to the IPR sub-station requires wayleave across BAA land, this is currently with Scottish Power and is actively being pursued (see 7.1 above).
- Interface with Network Rail at Haymarket Station. Meetings have been held and so far all parties are working well together to deliver the respective works without programme conflict. BBS need to ensure that they keep to their revised programme for the Haymarket works.
- The commercial resolution of Roseburn Delta Footpath remains outstanding.

7.3 Look Ahead

The main elements of work planned to commence in the next period are as follows:

- The work at Haymarket Yards shall have the road tie-ins at the top and bottom of the slope completed to allow traffic back on the 7th February 2012. Infracore are currently installing OHLE poles and reconstructing the footpath.
- Further to the issue described within section 7.2 the Murrayfield Stadium Retaining Wall and Underpass requires to have the method of work for the ground improvement works agreed with Network Rail.



(FINAL)

- Work has been progressing well at the Murrayfield Tram Stop, lightweight aggregate fill will be ongoing next period. The north and south main stairs base works, tensor blocks and lift shaft works shall continue.
- On the A8 Underpass the last section of the deck was poured on the 19th January 2012. Infraco shall commence the works required to reinstate the permanent carriageway.
- Gogar landfill soil nailing shall come to completion and the reinforced earth embankment shall commence.
- Between Gogar to Eastfield Avenue there shall be continuation of track laying.
- Permission has been granted by BAA to commence work at Eastfield Avenue. This shall see traffic management implemented for the construction of the crossing.

8. Trams

8.1 Progress in Period

Good progress has been achieved in the period with six trams in total now delivered, of which 5 have completed static commissioning routine tests and 2 of the trams have now in addition completed the dynamic commissioning routine tests that can be performed within the constraints of the MTT.

Vosloh-Kiepe, the traction equipment subcontractor to CAF, have been on-site in support of the dynamic testing from 09th January 2012.

The Tram Inspector has been in attendance on-site as required in order to witness the formal dynamic commissioning tests. BBS have confirmed that they approve Mott MacDonald in the role of Tram Inspector, but have yet to agree to and sign the Tram Inspector Agreement.

Key Achievements:

1. Delivery of trams restarted post Depot handover a month earlier than in the Programme with Tram 270 delivered on the 17/01/12.
2. Five trams achieving their static commissioning routine testing, although final test documentation is to follow.
3. Two trams achieving their dynamic commissioning routine testing, although final test documentation is to follow.
4. The trams delivered to site have now in total completed approximately 100 Km mileage accumulation post delivery to the Gogar Depot (note Tram 252 had completed 252Km prior to delivery at Wildenrath).
5. Mikel Irizar joins the CAF Site Team as Tram Interface Manager to be responsible for integration.

8.2 Key Issues:

1. The departure from the project of ETL's managing director in advance of Lothian Buses taking operational responsibility for Gogar Depot has resulted in lack of clarity of operational responsibility. Turner & Townsend are working with CEC to put in place the steps necessary to secure a successful transition.
2. Mott MacDonald are undertaking the Tram Inspector role as confirmed by email by BBS, however BBS are yet to agree to, and sign, the legal agreement itself. The resolution date for this is expected to be 31st January 2012. This has a potential impact as Risk of a contractual Issue with BBS.

8.3 Look Ahead

Tram Delivery, Test & Commissioning:

1. Seventh Tram is expected 30th January 2012.
2. Eighth Tram is expected 21st February 2012.
3. First Five Trams Dynamically Commissioned Forecast Date, 23rd February 2012.

**(FINAL)**

9. Assurance

9.1 Progress in Period:

The focus for the Project assurance team this period has been centred around the completion of the mini test track for the 12th December and Section A completion on the 16th December. The team have been working closely with BBS to support the witnessing of key performance tests to verify that the infrastructure and system are 'fit for purpose'.

BBS has allowed access to their document management system to review data prior to handover. This provides a level of comfort to illustrate that the production of documentation is progressing well.

Agreement has been reached with CAF to sign the Interdisciplinary Design Checks Certificates. This information has been provided to BBS for inclusion in the Design Assurance Statements.

Work has continued with Edinburgh Trams Ltd to review and revise their Safety Management Systems in support of the handover from BBS. This has been coordinated with the maintainers (Siemens / CAF).

There has been ongoing dialog with Lothian Buses, in relation to depot operatives. It is anticipated that the operational responsibility will pass to Lothian Buses by the end of January 2012.

Other key achievements include:

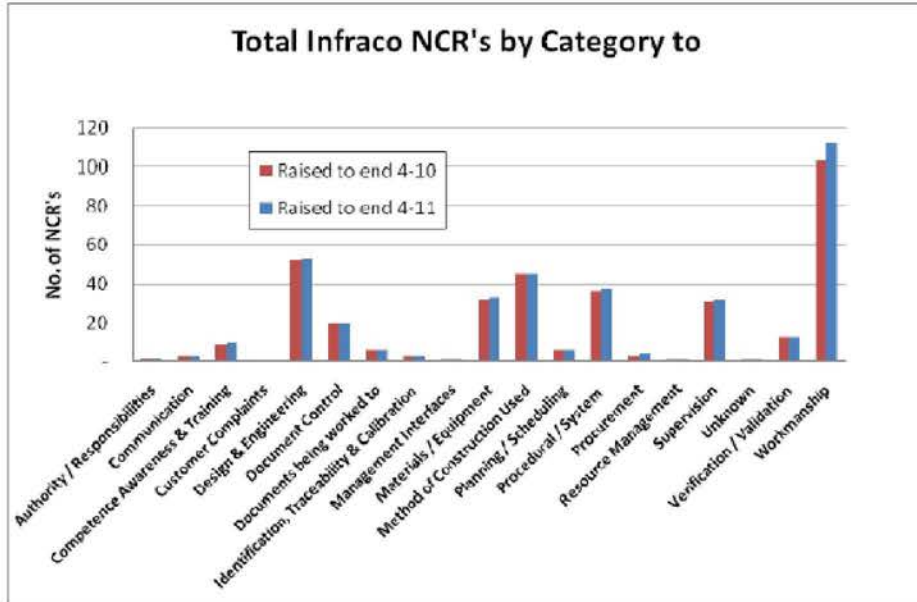
- Agreement of snagging items to support the depot handover process.
- Issue of hard copy operation and maintenance manuals to the depot operator.
- Provision of Railway inspector to support Network Rail third party representative.
- Review of project signage to remove legacy signs. New office signage have been installed.

A combined third party consents tracker has been produced to capture the outstanding requirements to complete the project design and construction activities.

(FINAL)

9.2 Quality

From the ongoing monitoring of NCR's, discussions are underway with BBS to identify methods to reduce the numbers for workmanship NCR's received. These are shown in the graph below:

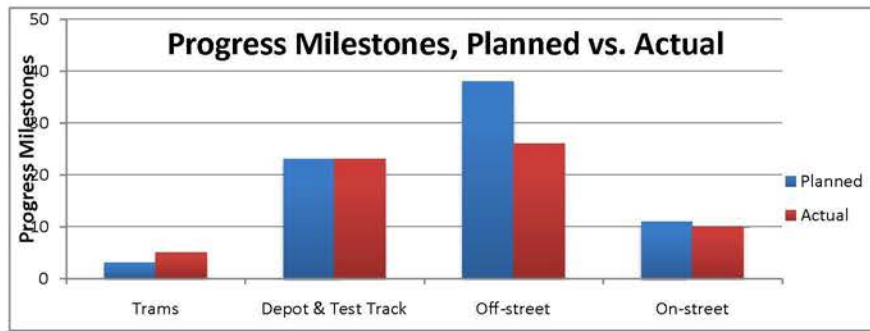


Appendix 1 – Dashboards

Produced by	Shirley Collin & Shirley Mushet	SECTION	SUMMARY DASHBOARD REPORT			Employer	City of Edinburgh Council
Approved by	Julian Weatherley	Issue By:	Turner & Townsend Project Management Limited, 9 Lochside Avenue, Edinburgh Park			Address	Waverley Court, Edinburgh, EH8 8BG
Status	FINAL	Issue Date	30-01-2012	REPORTING PERIOD	13th to 27th January 2012	Project:	Edinburgh Tram Network

Executive Summary:	CEC Actions / Decisions
<ol style="list-style-type: none"> There were no reportable accidents during the period from 9 December 2011 to 27 January 2012. Twelve incidents occurred in total of which one, involving a member of the public, has been categorised as significant. Shandwick Place forecast to be made available to Infracore on 14 February, four weeks in advance of the Rev4 programme date. St Andrew St will be made available, in totality, by the end of March circa seven weeks late. Scottish Water Legacy Works are likely to require derogations from standards at short notice. The resolution of these items is being hampered by poor historical record keeping under MUDFA. T&T have requested CEC assistance in the deployment of additional Clerk of Works resource in support of this work stream. Infracore works in Haymarket1 are currently 56 days late, when assessed against the Rev4 programme. Measures to recover this delay are being explored. This slippage does not currently impact on the critical path for the On Street Works. The progression of seventeen Cost Engineering initiatives has been confirmed by CEC. Following development of integrated planning of the Infracore and utilities works it is clear that completion of the project in on or before the Rev 4 programme date is increasingly unlikely without the benefit of the proposed Cost Engineering initiatives. Infracore are reporting a ten week delay to the Off Street works programme through the Network Rail corridor. This delay is largely the result of failure to obtain Network Rail approvals in line with the Rev 4 programme. Particular concern remains over the lack of approved construction methodology for the Murrayfield Retaining Walls. A decision on the scope of the Edinburgh Gateway remains outstanding. The design of a "do minimum" solution is being progressed by Infracore in order to inform this decision. Network Rail have advised the project of their plans to develop Haymarket station. Minor modifications to the scope of the Tram works will be required to accommodate Network Rail's proposals. Six trams have now been delivered to the depot with delivery currently running a month ahead of programme. £2.49m of change occurred in the financial reporting period (22 December 2011 to 27 January 2012) bringing the total instructed change since September 2011 to £3.51m. The AFC for Infracore Works, Utilities Diversions and Trams is currently £500.2M, excluding the impact of delays from utilities works and benefits from Cost Engineering initiatives 	<ol style="list-style-type: none"> Agree appropriate delivery strategy for legacy works north of York Place. Obtaining permissions in support of the location of revised OLEs in Princes Street and design approvals at Dublin Street & Picardy Place Agreement of scope of traffic management provisions in Forth Ports area. Agreement of scope of On Street public realm provisions. Final Tram Inspector Agreement will require signature by the end of January 2012. Clarification on historical commercial position relating to scope of the Roseburn Delta Footpath. Secure Scottish Water build over agreements Confirmation of scope at Edinburgh Gateway Clarity of succession arrangements for the operation of Gogar Depot

Progress Milestones, Planned vs. Actual



VISUAL SECTION



Produced by	Shirley Collin & Shirley Mushet	SECTION	SUMMARY DASHBOARD REPORT			Employer	City of Edinburgh Council
Approved by	Julian Weatherley	Issue By:	Turner & Townsend Project Management Limited, 9 Lochside Avenue, Edinburgh Park			Address	Waverley Court, Edinburgh, EH8 8BG
Status	FINAL	Issue Date	30-01-2012	REPORTING PERIOD	13th to 27th January 2012	Project:	Edinburgh Tram Network

KEY MILESTONES

Section	Description	Rev 4 Schedule Date	Forecast/Actual Date	B-A-C Var. (d's)	Completed	Crit. Path	Comments
Section Completions							
ALL	Section A; Depot complete	16-Dec-11	16-Dec-11	0	✓	Y	
ALL	Section B; Test Track complete	08-Mar-13	08-Mar-13	0		Y	
ALL	Section C; All construction complete	09-Apr-14	tbc	tbc		Y	Delays resulting from utilities works. Re-schedule in line with Cost Engineering initiatives
ALL	Section D; open for revenue	08-Jul-14	tbc	tbc		Y	Delays resulting from utilities works. Re-schedule in line with Cost Engineering initiatives
On Street							
Haymarket							
On-Street	Haymarket 1 – Completion of Utility moves in advance of Infraco Works	28-Oct-11	16-Dec-11	49	✓	N	Access to site was granted to Infraco on 18-Nov-11, with only minor utilities works remaining. Full hand back was 16 Dec 11
On-Street	Haymarket 1 – Completion	04-Apr-12	30-May-12	56		N	Assessment of delay is complete & reasons generally accepted, discussions on cost/programme mitigation are underway with Infraco. Delay to H1 completion does not affect overall project completion date.
On-Street	Haymarket Civils Works Complete for all Phases	23-Jul-13	23-Jul-13	0		N	This date is under review to take account of the Cost engineering Initiative
Shandwick Place							
On-Street	Shandwick Place Traffic Management Commences	07-Mar-12	14-Jan-12	-53	✓	N	Site access achieved early to facilitate Utility Clearing Works
On-Street	*Shandwick Place 1 Utilities Work to commence	N/A	03-Jan-12	N/A	✓	N	No forecast date in Rev4. Utility works now in progress.
On-Street	Completion of Shandwick Place Utility Moves	N/A	14-Feb-12	N/A		N	Current handback is approximately 4 weeks before Infraco due to Commence works
On-Street	Shandwick Place Civils Works Complete	15-Nov-13	15-Nov-13	0		N	This date is under review to take account of the Cost engineering Initiative
St Andrews Square & St Andrews St North							
On-Street	St Andrews Sq Traffic Management	14-Feb-12	07-Jan-12	-38	✓	N	Work complete. Change over of Traffic Management system from South St Andrew's Sq. to South St David's St.
On-Street	Commence St Andrews Square Utility Moves	N/A	09-Jan-12	N/A	✓	N	Utility works in progress.
On-Street	*St Andrews Square Utilities Work Complete	N/A	14-Feb-12	N/A		N	On Schedule to be handed over 14th Feb in accordance with requirements of Rev.4
On-Street	Complete *Section 01 St Andrews Square Outbound Ch 1061 to 1220 Carriageway Construction	25-Oct-12	25-Oct-12	0		Y	
South St Andrews St / Waverley Junction							
On-Street	Start Utilities Works South St Andrew St / Waverley St Junction	N/A	09-Jan-12	N/A	✓	Y	No specific activity in Rev4 plan
On-Street	Finish Utilities Works South St Andrew St / Waverley St Junction	N/A	23-Mar-12	N/A		Y	No specific activity in Rev4 plan
On-Street	*Commence Civil Work *Section 01 South St Andrews/Waverley Junction St. Inbound Ch 1171 to 1364 Phase 1	08-Feb-12	26-Mar-12	47		Y	Discussions ongoing with BBS to resequence works in SAS area to mitigate programme impact.
On-Street	Complete *Section 01 South St Andrews/Waverley Junction St. Outbound Ch 1150 to 1370 Carriageway Construction	15-Oct-12	10-Jan-13	75		Y	Delays resulting from utilities works. Re-schedule in line with Cost Engineering initiatives
York Place							
On-Street	Start York Place Utility Moves	N/A	Under Review			Y	This date is under review to take account of the Cost engineering Initiative
On-Street	Completion of York Place Utility Moves	N/A	Under Review			Y	This date is under review to take account of the Cost engineering Initiative
On-Street	Commence Civil Works - York Place	24-Oct-12	Under Review			Y	This date is under review to take account of the Cost engineering Initiative
On-Street	Completion of York Place Civils Works	11-Nov-13	Under Review			Y	This date is under review to take account of the Cost engineering Initiative
Princes Street							
On-Street	Completion of Princes St Highway Re-instatement and non-M&E works	05-Jul-12	05-Jul-12	0		Y	Discussions ongoing with BBS indicate that works in PSt area may be completed ahead of Rev.4 date. Discussions ongoing to clarify. Rev.4 date remains at present.
Off Street							
ALL	Forecast completion of AIR-HAY route	21-Aug-13	07-Nov-13	78		Y	Key objective, delay due to potential impact of Murrayfield ground improvements
Off-Street	Murrayfield ground improvements, complete	25-Mar-12	01-Jul-12	98		Y	Potential impact if revised gr'd improv'ts are not agreed and approved by NR
Off-Street	Haymarket Yards, complete	27-Feb-12	04-Apr-12	37		N	Delay accom'd within float, no effect on forecast completion of AIR-HAY route
Off-Street	South Gyle Beam Installation, complete	11-Jul-12	14-Aug-12	34		N	Delay accom'd within float, no effect on forecast completion of AIR-HAY route
Off-Street	Water of Leith Bridge, complete	31-Aug-12	26-Oct-12	56		Y	Delay due to impact of Murrayfield ground improvements
Off-Street	W4, 19-29; Russell Rd. Retain, complete	29-Oct-12	03-Dec-12	35		N	Delay accom'd within float, no effect on forecast completion of AIR-HAY route
Off-Street	S21A, S505; Roseburn St., complete	19-Sep-12	07-Jan-13	110		N	Delay accom'd within float, no effect on forecast completion of AIR-HAY route
Off-Street	S22A Balgreen Road Bridge complete	18-Sep-12	04-Dec-12	77		N	Delay accom'd within float, no effect on forecast completion of AIR-HAY route
Off-Street	Gyle Tram Stop complete	23-Apr-13	21-May-13	28		N	Delay accom'd within float, no effect on forecast completion of AIR-HAY route
Depot & Test facilities							
Depot & Test Facilities	Mini test track available	02-Dec-11	12-Dec-11	10	✓	N	Complete
Depot & Test Facilities	Soil nails, test, complete, Gogar landfill	16-Jan-12	13-Feb-12	28		N	Delay accom'd within float, no effect on forecast AIR-Depot test track available
Depot & Test Facilities	Rein'd Earth Embank't, complete, Gogar Landfill	16-Mar-12	16-Apr-12	31		N	Delay accom'd within float, no effect on forecast AIR-Depot test track available
Depot & Test Facilities	Eastfield Avenue, complete	21-Feb-12	30-Apr-12	69		N	Delay accom'd within float, no effect on forecast AIR-Depot test track available
Depot & Test Facilities	Ingliston Gas Mains diversion, const'n complete	N/A	31-May-12	N/A		N	Gas diversion is a new requirement
Depot & Test Facilities	A8 Underpass Completion & Traffic Back	13-Jun-12	23-Jul-12	40		N	Delay accom'd within float, no effect on forecast AIR-Depot test track available
Depot & Test Facilities	Completion of Gogar Burn Tram Stop	17-Oct-12	27-Aug-12	-51		N	Delay accom'd within float, no effect on forecast AIR-Depot test track available
Depot & Test Facilities	Interim test track, IPR-GBN available		20-Sep-12	N/A		N	The interim test track, IPR-GBN, is a proposed milestone
Depot & Test Facilities	AIR-Depot test track available	07-Dec-12	18-Dec-12	11		Y	Delay due to the late start of the retaining wall at the Airport, Infraco feel this is recoverable.
Tram Test & Commission							
Tram Test & Commission	Trams 1-5; commission	08-Mar-13	18-Mar-13	10		N	Delay not expected to have negative impact on other key project objectives
Tram Test & Commission	T2 Performance Tests. Complete	09-Apr-14	06-Apr-14	-3		N	T2 Test must be complete before Shadow Running / T3 Test
Tram Test & Commission	Shadow Running, AIR-YRK, complete	08-Jul-14	05-Jul-14	-3		N	T3 Test undertaken during Shadow Running

Health & Safety

1. There were no reportable accidents during the period. The rolling 13 Period AFR remains at 0.00, better than the benchmark KPI of 0.24 for the project.

2.8 Incidents were reported during the period.

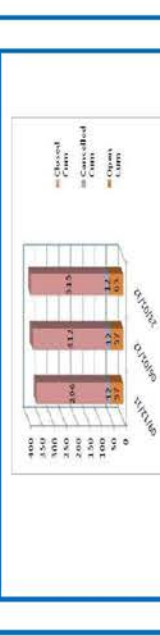
Ref	Location	Description of Incident	Contractor	Classification
1586	St Andrews Square	A member of the public tripped over a bus, fencing base on a pedestrian walkway.	Molicholus	A member of the public - Incident
1585	Shandwick Place / Crescent	Spillage of approximately 1 litre of diesel from generator within grounding unit	Billingier Berger	Environmental
1581	Murrayfield	Network Rail stopped work on the Murrayfield tramstop due to the Form B not having been signed off by Network Rail.	Grahams	Near misses
1583	Gyle	Scottish Water identified a non standard illegal connection into a manhole that had been under taken without the AFR process being followed	Billingier Berger	Near misses
1588	Shandwick place	High winds caused that has fencing had blown over in	Molicholus	Near misses
1584	N/A	Anonymous allegation to the Health and Safety Executive relating to work site personnel operating without correct qualifications and accreditations.	Molicholus	Others
1587	St Andrew Square	Break in to a welfare unit at St Andrew Square	Molicholus	Others
1582	Canning St / Shandwick Place	A live cable identified by City of Edinburgh Council / Scottish Power within a traffic sign column that had been cropped	Not known	Service damage

PROGRESS

SUMMARY

- Assurance - The focus for the project technical assurance team has been centred around the completion of the mini test track 12th December and Section A completion of the depot on the 16th December. The team has been working closely with BBS to support the witnessing of key performance test to verify the infrastructure and system are 'fit for purpose'.
- The documentation required to support the handover of the depot has now been received. This has been uploaded to the 'Project Evidence file', and distributed to our Technical Support Service contractor (URS). They are auditing the information through a process of sampling, comment are now due in early February.
- Health and Safety - The team have been rolling out the new joint monitoring scheme with BBS, where the level of required monitoring has still to be achieved this should be achieved in the next period.
- Quality - We are currently working with BBS to review the trends in relation to NCR's, a key area of concern is workmanship. This area continues to produce the majority of NCR's. This has been supported by further on site review of complete works.
- Environmental - The project continues to maintain a high standard of compliance. With C&C, the majority of the NCR's (100%) have been raised to BBS for action to improve the external appearance of the work sites.
- Other - Extensive dialog has been on going with the directors of Lothian Buses, with additional resource supplied to support the operations at the depot. Lothian buses are still in negotiations with CEC to take full responsibility for the depot.

QUALITY



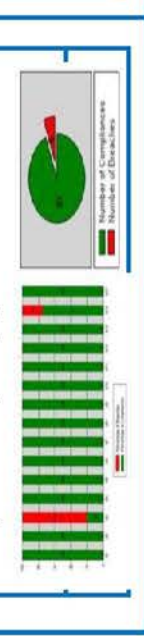
Total No of NCRs raised is 390.
 9 NCRs were raised during the period and 3 NCRs were closed out during the period.
 11 no open NCRs are greater than 6 months old.
 A formal site visit was undertaken with BBS to review the workmanship concerns raised at Princes Street. A waiting a response from BBS, this may result in an NCR being raised.

ENVIRONMENT

- Joint Environmental Inspection has been carried out with BBS 18/1/12 at Balgreen Road/Water of Leith (Contractor Expanded). BBS have compiled and issued a report (ETW-S3K-003) - the site was in good order with good environmental knowledge.
- New monitoring programme now issued - environmental inspections will be carried out every 2 weeks with either BBS or a Non Infraco contractor.
- Part of the old tram network found at St Andrews Square South/Princes Street. GUARD Archaeology consulted and findings being documented by site team.
- Project Environmental legal Register to be updated during period 12 and issued to Project Managers for information.

SOCC

COCP compliance for this Period has increased and was recorded at 94%.
 Q3. Provision of site signage including public contact telephone numbers are being addressed by the respective contractors, this is now being improved.
 Q12. Permanent resolution of safety issues relating to wooden temporary walkway at Haymarket are the subject of ongoing discussion between T&T and BBS.



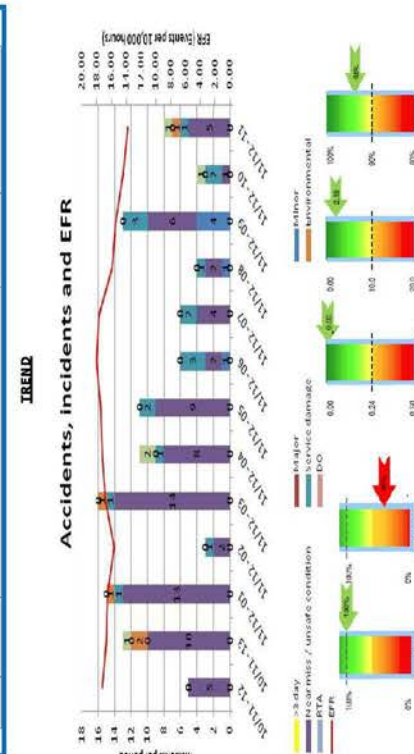
CONSENTS

It is anticipated that the consents will be granted by April 2012.



PROJECT INITIATIVES

Deliver the Tram Safety
 Targeted inspections of excavation practice have been carried out with BBS. The results are now under review, shown below;



SOFT ANALYSIS

Combined Consents Required

Category	Total Required	Total On Hold	Total Outstanding	Total Closed
Third Party	17	4	13	1
C.C. Approval	70	7	15	1
Technical Informations	0	1	5	1
Planning Informations	23	8	15	1

SUCCESSSES

- Targeted inspection of excavations completed.
- All stakeholders are cooperating well at the depot.
- Technical Support Service (TSS) audit scheme agreed.
- Rollout of Operation 18 has been agreed for deployment containment at Ocean Terminal bridges.

OPPORTUNITIES

- Increased monitoring of onsite activities. Project management resources are will become part of the depot handover process.
- Review of the design assurance of Tram/Infrastructure interfaces.
- Safety seminars to be arranged for project manager.
- EMC briefings.
- Establishment of project safety meeting.

THREATS

- Statutory bodies co-operation.
- Late issue of documentation by BBS.
- Potential gaps between contracted maintenance responsibilities
- visibility of BBS design and assurance documentation.

FAILURES

- Site monitoring below 100%

Produced by	Shirley Collin & Martyn Ayres	SECTION	TRAMS	City of Edinburgh Council
Approved by	Julian Weatherley	Issue By:	Turner & Townsend Project Management Limited, 9 Lochside Avenue, Edinburgh Park	Waverley Court, Edinburgh, EH8 8BG
Status	FINAL	Issue Date	30-01-2012	Edinburgh Tram Network
		REPORTING PERIOD	13 th to 27 th January 2012	
			Employer	
			Address	
			Project:	

PHOTOGRAPHS



Tram Testing 12th December 2011



Tram Testing 12th December 2011



Bridge beams installed at Edinburgh Park viaduct

PROGRESS IN PERIOD

- Good progress has been achieved in the period with six trams in total now delivered, of which 5 have completed static commissioning routine tests and 2 of the trams have now in addition completed the dynamic commissioning routine tests that can be performed within the constraints of the MTT.
- Vosloh-Kiepe, the traction equipment subcontractor to CAF, have been on-site in support of the dynamic testing from 09/01/12.
- The Tram Inspector has been in attendance on-site as required in order to witness the formal dynamic commissioning tests. BBS have confirmed that they approve Mott MacDonald in the role of Tram Inspector, but have yet to agree to and sign the Tram Inspector Agreement.
- Delivery of trams restarted post Depot handover a month earlier than in the Programme with Tram 270 delivered on the 17/01/12.
- The trams delivered to site have now in total completed approximately 100 Km mileage accumulation post delivery to the Gogar Depot (note Tram 252 had completed 252Km prior to delivery from Wildenrath).
- Mike Irizar joins the CAF Site Team as Tram Interface Manager to be responsible for integration.

LOOK AHEAD

The following items will be progressing during the coming period:

- Seventh Tram is expected 30th January 2012.
- Eighth Tram is expected 21st February 2012.
- First Five Trams Dynamically Commissioned Forecast Date, 23rd February 2012.

KEY ISSUES

- Mott MacDonald are undertaking the Tram Inspector role as confirmed by email by BBS, however BBS are yet to agree to, and sign, the legal agreement itself. The resolution date for this is expected to be 31st January 2012. This has a potential impact as Risk of a contractual Issue with BBS.
- Lothian Buses have yet to take operational responsibility for the Depot leaving responsibility unclear, steps are to be agreed with CEC in order to make this transition.

CEC ACTIONS / DECISIONS

- Letter of intent was sent from CEC to Mott MacDonald for the Tram Inspector. Final Tram Inspector Agreement will require signature by the end of January 2012.

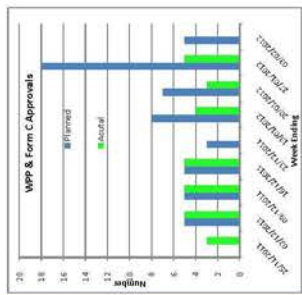
SOFT_ANALYSIS

<p>SUCCESSES</p> <ol style="list-style-type: none"> Start of dynamic Tram Commissioning Testing Mott MacDonald introduced into Tram Inspector role Relationship with Project Teams. CAF Interface Manager (Mikel Irizar) appointed to strengthen Tram/Infrastructure integration. CAF Maintenance Team in place now and learning on the job through commissioning. Tram 6 to 10 planned to be delivered early. 	<p>OPPORTUNITIES</p> <ol style="list-style-type: none"> Euro Exchange Rate fluctuation against the pound Start system testing and commissioning on completion of Off Street Section (Airport to Shandwick Place crossover) leading to earlier commencement of Revenue Service date (early partial service on Off Street Section and early service on full route) Strengthening of Tram integration technical interface management
<p>FAILURES</p> <p>None identified</p>	<p>THREATS</p> <ol style="list-style-type: none"> Relationship between BBS (primarily Siemens) and CAF needs to be strengthened on integration and coordination of testing. Late commencement of Revenue Service Commencement Date causes CAF to claim costs and EOT. CAF documentation Procedures (Not Design). Need to convert plan to handover responsibility of depot operations from ETL to Lothian Buses.

Produced by	Shirley Collin & Shirley Mushet	SECTION	OFF STREET DASHBOARD REPORT	Employer	City of Edinburgh Council
Approved by	Julian Weatherley	Issue By:	Turner & Townsend Project Management Limited, 9 Lochside Avenue, Edinburgh Park	Address	Waverley Court, Edinburgh, EH8 8BG
Status	FINAL	Issue Date	REPORTING PERIOD	Project:	Edinburgh Tram Network
			30-01-2012		13 th to 27 th January 2012

<p>PROGRESS IN PERIOD</p> <ol style="list-style-type: none"> Russell Road Bridge; east abutment piling complete; Russell Road Retaining Wall W4; bored piling continuing; Roseburn Street Structures; sewer diversion and bored piling; Water of Leith Bridge; bored piling to centre pier commenced; Baird Drive Retaining Wall; earthworks commenced; Balgreen Road Bridges; installation of temporary works and bored piling progressing; South Gyle Access Bridge; columns installed; Edinburgh Gateway; 'de minimum' scope options being progressed; AS Underpass; last section of the deck to be poured; Edinburgh Park Corridor; drainage and sub-base construction commenced; Eastfield Avenue to Gogarburn Bridge to Gogar Farm Road; track laying has commenced in sections; NIL crossing future proofing duct and drainage installation commenced; Ingliston Park and Ride; substation fit out has commenced; Airport retaining wall; sheet piling continuing; EAL tranship and kiosks; secant piling commencement in the period to 27th January 2012 the main achievements were: Mini test track - completion on the 12th December 2011 Completion of Section A and handover of the depot on the 16th December 2011. 	<p>PHOTOS</p>  <p>Baird Drive Embankment Construction</p>
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<p>LOOK AHEAD</p> <p>The following items will be progressing during the coming period:</p> <ol style="list-style-type: none"> Haymarket Substation - installation of pipework; Haymarket Yards; OLE pole installation and road reopening; Haymarket Corridor; installation and testing of ducts and drainage and redesign of three OLE plinth Russell Road Retaining Wall W2; site clearance and demolition; Murrayfield Stadium Retaining Wall and Underpass; method of work to be agreed with Network Rail for ground improvement works; Murrayfield Tram Stop; lightweight aggregate fill, north and south main stairs base works and sensor blocks and lift shaft works will be ongoing; Gogar landfill; completion of soil nailing; NIL crossing; Drainage and ducting future proofing works ongoing; Gogar to Eastfield Avenue; continuation of track laying and Eastfield Avenue; Crossing construction shall commence.

<p>Network Rail Approvals</p> <p>Week Ending 20th January 2012</p> <p>4 documents on the priority list; 3 documents approved that were not on the priority list and 1 document not signed by the CRE.</p> <p>Week Ending 27th January 2012</p> <p>9 documents on priority list; 3 not ready for TPR or NR approval until 24th January, 1 not ready until 25th January and required Saturday night 28th January (turned out to be 9 documents not 4); 4 signed off by Network Rail and one being reviewed by Network Rail.</p>	
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<p>KEY ISSUES</p> <ol style="list-style-type: none"> Edinburgh Gateway do minimum option potential impact on run time and maintenance. Decision on the Edinburgh Gateway works to ensure no delay to the Infraco works. High Voltage to the Ingliston Park and Ride sub station wayleave with Scottish Power. There is now a positive relationship with Network Rail on Haymarket interfaces. BBS need to keep to their revised programme. A methodology is required for the Murrayfield ground improvements. Infraco are holding discussions with subcontractors 25th January 2012. Submission and approval of construction documentation by Network Rail has not kept pace with project targets. This is the result of poor planning of document production. 	<p>CEC ACTIONS / DECISIONS</p> <ol style="list-style-type: none"> Clarification on historical commercial position relating to scope of the Roseburn Delta Footpath. Confirmation of scope at Edinburgh Gateway
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<p>OPPORTUNITIES</p> <ol style="list-style-type: none"> VE opportunities identified Off Street Over closure working relationships with key stakeholders such as Scottish Water and Network Rail. Analysis to be undertaken to see if programme can be brought forward for running to the IPR and then the airport. 	<p>THREATS</p> <ol style="list-style-type: none"> Delays by Transport Scotland on a decision on the Edinburgh Gateway works could lead to consequential delays to the Infraco works. RV supply to the IPR sub station has not yet been received. Interface with Network Rail along the railway corridor. Reduced working hours due to bad weather during winter. Lack of rail experience among some package contractors staff Murrayfield Ground Improvement methodology not having been produced and presented to Network Rail to date.
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<p>SUCCESSES</p> <ol style="list-style-type: none"> Section A completion with Depot and Mini test track Positive working relationship established with Network Rail on Haymarket Station Interface Railway Supervisor now onboard to assist with Third Party Duties and site supervision along the railway corridor. SGIT working on the diversion of the high pressure water main Deputy CRE brought onboard by BBS. Positive meeting with RBS on Tram Stop 	<p>FAILURES</p> <ol style="list-style-type: none"> BBS failure to get documentation through to Network Rail
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<p>STREET SOFT ANALYSIS</p>	<p>OPPORTUNITIES</p> <ol style="list-style-type: none"> VE opportunities identified Off Street Over closure working relationships with key stakeholders such as Scottish Water and Network Rail. Analysis to be undertaken to see if programme can be brought forward for running to the IPR and then the airport.
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<p>Future Proofing of NIL Crossing</p>  <p>Soil Nailing at Gogar Embankment</p>

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Approved by	Julian Weatherley	Issued By:	Turner & Townsend Project Management Limited 9 Lochside Avenue, Edinburgh Park	Address	Waverley Court, Edinburgh, EH8 8BG
Status	FINAL	Issue date	30 January 2012	Project	Edinburgh Tram Network
			Reporting Period		
			4-11 to 1 Feb 2012		

Summary:

- The AFC for Infracore Works, Utilities Diversions and Trams is £500.2M and is in line with the budget.
- A detailed cost report has been submitted to CEC under separate cover.
- The AFC does not contain the potential benefits from the value engineering and does not account for the final OSRA/CCRA.
- We have agreed with CEC that the draft OSRA/CCRA will be updated once the revised programme has been established and the value engineering instructions have been approved by the CEC Executive.
- The revised OSRA/CCRA will be used to mitigate risks and advise on contingency requirements. The forecast contingency balance is £7.0M which represents the original contingency less Approved Change, Change in Progress and Anticipated Change.
- Cost movements will be tracked over the 4 week reporting period using the weekly CEC/T&T Change Meeting as the cut off for the reporting period. Movements in the interim 2 week dashboard will be highlighted.
- A summary of the cost movements (EMs) in this period are:

(* Note: £0.7M adjustment to Utilities to align with budget of £2.9M. This has no effect on the overall forecast)

Reporting Date	Approved	In Progress	Anticipated Change	Forecast Contingency
27th January	3.51	5.75	15.03	7.21
22nd December	1.02	6.81	16.67*	7.00
Movement	2.49	-1.06	-1.64	0.21

- Note: The balance of the utilities diversion costs, utility company cost, £9.5M and the delay in signing Rev3A to Rev 4 at £4.5M are included in Anticipated Changes. These costs are subject to further development and mitigation.
- Contributions from 3rd Parties, Stakeholders and other CEC budgets amounts to £2.7M which reduces the original budget provision for Opportunities from £11M to £8.3M.
- The Cost report includes £8.3M for opportunities. The de-scoping of the works at Forth Ports, £2.4M, has been instructed which leaves a balance of £5.9M to be secured from the value engineering.
- BBS have raised fourteen Pricing Assumption Variations (PAVs) in the On-Street Works and there are two variations on the Off-Street works which require resolution in principle.
- The On-Street PAVs which require resolution in principle include (see opposite RED items): the disconnection of power to bus trackers. BBS maintain this is excluded, T&T consider that this was a known item of work and therefore was not discovered. Work is ongoing to establish the costs of the disconnections by McNicholas, the scope and price of the site clearance items to achieve a satisfactory resolution.
- The Off-street items which require resolution in principle include: liability for the costs for the footpath at the Roseburn viaduct and payment for utility diversions off street. Work is ongoing to achieve a satisfactory resolution.
- A report has been issued to CEC following our meeting with McGrigors. The report identifies a variance between the Mediation Heads of Terms in relation to the client taking the risk relating to all utility diversions and the requirement of the Settlement Agreement that utilities must be discovered to result in a variation. Further investigation would be required to determine what BBS (SDS) knew (surveys, designs, desktop analysis of utility company records) in order that the discovery test could be established. The cost report contains £2M of costs associated with the consequences of utilities on OLE foundations (delay to BBS, piling costs and standing time etc). CEC are to advise if further investigations are required to prove responsibility.
- £1.8M has been approved for Priority 1 conflicts within the Track Zone to March to increase the approved budget to £4.7M including the Leith Walk remedial works. Priority 1 conflicts include: OLE bases, road level conflicts, tram ducting chambers, tram ducting and track construction. The cost model is being refined to account for the emerging scope of work in Shandwick Place and St Andrews Square to cover unforeseen work e.g. removal of foam concrete, steelwork within the road construction, utilities being in the wrong location. The estimate is also being revised to account for the opportunity to mitigate Priority 2 conflicts, e.g. traffic signs and also the emerging Utility Company Costs.

CHANGE

Period Approved	Description	(EM)
Approved to 22 December reporting date		£1,016K
Additional BT ducts at depot and min test track	Revised design to minimise utility diversions / conflicts - used for slit trenching and trial holes	0.02
Design Gogar Castle Access Road – tram crossings and approaches	Princes Street - 500mm Water Main Diversion	0.77
Edinburgh Gateway – Advance Temporary Works Design & minimum design	Utilities affecting the construction of OLE foundations	1.71
Design changes resulting from utilities – OLE, circular pile cap, ducting, drainage, track form	Site Wide – Power to bus trackers affecting the ability to remove site clearance items	0.02
Edinburgh park office accommodation – running costs	Site Wide - Increased number of drainage boxes including installation	0.02
On-street variations – periods 15 Oct and 12 Nov 2011	Haymarket HI - Third Party (McNicholas) affecting ability to progress the works	0.00
Drawdown for Utility diversions/protection within track zone (to March 2012)	Haymarket HI - BT Fibre Optic Service requires diverting	0.11
Cathedral Lane Sub-station retaining wall	Princes Street - Amend the design of the St. Johns Church OLE bases	0.02
Haymarket Station – delete cladding installation, substation retaining wall and plinth	Princes Street - 2011 Christmas Embargo - Temporary Surfacing of Track Infills	0.29
Depot water main – surface reinstatement works	St Andrew's Square & Shandwick Place - Traffic Management Requirements	0.16
On-Street Variations – period end 10 Dec 12	Haymarket 1 - OLE Base Relocations	0.00
TOTAL	On Street Generally - Worksite Modelling	0.01
	BT Diversion at Waverley Bridge	Inc
	Unidentified utility discovered when piling (OLE 131 100A)	0.00
	Payment for Utility diversions off site outwith BBS's scope (cost report assumes cost neutral)	0.34
	DDA Footpath Roseburn Viaduct	0.30

Key Items
<ul style="list-style-type: none"> Rationalisation of design, site investigations for utility diversions - £0.20M; Transfer of costs included in On-Street Works Period end estimates -£0.36M; Reduction in bus tracker power disconnections (undertaken by McNicholas) - £0.18M Early installation of TM at Shandwick Place – additional maintenance £0.18M

Key Items
<ul style="list-style-type: none"> Cathedral Lane sub-station - £0.4M Cycleway Mound/Hanover St - £0.93M Delay and prolongation – utilities affecting OLE foundations, piling etc £0.83M Roseburn Delta footpath £0.3M

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<p>Off Street Payment Milestones - Excluding Prelims</p> <p>The milestone payments differ from the contract milestones for the following reasons: Contract milestones are based on Programme revision 3 whereas contract programme is based on revision 4. Contract milestone schedule indicates all payments are at completion of the milestone. Actual payments are based on partial completion (in accordance with the contract provisions)</p>	<table border="1"> <thead> <tr> <th>Ref</th> <th>Opportunity</th> <th>Potential Direct Cost Benefit (small; medium; large)</th> <th>Programme/Risk Benefit (small; medium; large)</th> <th>CEC Decision on capturing Opportunity (Agree/Reject/ or ?)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Relaxation of traffic management and embargoes</td> <td></td> <td></td> <td>A</td> </tr> <tr> <td>3</td> <td>Non-use of Setts (setts to be included, budget contribution to be received)</td> <td></td> <td></td> <td>?</td> </tr> <tr> <td>4</td> <td>Public Realm Works at St Andrew Square</td> <td></td> <td></td> <td>A</td> </tr> <tr> <td>5</td> <td>Third Party Agreements</td> <td></td> <td></td> <td>?</td> </tr> <tr> <td>5a</td> <td>Forth Ports</td> <td></td> <td></td> <td>A</td> </tr> <tr> <td>5b</td> <td>Tram kiosk at airport (not to be taken forward)</td> <td></td> <td></td> <td>R</td> </tr> <tr> <td>6</td> <td>Tram stop at York Place</td> <td></td> <td></td> <td>A</td> </tr> <tr> <td>7</td> <td>Redeployment of surplus trams</td> <td></td> <td></td> <td>A**</td> </tr> <tr> <td>8</td> <td>Track Materials</td> <td></td> <td></td> <td>A</td> </tr> <tr> <td>9</td> <td>Omit works at Tower Place & Victoria Docks</td> <td></td> <td></td> <td>A</td> </tr> <tr> <td>12</td> <td>Road Reconstruction</td> <td></td> <td></td> <td>A</td> </tr> <tr> <td>13</td> <td>Stop design YOP-NEW</td> <td></td> <td></td> <td>A</td> </tr> <tr> <td>14</td> <td>Storage of Materials</td> <td></td> <td></td> <td>A</td> </tr> <tr> <td>16</td> <td>Further OFF-STREET VE Opportunities</td> <td></td> <td></td> <td>?</td> </tr> </tbody> </table> <p>Small = < £100k or < 1 week Medium = < £1M or < 1 month Large = > £1M or > 1 month ** Potential purchasers to be identified</p>	Ref	Opportunity	Potential Direct Cost Benefit (small; medium; large)	Programme/Risk Benefit (small; medium; large)	CEC Decision on capturing Opportunity (Agree/Reject/ or ?)	1	Relaxation of traffic management and embargoes			A	3	Non-use of Setts (setts to be included, budget contribution to be received)			?	4	Public Realm Works at St Andrew Square			A	5	Third Party Agreements			?	5a	Forth Ports			A	5b	Tram kiosk at airport (not to be taken forward)			R	6	Tram stop at York Place			A	7	Redeployment of surplus trams			A**	8	Track Materials			A	9	Omit works at Tower Place & Victoria Docks			A	12	Road Reconstruction			A	13	Stop design YOP-NEW			A	14	Storage of Materials			A	16	Further OFF-STREET VE Opportunities			?
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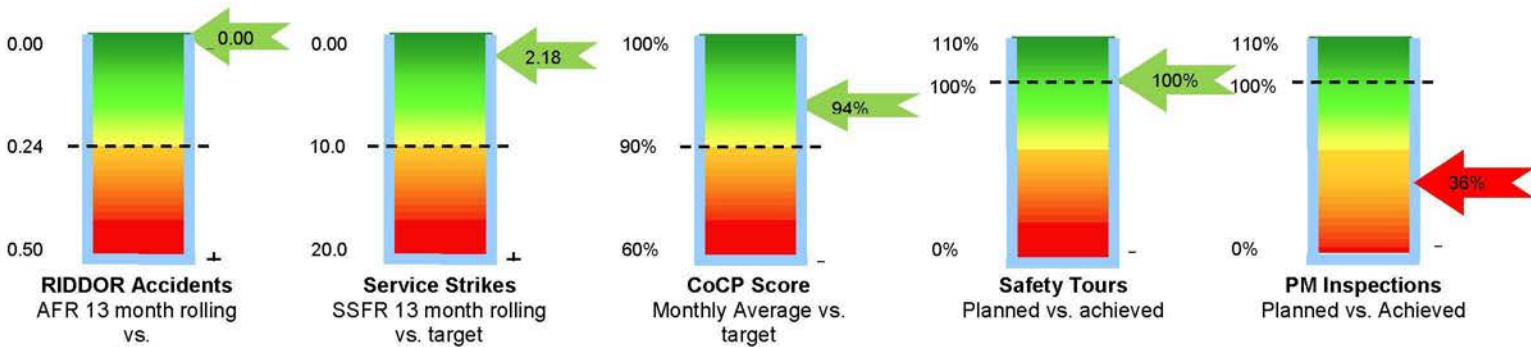
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Appendix 2 – Health, Safety & Environment

Deliver the Tram Safely / Deliver a safe Tram

HS&E ACCIDENTS and INCIDENTS SUMMARY

Total	Total Hours	>3 day	Major	Injury	NM/Unsafe Condition	Service Damage	ENV	RTA	MOP	AFR	SFR
Period	77,026	0	0	0	3	1	1	0	1	0.00	1.30
13 period rolling	823,831	0	0	6	79	18	5	0	5	0.00	2.18
INFRACO											
Period	68,441	0	0	0	2	0	1	0	0	0.00	0.00
13 period rolling	647,530	0	0	6	62	13	4	0	3	0.00	2.01
OTHER TRAM											
Period	2,862	0	0	0	1	1	0	0	1	0.00	34.95
13 period rolling	22,578	0	0	0	16	5	0	0	1	0.00	22.15



EXECUTIVE SUMMARY

- There were no reportable accidents during the periods 10 and 11. The rolling 13 Period AFR remains at 0.00, better than the benchmark KPI of 0.24 for the project.
- There were 2 reported Member of Public incidents during Period 10 and 11. Both involved slips/trips on temporary pedestrian walkways. (See Appendix A for details)
- CoCP compliance was recorded at 94% during Period 11
- 36% of planned PM joint inspections have been carried out during Period 11.
- 100% of planned safety tours were carried out during Period 11.
- 10 other incidents occurred during the periods 10 and 11 (3 near misses, 3 service damages, 1 minor injury, 1 environmental and 2 other) See Appendix A for details.

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

Project Running Totals	HS&E Tours (Directors)	HS&E PM Inspection
Number planned	1	14
Number achieved	1	5

HSQ&E KEY ACHIEVEMENTS

- The rolling 13 Period AFR remains at 0.00, better than the benchmark KPI of 0.24 for the project.

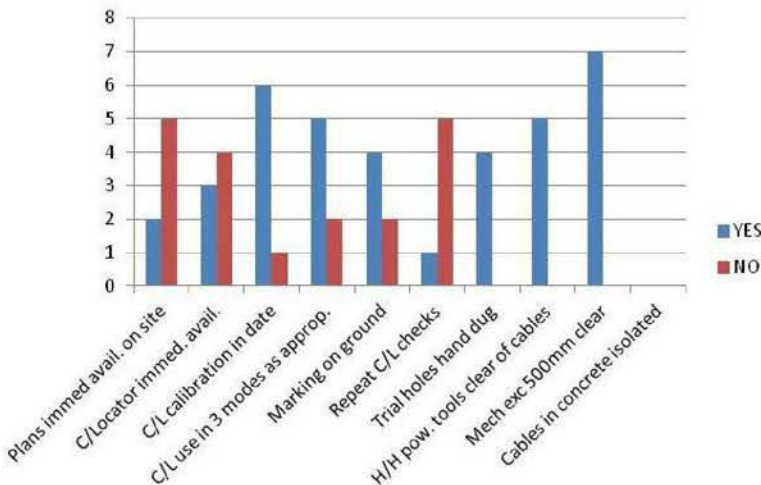
Key Issues – Points to Note

- Following an alleged MoP slip at a wooden temporary walkway at Haymarket, T&T raised concerns with BBS over the management of safety at the installation. BBS have subsequently undertaken to renew the slip resistant surface and to ensure vigilance in monitoring and gritting. The walkway is likely to be removed during February 2012. T&T site staff will continue to monitor BBS management of public safety at this temporary pedestrian route.
- A programme of targeted inspections has been carried out jointly by T&T and respective contractors at excavation sites across the project. Whilst more than 20 excavations were inspected those with active excavation taking place were assessed for compliance with HSE guidance HSG47. The results from 7 such sites are summarised in the chart below. Similar failings were identified on both BBS and McNicholas sites and these are now being addressed through toolbox talks, on site coaching and increased supervisory vigilance. Failings included:

- Site plans being on site but not immediately available to team (e.g. with excavator operator)
- Cable locator being share by multiple teams resulting in restricted use
- Repeat scanning with cable locator not being undertaken as excavation progresses

Repeat inspections in around 2 months will assess improvement.

Safe Excavation Inspection (Compliance with HSG47)



ENVIRONMENTAL SUMMARY

List any significant environmental events, initiatives, breaches etc

- Joint Environmental Inspection carried out with BBS 18/1/12 at Balgreen Road/Water of Leith (Contractor Expanded). BBS have compiled and issued a report (ETN-S5A-001) – the site was in good order with good environmental knowledge.
- New monitoring programme now issued – environmental inspections will be carried out every 2 weeks with either BBS or a Non Infraco contractor.
- Part of the old tram network found at St Andrews Square South/Princes Street. GUARD Archaeology consulted and find being documented by site team.
- Project Environmental legal Register to be updated during period 12 and issued to Project Managers for information.

BEST PRACTICE

List any significant quality events, initiatives, breaches etc

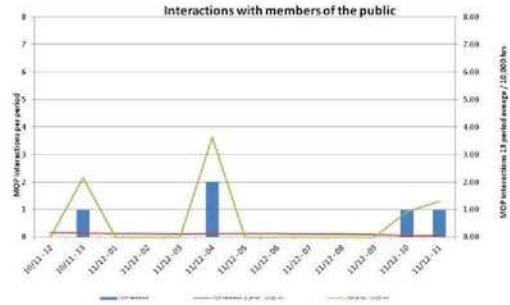
- BBS arranged an on-site safe excavation demonstration focussing on correct use of trench boxes.



MEMBER OF PUBLIC INTERACTION SUMMARY

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

There were 2 reported MoP incidents during Period 11, both involving slips/trips at temporary walkways (See Appendix A for detail)

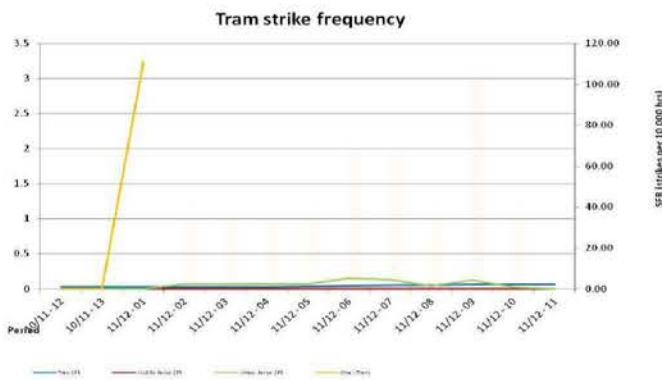
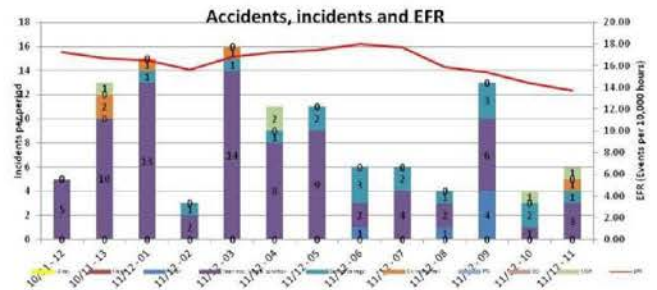


CDM Compliance

List any significant quality events, initiatives, breaches etc

- Responses and close out statements were received from BBS following an audit conducted on compliance with CDM (Reg9). Some residual issues were transferred into the snagging programme developed during the depot handover process. The lack of natural light has been raised formally by the operator.

GRAPHS



Project Report – Period 11

APPENDIX A SIGNIFICANT INCIDENTS

There were 2 significant incidents during periods 10 and 11 as detailed below:-

AIIR Ref:	AIIR 1579	Contractor:	Grahams		
Location:	Walkway between Haymarket Station and Haymarket Yards				
Project:	Infraco	Date & Time:	19/12/11 before 8:30		
Sub Contractor:		Contractor Reference:			
Project Manager:	Tom Cotter	Is the accident / incident Serious / Significant or Major?	Yes X	No	
Description:	<p>Incident reported by e-mail to Alf Orriell by Suezi Page, ICAS.</p> <p>Member of public fell on wooden walkway between Haymarket Station and Haymarket Yards.</p> <p>Member of public later attended Accident & Emergency 19/12/11 and was diagnosed as having cracked her coccyx.</p>				
Action taken by Contractor:	<p>In addition to planned daily inspections BBS have undertaken to spread sand / whin dust on greasy walkway surface as often as necessary, as an interim measure pending implementation of a permanent solution.</p>				
Action taken by Project Team (if required):	<p>Site visited by T&T, photographs taken. Concerns over management of walkway were raised with BBS who subsequently undertook to re-new slip resistant surface and to ensure vigilance in monitoring and gritting. Walkway likely to be removed during February 2012.</p> <p>T&T to monitor effectiveness of BBS preventative actions.</p>				

AIIR Ref:	AIIR 1586	Contractor:	McNicholas.		
Location:	St Andrew Square bus station				
Project:	Utility works	Date & Time:	16/01/12 AM		
Sub Contractor:		Contractor Reference:			
Project Manager:	Stephen Lewcock	Is the accident / incident Serious / Significant or Major?	Yes X	No	
Description:	<p>Member of Public allegedly tripped on Heras fencing base protruding into pedestrian walkway outside St Andrew Square bus station.</p>				
Action taken by Contractor:	<p>Site made safe prior to report being received. McNicholas are using learning from this incident as basis for toolbox talks / site briefings regarding safety on pedestrian routes around sites.</p>				
Action taken by Project Team (if required):	<p>Site visited by T&T. Preventative actions discussed with McNicholas and learning points to be used at project wide safety forum with other contractors.</p>				

APPENDIX A (Continued)

Other Incidents

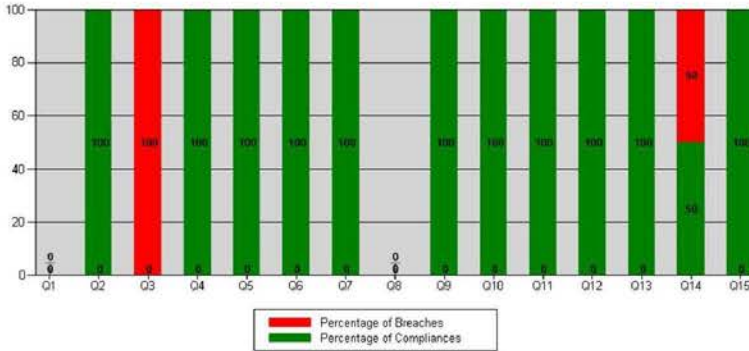
Date	Contractor	Accident / Incident Type	Detail	Category
14/12/2011	Farrans	Minor injury	Operative was loading a van and was standing over a manhole which was covered by a single piece of heras fencing & a piece of timber. Heras fencing gave way & the operative fell half into the manhole. Minor injury to leg, but no treatment was required.	Minor
16/12/2011	Grahams	Service damage	Graham Construction were receiving two loads of trench fill from SKENE group Haulier when it was noticed by one of the site operatives that the second vehicle of two was manoeuvring from the footpath on to the carriageway. It was noticed that the vehicle went down on one side indicating a dip. Upon inspection it was found that a BT junction box had sustained damage to both its frame and lid.	Minor
04/01/2012	McNicholas	Service damage	Hand digging as preparation for OLE base at Shandwick Place area the team struck a lead water service with the shovel.	Minor
06/01/2012	Grahams	Near miss	Network Rail stopped work on the Murrayfield due to the Form B not having been signed off by Network Rail.	Minor
13/01/2012	Not known	Service damage	Phil Carson of Scottish Power attended site and discovered that there was cable still live located within a traffic sign that had been chopped. The access cover to the pole was open and accessible to the public.	Minor
13/01/2012	Bilfinger Berger	Near miss	Scottish Water inspected the MH 9202 on drawing ULE90130-05-DNE-00022 Rev11. A non standard illegal 150mm connection to a Scottish Water network MH 9202 without an ATC or informing Scottish Water the works were being started was identified.	Minor
16/01/2012	McNicholas	Other	Anonymous allegation to the health and Safety Executive relating to work site personnel operating without correct qualifications and accreditations.	Minor
19/01/2012	Bilfinger Berger	Environmental	Spillage of approximately 1 litre of diesel from generator within groundhog unit.	Minor

Project Report – Period 11

Date	Contractor	Accident / Incident Type	Detail	Category
19/01/2012	McNicholas	Other	Break in to welfare unit.	
22/01/2012	McNicholas	Near miss	Report received that heras fencing was blowing around on Shandwick Place. Fencing secured by City Logistics.	Minor

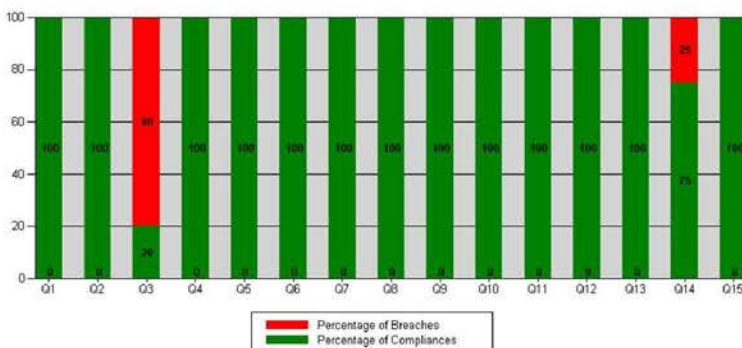
APPENDIX B – COCP INSPECTIONS

Period 10



Q1. Hours of Work
Q2. Notification
Q3. Notices
Q4. Fencing and Hoarding
Q5. Noise
Q6. Waste Management
Q7. Waste Water and Run-Off
Q8. Water
Q9. Emergency Access
Q10. Parking
Q11. Litter and general housekeeping
Q12. Dust
Q13. Smoking
Q14. Members of the Public
Q15. PPE and Behaviours

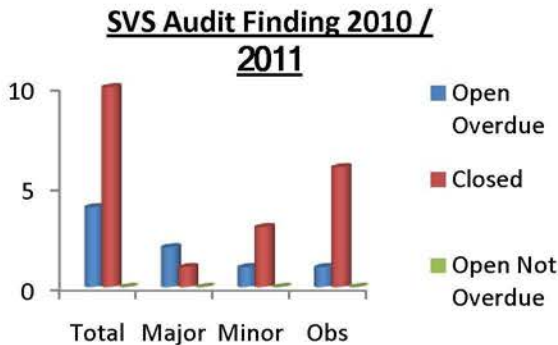
Period 11



Summary of issues and action taken

- Concerns over management of public safety at temporary walkway at Haymarket were raised with BBS who subsequently undertook to re-new slip resistant surface and to ensure vigilance in monitoring and gritting. Walkway likely to be removed during February 2012. T&T will continue to monitor the effectiveness of BBS preventative actions at this location.
- Provision of site signage including public contact telephone numbers are being addressed by the respective contractors.

Safety Verification Scheme (SVS) Audit Findings



Non Conformance Reports (NCR)



1.0 Executive Summary

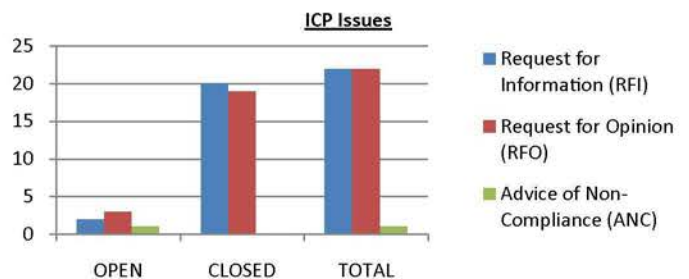
- BBS has not progressed with closure of SVS Audit report TSA/10/003. A letter is being issued to escalate this.
- Currently awaiting formal responses to SVS audit report TSA/11/02, further letter sent to BBS 23/1/12.
- Independent Competent Person (ICP) – 2 open Requests for Information (RFI's) (1 on hold); 3 open Requests for Opinion (RFO's) and 1 open Advice of Non Compliance (ANC).
- Submissions relating to Section A (Inspection and Test Plans & Design Assurance Statement) are currently under review by Technical Support Service (TSS)
- **Signalling & Traffic** - Reversing crossovers at Leith Walk, York Place and Shandwick Place are still being finalized by SDS.
- **OLE Building Fixings** - Notices to be issued w/c 23/1/12 for the two fixings on Hanover Street and the one proposed fixing on Shandwick Place. A 28 day notice period is in place from date of notice, and if no objection is received, then deemed consent.
- **Power & OLE** - BBS have yet to resolve the CEC informative regarding final. Siemens are to obtain a sample to show CEC planners to enable final closure of this informative.
- Programme for metrics inspections has now been issued, inspections to resume during period 12.
- **NCR's** - 25 NCRs were raised during the period and 19 NCRs were closed out during the period.

2.0 Safety Verification Scheme (SVS)

System Assurance

- SVS Audit TSA/11/02 – Systems Integration and Engineering (Integrated Design Check (IDC) Process) held 23rd November 2011. Report issued to BBS December 2011; formal response awaited – to be chased during period 12.
- SVS Audit findings TSA/10/03/002 & 004 require further clarification.
- SV reports tie-SVS-REP-11-03 for Junction 91. Response received and is currently under review by David Manning.
- Body of Evidence – progressing well with the collation of documentation.

ICP Issues



- RFI-021 - Action outstanding BBS to provide suitable drawings showing CCTV/PA coverage to enable assessment of any additional requirement. Due 09/12/11
- RFI-014 and RFI-017 are expected to be

closed off during this period.

- Information associated with RFO-018 and RFO-021 has been received during the period, currently being reviewed prior to submission to the ICP.
- RFO-022 re Emergency Isolation Procedure for depot and mini test track issue 18/1/12, response outstanding

3.0 BBS Design Construction and T&C Assurance

Electromagnetic Compatibility (EMC)

- No EMC issues to report this period

Trackform

- W Biggins and CEC (A Renwick) reviewed and approved the draft “Design of on-street Trackform” [Ref. CEC Letter SS1/AR]

OLE Building Fixings

- Notices to be issued w/c 23/1/12 for the two fixings on Hanover Street and the one proposed fixing on Shandwick Place. A 28 day notice period is in place from date of notice, and if no objection is received, then deemed consent.

Power & OLE

- BBS have yet to resolve the CEC informative regarding finials. Siemens are to obtain a sample to show CEC planners to enable final closure of this informative.

Signalling and Traffic signals

- Reversing crossovers at Leith Walk, York Place and Shandwick Place are nearing completion by SDS. The design is in final internal review prior to submission to CEC for approval. No delivery date is available yet.
- Point controller cabinet & layout foundation previously reviewed. It was noted that the layout of cabling and equipment was missing from the submission. System schematics for these cabinets now received and under review. Checking Points control equipment for motorised points. David Manning has now taken over this issue and will provide an update during period 12.
- Meetings held to agree preferred option for communication connections between UTC, Junctions and the control Room with fail over. Integrated solution discussed which will look at the most cost effective data provision for CCTV and Emergency fall back provision at Annandale Street as well. This issue has now been passed to David Manning who will update the status during period 12.
- 2 options outstanding for Traffic light controller units (TLCs) and UTC BBS have intimated no cost differential between the two options. CEC attended Nottingham Traffic Control Centre on 5th December 2011 and Sheffield on 6th December 2011 to see how the options are managed. CEC to circulate notes from visits (including previous visit to Bradford) on alternatives. Cost differential of options to be confirmed.
- BBS to provide extracts from junction drawings to facilitate early commissioning of haldo pillars for power connection to new TLC cabinets, David Manning to chase this issue during period 12.

Depot Equipment

- Wash plant – Pressure washers provided, provision of power supply and cold water in sidings to be confirmed. End wash equipment configuration undergoing redesign to ensure plant operates as required.
- Unimog – VOSA correspondence closed out by Alistair Richards/Operator. Unimog requires Tax and License to operate on road network, legal requirements to be finalised by operator
- Wheel Lathe - Testing completed on CAF wheelset, demonstration provided by CAF that calibration wheelset is appropriate.
- T&C of all depot equipment completed, punch list items to be corrected and close out of issues demonstrated.

4.0 Operator/Maintainer Safety Management System (inc. T&C)

- Preparations for depot handover & mini-test track operations were completed and depot and mini-test track operations commenced successfully.
- Procedures and management systems have been developed and implemented.
- Post handover contracts and resources were put in place, including appointment of a replacement Engineering Manager and an Assistant Engineering Manager.
- Training progressed in accordance with the integrated training plan. Supplier training necessary for depot and test track operation has been carried out and controllers and driver trainers will be passed out as competent for depot and main-line off-street driving w/c 15th January 2011.
- The first ISO9001 certification audit scheduled for December has been deferred until January. Pre-certification audits for ISO4001 and BS OHSAS 18001 took place successfully on the 12th and 15th December respectively, with the auditors expressing their confidence that the processes were at a state of readiness for certification audits.
- Work is ongoing on updated the safety management system in preparation for transfer of responsibility for operations to Lothian Buses.

5.0 Metrics

- New monitoring programme now issued. Metrics inspections will resume during period 12. Initially inspections started for works at the Depot will be reviewed and closed where possible. An update will be provided in the next period report.

6.0 NCR's

- Total No of NCRs raised is 390.
- 25 NCRs were raised during the period and 19 NCRs were closed out during the period.
- 11 no open NCRs are greater than 6 months old.

7.0 Deliver a Safe Tram – Required Action

- Metrics Inspections to recommence during period 12.
- Ongoing review of Section A handover documentation with particular reference to the Body of Evidence.

Appendix 3 –Client Decisions

Edinburgh Tram Project - PROJECT DELIVERY GROUP MEETING

Turner & Townsend - Client Decisions Register

January 27, 2012

Action Ref No.	Actionee	Date Action Opened	Action	Expected Date of Closure	Date of Completion	Status	Comment/ Commentary
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CLIENT DECISIONS REGISTER

<u>CLIENT DECISIONS</u>							
	ALIASTAIR RICHARDS	26-01-2012	Letter of intent was sent from CEC to Mott MacDonald for the Tram Inspector. Final Tram Inspector Agreement will require signature by the end of January 2012.			OPEN	
	SHIRLEY MUSHET	26-01-2012	Roseburn Delta footpath, this requires to come to a conclusion on where commercial responsibilities lie.			OPEN	
	ROB LEECH	25-01-2012	Agree appropriate delivery strategy for legacy works north of York Place			OPEN	
	GARY EASTON	20-01-2012	A number of variations are occurring on-site owing to "discovery" of utilities. To validate this investigation of BBS/ SDR design and survey would be required. (Approx £2M.			OPEN	
	SHIRLEY MUSHET	22-12-2011	Decision to go ahead with minimum scope solution at Edinburgh Park.			OPEN	
	SHIRLEY MUSHET	22-12-2011	Obtaining "build over licence" at Haymarket substation	29-02-2012		OPEN	
	ROB LEECH	22-12-2011	Obtaining permissions in support of the location of revised OLE supports in Princes Street and outstanding design approvals at Dublin Street steps and Picardy Place.	31-01-2012		OPEN	

Edinburgh Tram Project - PROJECT DELIVERY GROUP MEETING

Turner & Townsend - Client Decisions Register

January 27, 2012

Action Ref No.	Actionee	Date Action Opened	Action	Expected Date of Closure	Date of Completion	Status	Comment/ Commentary
221211-PDG-001	ROB LEECH	22-12-2011	Decision, following issue of briefing paper from T&T, on procurement route for Scottish Water remedial north of York Place. Turner & Townsend are in discussion with CEC regarding the most appropriate procurement strategy for the legacy works on Leith Walk.	19-01-2012		OPEN	
221211-PDG-002	ROB LEECH	08-11-2011	Street Lighting, Road Sign & Bus Stop connections/disconnections: BB do not believe they are responsible for these works. The Way forward is to be included as an agenda item at the next Construction Control Meeting	19-01-2012		OPEN	
221211-PDG-003	SHIRLEY MUSHET	05-01-2012	Decision to go ahead with minimum scope solution at Edinburgh Gateway.	05-01-2012	05-01-2012	CLOSED	
221211-PDG-004	SHIRLEY MUSHET	08-11-2011	Clarity of scope for Edinburgh Gateway works	09-11-2011	09-11-2011	CLOSED	
221211-PDG-004	ROB LEECH	08-11-2011	Clarity of scope for On Street public realm works	09-11-2011	09-11-2011	CLOSED	
08121-PDG-010	SHIRLEY MUSHET	05-01-2012	Railway Supervisor Role ➤ Permission to engage	19-01-2012		OPEN	Raised again at meeting on 22-12-11. Awaiting confirmation to appoint.
08121-PDG-014	SHIRLEY MUSHET	05-01-2012	Roseburn DDA Compliant Footpath ➤ Inclusion within Scope	19-01-2012		OPEN	
	GARY	08-11-2011	Independent Certifier assessment of T&T paper on Prelims on SDS	09-11-2011	09-11-2011	CLOSED	

Edinburgh Tram Project - PROJECT DELIVERY GROUP MEETING

Turner & Townsend - Client Decisions Register

January 27, 2012

Action Ref No.	Actionee	Date Action Opened	Action	Expected Date of Closure	Date of Completion	Status	Comment/ Commentary
	EASTON		changes				
	ROB LEECH	08-11-2011	Support to early decision making in respect of traffic modelling of junctions.	09-11-2011	09-11-2011	CLOSED	
	ROB LEECH	08-11-2011	Confirmation of OCIP insurance cover extension beyond October 2011.	09-11-2011	09-11-2011	CLOSED	
	ROB LEECH	22-12-2011	Confirmation of scope and funding allocation for St Andrew Square public realm works	19-01-2012	09-11-2011	CLOSED	
	ROB LEECH	08-12-2011	Confirmation of on OCIP Insurance cover/extension beyond the 8 th December 2011	08-12-2011	08-12-2011	CLOSED	
	ROB LEECH	08-11-2011	Independent Certifier assessment of Infraco obligations in respect of Utilities, following submission of Turner & Townsend report on 4 November 2011.	09-11-2011	09-11-2011	CLOSED	

Appendix 4 – Cost Report and Contingency Analysis

**Edinburgh Trams
City of Edinburgh Council**

Reporting Period: 11-11 - Rev 0 - 27/01/2012

Section 1 - Project Summary

	Budget Information			Committed		Actuals		Forecast					Third Party Contributions		Variance		
	A	B	C = A + B	D	E	F = D + E	G	H	I	J	K	L	M = F + I + J + K + L	N	O = M - N	P = O - C	Q = O / C - 1
	Original Budget	Budget Variation	Current Budget	Original Contract Value	Approved Contract Changes	Current Contract Value	Certified to Date	Outstanding Amount	Changes in Progress	Anticipated Change	Opportunities	Risk / Mitigated	Anticipated Final Cost	Estimated Contribution Value	Anticipated Final Project Cost	Budget Variance (Value)	Budget Variance (%)
Edinburgh Tram Programme	496,936	3,218	500,154	479,660	3,514	483,174	297,300	202,609	5,749	15,025	-8,322	7,206	502,832	2,678	500,154	0	0.54%
1 Infraco	398,877	4,932	403,809	413,103	1,714	414,817	242,617	172,200	5,749	5,496	-8,322	0	417,740	2,678	415,062	11,253	3%
2 Utilities	2,912	1,800	4,712	2,912	1,800	4,712	691	13,550	0	9,529	0	0	14,241		14,241	9,529	202%
3 Tram vehicles	62,400	0	62,400	63,645	0	63,645	53,992	9,653	0	0	0	0	63,645		63,645	1,245	2%
4 Specified Risk Allowance	32,747	-3,514	29,233	0	0	0		7,206	0	0		7,206	7,206		7,206	-22,027	-75%

<p>Comments: Report excludes Enabling work packages reported under T19 and utilities reported under T18 Contributions include amounts relevant to reported budgets only. Any further contributions are reported by CEC.</p>	<p>Risk: The specified risk allowance is adjusted to match the forecast with the budget. This will be updated once a full QSRA and QCRA is completed</p>
<p>Actions QCRA and QSRA required to inform the amended risk allowance</p>	

Section 1 - Infraco Commercial Summary

	Budget Information			Committed			Actuals		Forecast					Third Party Contributions		Variance	
	A	B	C = A + B	D	E	F = D + E	G	H	I	J	K	L	M = F + I + J + K + L	N	O = M - N	P = O - C	Q = O / C - 1
	Original Budget	Budget Variation	Current Budget	Original Contract Value	Approved Contract Changes	Current Contract Value	Certified to Date	Outstanding Amount	Changes in Progress	Anticipated Change	Opportunities	Risk / Provision	Anticipated Final Cost	Estimated Contribution Value	Anticipated Final Project Cost	Budget Variance (Value)	Budget Variance (%)
Infraco Contract	398,877	4,932	403,809	413,103	1,714	414,817	242,617	172,200	5,749	5,496	-8,322	0	417,740	2,678	415,062	11,253	3.45%
Off Steet	360,060	1,246	361,306	362,501	1,246	363,747	238,018	125,729	5,207	300	-142	0	369,112	2,298	366,814	5,508	2.16%
00 Preliminaries and Other Items	150,408	269	150,677	150,409	269	150,678	100,911	49,767	4,616	0	0	0	155,294	0	155,294	4,617	3.06%
01 Newhaven Road to Haymarket	85,368	767	86,135	87,738	767	88,505	85,295	3,210	482	0	-2,122	0	86,865	318	86,547	412	0.85%
02 Haymarket Corridor	8,692	-20	8,672	8,692	-20	8,672	4,279	4,393	40	0	0	0	8,712	0	8,712	40	0.46%
05 Roseburn Junction to Gogar	80,035	120	80,155	80,105	120	80,225	22,374	57,851	0	300	940	0	81,465	940	80,525	370	1.63%
06 Depot	19,979	33	20,012	19,979	33	20,012	18,257	1,755	138	0	0	0	20,150	0	20,150	138	0.69%
07 Gogar to Edinburgh Airport	15,578	77	15,655	15,578	77	15,655	6,902	8,753	-69	0	1,040	0	16,626	1,040	15,586	-69	6.20%
On Street	38,817	468	39,285	47,384	468	47,852	3,937	43,915	542	5,196	-8,180	0	45,410	380	45,030	5,745	15.59%
00 Preliminaries and Other Items	21,837	0	21,837	21,837	0	21,837	3,294	18,543	71	0	0	0	21,908	0	21,908	71	0.33%
01 Newhaven Road to Haymarket	16,980	468	17,448	25,547	468	26,015	643	25,372	471	5,196	-8,180	0	23,502	380	23,122	5,674	34.70%
00 Maintenance & Mobilisation	0	2,205	2,205	2,205	0	2,205	662	1,543	0	0	0	0	2,205	0	2,205	0	0.00%
00 Spare Parts	0	1,013	1,013	1,013	0	1,013	0	1,013	0	0	0	0	1,013	0	1,013	0	0.00%

Comments:
Excludes £3.2m phase 1b payment (refer to budget T19.C)

Risk
Refer to Risk register for risks identified against infraco programme
All risk is held at programme level. This section of the cost report makes no allowance for risk.
Refer to the outputs of the QCRA/QSRA for further information on

Actions

Edinburgh Trams

City of Edinburgh Council

Section 2A - Approved Change - Clause 80

Reporting Period: 11-11 - Rev 0 - 27/01/2012

TNC No.	Description	Forecast Amount	Previous Period	Change from Previous Period	Notes	Section Code	Change Code
501	Hawthornevale Cycle Link - Change the design to widen the footway alongside the south side of Lindsay Road	20,021	20,021	0		01	01
502	Amend the design of Ocean Drive to reinstate the footpath to the north of Ocean Drive	10,231	10,231	0		01	01
503	OLE temporary portals at depot access bridge to allow finalisation without Edinburgh Gateway	67,646	67,646	0	Edinburgh Gateway funding	05	01
504	Review of the banned right turn into Blenheim Place as part of the design for Section 1C2 roads	46,247	46,247	0		01	01
505	York Place Terminal Point - Production of a feasibility report, initial feasibility design for option ii), run time modelling etc	228,653	228,653	0		01	01
506	Design for providing a new cycleway from the Mound to Princes Street	9,437	9,437	0		01	01
507	St Andrew's Square - Provide a clarification report and completion of the St. Andrew's Square Public Realm design	133,075	133,075	0	Additional funding opportunity	01	01
508	Eastfield Avenue - Obtain EAL approval for the highways design drawings at Eastfield Avenue tram crossing	10,025	10,025	0		07	01
509	Design of Cathedral Lane Substation	233,596	233,596	0		01	01
511	Storm Water Connection from Gogar Lodge to the landowners new septic tank	5,750	5,750	0		05	08
512	Re-design of Ocean Terminal Bypass Road	53,685	53,685	0		01	01
517	Additional BT Ducts at Depot and Mini Test Track	2,996	9,833	-6,837		06	08
526	Airport to Gyle - Tram Delivery Temporary Works	6,878	6,878	0		07	08
529	Design Gogar Castle Access Road tram crossing and approaches	31,308	61,095	-29,787		05	08
530	Amend the design of the Depot Road turning head as per RDC191. Option 2	30,458	30,458	0		06	08
531	Edinburgh Gateway - Advance Temporary Works design	9,349	300,000	-290,651		05	08
536	System Wide - Tramstop Cabinets - reduction in 10 years maintenance liability	0	-5,069	5,069	No saving to contract	01	08
538	Depot - Tramwash Continuous Mode - Requirement for additional hand lances washers	0	25,000	-25,000	Change rejected - included within contract	06	08
544	Extension to Edinburgh Park Office to accommodate CEC / Transport Scotland	159,900	159,900	0		00	08
558	Site Wide - Provision of a CAD Technician	2,000	0	2,000		01	08

**Edinburgh Trams
City of Edinburgh Council**

Section 2A - Approved Change - Clause 80

Reporting Period: 11-11 - Rev 0 - 27/01/2012

TNC No.	Description	Forecast Amount	Previous Period	Change from Previous Period	Notes	Section Code	Change Code
561	Forth Ports Area - Omit all works at the Forth Ports area	0	0	0	Included within V.E. list	01	08
562	On Street Generally - OLE Design Changes for On Street Section (PMC 045)	20,000	0	20,000	All design costs to be grouped under tnc 562 (BBS PMC 045)	01	08
563	On Street - Amend pile caps from square / rectangular to circular	5,000	0	5,000	All design costs to be grouped under tnc 562 (BBS PMC 045)	01	08
565	Advanced design works for Edinburgh Gateway Minimum Option	6,000	0	6,000		05	08
566	On Street Generally - Ducting Design Changes Due to Utilities Conflicts	10,000	0	10,000		00	08
567	On Street Generally - Drainage Design Changes Due to Utilities Conflicts	10,000	0	10,000		00	08
568	On Street Generally - Trackform Design Changes Due to Utilities Conflicts	10,000	0	10,000		00	08
569	Additional Running Costs associated with the extension to the Edinburgh Park offices	79,200	0	79,200		00	08
572	Cathedral Lane Substation - Retaining Wall Design	5,000	0	5,000		01	08
574	Haymarket Station - Delete viaduct cladding	-10,000	0	-10,000		02	08
576	Depot - Reinstatement to 250mm Watermain Remedial Works	60,000	0	60,000		07	04
577	Haymarket Viaduct - Sub Station Retaining Wall and Plinth	-10,000	0	-10,000		02	08
Total		1,246,456	1,406,462	-160,006			

Edinburgh Trams

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Section 2B - Approved Change - Schedule 45

Reporting Period: 11-11 - Rev 0 - 27/01/2012

IC Ref No	Description	Agreed Amount	Previous Period	Change from Previous Period	Notes	Section Code	Change Code
001	Independent Certifiers Schedule Part 45 Period End Change Order to 15/10/2011 relating to the following PAV's and On Street Works Estimates	8,593	0	8,593	Includes TNC 513, TNC 543, TNC 521	01	08
002	Independent Certifiers Schedule Part 45 Period End Change Order to 12/11/2011 relating to the following PAV's and On Street Works Estimates	102,135	0	102,135	Includes TNCS13, TNC 521, TNC 528, TNC 535, TNC 543, TNC 547, TNC 548, TNC 549	01	08
003	Independent Certifiers Schedule Part 45 Period End Change Order to 10/12/2011 relating to the following PAV's and On Street Works Estimates	357,140	0	357,140	Includes TNCS35, TNC543, TNC548, TNC549, TNC551	01	08
Total		467,868	0	467,868			

**Edinburgh Trams
City of Edinburgh Council**

Reporting Period: 11-11 - Rev 0 - 27/01/2012

Section 3A - Change in Progress - Clause 80

TNC No.	Description	Minimum	Most Likely	Maximum	Forecast Amount	Previous Period	Change from Previous Period	Notes	Section Code	Change Code
510	Murrayfield Accommodation Works	0	0	0	0	0	0	Withdrawn	01	08
513	Revised design to minimise utility diversions / conflicts - used for slit trenching and trial holes	120,000	150,000	180,000	150,000	400,000	-250,000		01	08
514	Utility Mapping	92,756	92,756	92,756	92,756	84,816	7,940	Time chargeable costs. L&M Surveys and Class One. Complete	01	08
515	Edinburgh Gateway 33kV Cable Protection	0	0	0	0	0	0	Refer to 531	05	08
516	Additional Watermain requirement at Depot and Mini Test Track	15,734	19,667	23,600	19,667	19,667	0		06	08
518	Design & installation of a new cycleway through the Mound / Hanover Street Junction	0	0	0	0	20,000	-20,000	Previously PWTNC-018 - Withdrawn (Duplicates 506)	01	01
519	York Place - Design of a temporary tram stop	0	0	0	0	0	0	Previously PWTNC-019 - Withdrawn (Duplicates 505)	01	01
520	Valve chamber access and alteration works to 800mm water main at the Depot	94,645	118,307	141,968	118,307	118,307	0		06	08
524	Airport to Gyle - NIL Design Finalisation	24,000	30,000	36,000	30,000	30,000	0		07	01
525	Airport to Gyle - Site Access for Remedial Works	0	0	0	0	0	0	Superseded by 525A	07	08
525A	Airport to Gyle - Site Access for Remedial Works	40,000	50,000	60,000	50,000	50,000	0		07	08
527	Ingliston - Reimbursement of Costs paid directly to SGN for the diversion of approximately 120m of 10" steel IP gas main to accommodate the new Edinburgh Tram at Ingliston	0	0	0	0	0	0	Saving from Infraco, not included during the period as cost not shown in utility budget	07	04
534	SP Insurance Ducts - Install Insurance ducts at various locations	40,000	50,000	60,000	50,000	50,000	0		07	08
539	System Wide - Delay in signing - impact on commencement and completion	4,314,103	4,541,161	4,768,219	4,541,161	4,600,367	-59,206	Meeting scheduled to review cost incurred at delay commencement	00	02
540	Section 7 - Plot 304 - Omit Landscaping works	-159,560	-199,450	-239,340	-199,450	-50,694	-148,756	Full value of omission calculated as £182k. Subject to cancellation costs from subcontractors	07	08
541	Princes Street - City Chamber - Annandale Street Communication Links. Usage of CEC available BT-Lines to avoid provision of direct FO link from Princes Street to City Chambers	0	0	0	0	0	0		01	08
542	Old Port Road - Design of new Cycle Path	0	0	0	0	10,000	-10,000	Change withdrawn - no cost	01	08

**Edinburgh Trams
City of Edinburgh Council**

Reporting Period: 11-11 - Rev 0 - 27/01/2012

Section 3A - Change in Progress - Clause 80

TNC No.	Description	Minimum	Most Likely	Maximum	Forecast Amount	Previous Period	Change from Previous Period	Notes	Section Code	Change Code
549	Princes Street - Amend the design of the St. Johns Church OLE bases	3,000	4,000	5,000	4,000	6,000	-2,000	Opportunity to deduct original scope to be persued once acceptance of revised pole locations is achieved.	01	08
550	Shandwick Place OLE & Landscape Design Revision	0	0	0	0	0	0	Costs included in anticipated change section	01	08
553	Site Wide - SDS to provide the services of Matt Fell	60,000	75,000	90,000	75,000	75,000	0		00	01
556	Track Work Materials York Place to Newhaven - Price Fixing for Rheda City C and D	0	0	0	0	0	0	Included in VE register	01	12
557	Haymarket 1 - OLE Base Relocations (Design mods)	24,000	30,000	36,000	30,000	0	30,000	All design costs to be grouped under tnc 562 (BBS PMC 045)	01	08
559	Detailed Design of York Place	160,000	200,000	240,000	200,000	0	200,000	tnc issued - awaiting BBS estimate	01	08
571	Hope Street Junction Design	4,000	5,000	6,000	5,000	0	5,000		01	08
573	Roseburn - Non DDA Compliant Footpath	0	0	0	0	0	0	TNC covers design only. Costs associated with this change included in the anticipated change section	05	08
575	Haymarket Station - Take Down Haymarket Station Viaduct Staircase and Parapet	32,000	40,000	48,000	40,000	0	40,000		02	08
Total			5,206,441		5,206,441	5,413,461	-207,020			

**Edinburgh Trams
City of Edinburgh Council**

Reporting Period: 11-11 - Rev 0 - 27/01/2012

Section 3B - Change in Progress - Schedule 45

TNC No.	Description	Minimum	Most Likely	Maximum	Forecast Amount	Previous Period	Change from Previous Period	Notes	Section Code	Change Code
521	Haymarket - Temporary Accommodation	0	0	0	0	4,917	-4,917	Costs included in end of period On Street Works certified amounts	01	08
522	Haymarket 1 - Road Reconstruction	0	0	0	0	0	0	Included in VE register	01	08
523	Haymarket 1 - Additional CBR / Plate Testing	0	0	0	0	10,000	-10,000	Included within on street priority works (contract milestones)	01	08
528	Haymarket 1 - Slit trench excavation to validate utilities	0	0	0	0	10,000	-10,000	Included within on street priority works (contract milestones)	01	08
532	Princes Street - Temporary traffic management design	0	0	0	0	0	0	Further information required	01	10
533	Princes Street - 500mm Water Main Diversion	0	0	0	0	40,163	-40,163	Costs contained within 535	01	08
535	Princes Street - 500mm Water Main Diversion - rev 3 dwg	124,000	130,201	130,000	129,134	0	129,134		01	08
537	Haymarket 1 - Additional visit of Tar planer to facilitate slewing of BT ducts	0	0	0	0	15,000	-15,000	Withdrawn	01	08
543	Haymarket H1 - Utilities affecting the construction of OHLE foundations	57,000	59,651	60,000	59,267	147,500	-88,233	Only covers section H1, H2 to YP included in item 7 of Anticipated Change.	01	08
545	Site Wide - Power to bus trackers affecting the ability to remove site clearance items	16,000	20,000	24,000	20,000	200,000	-180,000	McNicholas to remove. Contra charge BBS; allowance included for BBS attendance	00	08
546	Site Wide - Increased number of drainage boxes including installation	21,482	21,482	21,482	21,482	55,941	-34,459		00	08
547	Haymarket H1 - Third Party (McNicholas) affecting ability to progress the works	0	0	0	0	30,000	-30,000	Costs included in end of period On Street Works certified amounts	00	08
548	Haymarket H1 - BT Fibre Optic Service requires diverting	24,000	30,000	36,000	30,000	150,000	-120,000	T&T currently reviewing BBS Prolongation claim - 56 days delay claimed to 10/12/2011	00	08
551	Princes Street - 2011 Christmas Embargo - Temporary Surfacing of Track Infills	120,000	150,000	180,000	150,000	300,000	-150,000		01	08
552	Princes Street - BT diversion @ junction of Princes Street and South St. David Street	0	0	0	0	40,000	-40,000	Costs included within TNC 535	01	08
554	St Andrew's Square & Shandwick Place - Traffic Management Requirements	0	0	0	0	0	0	Refer to Revision A	01	10
554A	St Andrew's Square & Shandwick Place - Traffic Management Requirements	144,000	180,000	216,000	180,000	0	180,000		01	08
555	Haymarket - OLE 196B design revision to avoid main sewer	8,000	10,000	12,000	10,000	0	10,000		01	08
560	St. Andrews Square - Omit £0.7m of repairs to road surface finishing	0	0	0	0	0	0		01	08
564	On Street Generally - Worksite Modelling	8,000	10,000	12,000	10,000	0	10,000		01	08

Section 3B - Change in Progress - Schedule 45

TNC No.	Description	Minimum	Most Likely	Maximum	Forecast Amount	Previous Period	Change from Previous Period	Notes	Section Code	Change Code
570	Omit the Removal of Trees in Shandwick Place	-7,000	-9,100	-11,000	-9,067	0	-9,067		01	08
578	SI Provisional Sum Allowance	-46,000	-58,000	-70,000	-58,000	0	-58,000		01	08
Total			544,233		542,816	1,003,521	-460,705			

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Section 4 - Anticipated Change

Reporting Period: 11-11 - Rev.0 - 27/01/2012

TNC No.	Description	Minimum	Most Likely	Maximum	Forecast Amount	Previous Period	Change from Previous Period	Notes	Sched.	Section Code	Change Code
1	Pricing Assumptions - 6.4.2.1 Floating Track Slab	784,000	980,000	1,176,000	980,000	1,000,000	-20,000	Verbal advice from Siemens and Bilfinger Berger of cost of providing floating slab at all locations identified. Potential opportunity to reduce if marginal locations are omitted. Subject to final report from BBS.	On	01	08
2	Pricing Assumptions - 6.4.2.3 York Place Terminal Point	755,200	944,000	1,132,800	944,000	1,000,000	-56,000	Excludes design costs (in change section of report).	On	01	08
3	Pricing Assumptions - 6.4.2.4 Cathedral Lane Substation	480,000	600,000	720,000	600,000	1,000,000	-400,000	This budget allowance is for the extra over cost included in the contract for construction of the new tram substation only. There is no allowance for any works in constructing Henderson Global's substation. Design work is included in TNC 509	On	01	08
4	Pricing Assumptions - 6.4.2.6 Dublin Street	40,000	50,000	60,000	50,000	75,000	-25,000		On	01	08
5	Pricing Assumptions - 6.4.2.7 Cycleway at Mound	56,000	70,000	84,000	70,000	1,000,000	-930,000	Allowance for alterations to pavement at junction of Princes St and the Mound	On	01	08
6	Track Lowering	400,000	500,000	600,000	500,000	3,000,000	-2,500,000	The majority of the utility conflicts which result from the track lowering have now been incorporated into the utility forecast. Remaining allowance for bridging structures. Opportunities for bridging being finalised.	On	01	08
7	Piled OLE base in lieu of utility diversion	600,000	750,000	900,000	750,000	258,333	491,667	Total of 49 piles. Awaiting on street estimates from BBS to confirm value.	On	01	08
8	Haymarket viaduct substation				0	0	0	Consents status TBC	On	01	08
9	Nil future proofing and tramstops				0	0	0	confirm if this is part of settlement agreement	Off	07	08
10	Settlement Agreement exclusions not included elsewhere	323,502	404,378	485,254	404,378	404,378	0	Refer to Schedule E, items 7,8,10,11,12,14. 6 removed - now included in change in progress	On	01	08
11	Increased rent for extended office at Edinburgh Park (Capital Cost in tnc 544)	0	0	0	0	102,500	-102,500	Moved to Change in progress (tnc 569)	Off	00	08
12	H1 delay costs associated with utilities	492,800	616,000	739,200	616,000	0	616,000	Allowance for 8 weeks delay @£77k/wk	On	01	02
13	Delayed commencement to Shandwick Place & St Andrews Square (from 7/2/12)	169,600	212,000	254,400	212,000	0	212,000	Allowance for 4 weeks delay @£53k/wk	On	01	02
14	Roseburn Delta - DDA footpath	240,000	300,000	360,000	300,000	0	300,000		Off	05	08

Edinburgh Trams
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Reporting Period: 11-11 - Rev 0 - 27/01/2012

Section 4 - Anticipated Change

TNC No.	Description	Minimum	Most Likely	Maximum	Forecast Amount	Previous Period	Change from Previous Period	Notes	Sched.	Section Code	Change Code
15	Mudfa Reinstatement - Hope Street / Lothian Road	8,000	10,000	12,000	10,000	0	10,000		On	01	08
16	Ongoing traffic management at Lindsay Road	48,000	60,000	72,000	60,000	0	60,000	Additional TM cost in excess of contract agreement - 4 months allowed at £15k per month	On	01	08
Total			5,496,378		5,496,378	7,840,211	-2,343,833				

Edinburgh Trams

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Section 5 - Change Summary

Reporting Period: 11-11 - Rev 0 - 27/01/2012

Change Code	Description	Approved Change	Change in Progress	Anticipated Change	Opportunities	Risks	Total
01	Design Risk	813	105	0			918
02	Time delay Impact	0	4,541	828			5,369
03	Utilities: Haymarket to York Place	0	0	0			0
04	Utilities: Off Street	60	0	0			60
05	Blockade and Possession Costs	0	0	0			0
06	Routine Maintenance	0	0	0			0
07	Relaxation of time constraints	0	0	0			0
08	Pricing Assumption Variations and Client Change	842	1,103	4,668			6,613
09	Land Purchase	0	0	0			0
10	Traffic Management	0	0	0			0
11	Move to Cost reimbursable Contract	0	0	0			0
12	Procurement	0	0	0			0
13	Exceptionally Adverse Weather	0	0	0			0
99	General Contingency	0	0	0			0
Total		1,715	5,749	5,496	0	0	12,960

Notes:

Some CE's have costs which relate to more than one change code. In such instances they have been allocated to the predominant reason

Section 6 - Credits & Contributions

Ref No	Description	Included in Contract Sum	Approved Changes	Changes in Progress	Anticipated Changes	Total Forecast	Notes	Sched.	Section Code	Change Code
01	Edinburgh Gateway Feasibility	860,000	82,995	0		940,000	£1.2m in total. Remainder of the costs included in CEC sections of the project budget.	Off	05	08
02	New Ingliston Future Proof measures	540,000	0	0		540,000	This contribution will be offset by a land cost reported within the relevant section of the CEC cost report	Off	07	08
03	Henderson Global - Cathedral Lane substation DESIGN	12,953	233,596	0		246,549	Full extent of agreement with Henderson Global to be established. Allowance assumes all design costs associated with future substation will be borne by Henderson Global.	On	01	08
04	RBS Tramstop	500,000	0	0		500,000	Allowance included subject to final agreement with RBS	Off	07	08
05	St Andrew Square Public Realm design		133,075	0		133,075	As per agreed change value	On	01	08
06	Forth Ports		0	0		0	No allowance for any contribution included at present. No allowance for additional cost for resolution of Lindsay Road / Tower Place Bridge	Off	01	08
07	CEC Miscellaneous. Mainly George Street CEC costs (£298k)	318,213	0	0		318,213	CEC finance have confirmed that a credit has been received in the amount shown. The extent of the workscope associated with this credit is not clear.	Off	01	08
Total		2,231,166	449,666	0	0	2,677,837				

Edinburgh Trams

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Reporting Period: 11-11 - Rev 0 - 27/01/2012

Section 7 - Period Movement

Ref No.	Description	Approved Off	Approved On	In Progress Off	In Progress On	Total
513	Revised design to minimise utility diversions / conflicts - used for slit trenching and trial holes	0		-250,000	0	-250,000
514	Utility Mapping	0		7,940	0	7,940
517	Additional BT Ducts at Depot and Mini Test Track	2,996		-9,833	0	-6,837
518	Design & installation of a new cycleway through the Mound / Hanover Street Junction	0		-20,000	0	-20,000
521	Haymarket - Temporary Accommodation	0		0	-4,917	-4,917
523	Haymarket 1 - Additional CBR / Plate Testing	0		0	-10,000	-10,000
528	Haymarket 1 - Slit trench excavation to validate utilities	0		0	-10,000	-10,000
529	Design Gogar Castle Access Road tram crossing and approaches	31,308		-61,095	0	-29,787
531	Edinburgh Gateway - Advance Temporary Works design	9,349		-300,000	0	-290,651
533	Princes Street - 500mm Water Main Diversion	0		0	-40,163	-40,163
535	Princes Street - 500mm Water Main Diversion - rev 3 dwg	0		0	129,134	129,134
536	System Wide - Tramstop Cabinets - reduction in 10 years maintenance liability	0		5,069	0	5,069
537	Haymarket 1 - Additional visit of Tar planer to facilitate slewing of BT ducts	0		0	-15,000	-15,000
538	Depot - Tramwash Continuous Mode - Requirement for additional hand lances washers	0		-25,000	0	-25,000
539	System Wide - Delay in signing - impact on commencement and completion	0		-59,206	0	-59,206

Edinburgh Trams

City of Edinburgh Council

Reporting Period: 11-11 - Rev 0 - 27/01/2012

Section 7 - Period Movement

Ref No.	Description	Approved Off	Approved On	In Progress Off	In Progress On	Total
540	Section 7 - Plot 304 - Omit Landscaping works	0		-148,756	0	-148,756
542	Old Port Road - Design of new Cycle Path	0		-10,000	0	-10,000
543	Haymarket H1 - Utilities affecting the construction of OHLE foundations	0		0	-88,233	-88,233
545	Site Wide - Power to bus trackers affecting the ability to remove site clearance items	0		0	-180,000	-180,000
546	Site Wide - Increased number of drainage boxes including installation	0		0	-34,459	-34,459
547	Haymarket H1 - Third Party (McNicholas) affecting ability to progress the works	0		0	-30,000	-30,000
548	Haymarket H1 - BT Fibre Optic Service requires diverting	0		0	-120,000	-120,000
549	Princes Street - Amend the design of the St. Johns Church OLE bases	0		-2,000	0	-2,000
551	Princes Street - 2011 Christmas Embargo - Temporary Surfacing of Track Infills	0		0	-150,000	-150,000
552	Princes Street - BT diversion @ junction of Princes Street and South St. David Street	0		0	-40,000	-40,000
554A	St Andrew's Square & Shandwick Place - Traffic Management Requirements	0		0	180,000	180,000
555	Haymarket - OLE 1968 design revision to avoid main sewer	0		0	10,000	10,000
557	Haymarket 1 - OLE Base Relocations (Design mods)	0		30,000	0	30,000
558	Site Wide - Provision of a CAD Technician	2,000		0	0	2,000
559	Detailed Design of York Place	0		200,000	0	200,000

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Section 7 - Period Movement

Ref No.	Description	Approved Off	Approved On	In Progress Off	In Progress On	Total
562	On Street Generally - OLE Design Changes for On Street Section (PMC 045)	20,000		0	0	20,000
563	On Street - Amend pile caps from square / rectangular to circular	5,000		0	0	5,000
564	On Street Generally - Worksite Modelling	0		0	10,000	10,000
565	Advanced design works for Edinburgh Gateway Minimum Option	6,000		0	0	6,000
566	On Street Generally - Ducting Design Changes Due to Utilities Conflicts	10,000		0	0	10,000
567	On Street Generally - Drainage Design Changes Due to Utilities Conflicts	10,000		0	0	10,000
568	On Street Generally - Trackform Design Changes Due to Utilities Conflicts	10,000		0	0	10,000
569	Additional Running Costs associated with the extension to the Edinburgh Park offices	79,200		0	0	79,200
570	Omit the Removal of Trees in Shandwick Place	0		0	-9,067	-9,067
571	Hope Street Junction Design	0		5,000	0	5,000
572	Cathedral Lane Substation - Retaining Wall Design	5,000		0	0	5,000
574	Haymarket Station - Delete viaduct cladding	-10,000		0	0	-10,000
575	Haymarket Station - Take Down Haymarket Station Viaduct Staircase and Parapet	0		40,000	0	40,000
576	Depot - Reinstatement to 250mm Watermain Remedial Works	60,000		0	0	60,000
577	Haymarket Viaduct - Sub Station Retaining Wall and Plinth	-10,000		0	0	-10,000

Section 7 - Period Movement

Ref No.	Description	Approved Off	Approved On	In Progress Off	In Progress On	Total
578	SI Provisional Sum Allowance	0		0	-58,000	-58,000
IC001	Independent Certifiers Schedule Part 45 Period End Change Order to 15/10/2011 relating to the following PAV's and On Street Works Estimates		8,593			8,593
IC002	Independent Certifiers Schedule Part 45 Period End Change Order to 12/11/2011 relating to the following PAV's and On Street Works Estimates		102,135			102,135
IC003	Independent Certifiers Schedule Part 45 Period End Change Order to 10/12/2011 relating to the following PAV's and On Street Works Estimates		357,140			357,140
Total - Approved Change / Change in Progress		230,853	467,868	-597,880	-460,705	-359,863
Anticipated Change				197,500	-2,541,333	-2,343,833
Movement		230,853	467,868	-400,380	-3,002,038	-2,703,697

Ref	Section	Budget Information		FORECAST/ BUDGET			
		Original Budget	Budget Variation	Current Budget	SUC Costs	McNicholas Budget Forecast	Total Budget Forecast
HAYMARKET							
1	Haymarket 1	1812	0	1812	141	669	810
2	Haymarket 2		0	0	71	359	430
3	Haymarket 3		0	0	76	487	562
4	Haymarket 4		0	0	0	4	4
5	Haymarket 5		0	0	5	38	42
6	Haymarket 6		0	0	15	80	95
SHANDWICK PLACE							
7	Shandwick Place 1		0	0	104	673	777
8	Shandwick Place 2		0	0	38	228	266
9	Shandwick Place 3		0	0	73	550	623
10	Shandwick Place 4		0	0	23	169	191
11	Shandwick Place 5		0	0	29	177	206
12	Shandwick Place 6		0	0	41	228	269
13	Shandwick Place 7		0	0	11	93	103
ST ANDREWS SQUARE							
14	St Andrews Square		0	0	363	2118	2480
YORK PLACE							
15	York Place 1		0	0	68	455	523
16	York Place 2		0	0	77	564	641
17	York Place 3		0	0	92	729	821
18	Uncategorised		0	0	576	3807	4383
19	Additional Works *		0	0	TBC	TBC	TBC
20	Legacy Works	1100	0	1100	TBC	TBC	1100
21	Uncompleted BT Works				750		750
	Uncompleted Works				-400		-400
	Credit for Works not required						
SUB TOTAL				2912	1800	11426	14676

Ref	Section
Mitigations	-3%
TOTAL	

Budget Information	
Original Budget	Current Budget
	2912

FORECAST/ BUDGET	
SUC Costs	McNicholas Budget Forecast
-53	-339
1747	11087
	14241

Notes, Assumptions & Exclusions:

1. See attached Tab - Haymarket 1 for breakdown of Haymarket 1 budget cost
2. All other areas conflict budgets based on pro rata of Haymarket 1 costs at 7K per conflict until firmed up
3. SUC Costs based on information received from Utility Providers. Outstanding issues with SW could have a potential increase in this cost of £1.5M
4. Legacy Work Scope still to be confirmed. Once confirmed forecast will be entered. Therefore Legacy Works Forecast is excluded at present
5. See Additional Works tab for all works carried out by McN that are not covered by the Work Areas identified ie Princes Street etc
6. McNicholas Management Costs Forecast is Provisional Pending further clarification and agreement of McN Org Chart
7. COWD blank at present; McNicholas/ SUC Cost update due for 21/11/2011

Conflict Type	Average Cost
Traffic Signal Pole	4
Track Construction	9
Tram Ducting	13
Tram Ducting Chamber	13
Street Lighting Column	4
Road Sign Base	3
Road Level Conflict	13
OLE	3
Kerb Realignment	13
Drainage	8
Drainage Gully	3
Uncategorised	
Standby Team	
TOTAL Excl Risk & Cont	

Appendix 5 – Change Log

Appendix 6 – Risk Register

Risk ID	Category	Description	Risk Owner	Risk Category	Risk Level	Programme	Risk Assessment (Current)					Risk Assessment (Target)					Mitigating Actions	Action Owner	Due Date	Risk Score					Risk Level	Additional Info									
							Probab.	Conseq.	Time	Recovery	Impact	Probab.	Conseq.	Time	Recovery	Impact				Probab.	Conseq.	Time	Recovery	Impact											
ED016	Contract	Delay over 21 days	Cost over £750k	Risk that contract is moved to cost reimbursable	Costs	Active	Programme	5	5	0	4	25	RED	5	5	1	4	25	RED	RED	1. Appoint senior manager to take over all non-critical works 2. Set up Steering Group to be attended by Project Director and Senior Programme Managers 3. 0.10/2/2012 4. 0.10/2/2012 5. 0.10/2/2012	Andy Scott						Programme	5	5	1	4	25	RED	RD Risk
ED019	Design	Lack of design continuity for infraco given an active sections (e.g. look place from step etc)		Risk that additional scope/work is required that is not currently scheduled in costed	Cost and time	Active	Programme	5	5	5	5	25	RED	5	5	4	5	25	RED	Continuous liaison with infraco regarding additional scope/design to identify at earliest stage Merge by the section PM's Design Manager in place											RD Overall design risk				
ED073	Utilities	Due to design of OLE base locations		OLE bases conflict with existing underground and known utilities		Active	Project - On Street	5	5	5	5	25	RED	5	5	5	5	25	RED	Pack solution with enabling works contractor installing pile guides or Curcular Pipe design completed and installed First Red OLE's have been placed in Hymanston T.										Solutions included in programme for 0.10/2/2012					
NEW1	Interface	Poor management of Scottish Water by TfE and poor record keeping during the MUDFA works		Risk that the project relationship with Scottish Water deteriorates and incises to utilities and resolving utility issues becomes prolonged		Active	Project - On Street	5	5	5	5	25	RED	5	5	5	5	25	RED	Dedicated Scottish Water account Clear communication between TfE and Scottish Water Steering Group Set up and attended by Project Director	1. Appoint senior manager to take over all non-critical works 2. Set up Steering Group to be attended by Project Director 3. Regular updates of all SW issues and sign off with SW 4. Finalise programme of works for Leith Walk legacy issues 5. Continue co-location of TfT resource with SW		1. 20/01/2012 2. 20/01/2012 3. 0.10/2/2012 4. 0.10/2/2012 5. 0.10/2/2012												
ED071	Utilities	Due to legacy issues and underown services		Discovery of additional Track construction conflicts (LW)		Active	Project - On Street	5	5	5	5	25	RED	5	5	5	5	25	RED	Utility owns providing live and dead drawings Building four into the programme to enable training in infraco of potential works Management plan and taking 2 week soft start BB backing track form Localised clearing of track / salt trenching	1. Paul Robinson	1. 01/02/2012													
ED003	Infraco	Removal of CAF from turnkey offering as part of settlement agreement. Infraco do not take on integration responsibility		Team (CAF) / infrastructure (Infraco) integration risk. Risk that the infrastructure and Turnkey meet the regulatory requirements but are unable to coordinate such that system is operable		Active	Programme	4	4	4	5	20	RED	4	4	4	5	20	RED	Team integration manager (Alistair Hutchings) appointed CAF - Infraco manager (Mick Nzebi) to start from mid-January 2012 Programmed leading of complete track prior to project completion	1. Paul Robinson 2. Gary Easton	1. 30/01/12 2. 30/01/12													
ED005	Network Rail	Construction works through the NWR corridor Network rail stakeholder management Class 182		Risk of delay due to or failure to obtain NR approval to bulk as a result of clause 16.2 (Nwr corridor)		Active	Project - Off Street	5	4	4	3	20	RED	5	4	3	20	RED	3rd party (as approved by NR) Meetings ongoing with NR Assisting contractor in production of a detailed plan for the submission and approval of NR approval documentation. D-3 located team now onsite Daily activity records kept	1. Shirley Muhsht	1. Ongoing														
ED029	Consents	Lack of closure of agreements pick to programme completion		Delay to granting design. Consents to be delayed by 3rd parties (NR, SW, DVA, SD, Planning authorities (etc))		Active	Project	4	3	3	3	12	RED	4	3	3	3	16	RED	Identify meetings with stakeholders ongoing Agreements tender design review table & informatives register being maintained	Malyn Ayres	22/01/12													
ED084	Construction	Construction works		Late 3rd party claims for utility property damage from works	Additional costs	Active	Project - On Street	3	5	1	1	15	RED	3	5	1	1	15	RED	Utility provides protection on site SW legacy works included in forecast Portfollio design team meeting attended by all stakeholders Training SDS Design Programme Training SDS Design Programme SDS design programme is incorporated into Master Schedule	Rob Leach	12/01/2012													
ED074	Design	Design not finished on time		Design approvals milestones are not met in line with rev4 programme		Active	Project	4	5	4	4	20	RED	4	5	4	4	15	RED	Review to design out Regular releases and timely communications of information to the public, council and media Wayleaves to be obtained	Rob Leach	30/12/2011													
ED077	Project Management	Design out with LCO		Additional land required to allow construction	Additional costs	Active	Project - On Street	5	3	5	1	25	RED	5	3	5	1	15	RED	Review to design out Regular releases and timely communications of information to the public, council and media Wayleaves to be obtained	Rob Leach	30/12/2011													
NEW2	Project Management	Due to lack of a communications strategy and changing TM requirements		Risk that the public, politicians and media are mis-informed about the project and TM plans		Active	Strategic	4	3	2	5	20	RED	4	3	2	5	20	RED	Regular releases and timely communications of information to the public, council and media Wayleaves to be obtained	CEC														
ED064	Project Management	Delays in obtaining wayleaves and agreements		Unavailability of power supplies to meet the infraco rev4 programme	Delay	Active	Project	3	3	4	2	12	RED	3	3	4	2	12	RED	Investigate potential for NR site power supply (Gary All)	Alistair Sim	30/11/2011													
ED001	Programme	Contract Programme Narrative Assumptions do not reflect actual conditions on site		Risk that project delivery team fails to allow against the Contract Programme Narrative		Active	Programme	5	5	5	5	25	RED	5	5	5	5	25	RED	1. Migration plans to be developed for each assumption 2. Confirm Narrative is not contractual document 3. Master Schedule to incorporate the Migration plans for the Programme Narrative assumptions are defined	1. Section 2. Gary Easton 3. Paul Robinson	1. 30/01/12 2. 11/11/11 3. 30/01/12											Non objects covered by the Contract Programme Narrative Master Programme includes Migration plans as a contractual document Narrative assumptions are addressed Covered ECD 01/10		

ID	Category	Issue	Risk/Description	Risk Owner (Responsible)	Risk Owner (Lead)	Risk Score			Risk Level	Mitigation Actions	Action Owner	Due Date	Risk Score			Risk Level	Notes			
						Probable	Cost	Time					Probable	Cost	Time					
ED004	Interface	Ongoing claims and issues	Risk of further breakdown in client/contractor relationship	T&T	Julian Weatherley	Active	Programme	4	4	5	20	RED	3	4	4	12	RED	Control meetings in place to allow for early identification of issues. Using new relationship to "wipe slate clean" and build new relationship. Joint working groups in place. Weekly project directors informal meeting. Generate team building activities at all levels.		
ED009	Construction	Poor quality workmanship or inadequate materials	Poor installation or latent defects occur during or after infill maintenance period	CEC	Julian Weatherley	Active	Programme	3	4	4	3	12	RED	3	4	4	3	12	RED	T&T PMs to provide regular feedback on progress, workmanship and quality on site. Ongoing Auditing.
ED072	Utilities	Due to legacy issues and unknown services	Discovery of track construction conflicts (abandonments)	CEC	Stephen Lewcock	Active	Project - On Street	5	4	4	4	20	RED	5	3	3	3	12	RED	Utility owners providing live and dead drawings. Building into the programme to enable siting of services of remedial works by early implementation of traffic management plan and taking 2 week soft start. As built available.
ED028	Consents	Lack of closure of agreements prior to programmed construction	Delay to granting Third Party design Consents due to late receipt of poor information (NR, SW, DAA, SIG, Planning information etc)	BBS	Marilyn Ayres	Active	Project - Off Street	3	3	3	9	AMBER	3	3	3	3	12	RED	Monthly meetings with stakeholders. Ongoing. Maintain 3rd party agreements below. Design review input & information.	
ED092	Project Management	Lack of a team respect agreement	Team respect duties are breached in accordance with the Infirco/CAF contracts	CEC	Marilyn Ayres	Active	Programme	5	2	2	4	20	RED	5	2	2	3	12	RED	After Richard's heading up Tram operations.
ED035	Consents	Land owner issues	Risk that access to 3rd party land is delayed or denied	CEC	Shirley Muehle	Active	Project - Off Street	3	3	4	3	12	RED	3	3	5	3	10	AMBER	Regular review meetings with key stakeholders.
ED002	Interface	Project controls not set up to control methods. Lack of clarity of lines of communication	Risk that project delivery team fails to communicate the evolving impact of the risk profile to the client team	T&T	Tony Wagar	Active	Programme	4	2	3	5	20	RED	4	2	3	5	10	AMBER	CoCP Assurance team. Discuss with project management / CEC / TS on issue of programme information.
ED076	Utilities	Delayed provision of permissions from Utility Companies	Delay to achieving utility consents & supervision requirements for work increase	CEC	Stephen Lewcock	Active	Project - On Street	4	4	4	4	16	RED	4	4	4	4	16	RED	Develop relationship with utility company leads and to locate where appropriate.
ED023	Network Rail	Late turning times, insufficient management of possession, lack of priority possession planning	Outdated or in efficient use of possession.		Ian Muir	Active	Project - Off Street	3	3	5	2	15	RED	3	3	3	2	9	AMBER	Timous submission and approval of WPP into with standards. Creation of possession RAG assessment and approval by NR before start date. Prior to possession, agree Ocho Go times.
ED012	Assurance	Lack of construction installation certificates Evidence & support Site Acceptance tests etc	Insufficient documentation to meet handover requirements	BBS	Marilyn Ayres	Active	Programme	3	3	3	2	9	AMBER	3	3	3	2	9	AMBER	Section project managers to update deliverable documents. 2 weekly review meetings monitoring process.
ED050	Construction	Extreme weather out with normal weather pattern	Explosive adverse weather	CEC	Julian Weatherley	Active	Project	3	2	2	3	9	AMBER	3	2	2	3	9	AMBER	Pre planning for weather mitigation (flexible WWP days. Use appropriate, well maintained equipment, ensuring equipment is operated correctly and shut down when not in use. Investigate appropriate mitigation (flexible work practices, re-assign resources to generators).
ED032	Environmental	Construction methodology, including use of plant and equipment on-site	Construction Noise or Vibration limit exceeded	BBS	Shirley Muehle	Active	Project	3	2	2	3	9	AMBER	3	2	2	3	9	AMBER	Magistrate generation by selection of appropriate methodology, equipment at WWP days. Use appropriate, well maintained equipment, ensuring equipment is operated correctly and shut down when not in use. Investigate appropriate mitigation (flexible work practices, re-assign resources to generators).
ED078	Construction	Excavation works across site	Discovery of archaeological site or human remains	CEC	Rob Leach	Active	Project - On Street	3	5	5	1	15	RED	3	4	4	1	8	AMBER	Archaeological strategy in place. Mapping of known sites. Transferring for site operatives, on location and action plan.
ED039	Construction	Failure by site staff to follow TPs and relevant quality processes. Poor performance quality during construction; poor materials; defects. Unreasonable behaviour in relation to commercial disagreements by any party	Failure of Construction / Sub-Contractors to set quality construction/material quality deliverables/interim quality and valuation of estimates submitted for potential changes	BBS	Julian Weatherley	Active	Project	5	4	4	3	20	RED	5	4	3	3	8	AMBER	Increased monitoring by Quality team to ensure compliance with contract and records kept in accordance with TPs.
ED008	Commercial	Underlined voids found during excavations/conditions	Unreasonable behaviour in relation to commercial disagreements by any party	T&T	Gary Easton	Active	Programme	3	4	3	4	12	RED	3	4	3	4	8	AMBER	Mobile specialist contact resource to investigate location of voids. Contact & communicate to the team. Developing a joint programme with Infraco. Brief team on commercial provisions on the contract.
ED086	Construction	Underlined voids found during excavations/conditions	Unreasonable behaviour in relation to commercial disagreements by any party	CEC	Rob Leach	Active	Project - On Street	3	3	5	2	15	RED	3	3	4	2	8	AMBER	Design management process. Advanced diversion works. Ongoing survey/installing works from site.

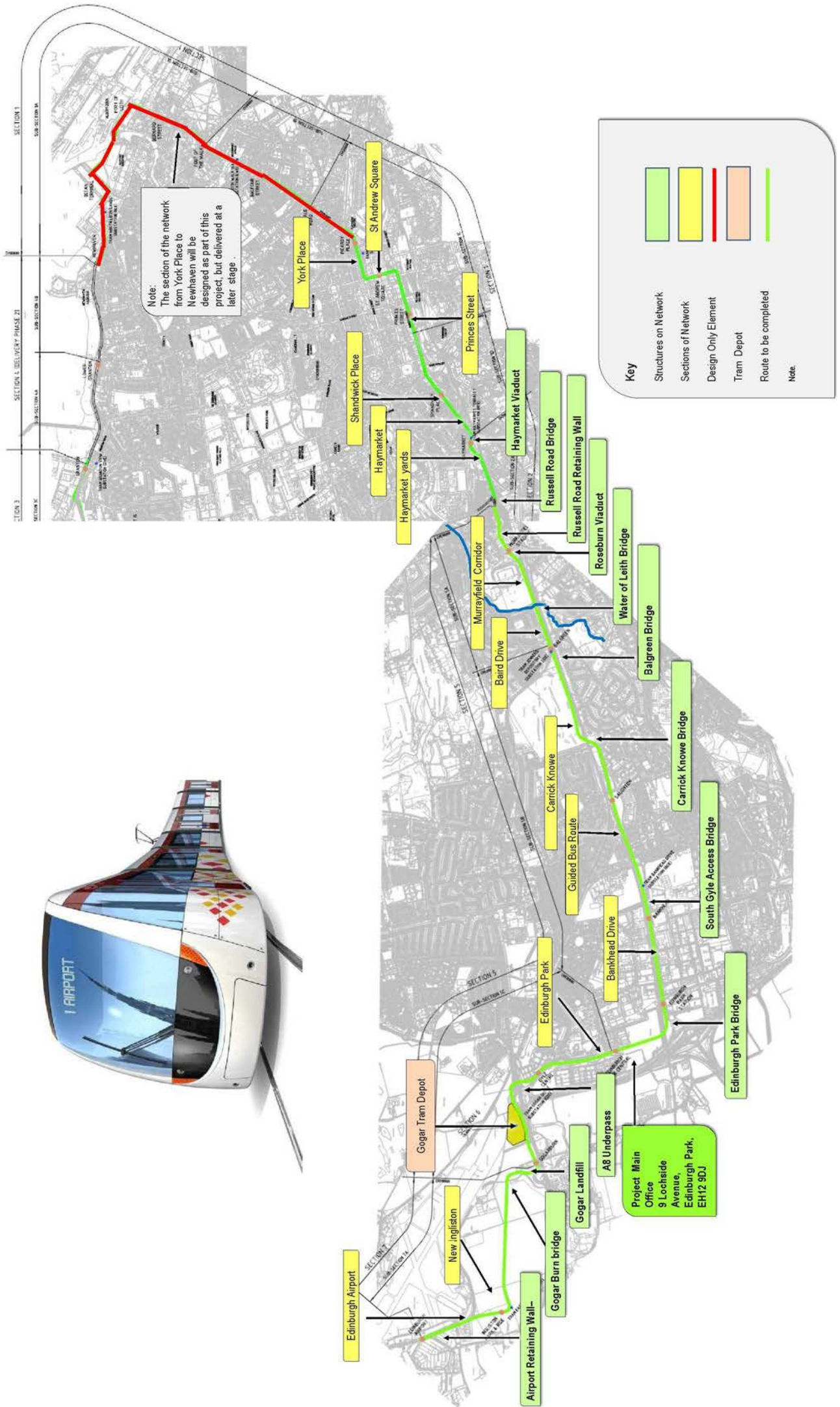
ID	Category	Title	Status	Risk Owner	Risk Category	Impact	Risk Score				Risk Level	Mitigation Actions	Action Owner	Due Date	Risk Score				Risk Level	Notes										
							Initial	Current	Residual	Revised					Initial	Current	Residual	Revised												
ED037	Network Rail	BBS over run of work under possession	Over run of possession	Risk Description	Train delay changes under schedule 8	Active	Strategic	Project - OH Street	Active	CEC	Strategic	2	3	1	4	8	AMBER	Review of efficacy contract to determine whether Schedule 8 and remediation costs are recoverable from TfL (Alan Coyne)	Greame McGinly	02/12/2011	2	3	1	4	8	AMBER				
ED036	Programme	Due to number of different programmes	Risk that programmes do not integrate and align	Risk Description	disruption to delivery and associated delays.	Active	Programme	Programme	Active	T&T	Programme	3	3	4	5	15	RED	Integrated Master Schedule completed												
ED075	Project	Laggy issues beyond York Place	Laggy issues beyond York Place	Risk Description	Delay to design and construction programme	Active	Project - On Street	Project - On Street	Active	CEC	Project - On Street	3	3	4	4	12	RED	1. Agree finalised scope between CEC and TfL 2. Progress work to be done in line with commitments to delivery works to be implemented	Rob Leach	08/12/2011	2	3	4	4	8	AMBER	in the Utilities or Foot Paths?			
ED040	Assurance	Failure to define procedure of progressive assurance with CIP and/or HMR, leaving assurance unreviewed at start-up	Failure to complete ROSS/SVS processes, including CIP/HMR, leaving assurance unreviewed at start-up	Risk Description	Delay in acceptance of infrastructure by CIP/HMR, resulting in late delivery of passenger services, resulting in delay, rework or documentation variance	Active	Project	Project	Active	BBS	Project	2	3	4	1	8	AMBER	Comply with defined process to achieve progressive assurance in good time. Develop verification and required handover documentation in good time.												
NEW5	Project	Laggy issues	Public Enquiry called prior to completion	Risk Description	Delays	Active	Strategic	Strategic	Active	CEC	Strategic	2	3	4	4	8	AMBER	Monitor political stance	CEC											
ED044	Environment	Failure to implement/maintain agreed measures for watercourse protection	Failure to implement/maintain agreed measures for watercourse protection	Risk Description	Reduction in watercourse protection	Active	Project - On Street	Project - On Street	Active	BBS	Project - On Street	2	2	3	4	8	AMBER	Strict observance of CAR licence conditions. Request planning at work activities, including assessment of pollution risk in WPP development, e.g. piles at exposed												
ED013	Contract	Delay to or lack of agreed formal	Violation instructions not issued	Risk Description	Delay to various works and programme	Active	Programme	Programme	Active	T&T	Programme	4	2	1	2	8	AMBER	Formal instructions required for Violations												
NEW3	Project	Lack of resource & clear co-ordinated procedures	Reflective management of complaints / enquiries / FO	Risk Description	Loss of public & political confidence	Active	Strategic	Strategic	Active	CEC	Strategic	3	2	2	5	15	RED	Request planning at work activities, including assessment of pollution risk in WPP development, e.g. piles at exposed												
NEW7	Project	Lack of pro active stability	Poor public information on Launch	Risk Description	Reputation damage, public confusion	Active	Strategic	Strategic	Active	CEC	Strategic	3	2	1	5	15	RED	Outlier related procedure for complaints & FO management	CEC											
NEW4	Project	Lack of communication	Poor internal communications between project teams and council departments	Risk Description	Lack of confidence in delivery of the project, undermining council reputation	Active	Strategic	Strategic	Active	CEC	Strategic	4	1	1	5	20	RED	Creates Launch plan	CEC											
ED030	Project	Contractors appear to work areas to satisfy obligations as not aligned with TfL requirements	Additional traffic management and signage works are required to meet TfL requirements (e.g. Park, Lothian etc)	Risk Description	Additional costs and programme impacts	Active	Project	Project	Active	CEC	Project	3	2	2	3	9	AMBER	Ensure communication strategy internally within council	CEC											
ED063	Project	Due to number of contractors working on site	Scramble stop works at depot	Risk Description	Delays	Active	Project - On Street	Project - On Street	Active	CEC	Project - On Street	2	4	4	2	8	AMBER	Review of efficacy contract to determine whether Schedule 8 and remediation costs are recoverable from TfL (Alan Coyne)	Greame McGinly	05/12/2011	2	3	3	3	6	AMBER	3.0.0.0.15			
ED007	Assurance	Lack of transparency of final document delivery	Unable to confirm suitability of design & review of design process, therefore unable to complete hand over	Risk Description	Works not being accepted	Active	Project - On Street	Project - On Street	Active	CEC	Project - On Street	2	4	4	2	8	AMBER	Regular weekly meetings with TfL to ensure programme review to avoid conflicts												
ED049	Design	Lack of complete design submission, failure to design to requirements, Extended design approval periods.	Delay in Design Approval due to BBS work	Risk Description	Failure by BBS to make complete design submissions, Failure by BSC to ensure design submissions are complete.	Active	Project	Project	Active	BBS	Project	3	3	3	2	9	AMBER	Section project managers co-ordinating deliverables documents	Rowena Morris	01/12/2011	2	3	3	2	6	AMBER	Assurance			
ED054	Construction	Underestimation of drainage	Additional drainage is required to deal with water levels along route	Risk Description	Additional time & costs and materials	Active	Project	Project	Active	BBS	Project	2	3	3	3	6	AMBER	Revisit design management by BBS. Detailed monitoring of approval process by BBS												
ED066	Project	Misinformation of equipment	Misinformation of or incompatibility of line issue equipment with CAF/Infrao equipment	Risk Description	Delays, repair costs	Active	Project - On Street	Project - On Street	Active	CEC	Project - On Street	3	3	3	3	9	AMBER	Investigate potential for early testing of system integration	Cath Leach	03/11/2011	2	2	3	2	6	AMBER				
ED016	Contract	Scope of works relating to Weep Area	Receiving have not been agreed with SSS	Risk Description	Potential additional construction costs	Active	Programme	Programme	Active	BBS	Programme	3	2	2	1	6	AMBER	Agree Scope of works relating to Weep Area												
ED045	Utilities	Failure to locate apparatus prior to excavation, Failure to excavate carefully around known apparatus, Failure to protect apparatus during works or backfilling.	Damage to Utility Apparatus	Risk Description	Safety hazard to workforces or public (gas release), Interruption to supply - impact on TfL operations, Potential for compensation claims and/or compensation claims.	Active	Project	Project	Active	BBS	Project	2	2	2	3	6	AMBER	Request Permit to Dig procedures for communications in place to call out utility for urgent repairs												

ID	Category	Title	Cause	Risk Description	Effect (asset, programme impacts)	Risk Owner (Individual)	Risk Level	Risk Score				Risk Level	Mitigation Actions	Action Owner	Due Date	Risk Score				Risk Level	Notes				
								Prob	Con	Time	Impact					Prob	Con	Time	Impact						
ED053	Contract	Contract	Insufficient surveys and trial holes etc	Unforeseen ground conditions require additional works, excavations, etc	Additional costs, work and programme impacts	Julian Weatherley	Active	3	2	2	1	6	AMBER	Surveys/monitoring works to identify	CEC		3	2	2	1	6	AMBER			
ED015	Project Management	Project Management	Political and/or stakeholder objectives change or require design changes	Client amendments to design scope impact programme delay and cost	Programme delay and cost	Julian Weatherley	Active	3	2	2	2	6	AMBER	CEC to monitor potential changes.			3	2	2	2	6	AMBER			
ED045	Network Rail	Network Rail	Delays to completion of Network Rail works	NR delays and completion out of sync with BBS progress in area	Relationship costs and programme delays	Ian Muir	Active	3	2	1	2	6	AMBER				3	2	1	2	6	AMBER			
ED046	Environment	Environment	Excavation, piling and digging on contaminated land releases contaminants to receptors - land, air, water	Release of pollution from contaminated land or land not previously identified as contaminated	Failure to identify contamination, measures procedures for known contamination, results in breach of legislation, results in further legislation if released to the wider environment, results in work stoppage, delay and/or additional costs, penalties, reputation damage.	Shirley Muehle	Active	2	2	3	2	6	AMBER	Carry out Phase 1 and Phase 2 investigation and then remediation procedure as per agreement with the local authority. Establish control procedure for contaminated ground, including identification, contamination, and reporting requirements.				2	2	3	2	6	AMBER		
NEW6	Project Management	Project Management	Lack of consultation with stakeholders	Branding and name choice of trams is universally disliked	Reputation damage to Council	Bob McGafferty	Active	3	2	1	5	15	RED	Lothian Buses & Council to liaise regarding name & branding	CEC			2	2	1	3	6	AMBER		
ED065	Project Management	Project Management	Operator interface	Risk that operator is late in providing information & personnel required by commissioning	Delay to testing and commissioning	Alestar Richards	Active	3	3	4	2	12	RED	Lothian Buses to be engaged by CEC	Alestar Richards	30/11/2011		3	1	2	2	6	AMBER	Others, penalties	
ED051	Project Management	Project Management	Project delay has led to build up of large quantity of materials in off site storage facilities	Insufficient storage and associated security	Delay to project/programme delay	Rob Leach	Active	3	1	2	2	6	AMBER	Identify requirements and source additional storage space - Liaise with CEC	Rob Leach	30/11/2011		3	1	2	2	6	AMBER	Storage delay (Lift)	
ED014	Commercial	Commercial	Client's failure to authorise interim payments to infraco	Delayed interim certification and/or payment of Contract sum	Late or non-payment may lead to suspension of work by infraco	Julian Weatherley	Active	2	1	3	2	6	AMBER	Ensure that all payment applications are processed and agreed within Contract timescales				2	1	3	2	6	AMBER		
ED047	Environment	Environment	Spillage from discharge pump during leakage from storage tanks	Hydrocarbon contamination of the ground, water and watercourses	Resulting in ecological damage, reputational damage, delay and/or clean-up costs	Shirley Muehle	Active	2	1	3	3	6	AMBER	Fuelling of mobile equipment to be carried out in low risk locations, using appropriate equipment. comply with Oil Storage Regulations. Spill kits to be available at all sites and/or change systems. Ensure spill kits available for minor spillages. Implement an emergency response plan, including specialist response contractor.				2	1	3	3	6	AMBER		
ED017	CAF	CAF	Financial issues not controlled by project	CAF fail to deliver on trams due to financial reasons and potential insolvency	non delivery of trams, delays and costs to re-purchase	Julian Weatherley	Active	1	5	5	5	5	AMBER					1	5	5	5	5	AMBER	Trams (CAF) not received until 1st week of 2012	
ED079	Project Management	Project Management	Rail coating is not installed as per contract	Rail from new track slab / rail falls (grit) and requires to be broken out and replaced	Design delay, program additional staff	Rob Leach	Active	1	3	3	5	5	AMBER	Testing ongoing. Remedial works ongoing through works prior to live current.				1	3	3	5	5	AMBER	Trams (CAF) not received until 1st week of 2012	
ED042	Network Rail	Network Rail	Proximity of engineering works to NR issues	Engineering works obstruction or cause movement in the ground resulting in need for additional work	Additional works, possessions and delays	Ian Muir	Active	2	4	4	3	6	AMBER	Review of infraco contract to determine whether Schemes can be installed in place of infraco (Alan Coyke)	Greame McSherry	02/12/2011		1	4	4	3	4	GREEN		
ED038	Contract	Contract	Failure to control fire hazards during construction or commissioning	Fire in Depot Building	Fire in depot building causes damage to structure, trams or control room equipment, delaying system operation	CEC	Active	2	4	4	3	6	AMBER	Identify if EOT is covered by insurance for fire incidents	Andy Scott	02/12/2011		1	4	4	3	4	GREEN		
ED011	Funding	Funding	CEC do not agree funding and contingency on time	Full funding and contingency not available on time for key payment milestones	Additional costs, delays and legal claims	Julian Weatherley	Active	2	5	5	4	10	AMBER					1	4	4	4	4	GREEN	Depot Storage (where available)	
ED056	CAF	CAF	Lack of available storage for CAF trams	Lack of available storage for rental of alternative storage and delays to moving of trams	Additional costs for rental of alternative storage and delays to moving of trams	Shirley Muehle	Active	5	4	3	4	20	RED					1	4	3	4	4	GREEN		
ED058	Contract	Contract	Security incident on site	Security incident on site	Delay to works due to time lost or damage caused as a result of a security incident. Environmental damage.	Julian Weatherley	Active	1	3	2	4	4	GREEN	Appropriate site security to be in place, based on security hazard assessment. Vulnerable materials or works to be protected.				1	3	2	4	4	GREEN	Covered by TR and BBS	
ED052	Interface	Interface	Concurrent major projects in Edinburgh	Other major project conflicts with NR terms (excluding existing infraco projects)	Delay and additional project management costs	Shirley Muehle	Active	3	2	2	2	6	AMBER	CEC issuing external projects.				2	2	2	2	2	4	GREEN	
ED021	Network Rail	Network Rail	Misunderstanding of possession requirements / timescales	Lack of definitive possession availability to complete works	Programme delays	Ian Muir	Active	5	2	5	4	25	RED	3. BBS. Review design for overhead line to ensure correct (Crossrail)	3. Shirley Muehle	3. Complete		1	2	4	1	4	GREEN	Covered by TR and BBS	

ID	Category	Cause	Risk/Description	Effect/Impact	Risk Owner (Individual)	Risk Level	15/01/2018 - 17/01/2018				15/01/2018 - 17/01/2018				Action/Owner	Risk Score	Risk Level	Notes		
							Probable Score	Cost / Time / Resource Score	Reputational Impact Score	Risk Score	Probable Score	Cost / Time / Resource Score	Reputational Impact Score	Risk Score						
ED043	Environment	Insufficient environmental surveys or failure to implement/maintain agreed measures for wildlife or ecological protection	Accidental damage to infrastructure while installing, or failure to prevent damage to known habitat (Other: Burdock, sedge, water voles, amphibians).	Additional mitigation costs, breaches to licence conditions, prosecution, fines and stoppage or delays to works.	BBS	Active	Project - Off Street	2	2	3	4	8	AMBER	Check Ecologist who is the licensee for conditions - ensure wildlife survey data is complete and available to site team.	1	2	3	4	GREEN	
ED055	Contract	Service commitment period	Sub suppliers warranties expire during the maintenance period and Siemens may have legitimate claim due to delays	Additional costs	BBS	Active	Project - Off Street	3	2	2	1	6	AMBER		2	2	2	1	4	Maintainance periods, Section D due to years
ED057	Network/Rail	Insufficient time, technical information, processes or failure in Audit	Network: Rail site access are refused or delayed	Delays to works	BBS	Active	Project - Off Street	2	2	2	1	4	GREEN	T&T carrying out through audits.	2	2	2	1	4	
ED096	CAF	Team system issues	Failure of key Team testing during commissioning	Delay to team availability to test on track	CAF	Active	CAF	3	1	2	2	8	AMBER		2	1	2	2	4	
NEW6	Project Management	May elections	Change of local authority leadership	Change political priorities	Bob McCafferty	Active	Strategic	2	2	2	4	8	AMBER	Ensure communication strategy internally within council	1	1	1	4	4	Currently, no specific support for the project
ED064	Utilities	Unwarned condition of utilities	Failure of Utility assets which impacts on infirco works. (i.e. power supply, burst pipes etc)	Delay to infirco works	CEC	Active	Project	2	2	3	4	8	AMBER	Monitor infirco works to identify utilities to be used	1	3	3	2	3	
ED060	Construction	Lack of QA context of construction information	Failure to implement rigorous QA control of information fit	Errors, rework, delay and/or cost	Julian Weatherly	Active	Project	1	3	3	3	3	GREEN	Establish robust QA smart register (contracts and other documents). Establish robust procedure for release of information for construction.	1	3	3	3	3	
ED060	Programme	Other CEC projects	Delivery of the project suffers due to external priorities of CEC (with points)	Delays	CEC	Active	Programme	2	3	3	3	6	AMBER		1	3	3	3	3	
ED061	Project Management	Stress in site labour force or suppliers affect works progress or delivery	Incidental Action	Lost time due to strikes or delivery delays	Julian Weatherly	Active	Project	1	2	2	1	2	GREEN	Effective workforce communication/consultation, using existing safety/welfare consulting process. Use of reputable sub-contractors and	1	2	2	1	2	
ED069	Design	Depot relocation away from airport site	Exclusion of high cost abnormalities within current depot scope	Reduction in costs and reduced construction periods	CEC	Opportunity	Project - Off Street	1	1	1	1	1	GREEN		1	1	1	1	1	

Appendix 7 – Route Map

Edinburgh Tram Network – Route Map & Key Locations



Drawn by: Martyn Ayres
Date: 10/11/11
Revision: 0

Appendix 8 – Acronyms

ACRONYMS

ACCB	Accommodation and Boundary Works
AiP	Approval in Principle
ANC	Advice of Non Compliance
APPP	Prior Approvals – Detail Design
APPR	Approvals
APPT	Technical Approvals – Detail Design
ARCH	Architecture
AUXI	Auxilliary Power
BAA	British Airports Authority
BBS	Bilfinger Berger Siemens
BLDS	Buildings
BRDG	Bridges
BSC	Bilfinger Berger / Siemens / CAF - previous consortium
CAF	Tram Provider - (Construcciones y Auxiliar de Ferrocarriles)
CAR	Corrective Action Request
CAR	Water Environment (Controlled Activities) Regulations 2011
CDM	Construction (Design and Management) Regulations 2007
CEC	City of Edinburgh Council
CECS	CEC Services
CfS	Case for Safety
CHAR	Charette Changes
COCP	Code of Construction Practice
COMM	Commissioning
CVI	Confirmation of Verbal Instruction
DAS	Design Assurance Statement
DASB	Design – As Built
DaST	Deliver a Safe Tram
DDAP	Detailed Design Assurance Plan
DEMO	Demolition
DEPO	Depot
DKE	Dynamic Kinetic Envelope
DoC	Declaration of Conformity
DRAN	Drainage
DtTS	Deliver the Tram Safely
E&M	Electrical & Mechanical
EAL	Edinburgh Airport Limited
EART	Earthworks / Embankments
ELEC	Electricity
EMC	Electromagnetic Compatability
ENVI	Environmental
ER's	Employers Requirements
ESM	Engineering Safety Management
FAT	Factory Acceptance Test
FATs	Factory Acceptance Tests
GASS	Gas
GEOT	Geotechnical
HAZID	Hazard Identification Study
HAZOP	Hazard and Operability Study
HIGH	Highways
HIRA	Hazard Identification and Risk Assessment
HMRI	Railway Inspectorate
HS	Historic Scotland
HSE	Health and Safety Executive
HV	High Voltage
ICCO	Independent Certifiers Change Order
ICP	Independent Competent Person

IDC	Inter Disciplinary Check
IDR	Inter Disciplinary Review
Infraco	Infrastructure contract
ISA	Independent Safety Assessor
ISRP	Infrastructure Safety Review Panel
ITP	Inspection and Test Plan
JNCS	Junctions
KPI	Key Performance Indicator
LAND	Landscaping
LIGH	Lighting
LOLER	Lifting Operations and Lifting Equipment Regulations 1998
MANA	Management
MECH	Mechanical
MILE	Milestones
MISC	Miscellaneous
MODL	Modelling
MUDFA	Multi-Utility Diversions Framework Agreement
MUDFA	Multi Utility Diversions Framework Agreement
MULT	Multi-Discipline
NCR	Non Conformance Report
NR	Network Rail
NWR	Network Rail
O&M	Operation and Maintenance
OCC	Operational Control Centre
OCIP	Owner Controlled Insurance Policy
OCL	Overhead Catenary Line
OLE	Overhead Line Equipment
ORA	Operational Risk Assessment
ORR	Office of Rail Regulation
ORS	Operational Radio System
OTHW	Other Works
PHA	Preliminary Hazard Analysis
PLAT	Platforms
PM	Planned Maintenance
POWR	Power (Traction)
PSCC	Project Safety Certification Committee
QCRA	Quantified Cost Risk Analysis
QRA	Quantified Risk Analysis
QSRA -	Quantative Schedule Risk Analysis
RAIB	Rail Accident Investigation Branch
RAM	Reliability Availability Maintainability
REL	Railway Electrification
RFI	Request for Information
RFO	Request for Opinion
RIDDOR	Reporting of Injuries, Diseases and Dangerous Occurences Regulations 1995
ROGS	The Railway and other Guided Transport System (Safety) Regulations 2006
RSA	Road Safety Audit
RSAR	Road Safety Audit Report
S&T	Signalling and Telecoms
SAC	Safety Application Condition
SAT	System Acceptance Test
SATs	Site Acceptance tests
SCADA	Supervisory Control and Data Acquisition
SDS	System Design Services
SEPA	Scottish Environmental Protection Agency
SEWR	Sewerage
SFAIRP	So Far As Is Reasonably Practicable
SGN	Scotland Gas Networks
SI	Site Instruction
SIGN	Signalling
SIT	System Integration Test
SMS	Safety Management System
SNH	Scottish Natural Heritage
SP	Scottish Power
STAK	Stakeholder
STRL	Street Lighting
STRU	Structures / Retaining Structures
SUBM	Submissions
SUBS	Sub-Stations
SURV	Surveys

SW	Scottish Water
T&T	Turner & Townsend
TCO	Tie Change Order
TM	Traffic Management
TNC	Tie Notice of Change
TS	Transport Scotland
TSS	Technical Support Services
UCO	Utilities Change Order
UNC	Utilities Notice of Change