

Tram Briefing and Project Delivery Group Joint Meeting

AGENDA

Date: 7 June 2012
Time: 8.00 am
Venue: Chief Executive's Board Room, Waverley Court

Attendees:

Vic Emery (Chair)	The City of Edinburgh Council	vic.emery@
Sue Bruce	The City of Edinburgh Council	Sue.bruce@edinburgh.gov.uk
Lucy Adamson	Transport Scotland	Lucy.adamson@transportscotland.gsi.gov.uk
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Gary Easton	Turner and Townsend	Gary.easton@turntown.co.uk
Neil Gibson	Big Partnership	Neil.gibson@bigpartnership.co.uk
Gavin King	The City of Edinburgh Council	Gavin.king@edinburgh.gov.uk
Rob Leech	Turner and Townsend	Rob.Leech@turntown.co.uk
Alastair Maclean	The City of Edinburgh Council	Alastair.maclean@edinburgh.gov.uk
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Kelly Murphy	The City of Edinburgh Council	kelly.murphy@edinburgh.gov.uk
Scott Noble	Transport Scotland	scott.noble@transportscotland.gsi.gov.uk
Graham Porteous	Transport Scotland	Graham.porteous@transportscotland.gsi.gov.uk
Colin Smith	The City of Edinburgh Council	csmith@hq-group.co.uk
Mark Turley	The City of Edinburgh Council	Mark.turley@edinburgh.gov.uk
Julian Weatherley	Turner and Townsend	Julian.Weatherley@turntown.co.uk

- 1 Previous Minute – 17 May 2012** – submitted for approval as a correct record (circulated)
- 2 Rolling Actions Log** – (to follow)
- 3 Turner and Townsend Report - 29 April to 26 May 2012** – Julian Weatherley to speak to this item (circulated)
- 4 Communications** – Kelly Murphy to speak to this item
- 5 All Party Oversight Group Dates** – Gavin King to speak to this item (circulated)
- 6 AOCB**
- 7 Date of Next Meeting**

Presentation: 21 June 2012 at 8am in the Chief Executive's Board Room

Full Report: 5 July 2012 at 8am in the Chief Executive's Board Room

Tram Briefing and Project Delivery Group Joint Meeting

Edinburgh, 17 May 2012

Attendees:

Vic Emery (Chair)	The City of Edinburgh Council	vicemery@[REDACTED]
Sue Bruce	The City of Edinburgh Council	Sue.bruce@edinburgh.gov.uk
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Julian Weatherley	Turner and Townsend	Julian.Weatherley@turntown.co.uk

ACTION NOTE

	ITEM	ACTION OWNER	DEADLINE
1	<p>PREVIOUS MINUTES 5 APRIL AND 26 APRIL 2012 AND MATTERS ARISING</p> <p>Vic Emery highlighted an inconsistency across Turner and Townsend's documentation, in regard to the amount of outstanding snagging issues at the depot. Julian Weatherley confirmed that there were 23 outstanding snags and all snags were expected to be completed by the end of June 2012. There were three significant snags. The first was water ingress under the doors and an instruction had been given for this to be rectified on 16 May 2012. The other two were in regard to the wheel lathe and the tram wash and solutions were being investigated.</p> <p>CEC took ownership of the mini test track on 16 May 2012. An access protocol for BBS and CAF was necessary and Turner and Townsend agreed to create one.</p> <p>Decision</p> <p>1) To approve the minute of 5 April 2012 as a correct record.</p> <p>2) To approve the minute of 26 April 2012 as a correct record subject to the following amendments:</p>	JW	
		GK	
		GK	

ITEM	ACTION OWNER	DEADLINE
i) In the third paragraph of item 1 - HSE wished to know how the client was satisfying themselves that actions proposed to improve health and safety were being implemented.		
ii) On page three, an alteration of 'week' to 'period'.		
iii) In the second paragraph page four, an alteration of 'tram' to 'depot'.		
iv) To include that CEC had been involved in the reviewing of the cost reporting format.		
v) That the settlement in Murrayfield was to the gantries.		
3) To provide an update on whether a permanent radio mast would be installed rather than a temporary mast.	JW	

2 ROLLING ACTIONS LOG

Refer to PDG Rolling Action List for updated action status.

Vic Emery advised that granite setts were being laid at Haymarket. Gary Easton confirmed this and stated that it was part of the original specification to have granite setts in that area.

Julian Weatherley advised that Turner and Townsend had not raised an NCR in regard to the levels on Princes Street. BBS had recently submitted a report that stated that they had not built to the drawings but this was because it had been superseded by an agreement with the independent Road Safety Auditor (Halcrow). Turner and Townsend would examine BBS' report and update Colin Smith on Monday 21 May 2012. Colin Smith agreed to update the client briefing group on Tuesday 22 May 2012. Additionally, Rob Leech agreed to provide a copy of BBS' report to Colin Smith.

RL

CS

RL

Rob Leech advised that there were a range of snagging issues that could potentially delay the handover of Princes Street to CEC. These included snagging issues related to the previous works in 2009, Scottish Water legacy works, the Scottish Water manholes and the work carried out over the last 6-9 months.

An immediate snagging issue was the rutting of the blacktop at a bus stop. Infracore had disputed that this was a snagging

ITEM	ACTION OWNER	DEADLINE
<p>issue and had stated this was wear and tear and was affected by a leaking gas main. It was expected that any work to rectify the blacktop could be completed before the street was handed back.</p>		
<p>Rob Leech advised that BBS maintained that they had prior signed agreement from Scottish Water regarding manholes on Princes Street. However, they could not produce paperwork proving this for four manholes. Scottish Water's position was that if the paperwork was not produced then there was no agreement. A meeting was scheduled for tomorrow to discuss the issue further. If the manholes required to be rebuilt, they would be expected to be completed by 30 June 2012. Sue Bruce stated that it was essential that Princes Street was handed back by 30 June 2012 and requested that Colin Smith work with all parties to ensure this.</p>	CS	
<p>Colin Smith, Ian Craig and Graham Porteous were set to meet with Jim O'Sullivan of BAA and it was agreed that an update would be provided on this meeting.</p>	CS	
<p>Julian Weatherley advised that when the Rev 5 programme was issued, Turner and Townsend's master schedule would be updated. This would take account of cost engineering proposals and the York Place 'radical approach'.</p>		
<hr/> 3 TURNER AND TOWNSEND REPORT		
<p>Julian Weatherley introduced Turner and Townsend's report for the period 24 March 2012 – 28 April 2012. Julian Weatherley, Gary Easton and Rob Leech gave a presentation summarising the main points in the report.</p>		
<p>There were 22 health and safety incidents during the period of which 5 were classified as serious/significant. A summary of the actions taken in regard to health and safety issues was tabled. This outlined the actions taken and what actions were outstanding for each issue. A key change was that McNicholas had now increased the number of their supervisors from two to five. This was in response to a lack of supervision leading to the suspension of their excavation works. Turner and Townsend would be tracking a new set of health and safety leading indicators such as the percentage of people working over 60 hours on the Project and the ratio on site of staff to supervisors. This information would be included in the period reports. Vic Emery stated that it was important that another event or workshop was held following on from the 'Think before you act' workshop. Actions and</p>		

ITEM	ACTION OWNER	DEADLINE
<p>initiatives arising from the workshop would be returned by 18 May 2012 and Turner and Townsend would collate this information into a report.</p>	JW	
<p>There had been 485 NCRs raised to date with 81 NCR's remaining open.</p>		
<p>Discussions were ongoing between SEPA and BBS on the waste clarification of soil at Baird Drive.</p>		
<p>Turner and Townsend had carried out an inspection of relevant historical monuments on 10 May 2012. Alan Coyle advised that a discussion was needed to identify which party was best placed to put back historical monuments such as the clock in Leith Walk.</p>	AC	
<p>Thirteen trams had now been delivered to the depot with nine trams being issued with Interim Tram Routine Test Certificates.</p>		
<p>Two technical concerns were identified in regard to the tram vehicles. A ceiling panel had become detached due to a missing component. The fault only applied to one tram. The investigation into the incorrect placement of pedals on two trams had identified that they had been correctly altered due to a change in the client's requirements by tie. The remaining 25 trams were now being altered to this specification.</p>		
<p>Rob Leech gave an update on the progress on the on-street section of the Project.</p>		
<p>Discussions had been held with BBS on when the plug at Princes Street could be re-opened. BBS were stating September 2012 but it was hoped this could be brought forward to July 2012. Colin Smith added that if the York Place – Radical Approach was agreed then this could be used to convince BBS to open up the plug in July/early August 2012.</p>	CS	
<p>The ducting works in Cathedral Lane had commenced and were scheduled to be completed by 8 July 2012. A toilet block was also required to be demolished in the area and this was also scheduled to be completed by 8 July 2012. Although it was hoped to bring this completion date forward. A weekly meeting was to be established considering and addressing ducting conflicts.</p>		
<p>A detailed plan was necessary to deal with the utility conflicts, the drainage and the cutting of the track box. After the plan was completed a date for the handover of York Place to</p>		

ITEM	ACTION OWNER	DEADLINE
<p>Infraco could be identified. Colin Smith stated that BBS had committed to support bringing the York Place works forward and every week that was saved in York Place was a week saved from the completion of the Project.</p>		
<p>Vic Emery emphasised the importance of ensuring that no other areas held up the Project if York Place was completed ahead of schedule. Colin Smith agreed and that the whole project needed to continue to be monitored to ensure the earliest completion date.</p>		
<p>Rob Leech advised that there was still no clearly defined cause for the collapse of the sewer on Grosvenor Street. Historically that sewer had been blocked in the past but tram works were in the vicinity so it was difficult to define an obvious cause. There was a need to dig into the collapse and investigate what was required to fix the sewer. There was an old cast iron water main nearby that would need to be shut off. It was proposed that this happen tonight due to the cup final crowds on Saturday and potentially Sunday. Bob McCafferty added that two hotels would be affected and no notice had been given. Colin Smith stated that bottled water could be offered to those affected and a low pressure supply could be offered to the hotels. It was agreed to shut the water main off tonight.</p>	RL/CS	
<p>Rob Leech explained that if the sewer could not be repaired the worst case scenario was that it had to be rebuilt. This would impact BBS works and could take three to four weeks to complete. There was also a judgement call on whether a 150 year old sewer should be under the tram tracks. Vic Emery suggested it was a risk to the asset and would involve a commercial discussion with Scottish Water on betterment. Colin Smith agreed to provide an update on that issue.</p>	CS	
<p>Julian Weatherley gave an update on the progress on the off-street section of the Project.</p>		
<p>Works at the airport were behind schedule but there was scope to work on multiple fronts and recover some of the slippage.</p>		
<p>There were concerns that the pedestrian crossing on Eastfield Avenue was non DDA compliant. This was being investigated. Graham Porteous enquired why the tracks were at different levels and highlighted that the road was not comfortable to be driven over. It was agreed that a report would be produced explaining the levels and providing an update.</p>	JW	

ITEM	ACTION OWNER	DEADLINE
<p>There were three pinch points for Section B; these were the retaining wall at the airport, the Gogar landfill reinforced earth works and the SGN gas pipe. All three needed to be in place before the track works could commence. Alan Coyle enquired when the track works were scheduled to be complete and Julian Weatherley agreed to report on that at the next meeting.</p>	JW	
<p>Julian Weatherley agreed to provide completion dates for the soil reinforcement at Gogar landfill, drainage, duct and OHLE foundations from Bankhead and Edinburgh Park and the removal of Network Rail's access bridge at Balgreen.</p>	JW	
<p>The piling methodology in the Murrayfield corridor had been changed to avoid any settlement.</p>		
<p>Vic Emery enquired whether the embankment at the back of Baird Drive was the correct height. Julian Weatherley agreed to check this.</p>	JW	
<p>Julian Weatherley confirmed that the current position on the 22 weeks time bank was that there were 16.4 weeks remaining. A further two weeks was expected to have been eroded by the next report in early June.</p>		
<p>Vic Emery stated that the milestones showed that the off-street area was becoming as critical to the programme as the on-street area. A similar approach in regard to investigating the programme needed to be formulated for the off-street areas as had been created for on-street.</p>		
<p>Gary Easton provided details on the cost report for this period and the contingency and risk overview.</p>		
<p>Vic Emery observed that unless the opportunities totalling £6.7m were realised then the level of contingency was too low. Alan Coyle added that the figures did not include the York Place 'radical approach' and also didn't include the contingency outside the scope of Gary Easton's report. There were also potential to shorten the testing and commissioning period. It was essential that both securing the opportunities and avoiding risk were given the same vigour.</p>		
<p>Gary Easton provided details of the risk mitigation route map. This showed that if the York Place 'radical approach' was initiated then the on street completion date would be close to the off street completion date. No dates had been outlined for completion with the 'radical approach' utilised but work was ongoing to identify those dates.</p>		

ITEM	ACTION OWNER	DEADLINE
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4 COMMUNICATIONS UPDATE		
Neil Gibson gave the following update on communication issues:		
<ul style="list-style-type: none">• The communications team would discuss the water shut off that would occur tonight with Turner and Townsend.• Media planning was ongoing on the York Palace approach.• There were two upcoming potential media briefings, which were the trade press depot visit on 12 June 2012 and one for the mainstream media that still had to be defined.		
<hr/>		
5 AOCB		
Nil		
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6 DATE OF NEXT MEETING		
Full Report:	7 June 2012 at 8am in the Chief Executive's Board Room	
Presentation:	21 June 2012 at 8am in the Chief Executive's Board Room	
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Removal of the existing Network Rail Access Bridge - Balgreen Road

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Edinburgh Tram Project
Full Progress Report No. 8
29th April to 26th May 2012
FINAL

CONFIDENTIAL – LEGALLY PRIVILEGED AND FOI(S)A EXEMPT

May 12



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Appendix 1 – Dashboards

Appendix 2 – Health, Safety & Environment and Consents Tracker

Appendix 3 – Cost Report and Contingency Analysis

Appendix 4 – Change Log

Appendix 5 – Risk Register

Appendix 6 – Route Map

Appendix 7 – Acronyms

Rev	Originator	Approved	Date
0	Shirley-Anne Collin	Julian Weatherley	31-05-2012
1	Shirley-Anne Collin	Julian Weatherley	01-06-2012
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1 Executive Summary

This report covers progress made during the period from 29th of April to 26th of May 2012. It incorporates progress reported within Infraco and CAF Progress Reports No. 5-1 to 28th of April 2012.

There were 14 incidents recorded during the period. Two incidents were identified as Serious / Significant. An investigation is currently ongoing to determine the cause of a sewer collapse at Grosvenor Street.

A number of actions have been implemented in response to the concerns raised last period over McNicholas' health and safety practices. McNicholas have responded positively to the issues raised and an improved position is now in place.

The "Think Before You Act" forum was held on 10th of May 2012. As part of the follow up, attendees have provided action plans for the continuous improvement of project health & safety.

Discussions continue between Infraco and SEPA in relation to soil removed from Baird Drive. Further information is to be provided by Infraco to enable conclusion.

Thirty eight days of the 22 week time bank have been confirmed as being eroded as a result of disruption due to utilities works in Shandwick Place and the Waverley end of Princes Street. Infraco have indicated that further erosion has occurred during the reporting period but this has yet to be substantiated.

Infraco have submitted their Rev5 programme for approval and a number of clarifications have been sought prior to acceptance. This programme takes account of the currently envisaged construction sequence and methodology for the Off Street works, the critical path for which is now shown as running through Edinburgh Gateway.

In anticipation of a CEC instruction to move towards the early commencement of works in York place a number of work streams are now being progressed. The installation of ducting works to Cathedral Lane Substation has started and is progressing ahead of programme. Turner & Townsend are developing with McNicholas an accelerated programme for utilities works in York Place.

McNicholas have been continuing with the excavation for tram box construction and the installation of drainage in order to mitigate against disruption to the On Street Infraco works programme.

A number of Scottish Water legacy issues within the On Street section have been identified where a derogation is required. These include addressing Scottish Water's outstanding concerns on manholes within Princes Street. Scottish Water have been advised of the limitations of the scope of works that project will undertake.

Following the collapse of an existing sewer within Grosvenor Street the area of collapse has been excavated and surveyed. Turner & Townsend are preparing a report into the causes of the collapse. Re-instatement of the sewer is anticipated by the 15th of June 2012.

The progression of Infraco Works through Haymarket, Shandwick Place and St Andrew Street has been disrupted as a result of tram ducting clashes with utilities. Infraco have indicated that the commencement of their works in York Place will be impacted as a result. Actions are being taken to minimise the impact of any disruption.

A solution for the Edinburgh Gateway slope retention has been confirmed as a king post design. Infraco have now advised (through the Rev 5 programme) that these works are on the critical path for the Off Street works but not the project as a whole..

A number of Off Street works items have progressed this period including: completion of secant piling at the airport and soil reinforcement at Gogar Landfill, the commencement of Lochside Avenue crossing and the installation of the bridge deck to Roseburn Street Bridge.

The works to the SGN gas main diversion were completed on programme on the 18th of May 2012.

The progression of sheet piling works through the Murrayfield Corridor has continued to be disrupted by movement within the adjacent embankment and structures. In spite of these challenges the sheet piling works at this location have now been completed.

BAA have raised concerns over the constructed levels of the Eastfield Avenue road crossing. CEC are in discussions with BAA over a resolution.

Fourteen trams have now been delivered to the depot with ten trams having been issued with Tram Routine Test Certificates.

A series of meetings are taking place with Infraco to conclude the way forward on the commercial issues. These include; recovery of costs for utilities off-street, evidence of costs incurred from the delay in signing the contract, evaluation of transfer of work from Infraco to McNicholas and the Princes Street outstanding works/snags. A timeline will be agreed for all of these items and confirmed in the next report.

The draft QSRA/QCRA has been discussed with CEC and further meetings will take place to update the QCRA each period and the QSRA quarterly. The next version of the QSRA will be based upon the Rev 5 programme and will model the opportunities resulting from York Place advancement and potential reductions in the Testing & Commissioning periods. Further discussion is required with CEC regarding the presentation of risk impacts compared with the base case and opportunities.

Further work is ongoing to confirm the scope and estimate for the utilities diversion works, resource requirements and legacy works. It is recognised that unforeseen works emerge when the excavations are opened up and that collaboration is needed with Infraco to enable the tram ducting to be installed within the space available. The specific impacts and mitigations need to be worked into the QCRA/QSRA

2 Health, Safety & Environment

During the last period Turner & Townsend have been working to implement a number of key initiatives regarding health and safety on the project. These have comprised:

- The close out of the BBS HV incident at Gogar Farm road and the gas incident at Edinburgh Airport.
- The close out of the McNicholas HV incident at Princes Street.
- The resolution of issues that resulted in the suspension of McNicholas deep excavation works.
- Holding the 'Think before you act' session
- Developing processes to address the requirements for working on Scottish Water assets.

2.1 Management of Health & Safety

Joint monitoring between Turner & Townsend and the Principal Contractors has progressed well during this period, with a noticeable impact on the McNicholas sites. Key developments relating to the McNicholas sites include the appointment of a temporary works co-ordinator and the introduction of a robust temporary works process. A principle focus has been on the management of the McNicholas works. A process is now in place to review changes instructed to McNicholas, to aid the control of working hours on site and to provide further clarity on the number of operatives and supervisors required to complete each task.

The development of a series of leading indicators has been undertaken with McNicholas to provide a mechanism to undertake active monitoring. Further leading indicators are being developed by Turner & Townsend as an output from the 'Think before you act' event.

A response has been issued to the Health and Safety Executive e-mail regarding the McNicholas 11kV incident. The letter highlighted the initiatives and actions that had been put in place to strengthen the implementation of the client duties under the CDM Regulations.

Meetings have been held between Turner & Townsend and Scottish Water to progress the resolution of the issues that have arisen regarding unauthorised works / damage to Scottish Water assets. This has resulted in a more robust procedure being implemented regarding the issue and use of the Scottish Water ATC.

A procedure has been developed in conjunction with the Principal Contractors to facilitate the access to work sites by regular visitors e.g. representatives from the utility companies.

A process of internal Turner & Townsend coaching has been implemented to ensure that there is a consistent approach to the joint monitoring that is being undertaken with the Principal Contractors.

2.2 Incident reporting

During the last period there were 14 incidents on the Edinburgh Tram Project. Two incidents were identified as Serious / Significant. These were a Gas main strike at West Maitland Street and a sewer collapse at Grosvenor Street.

The incidents that have occurred within this period have identified a number of common issues relating to the other incidents. These comprise:

- Damage to clothing due to catching on heras fencing (2no incidents) – this has been addressed through increased reviews/ inspections of the site perimeters by the contractors and Turner & Townsend through the joint inspections and recorded through the COCP inspection process.
- Fencing has been blown over (3no incidents) – these occurred during a weekend of strong winds. A review of the fencing arrangements has been undertaken by the contractors.

The Grosvenor Street sewer collapse was notified to the on-call number at 20:45 on the 10th May by Scottish Water to advise that there was flooding to the basements of properties in the vicinity of Grosvenor Street due to an incident with a sewer within the tram work site. This has subsequently been identified as the collapse of a section of roof slab from a stone sewer.

An initial response from Turner & Townsend and Scottish Water was on site at 21:15 and over pumping of the sewer initiated.

Subsequently Turner & Townsend and Scottish Water have been working jointly to resolve the issue. This has included undertaking an excavation and cleaning out of the sewer to determine the extent of the and likely cause of the collapse.

The proposal that is currently being developed in conjunction with Scottish Water is for the installation of a new manhole that will be located over the area where the collapse has occurred. The design for the new manhole is being progressed.

Progress Report No. 8 29th April – 26th May 2012**FINAL**

Incident Table:

Incidents reported within this period:

Date	Location	Detail	Contractor	Classification
30/04/2012	West Maitland Street	90mm PE gas main struck and damaged by mechanical excavator.	McNicholas	Service damage
10/05/2012	Grosvenor Street	Flooding to properties at Grosvenor Street from collapsed sewer.	McNicholas	Service damage
30/04/2012	Shandwick Place	Member of the Public damage jacket on broken Heras fence panel	Lagan Construction	Member of Public
29/04/2012	St Andrew Square	Member of the Public damaged jacket on broken Heras fence panel	McNicholas	Member of Public
03/05/2012	Edinburgh Park Station	Member of the Public tripped on traffic signal base protruding from pavement.	Crummock	Member of Public
14/05/2012	Grosvenor Street	Mrs Taylor stated that she had a young child and asked when the excavation works outside her flat would be stopping for the night.	McNicholas	Member of public
03/05/2012	Torphican St / West Maitland St	Damage to Traffic Lights cable by sub contractor (Diona)	McNicholas	Service damage
08/05/2012	Bankhead Drive	Damage identified to HV cable (considered previous damage). No injury or loss of supply.	Crummock	Service damage
17/05/2012	Coates Crescent	Street lighting cable damaged at 19 Coates Crescent	McNicholas	Service damage
10/05/2012	Grosvenor Street	Mrs Taylor stated that she had a young child and asked when the excavation works outside her flat would be stopping for the night.	McNicholas	Environmental
13/05/2012	Shandwick Place	Fencing blown over blocking footway outside Rutland Hotel.	McNicholas	Near miss
13/05/2012	Lothian Rd / Princes St	Fencing blown over Lothian Rd / Princes St causing obstruction at Frasers. Rhino fencing blown over Princes St.	McNicholas	Near miss
14/05/2012	Burnside Road	Airport Duty Manager report Heras Fence panels blown over in the vicinity of the Airport tram stop.	Farrans	Near miss
13/05/2012	Section 5	Excavator window broken over weekend 12 - 14 May 2012.	Crummock	Unsafe condition

Top 2 Significant Incidents

2.3 Safety Initiatives

The safety initiative 'Think Before You Act' session was held on the 10th of May 2012 and was attended by representatives from Transport Scotland, City of Edinburgh Council, Turner & Townsend, Bilfinger Berger – Siemens, McNicholas and CAF. The identified a common desire to improved health and safety on the project and a number of areas for improvement were discussed.

The ideas raised during the session and follow up comments identified have been collated by Turner & Townsend into a brief report. The report has been circulated for review and confirmation of each organisation's intent to support and implement the initiatives raised.

On behalf of the client team Turner & Townsend are implementing a number of improvement measures including the development of leading indicators and a project health & safety dashboard to highlight and provide visibility to project wide initiatives.

2.4 CDM Regulations

During the last period the pre-construction activities were undertaken for the demolition works of the toilet block at Cathedral Lane. This included a review of the documentation provided by the asbestos surveying organisations and development of pre-construction information for the demolition tender.

The lifting plan and methodology for the installation of the Russell Road overbridge were reviewed and comments raised were addressed by BBS.

A review was undertaken of the proposed use of a 500T crane in Princes Street as part of the process to erect an observational wheel in Princes Street Gardens. The review highlighted some concerns with the methodology proposed. Subsequently this proposal has not been approved by City of Edinburgh Council.

2.5 Environmental

During this period an inspection of key monuments in storage was carried out. The monuments inspected were the Ocean Terminal Monument, The Hearts War Memorial, The Conan Doyle Monument, The Leith Walk Pigeons and The Leith Walk cast Iron Balls. This took place on the 9th of May 2012. Sheena Smith (CEC), John Lawson (CECAS) and representatives from Land Engineers were present. A brief report of the location and status of each monument was compiled and issued to John Lawson (CECAS) and Paul MaCauley (CEC Monuments).

A subsequent meeting was held with Land Engineering and agreement reached that the Ocean terminal Monument and Conan Doyle Monument could be reinstated. It is intended that these will be returned to their original position in June/July 2012. A meeting has been arranged with CEC for the 29th of May 2012 to discuss programme.

A meeting was held with McNicholas to review the transfer of waste from and within their site boundary. Currently McNicholas have all waste removed from site by Neil Williams Haulage. Certain waste streams are stored at the Leith Depot until a full load can be removed. This waste is also removed by Neil Williams Haulage. A site inspection was arranged with McNicholas for the 24th of May 2012. This inspection has been slightly delayed due to changes in McNicholas staff.

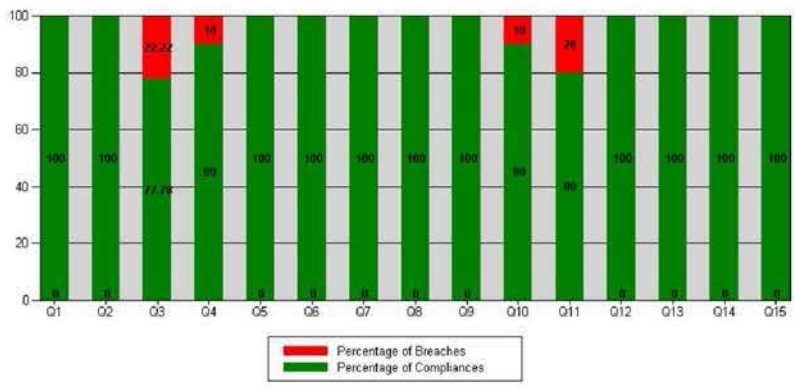
FINAL

John Darbyshire of JDC Ecology carried out an ecological inspection of the Cathedral Lane toilets. This inspection was required in order to ensure that no ecology was harmed / present prior to demolition of the toilet block.

BBS are currently reviewing their need for a full time project ecologist. Turner & Townsend Assurance Team advised that a suitably qualified ecologist was required for all ecological related inspections / advice, in line with the requirements of the Code of Construction Practice. BBS Environmental Team will advise Turner & Townsend of the outcome of their review.

2.6 CoCP

CoCP compliance was recorded at 95% during Period 2. The results of the CoCP monitoring have been passed to CEC Communication Team to be uploaded to the project web site. Details of these are contained in Appendix 2.



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

3 Programme

3.1 Progress this period

Progress is currently being made across the majority of the length of the route with the exception of Edinburgh Gateway and York Place which have yet to commence.

There have been some delays attributable to utility clashes at Shandwick Place, St Andrews St and South St Andrews St / Waverley Junction. A working group is in place to resolve the conflicts and to minimise any delays in these areas.

It was identified that Cathedral Lane substation was on the critical path for the project and an opportunity was taken to start demolition and ducting works early as part of a drive to de-risk the On Street works programme.

Sheet piling works have started in the Murrayfield Corridor, and despite some disruption due to concerns over the impact on the Network Rail corridor, these works have now re-started and have been completed.

The forecast delays to the completion of Section B have been mitigated and now the Master Programme is predicting that Section B will be completed by the contractual date of 8th March 2013.

Both the Section C & D dates are being forecast to be achieved slightly ahead of the contractual dates, with further opportunities for improvements if the York Place 'Radical Programme' initiative is approved and implemented.

3.2 York Place 'Radical Programme'

Detailed work continues on the initiative to better the delivery dates at York Place. It is expected that the proposed solution will be crystalised in the week beginning the 28th of May 2012. Two options have been developed for the utility diversions in advance of the main Infraco works, these are:

- Full closure of York Place from the 16th of July 2012 to allow utility diversions to be carried out prior to Infraco works starting in the most efficient manner.
- Partial closure of York Place on the 16th of July, maintaining two bus lanes through the work site. This option would result in a longer utility diversion duration than option 1.

McNicholas are developing detailed programmes for each option with a view to enabling early access to Infraco and reducing the overall duration of the On-Street works.

3.3 22 Week Draw Down

Based on Infraco's programme update contained within their period 5-1 progress report, and subsequent agreement in the 'Planners Forum', 38 days of the 22 week cost engineering programme saving had been eroded as a result of utilities works and the re-design of the On Street drainage.

Further erosion has taken place within the current reporting period (ending 26th May), this is currently being assessed by Turner & Townsend and Infraco, and will be discussed following the receipt of the Infraco period 5-2 progress report.

It is to be noted that the 22 week saving is analysed using the Infraco Rev4C programme, which does not contain utility diversion works. The critical path runs through Shandwick Place in this document.

With respect to the Rev4C programme, the erosion of the 22 weeks is primarily driven by the delays at Shandwick Place, St Andrew Street and Princes Street attributable to drainage works.

Delays have also been evident at South St Andrews/Waverley Junction and also contribute to the erosion of the 22 weeks.

Although delays have been evident with respect to the Infraco works, McNicholas have made significant progress with the drainage and track bed works.

3.4 Critical Path

Turner & Townsend's Master Programme contains all facets of the project and shows the genuine critical path to run through South St Andrews/Waverley Junction and York Place.

Therefore delays in the South St Andrews/Waverley Junction work site could potentially impact the end date of the project. Currently the re-phasing of the project (as a result of On-Street Value Engineering) and delivery of phases concurrently is mitigating against the impact on the project end dates.

The current critical path will change if the York Place 'Radical Programme' initiative is implemented. It is envisaged that the Off-Street section will then become critical. This would then run through the completion of the Murrayfield Retaining Wall (21B) and Edinburgh Gateway.

3.5 Rev5 Programme Development

As a result a number of initiatives, it was agreed that Infraco would review, and amend, the Rev4 programme with the intention of making it more current. This revised programme is being referred to as Rev5. It primarily includes all instructed changes including revisions to:

- Murrayfield Corridor Structures
- Edinburgh Gateway Civils works
- Deletion of Section 1A
- Inclusion of revised section B Test & Commissioning activities.
- Durations to suit current track construction methodology

The Rev5 programme was submitted by Infraco on the 23rd of May 2012. Turner & Townsend have responded on the 30th of May by requesting clarification on several points with the intention of accepting the programme once the clarifications have been received.

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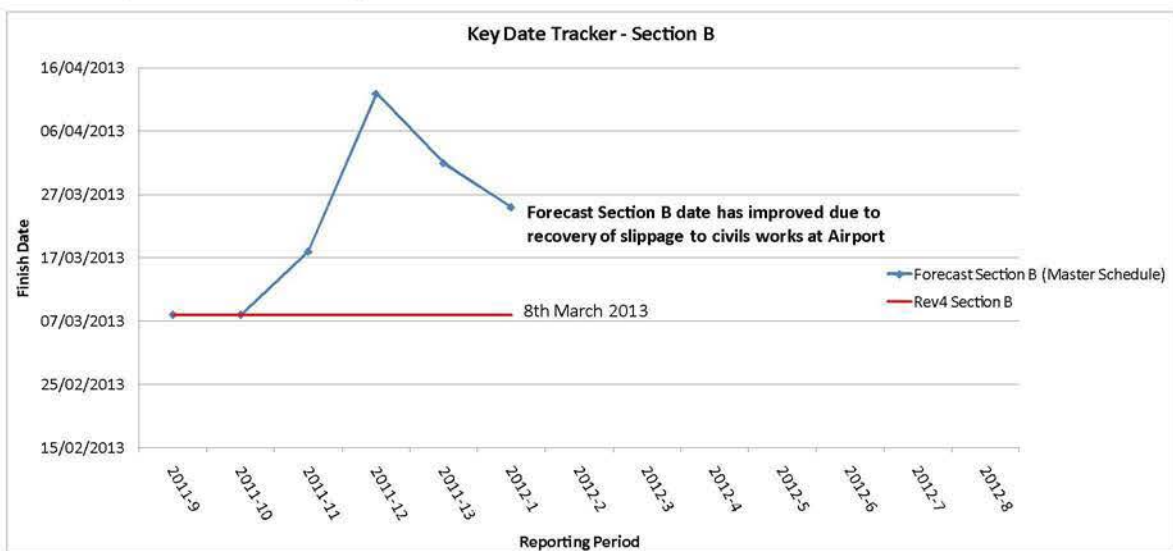
3.6 Key Dates Tracker

Three charts are included below which track the forecast dates (from the Master Schedule) for the Sectional Completion milestones against the contractual dates and the movement throughout the project lifecycle.

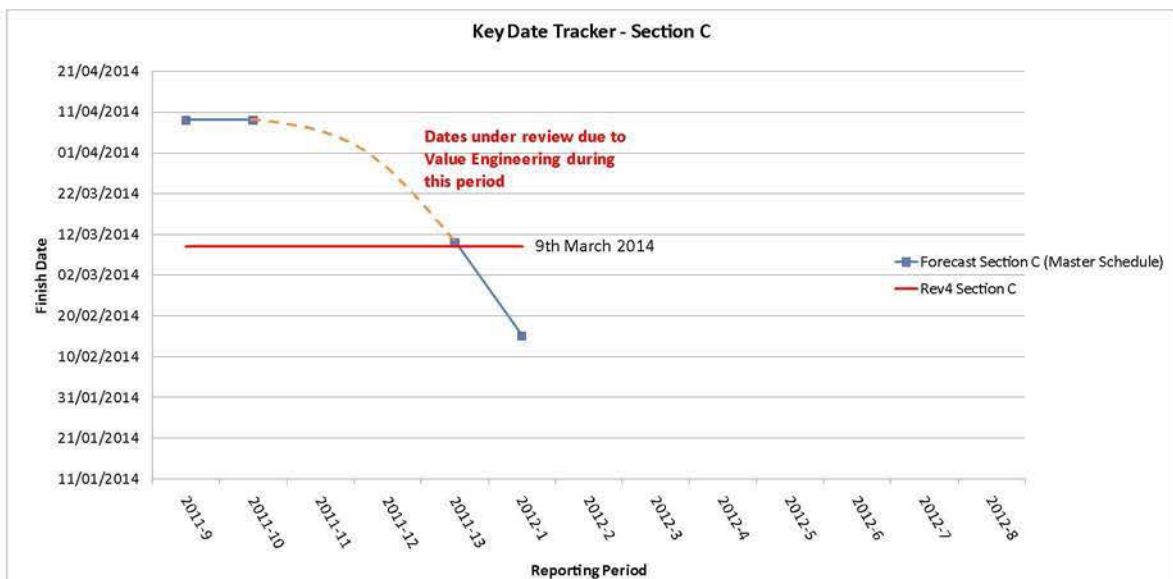
The Master Schedule is updated following receipt of the updated Infracore Full Period Report. Once the Master Schedule is updated, the revised forecast dates are included in the graphs below. Due to the timing of the Infracore submission and our reporting regime, we now include the implications of the Infracore report within our interim presentation.

Therefore the dates for period 2 will be included in the graphs in Turner & Townsend’s next full report.

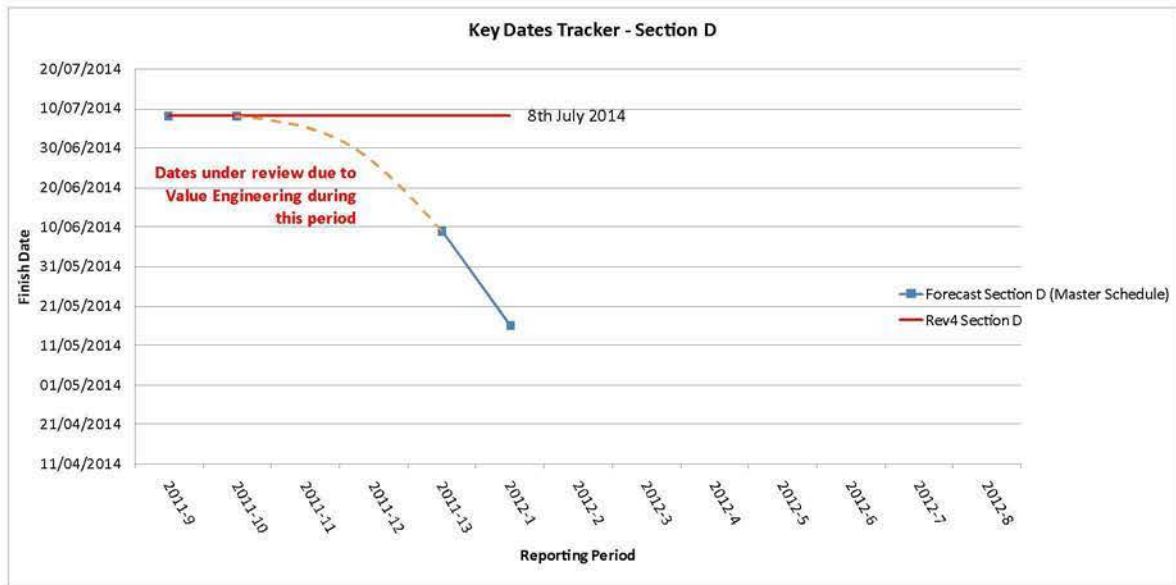
Section B; Test Track Complete



Section C; All Construction Complete (including T1 & T2 testing)



Section D; Open for Revenue



It is to be noted that whilst the Infracore Rev4C programme is stating a slippage to end dates, the master schedule contains several different aspects, such as the re-sequencing of Cathedral Lane Substation, which results in a positive impact to the forecast project completion.

3.7 QSRA Tracker

Several iterations of the Quantitative Schedule Risk Analysis have been carried out since September 2011. The table below summarises the process.

P80 represents an 80% likelihood of completing the milestone on that date, it is usual practice to utilise the P80 date as a standard at this stage of the project lifecycle.

The next QSRA will be carried out following the agreement of the Rev5 programme and York Place 'Radical Programme' initiative.

QSRA Iteration	What is Included (Description)
Master Schedule – First Pass	High Level schedule produced for QSRA analysis. Including utilities diversions.
Master Schedule with VE Changes	Post VE exercise Revised On-Street phasing Removal of summer embargoes More mature Risk Register
Master Schedule – Risks Reviewed & Opportunities Applied	Updated programme Detailed Risk review Identification of opportunities and application to the QSRA
Master Schedule with Cathedral Lane Re-Sequence	Further updated programme Early start of Cathedral Lane Sub-Station works Impacted Scottish Water risks Risk Review

Each period the risk register is reviewed and risks are assessed on an ongoing basis, with a general trend of reduction of risks as the team continually mitigate against the potential impact.

At the last major risk review the following risks were positively reduced:

Risk	Mitigations
Discovery of additional track construction conflicts (Type 1 & Type 2)	Utility owners providing dead & live drawings and presence on site Slit trenching float in programme in advance of remedial works Early implementation of TM
Discovery of abandonments during infraco works	McNicholas stand by teams in place (reduces time impact)
Risk that project relationship with Scottish Water deteriorates	Dedicated Scottish Water account Manager appointed Steering Group Set up and attended by Project Director Appointed senior manager to take over all non-infraco works
Tram (CAF) / Infrastructure (Infraco) Integration Risk	Bringing forward of T1 Testing in Off Street

	Interfaces mapped out in programmes
	Review and Lessons Learnt with other Tram Projects

A Variety of Opportunities have been identified and included in the QSRA analysis:

- Removal of Tram Kiosk work
- T1 testing of off street section proves successful therefore planned full line testing can be reduced
- McNicholas works (York Place) take less time than planned for at present
- Reduced scope at Edinburgh Gateway

"It is to be noted that the impacted dates are a statistical analysis of the potential impact of risks & potential opportunities, it is not a definitive completion date. Analysis also highlights key critical Activities, Risks and Opportunities, this allows T&T to manage and reduce the risks as well as actively pursuing opportunities with the aim of improving the P80 dates."

4 Commercial

4.1 Cost Summary (note – presentation of risk and opportunities to be agreed with CEC following review of the draft of this report) (Amount £k)

	Contract Sum	Approved Change	Revised Contract Sum
Infraco	413,103	-993	412,110
Utilities (Post Mediation)	1,812	5,461	7,273
Legacy Utilities (Revised Tram Route)	0	500	500
Legacy Utilities (Leith Walk)	1,100	-1,100	0
Tram vehicles	63,645	5	63,650
Totals	479,660	3,873	483,533
Change in Progress			9,850
Anticipated Change			11,997
Contributions			-7,417
Forecast Change / Contributions			14,430
Forecast Total			497,963
Risks (refer commentary on risk forecast in risk section below)			(presentation to be reviewed with CEC)
Opportunities (refer opportunities section below)			
Risks & Opportunities			
Revised Forecast			
Budget			

- Approved change is now £3, 873k compared with the previous report at £3,546K. The principal changes are additional design associated with resolution of on street utilities conflicts and certification of period ending 31/3/12 on street works change. A detailed summary is provided below.

- At the Tram briefing meeting, 17th May 2012, the draft cost risk forecast and schedule risk forecast was presented. The risk forecast is based upon P50 (level of confidence) and the schedule forecast is based upon P80 (level of confidence). It should be recognised that the forecast has an accuracy tolerance, i.e. some items may be descoped e.g. Scottish Water legacy and vice versa other items such as the off-street utilities costs paid by CEC may not be recovered from Infraco.
- Schedule opportunities have been incorporated into the schedule risk forecast to provide a net impact. These include potential reductions in duration for the Edinburgh Gateway and 3 months reduction in the Testing & Commissioning period. Advancement of York Place and further reductions in the Off-Street works have not yet been modelled.
- At the 15 May 2012 Programme control meeting a reduction of 5.4 weeks on the original Infraco 22 week cost engineering programme (Rev4c) was reported. When the utilities diversion durations, schedule risks and schedule opportunities are incorporated a forecast service commencement date of 25 June 2014. To enable a firmer forecast the open ended tasks in the programme need to be resolved and the implications of the Rev 5 programme need to be assessed. This assessment and a revised schedule risk and opportunity forecast will be produced week commencing 11 June 2012
- The key sensitivities are additional utilities diversions, the scope of the Scottish Water legacy works and the impact on Infraco's programme.

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4.2 Infraco (including Utility drawdown's and scope changes)

4.2.1 Approved Changes (Movement in the Period)

The changes approved this period at the CEC/Turner & Townsend weekly change meetings are provided below.

Approved Change	Amount (£K)
Approved to 28 April reporting date	3,546
tNC 553: SDS to provide the services of Matt Fell until August 2012	41
tNC 562: On Street Generally - OLE Design Changes for On Street Section (PMC 045) - SIEMENS DESIGN WORKS	115
tNC 563: On Street - Amend pile caps from square / rectangular to circular	-5
tNC 567: On Street Generally - Drainage Design Changes Due to Utilities Conflicts	40
tNC 595: Haymarket Viaduct - Deletion of fitting out of Crew Relief Facility	-74
tNC 616: Haymarket Viaduct - construct wall for blocking off void under the bridge deck as a result of the crew relief facility being omitted	1
ICC07: Independent Certifiers Schedule Part 45 Period End Change Order to 31/3/2012 relating to the following PAV's and On Street Works Estimates	209
	£3,873

4.2.2 Changes in Progress

Changes in Progress include items which cannot be mitigated and the change is agreed in principle. New items included in this section of the cost report during the period are:

- tNC 618: Gogar Depot 1800 mm Diameter Manhole - TQ736: £15k
- tNC 619: Omit Track Welding Equipment: £-3k
- tNC 620: Airport Tram Stop Design: £10k
- tNC 621: Amend the dates of the HV meter installation at substations: £13k
- tNC 623: Repair minor damage to Depot (Intercom, fence panel and broken slabs: £3k
- tNC 624: Compressed Air Supply to Depot Gantry Road and workshop: £5k
- tNC 625: Engineering attendance on site at Cathedral Lane.: £55k

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- tNC 626: Advanced procurement of Edinburgh Gateway Materials and Equipment.: £0k
- tNC 627: Delete pedestrian guardrail in the area outside St John's Church (Design): £5k
- tNC 628: Prepare MUDFA As Built drawings: £100k
- tNC 632: Resolve Depot Building water ingress: £0k – assumed to be a BBS liability.
- tNC 636: Twin Crossing at Lochside Avenue: £20k

It should be noted that some items move from Anticipated Change into Changes in Progress. The actual amount has not changed, however it affects the total of this section of the cost report. For example Floating Track slab at £980K is now included in Changes in Progress. Section 8 of the Cost Report identifies all movements in the period.

4.2.3 Anticipated Changes

The movements in the period are provided below:

Anticipated Change to 27 April reporting date		£13,917K
Infraco Works		
Pricing Assumptions - 6.4.2.1 Floating Track Slab	Costs transferred to Changes in progress	-980
Piled OLE base in lieu of utility diversion	Costs transferred to Changes in progress	-55
Drainage redesign and amendments to numbers / depths of manholes, carrier drains / drainage connections.	Allowance reduced to include for design costs only. Delay and disruption costs coming through On Street Works estimates	-200
Remove drainage from Infraco scope	Forecast deduct associated with the removal of scope from the Infraco contract	-450
Amend road reconstruction depth from Contract Requirements	Costs transferred from Opportunity section	-700
Opportunity to reduce cost associated with the temporary tram stop at York Place	Costs transferred from Opportunity section	-150
Defer tram stop construction	Allowance for Infraco costs associated with re-sequencing fit out of tram stops	30
Install fencing to mini test track		20
Redesign of OLE bases along Roseburn corridor where they are sited outside of the LOD		100
Utility Diversions		
Adjusted forecast for utility conflict core scope, resulting from emerging work	Amended forecast as a result of emerging design and current conflict numbers	-332
Cathedral Lane	Adjustment of forecast following development of scope and detailed resource planning	266
Drainage	Transfer of Networks 1,3, 5 and additional manholes from Infraco. Transfer of gulley drains, IMU drains and accessories. Constraints in methodology –	803

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	<p>drainage could not be installed as designed since utilities were found when the work was opened up, alternative locations had to be found to complete work.</p> <p>Depth changes and discovery of rock and foam concrete.</p> <p>Temporary works and H&S implications of revised work scope.</p>	
SUCs	<p>Amended forecast as a result of emerging design and current conflict numbers</p> <p>Introduction of SUC contribution (cost share)</p>	-205
Legacy Works - York Place to Airport	<p>Revised forecast based on COWD and resource based estimate of remaining scope</p>	-67
		£11,997K

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	£K	Status / Action
Edinburgh Gateway – legacy design and project management	940	TS have been provided with details and agreement of expenditure is agreed each period
New Ingliston – ducts & crossings	540	This is the Infraco costs associated with future-proofing work carried out for NIL. The value is offset against the agreed settlement amount which covers land and future-proofing work.
Cathedral Lane Sub-station	400	Costs submitted to Henderson Global (HG) amounting to £470K for design and the amended construction scope resulting from HG's requirements. £400K is included in the cost report to provide tolerance should the full amount not be recoverable from HG.
RBS Tramstop	500	The final design and scope has now been confirmed and the estimate has been submitted by CEC to RBS. The estimate is £618K and £500K is included in the cost report to provide tolerance should the full amount not be recoverable from RBS.
St Andrew Sq Public Realm design	133	Contribution to be obtained from separate CEC budget
CEC miscellaneous (George St)	318	Contribution received from separate CEC budget
Haymarket Station redevelopment	36	NR have agreed to undertake removal of staircase and parapet, NR to fund costs of sub-station plinth amendments and re-routing of Scottish Power cable.
Setts in On-Street Works	890	Forecast cost associated with setts in St Andrew Square. Final rates and costs to be agreed with Infraco.
Edinburgh Gateway	4,200	A final construction estimate on the agreed scope is currently being prepared by BBS. Costs will be funded by Transport Scotland.
Total	7,957	

4.2.5 Risk and Contingency Analysis

At the Tram briefing meeting, 17th May 2012, the draft cost risk forecast and schedule risk forecast was presented. The risk forecast is based upon P50 (level of confidence from the cost range) and the schedule forecast is based upon P80. Further discussions can take place regarding the use of a P80 risk forecast which would provide a more prudent view of expected outcome given the issues on utilities diversions and legacy issues.

It should be recognised that the risk simulation forecast provides a tolerance range of outcomes. For example some items may be de-scoped e.g. Scottish Water legacy and vice versa other items such as the off-street utilities costs paid by CEC may not be recovered from Infraco. In future forecasts the probability of some of these key risks will be evaluated in greater detail with the CEC client team to ensure that there is a detailed understanding of what factors will cause the risk and the extent to which the mitigations will be successful or not.

Schedule opportunities have been incorporated into the schedule risk forecast to provide a net impact. These include potential reductions in duration for the Edinburgh Gateway and 3 months reduction in the Testing & Commissioning period. Advancement of York Place and further reductions in the Off-Street works have not yet been modelled.

To help inform the potential range of outcomes it would be possible to compare base case with opportunities only and base case plus risk only.

At the 15 May 2012 Programme control meeting a reduction of 5.4 weeks on the original Infraco 22 week cost engineering programme (Rev4c) was reported. When the utilities diversion durations, schedule risks and schedule opportunities are incorporated a forecast service commencement date of 25 June 2014. To enable a firmer forecast the open ended tasks in the programme need to be resolved and the implications of the Rev 5 programme need to be assessed. This assessment and a revised schedule risk and opportunity forecast will be produced week commencing 11 June 2012.

The key sensitivities are:

- Schedule opportunities – critical path and end date assuming York Place is brought forward and therefore critical path moves to Shandwick Place which is currently being affected by the drainage re-design. Also the presumption that the testing and commissioning period can be reduced by 3 months.
- Commercial principles for securing schedule savings – the cost engineering instructions provided a framework for sharing savings on a 50/50 basis with CEC. Infraco have presented a view that they have re-sequenced their works, incurred additional supervision and therefore should be re-imbursed their share of the saving. This equates to £6M. The counter argument is that the cost report includes all their contract prelims and provided the project is finished on time then no further cost should be authorised.
- Emerging scope on the utilities diversions – when workfaces are opened up, additional or different conflicts emerge.
- Emerging scope on SW legacy – examples include the length of separation of water and gas mains and the extent of defects when work is opened up.

4.2.6 Opportunities and Baseline Project Instructions

A summary of the original amounts included in the cost engineering instructions are provided below. Given that the majority of items have been instructed, are in progress or in the case of the programme savings resulting from the embargo and TM removals, are subject to risk and opportunity from re-scheduling, it is proposed that these items are monitored in other sections of the report. The comment column indicates where the opportunity is tracked.

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Note: all figures are net

Item	£K	Comment
Remove embargoes and revised TM	6,460	22 week saving eroded by 5.4 weeks which excludes full extent of utilities diversion works. Master schedule shows 25 June 2014 compared to 8 July 2014. Schedule risk and opportunity forecast to track early / late completion going forward.
Edinburgh Gateway		Instructed, covered in contribution section.
Setts (separate CEC budget)	1,000	Potential saving of £95K for revised specification (setts, prismo and concrete) and monitored through changes in progress. £888K for setts in St Andrews Square which is included in the contribution register.
De-scope public realm at St Andrew Sq	700	Instructed, monitored through changes in progress
Contributions 3rd Party Agreements	2,500	Note: this is the amount for some contributions in the Cost Engineering report. This amount is not carried forward, refer Contribution Register for current position.
De-scope works at Forth Ports	2,445	Instructed, approved change
Omit Airport Tram Kiosk and Canopy	150	Instructed, monitored through changes in progress
Temporary tram stop at York Place	150	Instructed, monitored through changes in progress
Redeployment of Trams	CEC	Included in CEC budget code
Cancel track York Place to Newhaven	1,100	Instructed, approved change
Omit Siemens works at Tower Place	100	Instructed, approved change
Turner & Townsend / CEC resources		Ongoing
Shared recovery vehicle		Not taken forward
Road re-construction depth	700	Instructed, monitored through changes in progress
Design freeze north of York Place	t.b.c	Infraco design costs expended
Reduced requirement for storage		Included in CEC budget code
Lay off TM at Forth Ports/Leith Walk	t.b.c	TM not included in Infraco budget provision
Roseburn Viaduct Cladding	300	Instructed, monitored through changes in progress
De-scope crew relief facilities (Haymarket)	70	Instructed, monitored through changes in progress
Opportunities secured	8,365	
Opportunities to secure	7,310	

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

In previous reports we have described the basis of pricing assumption variations which enable adjustment to the On-Street contract price and also emerging issues regarding the basis of the settlement agreement. The following classifies agreement of change in the following way:

- Green: variation principle and amount agreed
- Amber: variation principle agreed, work ongoing and amount to be agreed
- Red: variation principle and amount not agreed

PMC	Description	(£K)
	On - Street	
15	Utility conflicts – investigation	17
25, 72 & 87	OLE foundations resulting from discovery of utilities	726
28	Temporary accommodation for utilities contractor	2
29	Road re-construction protocol (opportunity to reduce depth)	0
30	Additional CBR/Plate testing – ground strength	0
32	Utilities affecting site clearance - disconnect power to bus trackers	0
35,79,99,100	Utilities contractor affecting Infracore progress	70
36	BT Fibre Optic affecting progress	83
37	Slit trench to validate utilities	7
38	Move 3 OLE foundations (St Johns Church)	12
40	Scottish Water diversion Princes St	253
43	Christmas embargo – temporary infill Princes St	204
44	BT diversion – Princes St (included PMC 040)	inc
52	Install Traffic Management early Shandwick and St Andrew sq	220
68	Utilities affecting track drainage	80
69	Geotextile liner to Clifton Terrace void	4
	Total On-Street Works Estimate	1,678
	Off Street	
t.b.c	Payment for Utility diversions Off Street outwith BBS's scope	340

61	Temporary footpath and drainage - Roseburn Viaduct	30
t.b.c.	Low voltage supplies to Airport Tramstop cabinet	30
	General	
	Rev3A to Rev 4 programme – evidence of delay costs (BB only, Siemens t.b.c)	600
	Depot doors – new drains to prevent water ingress	t.b.c
	Re-configure ducts at Haymarket Yards owing to fence post foundation within LOD	t.b.c
	Snags/defects in Princes Street – ponding, rutting in road surface, etc (Note: these costs are not included in the cost report)	t.b.c
		2,678

Items within the Red category include:

- Utilities Off-Street £340K – one of the principles of the settlement agreement is that Infraco take the risk for utilities off street. CEC have had to pay utility company invoices and cost recovery has been sought from Infraco. Infraco have provided a position paper outlining why some of the utilities movements should be payable by the Client. We will provide our response by 30th May when a further meeting has been scheduled.
- Rev3A to Rev 4 programme – Infraco have applied for £1.4M, however in our view they have not submitted evidence that the costs have been incurred which is a requirement of the Independent Certifier’s opinion. Infraco have committed to provide further information to evidence that the costs have been incurred.
- Depot doors new drains to prevent water ingress – Infraco are reviewing matters with suppliers, they have also stated that the design is based upon value engineering and design approvals.
- Re-configure ducts at Haymarket Yards owing to fence post foundation within LOD – Infraco installed a bank of ducts and then have stated that they need to be amended owing to conflicts with the Network Rail fence post foundations. Unencumbered access within the LoD should be provided however re-work could have been avoided when the workface was opened up.
- Snags/defects in Princes Street ponding, rutting in road surface, etc – Infraco claim that they are not responsible for defects resulting from the 2009 works. This is currently being examined.

4.3 Utilities

4.3.1 Budget

The approved budget of £7,773K is unchanged during this period.

4.3.2 Contract

The contractor has offered a saving from the 11.48% management fee to 9.3% on the basis that as the contract is NEC Option E, cost reimbursable, the costs are audited and concluded on a quarterly basis. A condition of this proposal is that the client takes the risk of the £10K excess should any claims arise from Public Liability Claims. A final proposal has been submitted for approval.

In addition savings of 5% to 10% in labour, plant and material costs have been secured for the cost reimbursable elements.

These changes have been incorporated into our forecast.

4.3.3 Approved Changes

To manage scope changes to the McNicholas contract and govern funding drawdowns the following process has been agreed with CEC:

- Scope changes will be managed through changes being identified and recorded on UNCs (Utility Notice of Change). These change requests will identify an outline scope, the reason for the change, the impact on resources/management team, any impacts on Health & Safety, a budget cost estimate and whether the costs are included in the current out-turn estimate or not. UNCs will be submitted to the client group for approval at the weekly client and change meeting.
- Budget drawdown papers will be submitted separately to provide a quarterly reconciliation on the estimate and drawdown to fund expenditure for the next quarter. Additional drawdown papers will be submitted within the quarter if the additional scope results in the expenditure forecast exceeding the approved funding limit. Drawdown papers will be issued to the client group and a separate meeting will be held to review the details to ensure the scope, costs and reconciliations are clarified and approved.

The following scope changes have been approved by CEC:

- UNC 005 Tower Place Bridge kerb and parapet works;
- UNC 006 Transfer of drainage works from the Infraco works, including proving, utilities diversions associated with drainage;
- UNC 007 Cathedral Lane ducting and duct excavations, including proving and associated utilities diversions;
- UNC 009 Princes St Crawley Tunnel – water mains repairs resulting from Tram works in Princes Street owing to Infraco position that the leaks from the joint between the new pipework and the existing is excluded from the Princes Street remedial works .

4.3.4 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.

4.3.5 Anticipated Change

The cost estimate was originally developed on the basis of a cost per conflict type. Given a greater understanding of the nature of the diversions required a programme with resources to suit the scope and programme sequence. This resource plan has been used to form the basis of the estimate. This estimate is under continual review, comparing actual progress against planned and actual resources against planned. The sequence of work is as follows.

Priority	Original strategy	Revised strategy
Priority 1: works in advance of Infraco	Overhead Line Bases Road Level Conflicts Tram Ducting Chambers Tram Ducting Track Construction	Overhead Line Bases Road Level Conflicts Tram Ducting Chambers Tram Ducting Track Construction Drainage – transfer of drainage networks from Infraco Drainage excavation, proving and identification of new routes owing to utility conflicts Drainage gully's IMU drains Track box excavation Tram duct excavation Duct excavation Cathedral Lane Some kerb realignment
Priority 2: works in parallel with Infraco through call off or isolated work areas	Traffic Signal Pole Street Lighting Column Road Sign Base Kerb Re-alignment Drainage Drainage Gully	Traffic Signal Pole Street Lighting Column Road Sign Base Remaining kerb re-alignment

The key issues being addressed in the estimate include:

- There is a high degree of variability in work scope for each conflict, for example: removal of foam concrete, steelwork within the road construction, abortive excavations owing to utilities not in the locations shown on the drawings.
- The unit cost per conflict included in the original cost estimate may not account for inefficiencies resulting in the accelerated programmes for Shandwick and St Andrew Sq.
- Scottish Water has submitted a proposal for management and supervision costs for On-Street, Off-Street and Legacy Works for the project until 2014. These costs are being challenged; however they are in excess of the forecast allowance. It is unlikely that these costs will be agreed in advance of the historical issues associated with betterment and cost share. These potential additional costs have not crystallised and are not included in the cost report and will be reviewed at a meeting with CEC 9th of May 2012. Following this review, additional costs will either be included in the Anticipated Change section of the Cost Report or provision made in the QCRA.

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4.3.6 Legacy “snags” / defect correction Scottish Water assets Haymarket to York Place

The scope of work is being developed through evaluation of the “snagging” lists and engagement with Scottish Water.

The current estimated cost is £1,187K and the scope is being developed and agreed with Scottish Water.

Grade 3, 4 and 5 sewer repairs – Scottish Water claim that tie committed to doing these works however in our view they would fall within the requested works provisions of the 3rd party agreement and therefore be funded by Scottish Water. These are not included in the cost report at this stage.

The sewer collapse in Haymarket is to be recovered through the insurance provisions.

4.3.7 Legacy “snags” / defect correction Scottish Water assets York Place to Newhaven

These works are subject to separate procurement and programme arrangements. Similarly the scope of work is being developed through evaluation of the “snagging” lists and engagement with Scottish Water.

The current estimated cost is £2,700K however the scope and costs are being developed to determine the most cost effective solution.

4.3.8 Legacy works constructed under MUDFA

Following the handover of the tie cost forecasts for utilities works and the respective utility company costs (supervision costs and cost contribution for cost share, betterment, etc), a commercial position paper was submitted to Scottish Water.

Scottish Water has now submitted revised costs for supervision costs and calculations in relation to cost share. A summary of these costs have been presented to CEC and a recommended position statement is being developed for submission and review by CEC prior to issue to Scottish Water. The draft was discussed at the cost review meeting 9th May. An update is being prepared to enable CEC to discuss matters with Scottish Water.

Further discussions or meetings have also been held with Scottish Power, the telecoms companies and also Scottish Gas Networks to progress resolution of cost share and betterment.

4.4 Tram Vehicles

The budget for Tram Vehicles is £62.4M which is lower than the contract sum at £63.6m.

There are no changes to the forecast during the period.

4.5 Payments and Cash flow

A summary of the certified amounts are provided below.

	Certified £M	Planned £M	Comment
Infraco	287,994	305,688	Planned – based upon Rev 3A programme
Utilities	5,922	5,773	McNicholas plus SUC costs
Trams	57,420	58,007	Payments in accordance with milestone schedule.

5 On Street - Enabling Works & Utility Legacy Works

5.1 General

It was reported previously that a decision had been taken to instruct McNicholas to lay drainage pipes, construct chambers and excavate the "track box" to provide Infraco with the opportunity to commence track slab works as early as possible once sites are handed back. Furthermore it was reported that there continues to be instances where Turner & Townsend has to take remote areas of sites to deal with residual utilities issues that were either not completed prior to handover or which were discovered after the sites were handed back to Infraco. While these instances had appeared to be reducing at the end of the last reporting period there has been an increase in recent weeks as a result of trams ducting/ Utilities conflicts.

While there are relatively few tram ducting clashes along the On Street route they have impacted on Infraco progressing works in some areas. The biggest impact has been through Shandwick Place and this is reflected in a lack of progress through the area. Technical solutions to all tram ducting conflicts are anticipated to be in place by mid June and Turner & Townsend is currently prioritising works to mitigate delays to the Infraco programme wherever possible.

5.2 York Place Planning

Detailed planning of works in York Place progressed well in the period and a number of opportunities have been identified. Turner & Townsend have been tasked with improving on the 16 week programme originally identified for utility conflict works in order to provide Infraco with the opportunity to access to York Place in the early Autumn of 2012. Planning of this work is well underway and in consultation with CEC it has been agreed that the McNicholas scope of work through York Place will increase based on lessons learned from other sections of the works to include the utility conflicts, "track box" excavation, drainage and all tram ducting.

A key driver in facilitating early works in York Place is the completion of some ducting and demolition enabling works at Cathedral Lane/Elder Street and a 12 way BT diversion at Broughton Street. The cabling works have commenced and the target date for completion of all the above enabling works is 8th July 2012.

5.3 Legacy Works

As reported previously there remain some key water issues that have the potential to cause significant difficulty for the project. These include apparatus currently located within the tram Dynamic Kinematic Envelope and the tram DKE+2m that cannot be diverted and apparatus without the necessary separation distance from other utilities as a consequence of congested areas. Progress with Scottish Water on how to best deal with these issues has not been as positive as hoped during this reporting period and Turner & Townsend has raised this and other Scottish Water issues to CEC for discussion with Scottish Water at a senior level.

Regarding the legacy works north of York Place, the tenders are due back on 8 June and arrangements have been made with CEC to ensure the tender opening protocols are being followed. The target date for commencement of the works is currently under review by CEC in the context of other major projects taking place in the city over the summer period although some works may commence at Constitution Street in July 2012.

The reinforced concrete works at Tower Place Bridge have been delayed due to Forth Ports not issuing the requisite licences. Lindsay Road works are progressing well and are being carried out by CECs term contractor Tarmac. It is likely the Tower Place Bridge Works will be delayed beyond the end of June although Lindsay Road is expected to be completed by this date.

5.4 Grosvenor Street Sewer Collapse

Turner & Townsend was advised on the 10th of May 2012 of a potential sewer problem at Grosvenor Street. It transpired that basements in properties at the south end of Grosvenor Street had flooded as a consequence of the main sewer backing up. An excavation above the sewer, within the tram site, had collapsed and emergency measures had to be put in place to deal with the affected property owners and the immediate flood. Turner & Townsend, McNicholas and CEC dealt with the immediate issues and since the incident have been investigating the likely cause of the flood. No conclusions have been drawn at the time of drafting this report although a full update will be provided to the Tram Briefing meeting on the 7th of June.

Turner & Townsend has undertaken to compile a comprehensive report into the cause of the collapse and has agreed with Scottish Water that it can contribute to the report prior to it being published. It is worth noting that Scottish Water has distanced itself from the cause of the collapse although Scottish Water personnel have been present throughout the investigation process.

5.5 Look Ahead

Focus will be on completing the small remainder of drainage works and resolving the tram ducting conflicts discussed above to allow Infraco to continue work. Planning at York Place will continue with demolition works commencing at Cathedral Lane and BT works commencing at Broughton Street. Turner & Townsend will also continue to react to utility discoveries by Infraco and will work with Infraco in planning any "type 2" conflict works not diverted prior to sites being handed back. These include conflicts in footpaths under sign and signal bases that are best dealt with as Infraco carries out its works.

6 On Street - Main Works

6.1 Progress in Period.

Infraco has continued with track slab construction in areas not affected by the drainage redesign and tram ducting conflicts.

Infraco works however have been disrupted in a number of areas and in particular through Shandwick Place and Haymarket. There is a tangible difference in Infraco's approach to management of the works between this section and the section of works north of Princes Street. While the Infraco management team in St Andrew Square has been very pro-active and assisted in working around issues, the team responsible for the section of On Street works between Lothian Road and Haymarket has been less cooperative and extremely rigid in their approach to problem solving. Despite this Turner & Townsend is continuing to work through conflict issues.

While works in St Andrew Square have progressed in the period the impact of conflicts and residual drainage issues have delayed some Infraco works. In this regard Infraco is continuing to report that the completion date for St Andrew Street is likely to slip to from mid October to early November. This is a significant issue as the project critical path remains through this area. Turner & Townsend is working with Infraco and CEC to assist in recovering any time lost through this area.

Princes Street works are due to be completed by the end of June and Turner & Townsend has developed a detailed tracker to manage the close out in a timely manner. A countdown approach to the opening is being adopted and the details of how this will work are currently being finalised. There are risks in relation to meeting the handover date including resolving a number of outstanding Scottish Water legacy issues and outstanding snags from when Princes Street was previously handed back in 2009.

The pre-planning consultation period in relation to Dublin Street Steps concluded on the 10 May 2012 and the formal planning application has been made. The current target date for the planning committee is the 20th of June 2102.

6.2 Key Issues

6.2.1 Scottish Water Manhole Connections

In parallel with the re-design and drainage works, Turner & Townsend prepared a briefing note setting out the history of the manhole connections issue; and a commentary on the possible apportionment of responsibility. The matter was referred to the Independent Certifier who has opined although the formal report is yet to be issued.

6.2.2 Tram Ducting

The tram ducting issue identified above needs to be resolved as early as possible to minimise the impact on Infraco's programme. Significant resource is now focussed on resolving all outstanding matters and an update will be provided at the Tram Briefing meeting on the 7th of June 2012.

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6.3 Look Ahead

6.3.1 Haymarket

There remain some residual tram ducting issues in this area and the Grosvenor Street collapse has affected progress. It is not anticipated, however, that the overall sectional completion of these works will be delayed.



6.3.2 Shandwick Place

While it was anticipated that Shandwick Place would be handed back to Infracore on the 14th of May 2012 the drainage and tram ducting issues have led to delays in handing back sites. While it is not anticipated that the overall completion of these works will be delayed (when referenced to the Rev4 programme), the lack of progress is of concern and the mitigation actions in relation to tram ducting will concentrate on getting the Shandwick Place Infracore works underway.



6.3.3 Princes Street

Target date for completion and handover on the 29th of June 2012.



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6.3.4 St Andrew Square including Waverley Junction

As set out above Infraco is reporting a delay to completion and anticipates completing works in the area at the beginning of November. Turner & Townsend will be working with Infraco and CEC over the coming weeks to explore ways of improving on this date.



6.3.5 York Place

Planning is well underway and the demolition and BT works in the area are schedule to commence in the period.

7 Off Street Works

7.1 Progress in Period

7.1.1 Edinburgh Gateway

On the 1st of May 2012 Turner & Townsend became aware that Infraco were looking to change the design from the gabion basket solution to a king post wall. This revised proposal was submitted in response to Infraco's revised assessment of site constraints and benefits in construction methodology.

Infraco offered two possible king post wall options:

- A 5 metre high wall with a 1:2.5 slope
- A 2 metre high wall with a 1:1.5 slope, where CEC would take the liability for the design of the slope, due to this being a steeper slope than the designer would normally specify.

The decision in height of the retaining wall was taken on the basis that the Contractor's designer was unwilling to offer and certify a design based on anything other than a 1:2.5 soil slope above the retaining wall, irrespective of whether that slope was engineered or natural. BBS have subsequently advised that a 1:1.5 slope was unacceptable, and the benefit associated with accepting liability for a 1:2 slope (vs 1:2.5) was "negligible" in terms of time and cost.

Following a review of the options by the CEC, TS, TSS and T&T (The Client Team), it was confirmed by Transport Scotland that the King Post solution should be progressed to detailed design.

The change to the design of Edinburgh Gateway has resulted in a prolonged designed period with the detailed design now to be completed by the end of May 2012. Infraco submitted Approval in Principle proposals for review by CEC's Structure Department during week commencing the 28th of May 2012.

A meeting was held with Transport Scotland's Rail department and Network Rail to explain the change from gabions to a king post wall. A further meeting is required to define the boundary of Infraco's site and the timeline by which Network Rail and Scottish Water will be able to access the area. This meeting will take place following submission of the detailed design at the end of May 2012.

CEC has requested that the tram stop equipment originally identified for York Place to Newhaven be utilised for Edinburgh Gateway.

The Revision 5 programme indicates that the Edinburgh Gateway permanent radio mast is to be installed by the 21st of November 2012. Clarification is required from Siemens on whether this is in sufficient time for Section B Test & Commissioning. They would however still continue with tests on the aerial that currently exists within the depot as mitigation to any programme slippage. These tests increase the wattage to the aerial to establish if coverage of Section B can be achieved. Tests that were programmed for week commencing 21st of May 2012 had been disrupted due to the handover of the mini test track and access arrangements not being in place, the tests have now been delayed until July 2012.

7.1.2 Scottish Gas Network Diversion

The diversion of the Scottish Gas Network pipe was completed on programme on the 18th May 2012 and Infraco's subcontractor has now commenced works in the area. Due to the heavy rainfall during the week ending 18th of May there are some ground reinstatement works required however this has not impacted on the Infraco works.

7.1.3 Roseburn Street Bridge

The bridge beams for Roseburn Street Bridge were successfully lifted into place on the 12th of May 2012. The closing of Roseburn Street was required while the crane was in place.



7.1.4 Other items of progress:

- The secant piling has been completed at the airport.
- Landscaping between Ingliston Park and Ride and the Gogar Burn is complete.
- Road signage foundations are commencing around the Gogar roundabout.
- Lochside Avenue crossing has commenced.
- Soil reinforcement at the Gogar Landfill is complete.
- Bankhead Drive earthworks and drainage works are continuing .
- Abutment works are progressing on South Gyle Access Bridge.
- The track works at Carrick Knowe and from Haymarket Yards to Balbirnie are continuing.
- Works have commenced to enable the removal of Network Rail's Balgreen Road Bridge, this requires a series of road closures at weekends during the upcoming period.
- Progress is being made on the sheet piling works along the Murrayfield corridor and at the ScotRail depot however these works have been disrupted due to movement of the Network Rail Infrastructure and rogue monitoring results. The sheet piling operations were completed on the 29th May despite stoppages.
- Weekend works to complete the road joints at Haymarket Yards have commenced.
- After the initial cladding test panels for the Haymarket Viaduct being rejected due to material and workmanship issues, these works have now commenced.
- Scottish Power have installed the new cable to the Haymarket substation and removed the cable which was interfacing with the Network Rail station foundation.

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7.2 Key Issues

7.2.1 Railway Corridor

Sheet piling works continued utilising an alternative methodology along the Murrayfield corridor. These works are required to enable access for the ground improvement works. As the sheet piling operations have advanced, movement of Network Rail overhead line masts have been recorded by the monitoring team. Works ceased adjacent to the area where movement has occurred while the overhead line equipment, embankment and track were inspected by Siemen's Competent Responsible Engineer and the Temporary Works Designer.

The monitoring points on the embankment were adjusted as localised topsoil movement caused trigger levels to be reached. Agreement was reached with Network Rail that their infrastructure was safe and new trigger levels established for the overhead line equipment. These works have now been completed.

The movement that has occurred in the ScotRail depot is continuing to be monitored and pre-engaging of sheet pile installations is being carried out to minimise any vibration affects.



Scotrail Depot: Concrete slabs have separated due to sheet piling, this can be seen by the gap in the joint between the slabs.

The subcontractor who had been chosen by Infraco to undertake the Ground Improvement works is no longer trading. Infraco are in discussions with another company to undertake these works. This has already delayed the start date as stated within the Rev 5 programme.

7.2.2 Airport

On the 11th of May 2012 Infraco and Turner & Townsend attended a meeting with BAA to understand the concerns that the airport have in relation to Eastfield Avenue road and pedestrian crossings.

At this meeting BAA expressed their concerns over the gradients on both the road and pedestrian crossing and that they feel they are being left with a legacy issue. The pedestrian crossing has a steep gradient falling from east to west and would appear not to be DDA compliant.

Infraco have advised that they believe the design to be compliant and that construction is in accordance with an approved design. No evidence has been provided to support this.

Infraco have developed an improved solution to the pedestrian crossing however, this to have a gradient in excess of the maximum permitted within CEC & DfT guidance. No departures from this were applied for by Infraco.

A meeting has taken place between Colin Smith (CEC), Kevan Jameson (BAA) and Shirley Mushet (T&T) to present the foot path proposal. Kevan Jameson has stated he would review the revised design; however Kevan's initial reaction was this would not fulfil the Airport's expectations, as the gradient would still be too steep.



Photos: Eastfield Avenue Pedestrian and Road Crossing

7.2.3 Haymarket Interface

Network Rail's Project team have raised concerns over the line of the tram drainage being within the Haymarket Car Park. The drainage is within the Limit's of Deviation and was installed in accordance with the Asset Protection Agreement.

7.2.4 Scottish Water

Lochside Avenue clean water twin crossing, previously installed under MUDFA, is to be replaced in order to satisfy Scottish Water concerns over the proximity of red blaes.

7.3 Look Ahead

- Retaining wall construction continuing along the Gogar Burn.
- Earthworks at Ingliston Park and Ride following the completion of the SGN diversion.
- Continuation of Lochside Avenue crossing and Edinburgh Park Corridor
- Bankhead Drive earthworks and drainage are continuing.
- Balgreen Road Bridge removal continuing.
- Water of Leith continuing with the west abutment formation.
- Ground Improvements commencing on Murrayfield Corridor S21B and S21C. (This is subject to subcontractor discussions).
- Continuation of the cladding works on Haymarket Viaduct.
- Network Rail mobilisation of their Haymarket station works teams.
- Fit out of Haymarket substation.

8 Trams

8.1 Progress in Period

Testing and Commissioning is now progressing smoothly and in accordance with the procedures developed by Turner & Townsend and CAF. Testing efficiency is now being addressed to allow a reduction in the requirement for Tram Inspector attendance in Edinburgh and therefore a reduction in testing cost.

Fourteen trams have now been delivered to Gogar Depot, with ten trams having been issued with Interim Tram Routine Test Certificates. One additional certificate will be issued imminently following on the completion of rectification work requested by the Tram Inspector.

8.2 Key Issues

The process for the valuation of Milestone Payment requirements has been agreed, with evidence requirements now being determined monthly in advance. An agreement has been reached between Turner & Townsend and CAF that no milestone payment application will be made until all required evidence has been provided.

The two technical issues identified during the previous period have been progressed, as detailed below.

- CAF have addressed the issue relating to the incorrect positioning of DSD and Horn pedals and have issued a report following an investigation into the cause of the issue. Turner & Townsend are currently seeking clarification on some items raised by the report.
- The immediate cause of the detachment of a roof panel on tram #252 has been identified and the defect has been rectified. A fleet check on all other trams identified that the issue was local to this tram only. CAF are currently checking the security of roof panels on all trams prior to their operation within the Depot and Mini Test Track, with a technical investigation into the root cause now underway.

Turner & Townsend are currently developing an Engineering Change process with CAF and ETL, to manage the identification, investigation and rectification of issues, such as the roof panel detachment, identified during tram operation. This procedure will allow compliance with the ROGS responsible person's requirements in relation to the management of technical change. The procedure will be developed to cover all trams at Gogar Depot and may also form the basis of an Engineering Change procedure for the facility.

Lothian Buses are currently confirming the procurement situation and Preferred Bidder status for Ticket Vending Machines with CEC, with a decision in expected imminently. The specification of the functional requirements are to be completed before equipment can be procured.

The modification to the Tram Wash Plant to ensure that all areas are washed is now underway. The work is expected to be completed at the end of May 2012, with testing completed in early June 2012.

8.3 Look Ahead

Tram Delivery, Test & Commissioning:

The BBS Systems Integration Plan and Section B completion programme have now been received. Turner & Townsend have collated comments from all stakeholders and will facilitate a workshop on 28th May 2012, to allow all stakeholders to have an understanding of each other's test and commissioning requirements and form an agreement on roles and responsibilities.

There are three trams due to be delivered to Gogar Depot in the next period slightly ahead of schedule, however there may be a reduction of trams delivered over the summer months. The delivery date for the final tram remains at 12th December 2012.

There are four trams scheduled to complete Routine Testing on the Mini Test Track in the coming period.



9 Assurance

9.1 Progress in Period

A Safety Verification Audit was carried out for Section 5 during this period (17th of May 2012). This audit considered the Safety Verification associated with the Bankhead Substation pre-electrification. A report is currently under internal review and will be issued during the coming period.

On the 16th of May 2012, the mini test track was successfully handed over from BBS to CEC. The operator has provided a Disposition Statement relating to their responsibilities, since they have taken control of the mini test track from CEC. This process has clarified the role and responsibilities of all parties, during the on going tram testing and contract works.

An ICP Liaison meeting was held on the 9th of May 2012 during the meeting BBS presented the Requirements Management progress and methodology. In addition the Tram Reversing Strategy was discussed. The Independent Competent Person noted that he was satisfied with the material he was presented with.

The Owner controlled Insurance programme (OCIP) risk surveyor visited the project on the 9th May 2012. Following a general project presentation at Edinburgh Park, they visited Broxburn storage depot and various site locations. The visit went well with no significant findings raised. The OCIP inspection report is due in early June 2012

There are 12 depot snags still open including one to be monitored against satisfactory resolution during June 2012. BBS are currently actively closing the other items, including:

- Castell key sockets modification, This has been carried out however further work is now required..
- Water ingress to the wheel lathe, initial works completed however further water ingress is now present.
- Sealing of Depot shed door, Tie Notice of Change has been issued to BBS.
- Work shop tool air supply piping, Tie Notice of Change has been issued to BBS.
- Depot pit drainage resolution, has now been agreed between CAF and Lothian Buses.

9.2 Quality

The number of NCRs raised to date is 505. 20 NCRs were raised during the period and 23 NCRs were closed out during the period.

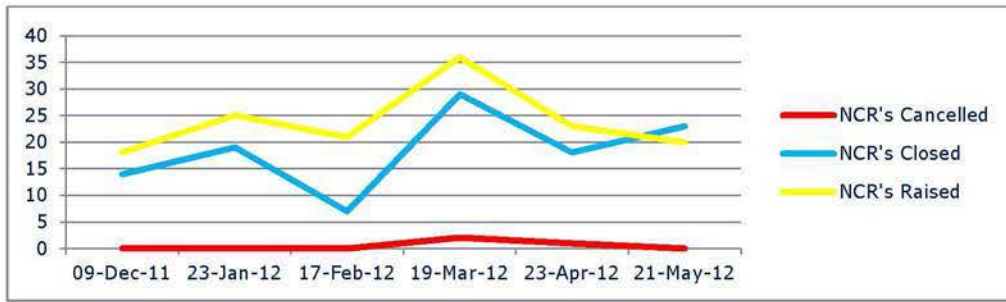
11 no open NCRs are greater than 6 months old. Details may be found within Section 6 of Deliver a Safe Tram (See Appendix 2)

A formal response has been received from BBS regarding the quality issue of the concrete / railhead level interface in Princes Street. A level survey has been undertaken and BBS have advised that the levels will not impact on the safe operation of the tram. A Road Safety Audit Stage 3 is to be undertaken to verify that the no unacceptable risk is imported to the road users.

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Non conformances

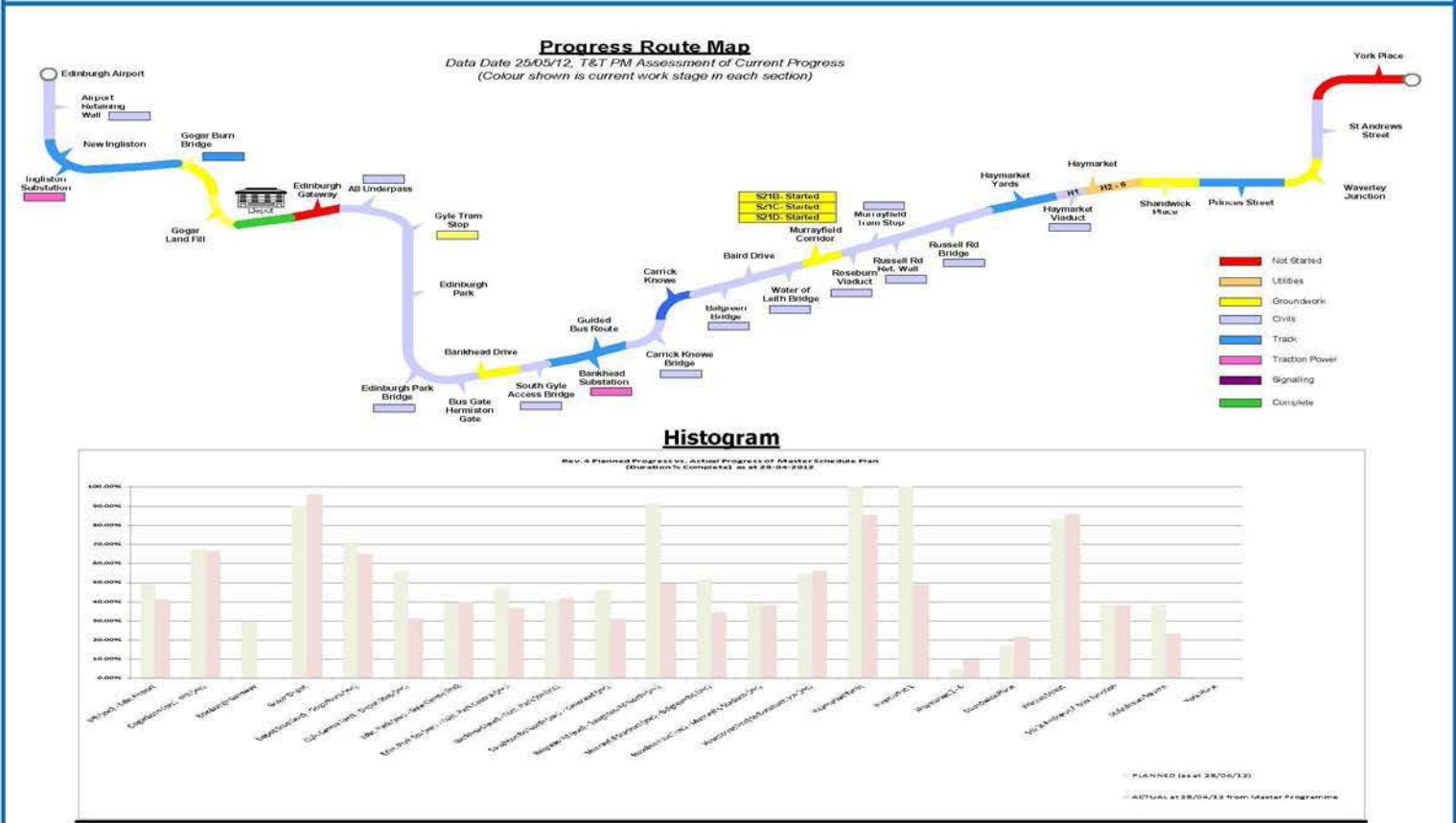


Appendix 1 – Dashboards

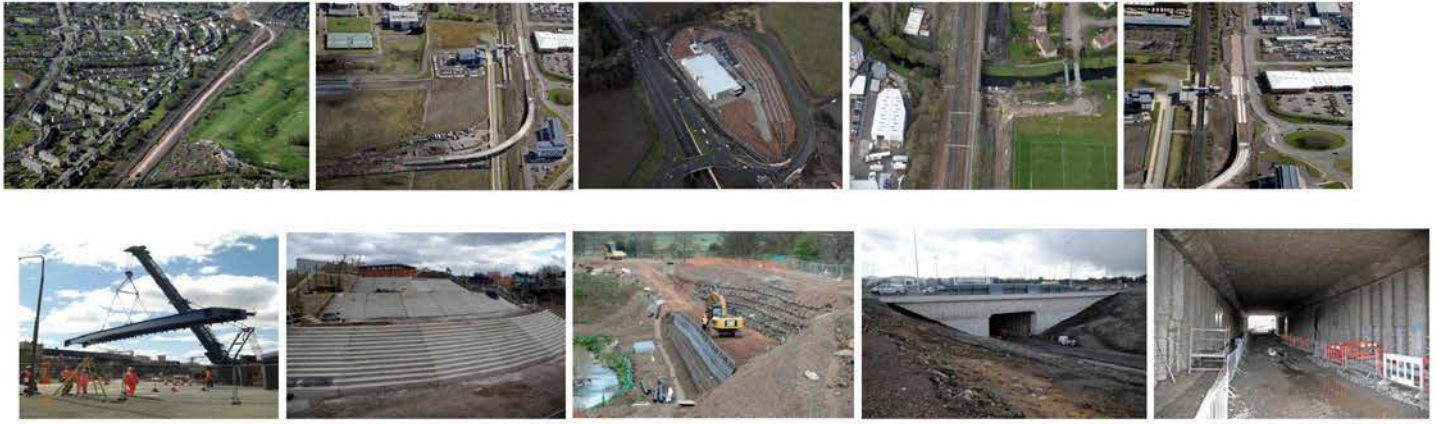
Produced by	Julian Weatherley & Shirley-Anne Collin	SECTION	SUMMARY DASHBOARD REPORT CONFIDENTIAL – LEGALLY PRIVILEGED AND FOI(S)A EXEMPT		Employer	City of Edinburgh Council Waverley Court, Edinburgh, EH8 8BG	
Approved by	Julian Weatherley	Issue By:	Turner & Townsend Project Management Limited, 9 Lochside Avenue, Edinburgh Park		Address		
Status	FINAL	Issue Date	31-05-2012	REPORTING PERIOD	29 th April to 26 th May 2012	Project:	Edinburgh Tram Network

- ### Executive Summary
- There were 14 incidents recorded during the period. Two incidents were identified as Serious / Significant. An investigation is currently ongoing to determine the cause of one of these, a sewer collapse at Grosvenor Street.
 - A number of actions have been implemented in response to the concerns raised last period over McNicholas' health and safety practices. McNicholas have responded positively to the issues raised and an improved position is now in place.
 - Discussions continue between Infracore and SEPA in relation to soil removed from Baird Drive. Further information is to be provided by Infracore to enable conclusion.
 - Thirty eight days of the 22 week time bank have been confirmed as being eroded. Further erosion has occurred during the reporting period.
 - Infracore have submitted their Rev5 programme for approval and a number of clarifications have been sought prior to acceptance.
 - Significant progress has been made in relation to the planning of York Place utilities works in support of early access to this area by Infracore.
 - McNicholas have been continuing with the excavation for tram box construction and the installation of drainage in order to mitigate against disruption to the On Street Infracore works programme.
 - A number of Scottish Water legacy issues within the On Street section have been identified for which a compliant solution is unachievable. Scottish Water have been advised of the limitations of the scope of works that project will undertake.
 - Following the collapse of an existing sewer within Grosvenor Street the area of collapse has been excavated and surveyed. Turner & Townsend are preparing a report into the causes of the collapse. Reinstatement of the sewer is anticipated by the 15th of June 2012.
 - The progression of Infracore Works through Haymarket, Shandwick Place and St Andrew Street has been disrupted as a result of tram ducting clashes with utilities. The extent of disruption to the critical path is currently being assessed.
 - A solution for the Edinburgh Gateway slope retention has been confirmed as a king post design. Infracore have now advised (through the Rev 5 programme) that these works control the critical path of the Off Street works.
 - The works to the SGN gas main diversion were completed on programme on the 18th of May 2012.
 - The progression of sheet piling works through the Murrayfield Corridor has been completed despite ongoing disruption resulting from ground movements.
 - BAA have raised concerns over the constructed levels of the Eastfield Avenue road crossing. CEC are in discussions with BAA over a resolution.
 - Fourteen trams have now been delivered to the depot.
 - The draft QSRA/QCRA has been discussed with CEC and further meetings will take place to update the QCRA each period and the QSRA quarterly.

- ### CEC Actions / Decisions
- Haymarket wayleave** – Close out of the wayleave with Scottish Power and Network Rail
 - Haymarket build over agreement.** Close out the Scottish Water build over agreement at Haymarket
 - Asset Protection Agreement** - Close out of Asset Protection Agreement with Network Rail.
 - Airport tram stop design** - CEC to confirm that they are satisfied with infraco progressing the design for the airport tram stop.
 - Bus tracker.** Decision to be made on whether Bus Tracker equipment is to be fitted to trams.
 - York Place** - Final confirmation of approach to programme at York Place.
 - Dublin Street steps** – Support in obtaining permissions at Dublin Street Steps.
 - Advance purchase of equipment** - Definition from Transport Scotland on equipment to be advanced purchased for Edinburgh Gateway and subsequent approval from CEC.
 - Ticket Vending Machines - bidder.** Decision required on procurement process and Preferred Bidder status for Ticket Vending Machines.
 - Tram stop equipment:-** Conformation of CEC's preferred timescales for installation of tramstop equipment.



PROGRESS



Produced by	Julian Weatherley & Shirley-Anne Collin	SECTION	SUMMARY DASHBOARD REPORT CONFIDENTIAL – LEGALLY PRIVILEGED AND FOI(S)A EXEMPT			Employer	City of Edinburgh Council Waverley Court, Edinburgh, EH8 8BG
Approved by	Julian Weatherley	Issue By:	Turner & Townsend Project Management Limited, 9 Lochside Avenue, Edinburgh Park			Address	
Status	FINAL	Issue Date	31-05-2012	REPORTING PERIOD	29 th April to 26 th May 2012	Project:	Edinburgh Tram Network

KEY MILESTONES							
Section	Description	A Rev 4 Schedule Date	B 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	Complete
ALL	Section B; Test Track complete	08-Mar-13	08-Mar-13	0		Y	12d recovered through revised logic of Tamping and OHLE works
ALL	Section C; All construction complete	09-Apr-14	10-Mar-14	-30		Y	Potential for improvement to York Place construction timescales, rescheduling it improved Sectional Completion Dates. Changes are yet to be agreed with CEC and BBS.
ALL	Section D; open for revenue	08-Jul-14	09-Jun-14	-29		Y	Potential for improvement to York Place construction timescales, rescheduling it improved Sectional Completion Dates. Changes are yet to be agreed with CEC and BBS.
On Street							
Haymarket							
On-Street	Haymarket 1 Complete	04-Apr-12	29-Aug-12	147		N	Further delay to H1 due to Scottish Water manhole and drainage connection issues. N.B. Delay to H1 completion does not affect overall project completion date.
On-Street	Haymarket Phase 2 Utilities Work Complete	N/A	08-Jun-12	N/A		N	All Haymarket Utilities works to be carried out in advance of construction works.
On-Street	Haymarket Civils Works for all Phases Complete	23-Jul-13	16-Apr-13	-98		N	Master Schedule (inclusive of Utility diversion Works) projecting time saving due to Cost Engineering Initiatives. Savings not yet agreed with INFRACO. Discussions ongoing.
Shandwick Place							
On-Street	Shandwick Place Phase 1 - Civils Works Complete	17-Jul-12	01-Aug-12	15		N	
On-Street	Shandwick Place Tram Stop Complete	17-May-13	29-Apr-13	-18		N	
On-Street	All Shandwick Place Civils Works Complete	15-Nov-13	03-Sep-13	-73		N	Whilst Master Schedule(inclusive of Utility diversion Works) is projecting time saving due to Cost Engineering Initiatives these savings not yet agreed with INFRACO. Discussions ongoing.
St Andrews Square & St Andrews St North							
On-Street	St Andrews Square Civils Complete (Phase 1 - Inbound)	14-May-12	18-Jul-12	65			Delay as a result of late handover of site to Infraco and ongoing disruption resulting from drainage redesign.
On-Street	All St Andrews Square Civils Complete	15-Oct-12	15-Oct-12	0		N	Evaluation of emerging utilities delays is currently ongoing. To be confirmed following discussions with BBS.
South St Andrews St / Waverley Junction							
On-Street	South St Andrews/Waverley Junction St. Civils Complete (Phase 2 - Outbound)	04-Jul-12	04-Jul-12	0		Y	Evaluation of emerging utilities delays is currently ongoing. To be confirmed following discussions with BBS.
On-Street	All South St Andrews/Waverley Junction St. Civils Complete	15-Oct-12	15-Oct-12	0		Y	Evaluation of emerging utilities delays is currently ongoing. To be confirmed following discussions with BBS.
York Place							
On-Street	Complete Demolition of Cathedral Lane Toilet Block	N/A	06-Jul-12	N/A		Y	Works progressing on or ahead of programme
On-Street	Complete Critical Ducting at Cathedral Lane	N/A	07-Jul-12	N/A		Y	Works progressing on or ahead of programme
On-Street	Start York Place Utility Moves	N/A	29-Oct-12	N/A		Y	Potential early access for advanced utilities works on 16th Jul. Pending approval by CEC and other Stakeholders.
On-Street	York Place Utility Moves Complete	N/A	08-Mar-13	N/A		Y	Could be completed earlier dependant upon CEC agreement. Potentially SAS-Elder St. by 27 Aug. remainder to follow by 12 Oct Would also be increased scope to include Track box ducts and drainage.
On-Street	Start York Place Civil Works	24-Oct-12	15-Mar-13	142		Y	Planning of works currently being developed to mitigate this delay through completing utilities works early.
On-Street	York Place Civils Works Complete	11-Nov-13	12-Sep-13	-60		Y	This is dependant on the agreement of a revised completion date for St Andrews Square and South St Andrews St / Waverley Junction.
Princes Street							
On-Street	Princes St re-opened to South St David St.	05-Jul-12	30-Jun-12	-5		N	Detailed Handover programme for Princes St now agreed with BBS. This includes completion of Setts at Tram Stop.
On-Street	Princes St Tram Stop Complete	04-Oct-12	27-Sep-12	-7			
M&E Installations							
On-Street	Commence Princess Street E&M works	19-Oct-12	07-Nov-12	19		Y	
Off Street							
Off-Street	Forecast completion of AIR-HAY route	21-Aug-13	29-Oct-13	69		Y	Rev5 to be agreed upon with BBS and should be revising logic of works and subsequent completion dates through this corridor
Off-Street	Murrayfield ground improvements Complete	25-Mar-12	14-Jun-12	81		N	Sheet Piling Commenced 16th April Problems with Sheet Piling causing movement to NR OHLE mast. Subsequent delay in works has been experienced due to NR.
Off-Street	Haymarket Yards Complete	27-Feb-12	02-Jul-12	126		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	19-Aug-12	39		N	Road Closure has been booked for 5Aug to place bridge beams
Off-Street	Water of Leith Bridge Complete	31-Aug-12	13-Dec-12	104		Y	Delay due to reverting back to original construction methodology in lieu of design for ground improvements. However, ongoing review of construction programme, in conjunction with BBS, may result in improvement to to current forecast.
Off-Street	W4, 19-29; Russell Rd. Retain Complete	29-Oct-12	21-Dec-12	53		N	Sheet Piling Commenced however Problems with Sheet Piling causing movement to Scotrail Structures. Full impact still to be determined.
Off-Street	S21A Roseburn St. Complete	19-Sep-12	08-Nov-12	50		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	29-Jan-13	133		N	Rev5 to be agreed upon with BBS and should be revising logic of works and subsequent completion dates through this corridor
Off-Street	Gyle Tram Stop Complete	23-Apr-13	13-Jun-13	51		N	Delay accom'd within float, no effect on forecast completion of AIR-HAY route
Depot & Test facilities							
Depot & Test Facilities	Rein'd Earth Embank't Gogar Landfill Complete	16-Mar-12	24-May-12	69	✓	N	Complete
Depot & Test Facilities	Eastfield Avenue Complete	21-Feb-12	28-Apr-12	67	✓	N	Complete
Depot & Test Facilities	Ingliston Gas Mains Diversion Construction Complete	N/A	18-May-12	N/A	✓	N	Farrans have commenced wks in conclusion to SGN Diversion. SGN still to rectify snagging point (6m of conc protection) but this does not impact on Farrans.
Depot & Test Facilities	A8 Underpass Completion & Traffic Back	13-Jun-12	25-Apr-12	-49	✓	N	Complete
Depot & Test Facilities	Gogar Burn Tram Stop Complete	17-Oct-12	18-Sep-12	-29		N	Ahead of Schedule
Depot & Test Facilities	Tamping Ballast Section 7A Complete	01-Nov-12	26-Oct-12	-6		N	Long lead item's dates are confirmed. Duration of Tamping has been reduced which has mitigated impact to Section B completion date.
Depot & Test Facilities	Rail Systems 7A Complete	17-Sep-12	01-Nov-12	45		Y	Revised logic of Tamping Finish date and OHLE works in conjunction with this has switched CP to Track civils/Systems and Signalling works.
Depot & Test Facilities	Overhead Catenary Systems 7A Ready for Testing	19-Nov-12	13-Nov-12	-6		N	Ahead of Schedule
Depot & Test Facilities	AIR-Depot Test Track available	07-Dec-12	07-Dec-12	0		Y	Availability date has been brought back in due to revised logic and of works regards to Tamping and OHLE works along 7A.
Tram Test & Commission							
Tram Test & Commission	Trams 1-5 Commission	08-Mar-13	26-Mar-13	18		Y	
Tram Test & Commission	T2 Performance Tests. Complete	09-Apr-14	07-Feb-14	-61		Y	
Tram Test & Commission	Shadow Running, AIR-YRK, Complete	08-Jul-14	08-May-14	-61		Y	

Produced by	Martyn Ayres & Shirley Collin	SECTION	HEALTH & SAFETY		Employer	City of Edinburgh Council
Approved by	Julian Weatherley	Issue By:	CONFIDENTIAL – LEGALLY PRIVILEGED AND FOI(S)A EXEMPT		Address	Waverley Court, Edinburgh, EH8 8BG
Status	FINAL	Issue Date	31-05-2012	REPORTING PERIOD	29 th April 2012 to 26 th May 2012	Project:
						Edinburgh Tram Network

PROGRESS

SUMMARY

- During the last period Turner & Townsend have been working with McNicholas to continue the development of their project team and site structure. This has involved the development of additional KPI's to provide visibility of the number of operatives on site and the hours worked.
- A process is now in place to review changes instructed to McNicholas, to aid the control of working hours on site and to provide further clarity on the number of operatives required to complete each task.
- Joint monitoring and an internal coaching have progressed well during this period, with a noticeable impact on the McNicholas sites, these include a robust temporary works process and increased site control measures.
- The "Think before you Act" session with project's senior management was held on the 10th of May 2012. A summary sheet of contributions has been issued to CEC, Bilfinger Berger, Siemens, Transport Scotland, CAF and McNicholas.

CoCP & Key

- CoCP compliance for period 1 was recorded at 95%.
- 6 issues required action. These comprised:
 - Scaf tag out of date
 - Poor signage, at two locations
 - Poor housekeeping / site tidiness, at two locations
 - Parking of vehicles

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

CDM Regulations

- During the last period the pre-construction activities were undertaken for the demolition works of the toilet block at Cathedral Lane. This has included undertaking a review of the documentation provided by the asbestos surveying organisations and development of pre-construction information for the demolition tender.
- The lifting plan and methodology for the installation of the Russell Road overbridge were reviewed and comments raised were addressed by BBS.
- A review was undertaken of the proposed use of a 500T crane in Princes Street as part of the process to erect an observational wheel in Princes Street Gardens. The review highlighted some concerns with the methodology proposed. Subsequently this proposal has not been approved by City of Edinburgh Council.

PROJECT INITIATIVES

Deliver the Tram Safely

- The "Think before you act" safety focus session was held on the 10th of May. A template for ideas and action was circulated to the participants of this session; the summary sheet of contributions has been issued to CEC.
- Discussions have been held between CEC, BBS and T&T regarding visits to Roseburn St and Balgreen primary schools. This is to raise awareness regarding the dangers of construction sites. A poster competition is planned, with a visit to the depot as part of the prize.

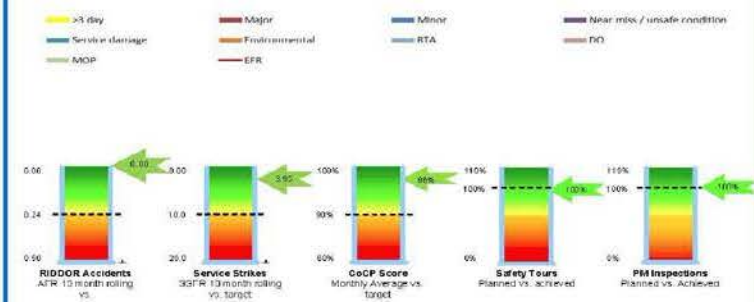
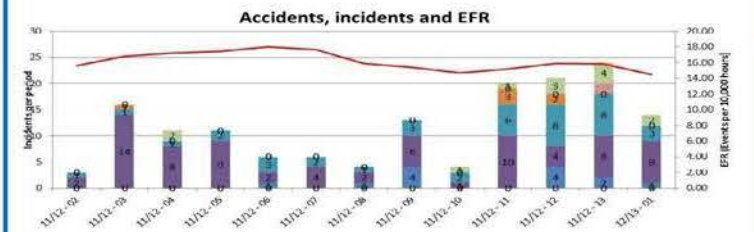
HEALTH & SAFETY

Incidents

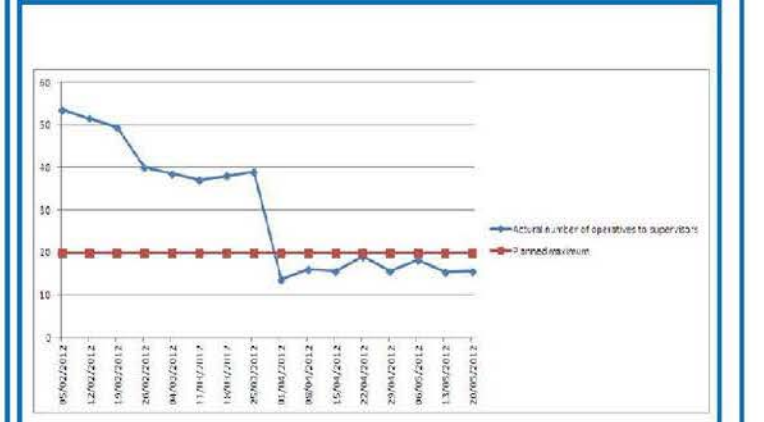
- There were 14 incidents reported during the period since the last dashboard. A summary is provided below; full details can be obtained on page 5 of the Progress Report.
- The two serious / significant incidents relate to two service damages, one to a 90mm gas main and the collapse of a Scottish water sewer within the Tram worksite. An investigation is currently ongoing to determine the cause of the sewer collapse.
- The actions identified by McNicholas regarding the 11kV cable strike in South St Andrews Street have been closed out.
- A letter has been issued to the Health and Safety Executive (HSE) in response to the comments received regarding the procedures for addressing the management arrangements.
- The rolling 13 Period AFR remains at 0.00, better than the benchmark KPI of 0.23 for the project.

Classification	Number	Major	Serious / significant	Minor	RIDDOR Reportable
Member of public	4	0	0	4	0
Service damage	5	0	2	3	0
Environmental	1	0	0	1	0
Major	0	0	0	0	0
Injury > 3day	0	0	0	0	0
Injury < 3 day	2	0	0	0	0
Dangerous occurrence	0	0	0	0	0
Road traffic accident	0	0	0	0	0
Near miss / unsafe condition	4	0	0	4	0
Other	0	0	0	0	0
TOTAL	14	0	2	12	0

TREND

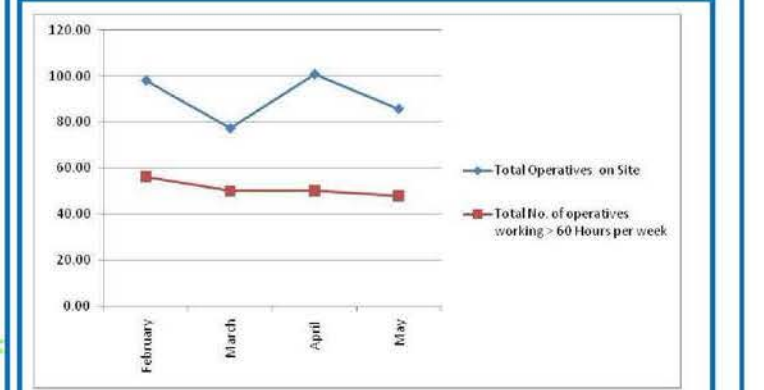


McNicholas Supervision to Labour ratio



This graph shows that the ratio of operatives to supervisors has decreased.

McNicholas Labour exceeding 60hrs per week



This graph shows that approximately 50% of the operatives on site are working over 60 hrs per week.

Produced by	Martyn Ayres & Shirley Collin	SECTION	ENVIRONMENTAL, QUALITY, ASSURANCE CONFIDENTIAL – LEGALLY PRIVILEGED AND FOI(S)A EXEMPT		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	31-05-2012	REPORTING PERIOD	29 th April to 26 th May 2012	Project:
						Edinburgh Tram Network

PROGRESS

SUMMARY

- Environmental** - Inspection of monuments undertaken, meeting with McNicholas regarding handling of waste, ecological inspection of Cathedral Lane toilet block prior to demolition works.
- Assurance** - Technical Support Services have been on site to carry out further inspections on electrical substations, good progress was reported.
- The handover of the mini test track took place on 16th May from BBS to CEC. It has subsequently then hand to the operator, Lothian buses, to manage the on going tram dynamic testing and installation works.
- Independent Competent Person - RFO 021 Departure from RSP Guidance for Clearance to DKE - Closed; RFI 022 - Confirmation of As Built DKE Clearance has also been raised.
- Requirements Management - Verification and Validation Agreed Status now 98% complete
- Signalling & Traffic - Reversing Strategy design has now been considered by all parties. The report was updated and presented to the Independent Competent Person at the ICP Liaison meeting on the 9th May 2012
- Safety Verification Scheme Audits - All findings for safety verification audit TSA/10/03 are now closed. Safety Verification audit TSA/12/02 on Bankhead Substation was carried out during the period
- Construction / Test & Commissioning - Tram Wash Plant modifications to mitigate snagging was completed.
- Quality** - report received and accepted for workmanship issues for concrete works in Princes Street.
- Total No of NCRs raised is 505. 20 NCRs were raised during the period and 23 NCRs were closed out during the period.

QUALITY

NCRs by Period



Total No of NCRs raised is 505.

20 NCRs were raised during the period and 23 NCRs were closed out during the period. There are 78 NCRs open, 412 NCRs closed and 15 NCRs cancelled/withdrawn. 11 no open NCRs are greater than 6 months old.

The report has been received from BBS regarding the workmanship issues for the concrete works in Princes Street. The findings have been reviewed and accepted by T&T & the ICP. Final close out is dependent on the Road safety Audit Stage 3.

ENVIRONMENT

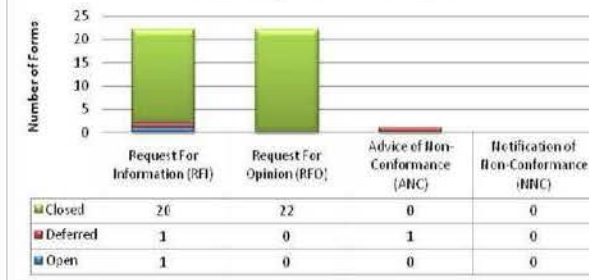
Environmental

- Inspection of monuments; namely the Ocean Terminal monument, the Hearts War Memorial, the Conan Doyle monument, the Leith Walk Pigeons and the Leith Walk Cast Iron Balls took place on 9th May 2012. Sheena Smith (CEC), John Lawson (CECAS) and representatives from Land Engineers were present. Subsequent meeting helped with land Engineering and agreement reached that the Ocean terminal Monument and Conan Doyle Monument could be reinstated. It is hoped that these monuments will be reinstated in June/July 2012. Meeting arranged with CEC 29th May 2012 to discuss programme.
- Meeting held with McNicholas to review the transfer of waste from and within the site boundary. Currently McNicholas have all waste removed from site by Neil Williams Haulage. Certain waste streams are stored at the Leith Depot until a full load can be removed. This waste is also removed by Neil Williams Haulage. A site Inspection was arranged with McNicholas on 24th May 2012. This inspection has been slightly delayed due to changes in McNicholas staff.
- John Darbyshire - JDC Ecology carried out an ecological inspection of the Cathedral Lane toilets during the period. The was to ensure that no ecology was harmed / present prior to demolition of the toilet block. A formal report was issued and passed to the Project Manager. The report is available on the Turner & Townsend SharePoint site.
- BBS are currently reviewing their need for a full time project ecologist. Turner & Townsend Assurance Team advised that a suitably qualified ecologist was required for all ecological related inspections / advice, in line with the requirements of the Code of Construction Practice. BBS Environmental Team will advise Turner & Townsend of the outcome of their review.

INDEPENDENT CERTIFIED PERSON

The ICP Liaison meeting held on the 9th May 2012 presented the Requirements Management progress and methodology and the Tram Reversing Strategy. The ICP noted that he was satisfied with the material he was presented with. Meeting minutes are currently in production.

ICP Correspondence Status

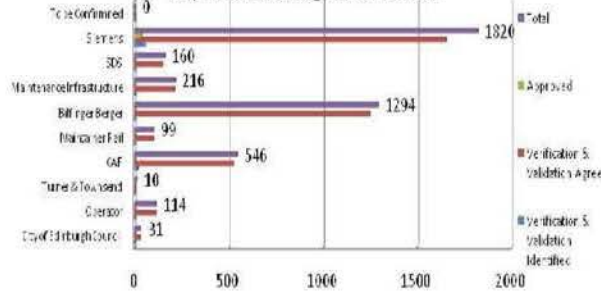


REQUIREMENT MANAGEMENT

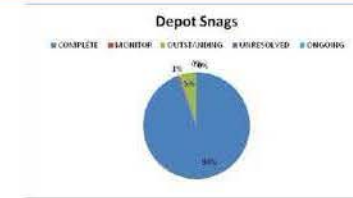
Progress

- Turner & Townsend Project Managers will be briefed on the agreed ER amendments in order that they are aware of what has been agreed and what information they should expect for section handovers.
- As sections are formally handed over, BBS will formally notify Turner & Townsend what documentation is being presented as evidence (method of formal notification still to be agreed with BBS)
- When section Project Managers receive relevant evidence, this is to be passed to the Assurance Team, who will then issue it to Technical Support Services (TSS) for review, and ensure that evidence is uploaded to Project Evidence File
- Assurance Team will collate all responses and determine whether requirement is approved
- Assurance Team will advise BBS as requirements become approved
- Upon approval of all requirements, BBS will issue Edinburgh Trams with formal notification that the process is complete (method of formal notification still to be agreed with BBS).

Requirements Management Overview



DEPOT SNAGS



12 Snags remain open, key snags to be closed are;

- Castell key sockets modification, This has been carried out however further work is now required..
- Water ingress to the wheel lathe, initial works completed however further water ingress is now present.
- Sealing of Depot shed door, Tie Notice of Change has been issued to BBS.
- Work shop tool air supply piping, Tie Notice of Change has been issued to BBS.
- Depot pit drainage resolution, has now been agreed between CAF and Lothian Buses.

CONSENTS

Combined Consents required

	Total Required	Total On Hold	Total Outstanding	Total Closed
Third party	18	4	12	2
Technical Informatives	5	1	3	2
Planning Consents	38	15	7	16
Other Approvals	12	0	8	4
Legal Agreements	15	0	10	5

Key Consents due in the next period, with full list in the appendix.

- Network Rail Asset Protection Agreement
- Earthing and Bonding technical informative
- Planning consent for Hearts memorial Relocation
- Road safety audit approval for Section 1C.

SOFT ANALYSIS

SUCCESSSES

- All stakeholders are cooperating well at the depot.
- New assurance system implemented for Tram delivery
- 'Think before you act' session
- Introduction of additional staff and working patterns

OPPORTUNITIES

- Increased monitoring of onsite activities. Project Management resources are will become part of integral assurance process.
- Safety seminars to be arranged for project managers.
- Review of supervisor competencies
- Lack of availability of GIS information from Scottish Water.

FAILURES

- None.

THREATS

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

Produced by	Shirley-Anne Collin , Willie Delaney & Martyn Ayres	SECTION	TRAMS CONFIDENTIAL – LEGALLY PRIVILEGED AND FOI(S)A EXEMPT		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	31-05-2012	REPORTING PERIOD	29 th April 2012 to 26 th May 2012	Project:
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PROGRESS IN PERIOD	PHOTOGRAPHS / KPIs	KEY ISSUES
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PROGRESS IN PERIOD

- The Tram Inspector is now present at all tram testing at Gogar Depot. Tram test and commissioning is now progressing smoothly and effectively, in line with the Turner & Townsend Test and Commissioning procedure.
- Testing and commissioning now being scheduled more efficiently, to reduce the requirement for Tram Inspector's attendance at Gogar, thus reducing test and commissioning costs.
- Tram commissioning slightly ahead of the commissioning plan:
 - Fourteen trams now delivered to Gogar Depot.
 - 10 have completed Interim Routine Testing.
 - 1 is awaiting rectification of paint damaged in transit
 - Three trams scheduled for delivery in the next period
 - Final tram scheduled for delivery on the 12th of December 2012
- Engineering Change Control workshop held with CAF and ETL to develop a change procedure for trams vested with CEC. The original scope was extended to cover all trams, with procedures developed in line with the ETL change control procedures to be used in operational service.
- The BBS Systems Integration Plan and Section B completion programme have now been delivered. Turner & Townsend have collated comments from all stakeholders and will facilitate a workshop on the 26th of May 2012, to allow all stakeholders to have an understanding of each other's test and commissioning requirements and form an agreement on roles and responsibilities.



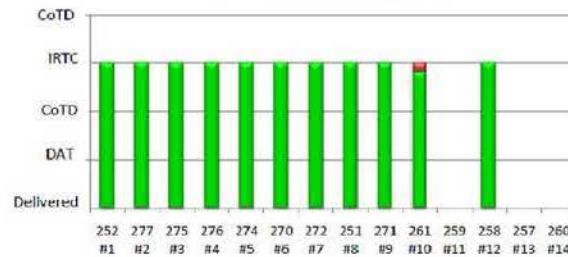
Tram arrival at Gogar Depot

Scheduled Tram Delivery



Trams scheduled for delivery / testing next period	Date
Tram 15 (#273) scheduled for delivery to Gogar	05/06/2012
Tram 16 (#254) scheduled for delivery to Gogar	12/06/2012
Tram 17 (#255) scheduled for delivery to Gogar	25/06/2012

Tram Commissioning Progress



CoTC - Certificate of Tram Commissioning
 IRTC - Interim Routine Test Certificate (MTT)
 CoTD - Certificate of Tram Delivery
 DAT - Delivery Acceptance Test

Further action required
 Tests Completed

KEY ISSUES

- Lothian Buses have yet to take full operational responsibility for the Depot. Negotiations are on going with CEC.
- Engineering Change process required to manage the identification, investigation and rectification of issues raised during tram operation - procedure to be developed to cover all trams at Gogar Depot.
- Process for the collection of verification evidence for Milestone Payments has been agreed, with an understanding that CAF will not apply for payment until all agreed requirements have been met. Additional physical evidence to be provided to CEC by Turner & Townsend to justify payment valuation.
- Two technical issues identified during the previous period have been progressed, as follows:
 - The incorrect placement of pedals in the cabs of all trams
 - All trams currently at Gogar Depot have been rectified
 - Further trams will be rectified prior to arrival at Gogar Depot
 - Investigation report received from CAF; Turner & Townsend are seeking clarification on some issues raised by the report
 - The detachment of a roof panel on tram 252
 - A fleet check identified that there were no issues with any other trams
 - Ongoing checks ensure security of roof panels prior to tram operation
 - CAF technical investigation underway to determine if further remedial work is required to reduce the risk of future occurrence

OPERATIONAL ISSUES

- Ticket Vending Machines (TVMs) - Lothian Buses are currently confirming the procurement situation and Preferred Bidder status for TVMs. A decision is expected imminently. There is still a level of functional requirement that must be specified before equipment can be procured.

CEC ACTIONS / DECISIONS

- Decision to be made on whether Bus Tracker equipment is to be fitted to trams.
- Decision required on procurement process and Preferred Bidder status for Ticket Vending Machines

SOFT ANALYSIS

<p>SUCCESSSES</p> <ol style="list-style-type: none"> Tram commissioning now progressing smoothly in accordance with new procedures Valuation process agreed with CAF, with no payment request made without agreed evidence 	<p>OPPORTUNITIES</p> <ol style="list-style-type: none"> 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) Review of BBS Section B completion plan may allow trams to be commissioned ahead of schedule
<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, to avoid any affect on integration and coordination of testing. Need to finalise the plan to handover responsibility of depot operations from ETL to Lothian Buses Lack of direction on Bus Tracker and TVM requirement is delaying the procurement of these items

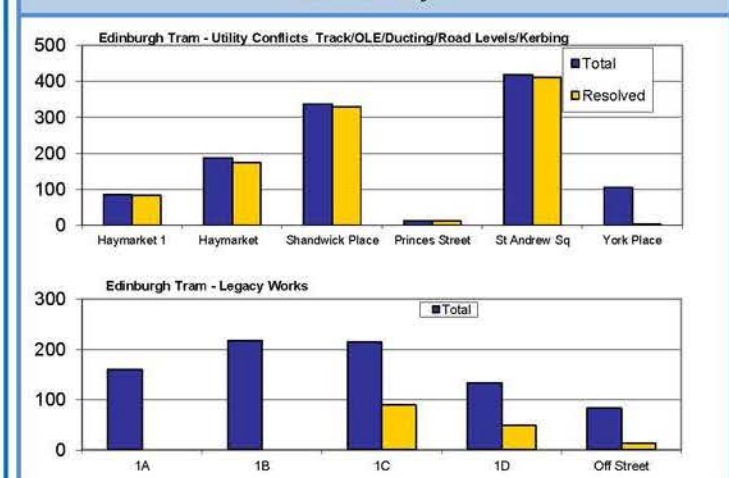
PERIOD

- PROGRESS**
- Tram ducting conflicts have delayed Infraco works in the period
 - Infraco has continued with track slab construction in areas not affected by drainage redesign and/or ducting conflicts
 - Impact has been more pronounced between Lothian Road and Haymarket and there is a marked difference in approach from Infraco management
 - Works in St Andrew Street have progressed although Infraco is still projected a delay in completion of ~2 weeks
 - Detailed planning of works in York Place has progressed well and ducting works at Cathedral Lane are underway. CEC has set Turner & Townsend a challenge to accelerate utility works in York Place to facilitate early access for Infraco
 - Princes Street opening works progressing.
 - Legacy works issues with Scottish Water (SW) have not progressed as well as anticipated and this and other SW issues have been escalated to CEC for discussion at a senior level.
 - Tender for Leith walk legacy works due back on 8 June although aspects of the construction programme may need to be deferred to accommodate other major works in the city
 - Works delayed at Tower Place Bridge although Lindsay Road works expected to be completed by the end of June.
 - Sewer collapse at Grosvenor – Investigation underway
 - Dublin Street Steps Planning Committee target date – 20 June

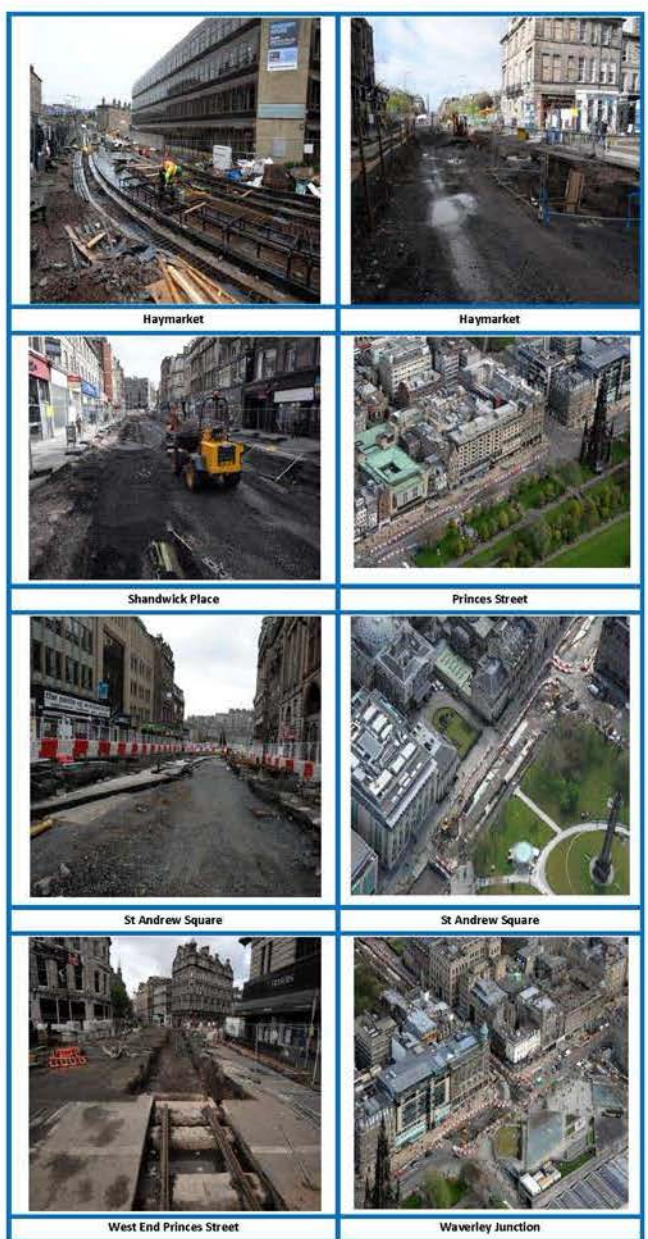
LOOK AHEAD

- Early resolution of tram ducting issues
- Significant push in Princes Street to ensure opening on 29 June
- Commencing demolition works at Cathedral Lane and BT Works at Broughton Street
- Planning of accelerated York Place utility conflict works.
- Turner & Townsend will continue to react to utility discoveries by Infraco and will work with Infraco in planning any "type 2" conflict works not diverted prior to sites being handed back.
- Work will continue on dealing with legacy works, including issues of the tender for the legacy works north of York Place.
- Planning approval for Dublin Street Steps will continue to be monitored.
- Support will be provided to CEC in delivering the Forth Ports remedial works.
- Close out of commercial issues arising as a consequence of the drainage and track box re-scoping.

Utilities Conflict – Progress



PHOTOGRAPHS



KEY ISSUES

- Tram ducting conflicts
- Scottish Water relationship generally and legacy issues requiring derogation
- Princes Street opening and possible blockers including Scottish Water and residual snags
- York Place acceleration
- Legacy works within tram worksites – Possible delays
- Legacy works North of York Place.

CEC ACTIONS / DECISIONS

- Support in obtaining permissions at Dublin Street Steps.
- Final confirmation of approach to programme at York Place.

SOFT ANALYSIS

SUCCESSSES	OPPORTUNITIES
<ol style="list-style-type: none"> Working relationships with BBS remains good, particularly on site Speedy reaction to drainage issues 	<ol style="list-style-type: none"> Optimize revised traffic phasing Close out works at Forth Ports & Lindsay Road Look to accelerate enabling works in York Place ahead of the October traffic management
FAILURES	THREATS
<ol style="list-style-type: none"> Carriageway vertical alignment in south St Andrew St SDS OLE design MUDFA design, as built, contract administration & supervision 	<ol style="list-style-type: none"> Tram Ducting Legacy works at Leith Walk Legacy works within tram worksites Scottish Water relationship Unknown utilities Approval of Dublin Street Steps Infraco delay to Rev 4 due to utilities Infraco non-conformance in Princes Street

PROGRESS IN PERIOD

PROGRESS IN PERIOD

1. Edinburgh Gateway design change agreed and progressing.
2. Roseburn bridge beams installed.
3. SGN diversion at NIL complete.
4. The secant piling has been completed at the airport.
5. Landscaping between Ingliston Park and Ride and the Gogar Burn is complete.
6. Road signage foundations are commencing around the Gogar roundabout.
7. Lochside Avenue crossing commenced.
8. Soil reinforcement at the Gogar Landfill is complete.
9. Bankhead Drive earthworks and drainage works have continued.
10. Abutment works are progressing on South Gyle Access Bridge.
11. The track works at Carrick Knowe and from Haymarket Yards to Balbirnie continued.
12. Works have commenced to enable the removal of Network Rail's Balgreen Road Bridge, this shall see a series of road closures at weekends during the upcoming period.
13. Progress is being made on the sheet piling works along the Murrayfield corridor and at the ScotRail depot.
14. Weekend works to complete the road joints at Haymarket Yards commenced;
15. Cladding at the Haymarket Viaduct has commenced.
16. Scottish Power have installed the new cable to the Haymarket substation and removed the cable which was interfacing with the Network Rail station foundation.

LOOK AHEAD

The following items will be progressing during the coming period:

1. Review of Revision 5 programme.
2. Retaining wall construction continuing along the Gogar Burn.
3. Earthworks at Ingliston Park and Ride following the completion of the SGN diversion.
4. Continuation of Lochside Avenue crossing and Edinburgh Park Corridor
5. Bankhead Drive earthworks and drainage continuing.
6. Balgreen Road Bridge removal continuing.
7. Water of Leith continuing with west abutment formation.
8. Ground Improvements commencing on Murrayfield Corridor S21B and S21C subject to subcontractor discussions
9. Continuation of the cladding works on Haymarket Viaduct.
10. Network Rail shall mobilise their Haymarket station works into the car park at Haymarket.
11. Fit out of Haymarket substation.

PHOTOS

Scotrail Depot Movement

Scotrail Depot: Concrete slabs have separated due to sheet piling, this can be seen by the gap in the joint between the slabs.



Roseburn Street Bridge



KEY ISSUES

1. Movement due to piling works at the ScotRail depot and on Network Rail's track assets.
2. Eastfield Avenue; Airport have raised concern over the gradients between the two trams lines at both the road and pedestrian crossings.
3. Edinburgh Gateway late design change by SDS; king post wall now being progressed.
4. Scottish Water raised concerns over previous MUDFA works this work now requires to be repeated.
5. Network Rail's Haymarket Project team have raised concerns over tram drainage in their car park.

CEC ACTIONS / DECISIONS

1. Close out the Scottish Water buildover at Haymarket.
2. Close out of the wayleave with Scottish Power and Network Rail.
3. Close out of Asset Protection Agreement with Network Rail.
4. CEC to ensure that they are satisfied that InfraCo can progress the airport tram stop design.

OFT ANALYSIS

SUCCESSSES

1. SGN diversion completed on time.
2. Utilisation of stored on street poles for Edinburgh Gateway
3. Completion of soil reinforcement at Gogar landfill.
4. Equipment arrival at Haymarket substation.

OPPORTUNITIES

1. Early diversion of the Edinburgh Gateway sewer.
2. Purchase of the temporary mast maybe negated by using the current aerial within the depot.

FAILURES

1. Movement of Network Rail and ScotRail assets lead to programme delays.

THREATS

1. Eastfield Avenue gradients may be raised as an issue by the airport.

Produced by	Shirley Collin, Mike Mackenzie & Peter Smith	Function	COMMERCIAL CONFIDENTIAL – LEGALLY PRIVILEGED AND FOI(S)A EXEMPT		Employer	City of Edinburgh Council	
Approved by	Gary Easton	Issued By:	Turner & Townsend Project Management Limited 9 Lochside Avenue, Edinburgh Park		Address	Waverley Court, Edinburgh, EH8 8BG	
Status	FINAL	Issue date	31-05-2012	Reporting Period	29 th April to 26 th May 2012	Project	Edinburgh Tram Network

SUMMARY			
	Contract Sum	Approved Change	Revised Contract Sum
Infraco	413,103	-993	412,110
Utilities (Post Mediation)	1,812	5,461	7,273
Legacy Utilities (Revised Tram Route)	0	500	500
Legacy Utilities (Leith Walk)	1,100	-1,100	0
Tram vehicles	63,645	5	63,650
Totals	479,660	3,873	483,533
Change in Progress			9,850
Anticipated Change			11,997
Contributions			-7,417
Forecast Change / Contributions			14,430
Forecast Total			497,963
Risks (refer risk section below)	(presentation to be reviewed with CEC)		
Opportunities (refer opportunities section below)			
Risks & Opportunities			
Revised Forecast			
Budget			

VALUE ENGINEERING		
Item	£K	Comment
Remove embargoes and revised TM	8,460	22 week saving reduced to 16.6 at period end 28/4/12
Setts (separate CEC budget)	980	£88k CEC contribution (SAS) and £95K for revised specification.
De-scope public realm at St Andrew Sq	700	Instructed, monitored through changes in progress
Contributions 3rd Party Agreements	2,500	Miscellaneous 3 rd party contributions
De-scope works at Forth Ports	2,445	Instructed, approved change
Omit Airport Tram Kiosk and Canopy	150	Instructed, monitored through changes in progress
Temporary tram stop at York Place	150	Instructed, monitored through changes in progress
Redeployment of Trams	CEC	Included in CEC budget code
Cancel track York Place to Newhaven	1,100	Instructed, approved change
Omit Siemens works at Tower Place	100	Instructed, approved change
Road re-construction depth	700	Instructed, monitored through changes in progress
Design freeze north of York Place	t.b.c	Infraco design costs expended
Lay off TM at Forth Ports/Leith Walk	t.b.c	TM not included in Infraco budget provision
Roseburn Viaduct Cladding	300	Instructed, monitored through changes in progress
De-scope crew relief facilities (Haymarket)	70	Instructed, monitored through changes in progress
Opportunities secured	8,365	
Opportunities to secure	7,310	

1. Embargoes and TM – subject to actual time saving vs 22 weeks, current position 16.6 weeks however opportunity to accelerate utilities in YP under review.
2. York Place Tramstop – design principles established, cost check in progress
3. Road reconstruction depth – Opportunity to reduce road reconstruction depth being identified on site

CHANGE		
BBS On-Street Works Estimate (Period end 31 March) and Commercial Issues		
	£K	
On - Street		
15	Utility conflicts – investigation	20
25, 72 & 87	OLE foundations resulting from discovery of utilities	699
28	Temporary accommodation for utilities contractor	2
29	Road re-construction protocol (opportunity to reduce depth)	0
30	Additional CBR/Plate testing – ground strength	0
32	Utilities affecting site clearance - disconnect power to bus trackers	-15
35,79	Utilities contractor affecting Infraco progress	34
36	BT Fibre Optic affecting progress	85
37	Slit trench to validate utilities	9
38	Move 3 OLE foundations (St Johns Church)	12
40	Scottish Water diversion Princes St	251
43	Christmas embargo – temporary infill Princes St	218
44	BT diversion – Princes St (included PMC 040)	Inc
52	Install Traffic Management early Shandwick and St Andrew sq	163
68	Utilities affecting track drainage	13
69	Geotextile liner to Clifton Terrace void	3
Total On-Street Works Estimate		1,494
Off - Street		
t.b.c	Payment for Utility diversions Off Street outwith BBS's scope	340
61	Temporary footpath and drainage – Roseburn Viaduct	30
t.b.c.	Low voltage supplies to Airport Tramstop cabinet	30
General		
	Rev3A to Rev 4 programme – evidence of delay costs (BB only, Siemens t.b.c)	600
	Depot doors – new drains to prevent water ingress	t.b.c
	Re-configure ducts at Haymarket Yards owing to fence post foundation within LOD	t.b.c
	Snags/defects in Princes Street – ponding, rutting in road surface, etc	t.b.c
TOTAL		2,678

- Utility diversions Off - Street: Infraco consider SGN diversion is out of scope and a compromise is required since additional costs have also been incurred for other diversions.
- LV supplies to Tramstop Cabinets – Infraco considers that as these were excluded from the price submitted at mediation, however it is not a Settlement Agreement exclusion.
- Rev3A to Rev 4 programme delay 2nd September to 3rd of October – further evidence required to demonstrate cost incurred, Infraco consider that Independent Certifiers opinion authorises costs submitted in full i.e. £4.5M
- Depot doors – T&T believe that this is a defect. Infraco are reviewing matters with suppliers. However, they have stated that the design is based upon value engineering and design approvals and rectification is therefore an extra.
- Ducts at Haymarket Yards – T&T querying the extent to which additional costs could have been avoided when the workface was opened up.
- Snags/defects in Princes Street - Infraco claim that they are not responsible for defects resulting from the 2009 works.

RISK - Significant Movement in Period (Apr/May 12):

Risk ID	Risk Description	Old Level	Movement	New Level	Comments
ED109	Risk that the project relationship with Scottish Water deteriorates and access to utilities and resolving of delay issues becomes prolonged	RED	Risk Reduced	RED	Due to stage of Scottish Water related work and recent progress the risk impacts were reduced and risk is no longer the top project risk
ED071	Discovery of additional Track construction conflicts (live)	RED	Risk Reduced	AMBER	Time impact has been reduced as systems in place to manage conflict finds have proved successful and YP occupation allows time to resolve
ED055	Risk that access to 3 rd party land is delayed or denied	AMBER	↓	GREEN	Minimal 3 rd party land requirements left. Airport only potential issue
R018	Security Incident	GREEN	↑	AMBER	Recent increase in vandalism and theft. Concern that volume of OHL, track, tramstops and cables will attract theft.
R068	Infraco cannot construct the IFC drainage design	RED	CLOSED	CLOSED	Drainage design agreed and being implemented.
ED116 (New)	H&S Breaches, Incidents and stoppages	NEW	NEW	RED	Increased number of incidents have highlighted a risk of McNicholas H&S breaches. Work ongoing to resolve.
R041	Approval of plans for Edinburgh Gateway.	RED	↓	AMBER	Reduction in impact. Once full sign off is received by BB/S both parties are in agreement that risk can be closed out or further reduced.

QSRA & QCRA complete this period and update will be completed next period following Rev 5 plan submission. Risks are reviewed on an ongoing monthly basis to ensure up to date analysis for Risk Assessments. Risks still to be reviewed with BB/S so changes subject to objection.

Appendix 2 – Health, Safety & Environment

Deliver the Tram Safely / Deliver a safe Tram

1.0 Executive Summary

Executive Summary

- **Independent Competent Person** – RFO 021 Departure from RSP Guidance for Clearance to DKE – Closed during period (INF CORR 8299); RFI 022 – Confirmation of As Built DKE Clearance was also raised during the period (INF CORR 8311)
- **Requirements Management** – Verification and Validation Agreed Status now at 98% complete
- **Signalling & Traffic** – Reversing Strategy design has now been considered by all parties. The report was updated and presented to the Independent Competent Person at the ICP Liaison meeting on the 9th May 2012. BBS are now addressing the comments raised.
- **Safety Verification Scheme Audits** – All findings for safety verification audit TSA/10/03 are now closed. Safety Verification audit TSA/12/02 on Bankhead Substation was carried out during the period
- **Design** – Typical track section details for Edinburgh tram network were reviewed during the period and discussed with BBS.
- **Construction / Test & Commissioning** – Tram Wash Plant modifications to mitigate snagging was completed during the period and will be commissioned in the next period.
- **Tram** – 14 vehicles now delivered to the depot. Four are currently undergoing static and dynamic testing

Non Conformance Reports - Total No of NCRs raised is 505.

- 20 NCRs were raised during the period and 23 NCRs were closed out during the period. There are 78 NCRs open, 412 NCRs closed and 15 NCRs cancelled/withdrawn. 11 no open NCRs are greater than 6 months old.
- The report has been received from BBS regarding the workmanship issues for the concrete works in Princes Street. The findings have been reviewed and accepted by T&T & the ICP. Final close out is dependent on the Road safety Audit Stage 3.

2.0 Safety Verification Scheme (SVS)

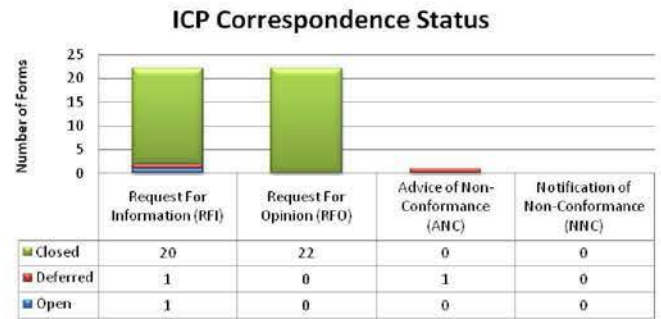
- **Evidence File** – Currently no information can be uploaded to the evidence file as the site has not been transferred over to the new SharePoint. IT has now agreed the product to facilitate the transfer and price has been agreed.
- **SVS Audit (Substation pre-electrification)** was carried out at Bankhead Substation 17th May 2012. The report is currently under internal review and will be issued during the next period.
- **Next SVS Audit TSA/12/03 Scheduled for 13th June 2012** – Section 1C - Slips, Trips, Falls (2 Wheel Vehicles).
- **Operator disposition statement** relating to their responsibilities following handover of the Mini Test Track has been reviewed and comments issue by TSS. These will be responded to during next period.
- **The ETN Safety Assurance Plan (Ref CP 8235)** was formally re-issued at revision 3 during the period

3.0 Independent Competent Person

ICP Issues

- **RFO-021 Departure from RSP Guidance for Clearances to DKE** – ICP provided an opinion noting and supporting the request from BBS(Ref. INF CORR 8299).
- **RFI 022 - Confirmation of As-Built DKE Clearances** raised during the period. It requires the project to assure that Dynamic Kinematic Envelope (DKE) clearances notified as sub-optimal in RFO-021 are verified to be no worse than stated (Ref. INF CORR 8311).
- **The ICP Liaison meeting** held on the 9th of May 2012 presented the Requirements Management progress and methodology and the Tram Reversing Strategy. The ICP noted that he was satisfied with the material he was presented with. Meeting minutes are currently in production.

- The ETN Safety Verification Scheme (Ref CP 8322) document was updated during the period. The ICP is reviewing the final draft prior to full issue at revision 5.



4.0 BBS Design Construction and Testing & Commissioning Assurance

Design

Electromagnetic Compatibility (EMC)

- BBS Correspondence (Ref. ETN(BBS)CEC\$TEE&ABC#054959) SIT Procedure - Overall Magnetic and Radiated Emissions (IO 1.0) was submitted for information during the period. The document is currently under review.
- SDS provided information to enable Network Rail to provide a non-objection to the proposed location for the Radio Mast near to the Edinburgh Gateway stop.

Trackform

- Rheda City Track Typical Sections were submitted during the period. These have been reviewed by TSS and significant concerns have been raised in relation to the ability to maintain the tracks in the future.

Signalling and Traffic Signals

- Reversing Strategy – was presented to the ICP at the ICP liaison meeting on the 9th May 2012. The ICP noted and supported the design as presented.

Testing & Commissioning

Depot Tramwash

- The tramwash facility at the depot has now been modified to correct the design flaw that meant it could not properly wash the front and end of a vehicle. The modified facility will be commissioned during next period

SCADA and Comms

- The Hard Wire Mass Trip facility has now been provided in the Operational Control Room.

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

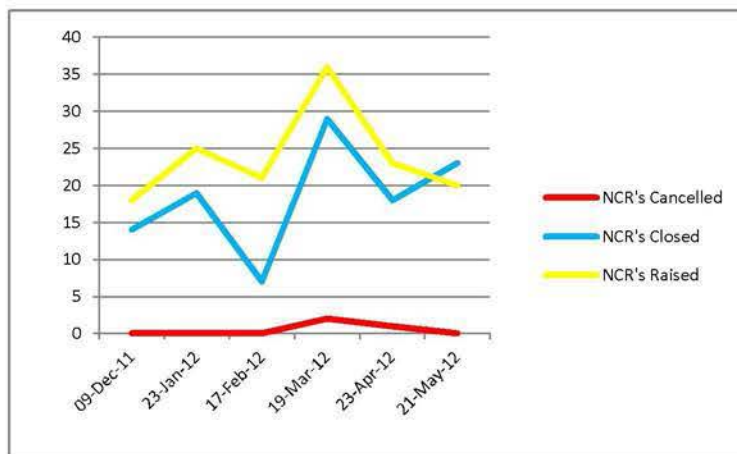
- Operator provided a Disposition Statement to describe how they will manage their new responsibilities relating to safe systems on the MTT. The supporting documentation has been reviewed by TSS and several concerns have been raised due to supporting documents not being appropriately modified to reflect current status of the project and capability of the MTT. These will be addressed during next period
- Depot and mini-test track operations continue. 14 vehicles have now been delivered and are undergoing testing and commissioning.
- The mini-test track has been successfully handed over to the operator (Lothian Buses via Edinburgh Trams)
- An interim operating agreement between Lothian Buses and the City of Edinburgh Council has been drafted.
- A hard-wired mass trip button has been provided in Control to facilitate emergency traction power switching
- A meeting to scope further peer review by Lloyds Register Rail of the operating and maintenance organisation and its processes has taken place. Its findings and closed out of any recommendations will be presented to Lothian Buses board at its August meeting
- Preparations are now underway for recruitment and training of additional drivers and controllers to facilitate Section B test track activities from Mid December 2012. Meetings with project partners have assisted in confirming assumptions made in the programme are correct and ensuring that the operators programme is integrated with that of the project.
- To assist the operations team with this task an HR Manager has been appointed to the team.

5.0 Metrics

- No progress to report during period

6.0 NCR's

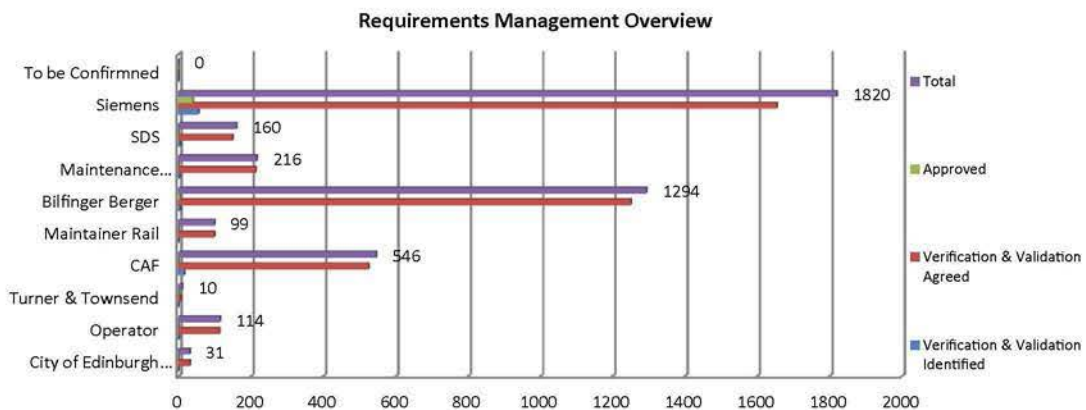
- Total number of Non Conformance Reports raised - 505
- Total number of Non Conformance Reports raised in period 2 - 43
- Total number of Non Conformance Reports closed in period 2 - 23
- Number of Non Conformance Reports greater than 6 months old – 10



7.0 Requirements Management

Process overview

- Complete Verification and Validation Agreed Status
- Provide all information to Turner & Townsend Project Managers in order that they are aware of what has been agreed and what information they should expect for section handover
- It has been agreed as sections are formally handed over BBS will formally notify Turner & Townsend what documentation is being presented as evidence (method of formal notification still to be agreed with BBS)
- When Project Managers receive relevant evidence this is to be passed to Assurance Team who will issue to Technical Support Services (TSS) for review, and ensure that evidence is uploaded to Project Evidence File
- Assurance Team will collate all responses and determine whether requirement is approved
- Assurance Team will advise BBS as requirements become approved
- Upon approval of all requirements, BBS will issue Edinburgh Trams with formal notification that the process is complete (method of formal notification still to be agreed with BBS)



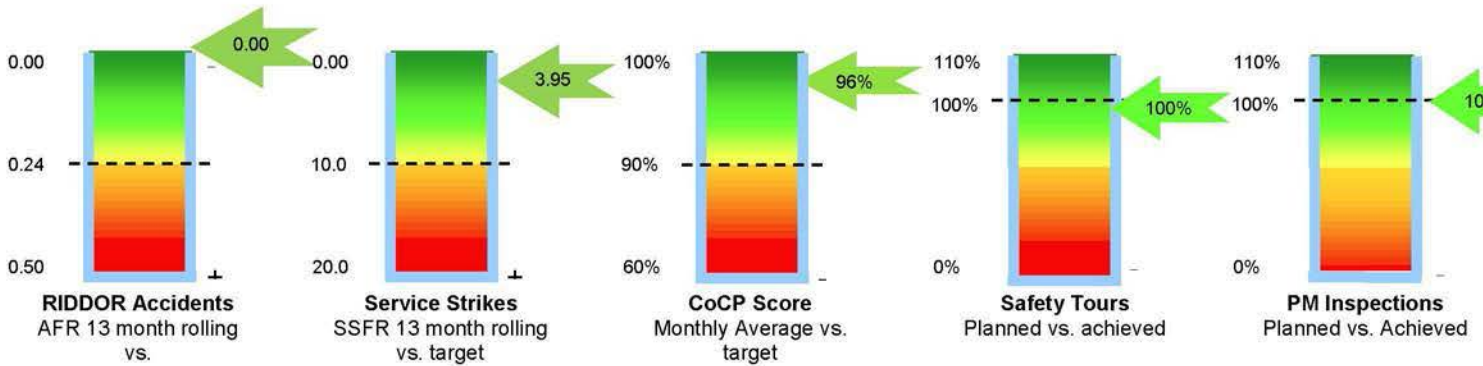
% Verification & Validation Agreed Status	% Verification & Validation Approved Status
98%	2%

8.0 Deliver a Safe Tram – Required Actions

- Metrics Inspection QM73 and QM78 to be progressed to closure
- Next ICP Liaison meeting to be on 11th July 2012. The Independent Competent Person advised that he would like 'Tramstop Equipment' to be considered as a topic. BBS to do a presentation on clearances / visibility / maintainability.
- Next PSCC meeting to be held on the 6th of June 2012; then on the 1st of August 2012.
- Complete and formally issue Safety Verification Audit Reports for TSA/12/01 and TSA/12/02

Project Report – Period 2

HS&E ACCIDENTS and INCIDENTS SUMMARY											
Total	Total Hours	>3 day	Major	Injury	NM/Unsafe Condition	Service Damage	ENV	RTA	MOP	AFR	SFR
Period	143,869	0	0	0	4	5	1	0	4	0.00	3.48
13 period rolling	1,139,536	0	0	13	80	45	7	0	17	0.00	3.95
INFRACO											
Period	102,143	0	0	0	2	1	0	0	2	0.00	0.98
13 period rolling	862,974	0	0	13	54	23	6	0	12	0.00	2.67
OTHER TRAM											
Period	28,193	0	0	0	2	4	1	0	2	0.00	14.19
13 period rolling	127,029	0	0	0	26	22	1	0	5	0.00	17.32



EXECUTIVE SUMMARY

- There were two serious / significant incidents relate to two service damages, one to a 90mm gas main and the collapse of a Scottish water sewer within the Tram worksite. An investigation is currently ongoing to determine the cause of the sewer collapse.
- There were 12 other incidents (5 member of public incidents, 5 service damages, 1 environmental incident and 4 near miss/unsafe conditions) See Appendix A for details.
- The rolling 13 Period AFR remains at 0.00, better than the benchmark KPI of 0.23 for the project.
- CoCP compliance was recorded at 96% during Period 2
- 100% of planned PM joint inspections have been carried out during Period 2.
- 100% of planned safety tours were carried out during Period 2.

Project Report – Period 2

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	2	9
Number achieved	2	9

HSQ&E KEY ACHIEVEMENTS

- The rolling 13 Period AFR remains at 0.00, better than the benchmark KPI of 0.23 for the project.

Key Issues – Points to Note

- During the last period Turner & Townsend have been working with McNicholas to continue the development of their project team and site structure. This has involved the development of additional KPI's to provide visibility of the number of operative on site and the hour worked, these are shown on the health and safety dashboard in the appendix.
- A process is now in place to review changes instructed to McNicholas, to aid the control of working hours on site and to provide further clarity on the number of operatives required to complete each task.
- Joint monitoring and an internal coaching have progressed well during this period, with a noticeable impact on the McNicholas sites, these include a robust temporary works process and increased site control measures.
- The competence review of key Turner & Townsend staff has been completed, CSCS cards will be obtained for all Project Management staff, and this will be supplemented with additional site management training for managers activity involved in site works. Three training courses have been identified with final arrangement to be made.
- The safety initiative 'Think before you Act' session with the project's senior management was held on the 10th May. A template for ideas and action was circulated of the participants of this session; these are now being reviewed to support the recommendations moving forward.

ENVIRONMENTAL SUMMARY

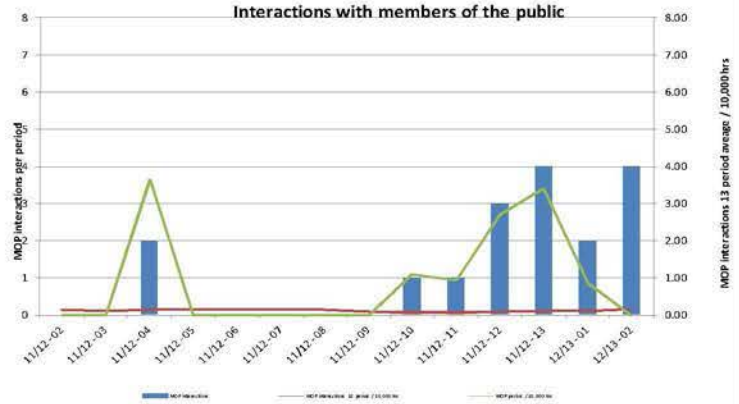
List any significant environmental events, initiatives, breaches etc

- Inspection of monuments; namely the Ocean Terminal Monument, The Hearts War Memorial, The Conan Doyle Monument, The Leith Walk Pigeons, The Leith Walk cast Iron Balls took place 9th May 2012. Sheena Smith (CEC), John Lawson (CECAS) and representatives from Land Engineers were present. Subsequent meeting helped with land Engineering and agreement reached that the Ocean terminal Monument and Conan Doyle Monument could be reinstated. It is hoped that these will be returned June/July 2012. Meeting arranged with CEC 29th May 2012 to discuss programme.
- Meeting held with McNicholas to review the transfer of waste from and within the site boundary. Currently McNicholas have all waste removed from site by Neil Williams Haulage. Certain waste streams are stored at the Leith Depot until a full load can be removed. This waste is also removed by Neil Williams Haulage. Site Inspection arranged with McNicholas 24th may 2012. This inspection has been slightly delayed due to changes in McNicholas staff.
- John Darbyshire – JDC Ecology carried out an ecological inspection of the Cathedral Lane toilets during the period. This was to ensure that no ecology was harmed / present prior to demolition of the toilet block. A formal report was issued and passed to the Project Manager. The report is available on the Turner & Townsend SharePoint site.
- BBS are currently reviewing their need for a full time project ecologist. Turner & Townsend Assurance Team advised that a suitably qualified ecologist was required for all ecological related inspections / advice, in line with the requirements of the Code of Construction Practice. BBS Environmental Team will advise Turner & Townsend of the outcome of their review.

MEMBER OF PUBLIC INTERACTION SUMMARY

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

There were four reported Member of Public incidents during Period 2. Two involved damage to clothing on heras fencing panels, one involved a person tripping on a traffic signal base and one related to a query from a resident relating to the working hours at Grosvenor Street relating to the sewer collapse.

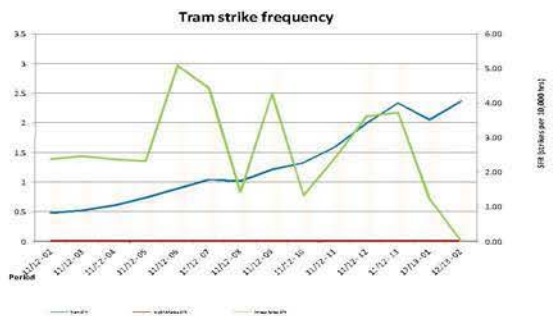
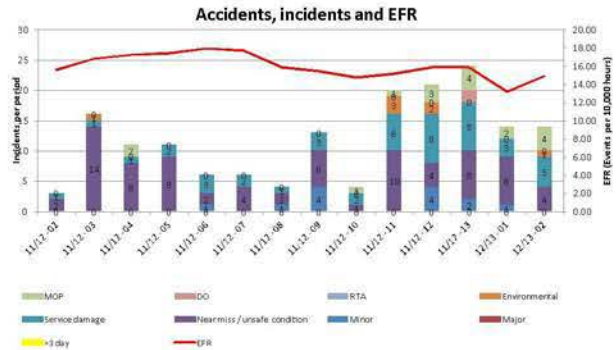
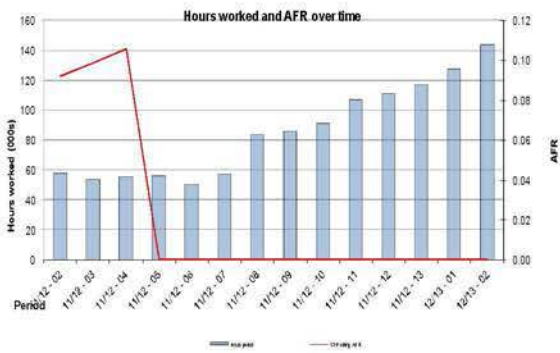


CDM Compliance

List any significant quality events, initiatives, breaches etc

- During the last period the pre-construction activities were undertaken for the demolition works of the toilet block at Cathedral Lane.
- The lifting plan and methodology for the installation of the Russell Road overbridge were reviewed and comments raised were addressed by BBS.
- A review was undertaken of the proposed use of a 500T crane in Princes Street as part of the process to erect an observational wheel in Princes Street Gardens.

GRAPHS



APPENDIX A

There were 14 incidents in total since the issue of the last DtTS report. Of these 2 were classified as serious / significant and details are provided below:-

Significant Incidents

Details of Incident				
AIIR Ref:	1660	Contractor:	McNicholas	
Location:	West Maitland Street			
Project:	Utility works	Date & Time:	30/04/2012 14:00	
Sub Contractor:		Contractor Reference:		
Project Manager:	Mark Redgard	Is the accident / incident Serious / Significant or Major?	Yes X	No
Description:	90mm PE gas main struck and damaged by mechanical excavator.			
Action taken by Contractor:	SGN called to site to initiate incident. As the same machine operator was involved in AIIR 1650, operator to be removed from duties as a excavator operator until a suitable training/ refresher course on utilities avoidance and safe excavation can be arranged and attended.			
Action taken by Project Team (if required):				

AIIR Ref:	1666	Contractor:	McNicholas	
Location:	Grosvenor Street			
Project:	Utility Works	Date & Time:	10/05/12 20:45	
Sub Contractor:		Contractor Reference:		
Project Manager:	Stephen Lewcock	Is the accident / incident Serious / Significant or Major?	Yes X	No
Description:	Flooding to properties at Grosvenor Street from blocked sewer.			
Action taken by Contractor:	T&T, Scottish Water and McNicholas on site 21:15 approx to resolve issue - immediate action over pumping. Investigation being undertaken 11/05/12 AM to determine cause of blockage.			
Action taken by Project Team (if required):				

APPENDIX A (Continued)

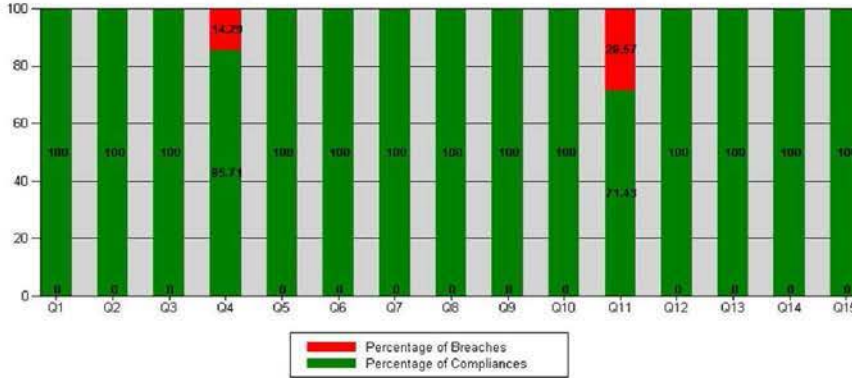
Other Incidents since last DtTS report

AIIR numB	Date of event	Period	Location description	Initial description	Contractor involved
AIIR01661	03/05/2012	12/13 - 02	Torhichen St / West Maitland St	Damage to Traffic Lights cable by sub contractor (Diona)	McNicholas
AIIR01662	30/04/2012	12/13 - 02	Shandwick Place	MoP damage jacket on broken Heras fence panel	Lagan Construction
AIIR01663	29/04/2012	12/13 - 02	St Andrew Square	MoP damaged jacket on broken Heras fence panel	McNicholas
AIIR01664	03/05/2012	12/13 - 02	Edinburgh Park Station	MoP tripped on traffic signal base protruding from pavement. Damaged glasses. Related insurance claim. Action taken by Crummock to protect defect with cone, pending repair.	Crummock
AIIR01665	08/05/2012	12/13 - 02	Bankhead Drive	Damage identified to HV cable (considered previous damage). No injury or loss of supply.	Crummock
AIIR01667	10/05/2012	12/13 - 02	Grosvenor Street	Complaint from Mrs Traylor regarding noise from pumps that were on site due to the collapse of the Scottish Water sewer. Number of calls received regarding excessive noise	McNicholas
AIIR01668	13/05/2012	12/13 - 02	Shandwick Place	Fencing blown over blocking footway outside Rutland Hotel	McNicholas
AIIR01669	13/05/2012	12/13 - 02	Section 5	Excavator window broken over weekend 12 - 14 May 2012	Crummock
AIIR01670	14/05/2012	12/13 - 02	Lothian Road/Princes Street	Fencing blown over Lothian Road/Princes Street causing obstruction at Frasers. Rhino fencing blown over Princes Street	McNicholas
AIIR01671	14/05/2012	12/13 - 02	Bumside Road, Edinburgh Airport	Airport Duty Manager reports Heras Fence panels blown down over in the vicinity of the Airport tram stop	Farrans
AIIR01672	14/05/2012	12/13 - 02	Grosvenor Street	Mrs Taylor stated that she had a young child and asked when the excavation works outside her flat would be stopping for the night.	McNicholas
AIIR01673	17/05/2012	12/13 - 02	Coates Crescent	Stree lighting cable damaged at 19 Coates Crescent	McNicholas

Project Report – Period 2

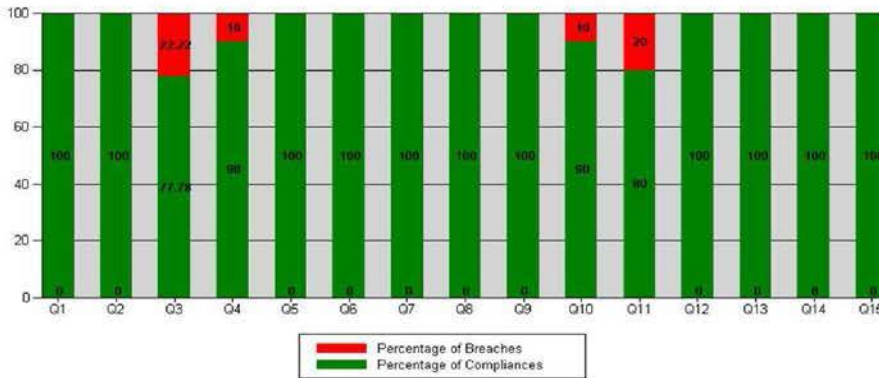
APPENDIX B – COCP INSPECTIONS

Period 1 (previous period)



Period 2

- CoCP compliance was recorded at 95% during Period 2



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

Summary of issues and action taken

No	Date of Inspection	Location	Contractor	Question Number	Issue detail	Action taken or required to be taken by contractor	Date to rectify or rectified
	11/05/12	Haymarket Tramstop	Grahams	11	Site tidiness issues due to litter/debris etc	General tidy up of tramstop area	Closed 11/5/12
	14/05/12	Carrick knowe Bridge	Expanded	4	Access scaffold at Carrick Knowe Bridge displaying out of date scaf tag.	Scaffold has been inspected inspected - scaf tag updated	Closed 14/5/12
	15/05/12	Crawley Tunnel	McNicholas	3	No sign present	Sign erected	Closed 15/5/12
	16/05/12	S26 South Gyle	BBS/Expanded	3	Public information signs to be displayed.	Signs to be obtained and erected	31/5/12
	16/05/12	South Gyle S26	BBS/Expanded	10	Vehicles parked on verge outside fencing.	Contractor to prevent parking in unauthorised areas	Closed 16/5/12
	23/05/12	Murrayfield SC21	Grahams	11	Toilets, canteen and drying room require to be cleaned.	Welfare facilities cleaned	Closed 23/5/12

Edinburgh Tram Combined Consents Tracker



Agreement Document	Area of Interest	Items to be addressed in Document	Current Status	Current Actions/Plan	Risks if not resolved	Action with	Target Date to Close Out
		Received to be received before operations start for construction between Airport and York Gate 603.					
TSA Tram Supplier Collateral Warranty	A contract is to be awarded by the TSA to the Contractor. TSA, CAF, TSC, TEL, and any other parties to the contract are to be named in the contract. TSA, CAF, TSC, TEL, and any other parties to the contract are to be named in the contract. TSA, CAF, TSC, TEL, and any other parties to the contract are to be named in the contract.	Chapter 41 & 42	CAF, TSC, TEL, Transport Scotland, TEL, and any other parties to the contract are to be named in the contract.	CAF, TSC, TEL, Transport Scotland, TEL, and any other parties to the contract are to be named in the contract.	STATUS OF THE COLLATERAL WARRANTIES TO BE CONFIRMED BY CEO/T.		
TSA Licence Agreement	CAF must ensure that the TSA, CAF, TSC, TEL, and any other parties to the contract are to be named in the contract. TSA, CAF, TSC, TEL, and any other parties to the contract are to be named in the contract.	Chapters 15, 16, 17, and 18	CAF, TSC, TEL, Transport Scotland, TEL, and any other parties to the contract are to be named in the contract.	CAF, TSC, TEL, Transport Scotland, TEL, and any other parties to the contract are to be named in the contract.	TO BE SIGNED WITHIN 30 DAYS OF THE ACCEPTING SOFTWARE FROM CAF. SEE PREVIOUS NOTE ON THIS ISSUE RELATIVE TO THE INFRASTRUCTURE CONTRACT.		
TSA Sub-Contractor Direct Agreement	CAF must ensure that the TSA, CAF, TSC, TEL, and any other parties to the contract are to be named in the contract. TSA, CAF, TSC, TEL, and any other parties to the contract are to be named in the contract.	Chapter 19, 20, and 21	CAF, TSC, TEL, Transport Scotland, TEL, and any other parties to the contract are to be named in the contract.	CAF, TSC, TEL, Transport Scotland, TEL, and any other parties to the contract are to be named in the contract.	DEPENDENT ON SUB-CONTRACTING ARRANGEMENTS. TET TO CONFIRM WHAT IS SPECIFIED IN THE INFRASTRUCTURE CONTRACT.		
TSA Performance Bond	CAF must ensure that the TSA, CAF, TSC, TEL, and any other parties to the contract are to be named in the contract. TSA, CAF, TSC, TEL, and any other parties to the contract are to be named in the contract.	Chapter 22 and 23	CAF, TSC, TEL, Transport Scotland, TEL, and any other parties to the contract are to be named in the contract.	CAF, TSC, TEL, Transport Scotland, TEL, and any other parties to the contract are to be named in the contract.	STATUS OF THE COLLATERAL WARRANTIES TO BE CONFIRMED BY CEO/T.		
TSA Tram Manufacturer Collateral Warranty	CAF must ensure that the TSA, CAF, TSC, TEL, and any other parties to the contract are to be named in the contract. TSA, CAF, TSC, TEL, and any other parties to the contract are to be named in the contract.	Chapter 24 and 25	CAF, TSC, TEL, Transport Scotland, TEL, and any other parties to the contract are to be named in the contract.	CAF, TSC, TEL, Transport Scotland, TEL, and any other parties to the contract are to be named in the contract.	STATUS OF THE COLLATERAL WARRANTIES TO BE CONFIRMED BY CEO/T.		
TSA Licence Agreement	CAF must ensure that the TSA, CAF, TSC, TEL, and any other parties to the contract are to be named in the contract. TSA, CAF, TSC, TEL, and any other parties to the contract are to be named in the contract.	Chapter 26, 27, and 28	CAF, TSC, TEL, Transport Scotland, TEL, and any other parties to the contract are to be named in the contract.	CAF, TSC, TEL, Transport Scotland, TEL, and any other parties to the contract are to be named in the contract.	TO BE SIGNED WITHIN 30 DAYS OF THE ACCEPTING SOFTWARE FROM CAF. SEE PREVIOUS NOTE ON THIS ISSUE RELATIVE TO THE INFRASTRUCTURE CONTRACT.		
TSA Sub-Contractor Direct Agreement	CAF must ensure that the TSA, CAF, TSC, TEL, and any other parties to the contract are to be named in the contract. TSA, CAF, TSC, TEL, and any other parties to the contract are to be named in the contract.	Chapter 29 and 30	CAF, TSC, TEL, Transport Scotland, TEL, and any other parties to the contract are to be named in the contract.	CAF, TSC, TEL, Transport Scotland, TEL, and any other parties to the contract are to be named in the contract.	DEPENDENT ON SUB-CONTRACTING ARRANGEMENTS. TET TO CONFIRM WHAT IS SPECIFIED IN THE INFRASTRUCTURE CONTRACT.		

Appendix 3 – Cost Report and Contingency Analysis

Section 1 - Project Summary

	Budget Information			Committed			Forecast					Third Party Contributions		Variance		Actuals	
	A	B	C=A+B	D	E	F=D+E	G	H	I	J	K=F+G+H+I+J	L	M=K-L	N=M-C	O=M/C-1	P	Q
	Original Budget	Budget Variation	Current Budget	Original Contract Value	Approved Contract Changes	Current Contract Value	Changes in Progress	Anticipated Change	Opportunities	Risk / Mitigated	Anticipated Final Cost	Estimated Contribution Value	Anticipated Final Project Cost	Budget Variance (Value)	Budget Variance (%)	COWD to Date	Outstanding Amount
Edinburgh Tram Programme	500,154	0	500,154	479,660	3,873	483,533	9,850	11,997	0	5,000	510,380	-7,957	502,423	2,269	0%	367,501	116,032
1 Infraco - Off Street	360,060	-2,407	357,653	362,501	-2,407	360,094	10,292	180	0	0	370,566	-6,534	364,032	6,379	2%	290,981	69,113
2 Infraco - On Street	38,817	1,414	40,231	47,384	1,414	48,798	-442	513	0	0	48,869	-1,423	47,446	7,215	18%	10,405	38,393
3 Infraco - Other	3,218	0	3,218	3,218	0	3,218	0	0	0	0	3,218	0	3,218	0	0%	694	2,524
4.1 Utilities (Post Mediation)	1,812	5,461	7,273	1,812	5,461	7,273	0	7,917	0	0	15,190		15,190	7,917	109%	7,168	105
4.2 Legacy Utilities (Revised Tram Route)	0	500	500	0	500	500	0	687	0	0	1,187		1,187	687	137%	614	-114
4.3 Legacy Utilities (Leith Walk)	1,100	-1,100	0	1,100	-1,100	0	0	2,700	0	0	2,700		2,700	2,700		0	0
5 Tram vehicles	62,400	5	62,405	63,645	5	63,650	0		0	0	63,650		63,650	1,245	2%	57,639	6,011
6 Project Management (refer to CEC Report)		0	0			0					0		0	0			
7 Preparing for Operations (refer to CEC Report)		0	0			0					0		0	0			
8 Specified Risk Allowance	32,747	-3,873	28,874	0	0	0	0			5,000	5,000		5,000	-23,874	-83%	0	0

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.

Risk:
QCRA as last presentation - slides 18 May 2012

Actions
Ongoing risk mitigation of major risks.
Realisation of opportunities associated with specification reductions (road surfacing) and time (York Place)

Infraco Cost Report Section 1 - Commercial Summary

	Budget Information			Committed			Forecast					Third Party Contributions		Variance		Actuals	
	A	B	C = A + B	D	E	F = D + E	G	H	I	J	K = F + G + H + I + J	L	M = K - L	N = M - C	O = M / C - 1	P	Q
	Original Budget	Budget Variation	Current Budget	Original Contract Value	Approved Contract Changes	Current Contract Value	Changes in Progress	Anticipated Change	Opportunities	Risk / Provision	Anticipated Final Cost	Estimated Contribution Value	Anticipated Final Project Cost	Budget Variance (Value)	Budget Variance (%)	COWD to Date	Outstanding Amount
Infraco Contract	402,095	-993	401,102	413,103	-993	412,110	9,850	693	0	0	422,653	-7,957	414,696	13,594	5.37%	302,080	110,030
Off Steet	360,060	-2,407	357,653	362,501	-2,407	360,094	10,292	180	0	0	370,566	-6,534	364,032	6,379	3.61%	290,981	69,113
00 Preliminaries and Other Items	150,408	398	150,806	150,409	398	150,807	4,541	30	0		155,378	0	155,378	4,572	3.03%	115,602	35,205
01 Newhaven Road to Haymarket	85,368	-2,469	82,899	87,738	-2,469	85,269	1,441	0	0		86,710	-318	86,392	3,493	4.60%	90,821	-5,552
02 Haymarket Corridor	8,692	-8	8,684	8,692	-8	8,684	0	0	0		8,684	-14	8,670	-14	0.00%	6,444	2,240
05 Roseburn Junction to Gogar	80,035	-226	79,809	80,105	-226	79,879	4,251	150	0		84,280	-5,162	79,118	-691	5.60%	46,692	33,187
06 Depot	19,979	190	20,169	19,979	190	20,169	92	0	0		20,261	0	20,261	92	0.46%	19,452	717
07 Gogar to Edinburgh Airport	15,578	-292	15,286	15,578	-292	15,286	-33	0	0		15,253	-1,040	14,213	-1,073	-0.22%	11,970	3,316
On Street	38,817	1,414	40,231	47,384	1,414	48,798	-442	513	0	0	48,869	-1,423	47,446	7,215	21.47%	10,405	38,393
00 Preliminaries and Other Items	21,837	87	21,924	21,837	87	21,924	21	0	0		21,945	0	21,945	21	0.10%	6,157	15,767
01 Newhaven Road to Haymarket	16,980	1,327	18,307	25,547	1,327	26,874	-463	513	0		26,924	-1,423	25,501	7,194	47.07%	4,248	22,626
Other	3,218	0	3,218	3,218	0	3,218	0	0	0	0	3,218	0	3,218	0	0.00%	694	2,524
00 Maintenance & Mobilisation	2,205	0	2,205	2,205	0	2,205	0	0	0		2,205	0	2,205	0	0.00%	694	1,511
00 Spare Parts	1,013	0	1,013	1,013	0	1,013	0	0	0		1,013	0	1,013	0	0.00%	0	1,013

Comments:

Summary sheet values in £k. All other sheet values in £.
 Opportunities include for time saving based on current QSRA.
 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 risk.

Actions

Edinburgh Trams
City of Edinburgh Council



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Infracost Report Section 2A - Approved Change - Clause 80

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
506.1	Design for providing a new cycleway from the Mound to Princes Street	1,669	1,669	0		01	01
507	Provide a clarification report and completion of the St. Andrew's Square Public Realm design	133,075	133,075	0	Included within contributions	01	01
508	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
513	Revised design to minimise utility diversions / conflicts - used for slit trenching and trial holes	156,870	156,870	0		01	08
514	Utility Mapping	92,756	92,756	0	Time chargeable costs. L&M Surveys and Class One. Complete	01	08
516	Additional Water main requirement at Depot and Mini Test Track	51,282	51,282	0		06	08
517	Additional BT Ducts at Depot and Mini Test Track	2,996	2,996	0		06	08
520	Valve chamber access and alteration works to 800mm water main at the Depot	105,326	105,326	0		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	31,308	0		05	08
530	Amend the design of the Depot Road turning head as per RDC191. Option 2	30,458	30,458	0		06	08

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Infracost Report Section 2A - Approved Change - Clause 80

TNC No.	Description	Forecast Amount	Previous Period	Change from Previous Period	Notes	Section Code	Change Code
531	Edinburgh Gateway - Advance Temporary Works design	9,349	9,349	0		05	08
534	SP Insurance Ducts - Install Insurance ducts at various locations	5,637	5,637	0		07	08
536	System Wide - Tramstop Cabinets - reduction in 10 years maintenance liability	0	0	0	No saving to contract	01	08
538	Depot - Tramwash Continuous Mode - Requirement for additional hand lances washers	0	0	0	Change rejected - included within contract	06	08
540	Section 7 - Plot 304 - Omit Landscaping works	-201,120	-201,120	0		07	08
544	Extension to Edinburgh Park Office to accommodate CEC / Transport Scotland	159,900	159,900	0		00	08
550	Shandwick Place OLE & Landscape Design Revision	0	0	0	Design costs to be grouped under tnc 562 (BBS PMC 045)	01	08
553	SDS to provide the services of Matt Fell until August 2012	110,000	69,131	40,869		00	01
558	Site Wide - Provision of a CAD Technician	1,693	1,693	0		01	08
559	Detailed Design of York Place	56,438	56,438	0	tnc issued - awaiting BBS estimate	01	08
561	Omit all works at the Forth Ports area	-2,443,000	-2,443,000	0	Work deleted from scope.	01	08
562	On Street Generally - OLE Design Changes for On Street Section (PMC 045) - SIEMENS DESIGN WORKS	135,000	20,000	115,000	Includes original tNC 550, 555, 563	01	08
563	On Street - Amend pile caps from square / rectangular to circular	0	5,000	-5,000	Design costs to be grouped under tnc 562 (BBS PMC 045)	01	08
564	Worksite Modelling - (TM)	10,000	10,000	0		01	08
565	Advanced design works for Edinburgh Gateway Minimum Option	2,650	2,650	0		05	08
565.1	Advanced design works for Edinburgh Gateway Minimum Option	3,350	3,350	0		05	08
566	On Street Generally - Ducting Design Changes Due to Utilities Conflicts	10,000	10,000	0		00	08
567	On Street Generally - Drainage Design Changes Due to Utilities Conflicts	50,000	10,000	40,000		00	08
568	On Street Generally - Trackform Design Changes Due to Utilities Conflicts	10,000	10,000	0		00	08

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Infraco Cost Report Section 2A - Approved Change - Clause 80

TNC No.	Description	Forecast Amount	Previous Period	Change from Previous Period	Notes	Section Code	Change Code
569	Additional Running Costs associated with the extension to the Edinburgh Park offices	79,200	79,200	0		00	08
572	Cathedral Lane Substation - Retaining Wall Design	31,013	31,013	0	Value based on submitted estimate from BBS	01	08
574	Haymarket Station - Delete viaduct cladding	-10,000	-10,000	0		02	08
576	Depot - Reinstatement to 250mm Water main Remedial Works	36,788	36,788	0		07	04
577	Haymarket Viaduct - Deletion of Sub Station Retaining Wall and Plinth	1,580	1,580	0		02	08
578	SI Provisional Sum Allowance	-57,984	-57,984	0		01	08
580	Cancellation of trackwork materials York Place to Newhaven	-1,100,000	-1,100,000	0	Change resulting from value engineering exercise	01	08
581	Omit Siemens work to Tower Place and Victoria Dock bridges	-100,000	-100,000	0	Change resulting from value engineering exercise	01	08
582	Delete proposed cladding installation costs on Roseburn Viaduct Structures	-308,004	-308,004	0	Change resulting from value engineering exercise	05	08
585	Descoping of Service Vehicle	-21,565	-21,565	0		00	08
589	Descoping airport tramstop kiosk and canopy	-150,000	-150,000	0		07	08
591	Diversion of Scottish Power Cable at Haymarket Viaduct	21,789	21,789	0	NR contribution	05	08
595	Haymarket Viaduct - Deletion of fitting out of Crew Relief Facility	-74,001	-70,000	-4,001	Assume credit from NR (yet to be established)	05	08
597	Section 1D - Omit disconnection of Bus Tracker	-14,928	-14,928	0		01	08
602	Omit purchase of poles for PIDs North of York Place	-23,740	-23,740	0		01	08
613	Temporary Bus Station at St Andrew Square/Waterloo Place - design	50,000	50,000	0		01	08
615	Haymarket Viaduct - design wall for blocking off void under the bridge deck as a result of the crew relief facility being omitted	3,000	3,000	0		05	08
616	Haymarket Viaduct - construct wall for blocking off void under the bridge deck as a result of the crew relief facility being omitted	10,798	10,000	798		05	08
617	Tram stops branding changes. Requirement for etched glass to be confirmed	0	0	0	Value TBC	05	08
Total		-2,408,247	-2,595,913	187,666			

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Infraco Cost Report Section 2A - Approved Change - Clause 80

TNC No.	Description	Forecast Amount	Previous Period	Change from Previous Period	Notes	Section Code	Change Code
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Infracost Report Section 2B - Approved Change - Schedule 45

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	8,593	0	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	102,135	0	Includes TNC513, 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	357,140	0	Includes TNC535, TNC543, TNC548, TNC549, TNC551	01	08
004	Independent Certifiers Schedule Part 45 Period End Change Order to 6/1/2012 relating to the following PAV's and On Street Works Estimates	158,870	158,870	0	Includes TNC535, TNC543	01	08
005	Independent Certifiers Schedule Part 45 Period End Change Order to 4/2/2012 relating to the following PAV's and On Street Works Estimates	332,812	332,812	0	Includes TNC535, 543, 551, 554, 596, 598	01	08
006	Independent Certifiers Schedule Part 45 Period End Change Order to 3/3/2012 relating to the following PAV's and On Street Works Estimates	244,645	244,645	0	Includes TNC543, 547, 554, 600, 604, 606	01	08
007	Independent Certifiers Schedule Part 45 Period End Change Order to 31/3/2012 relating to the following PAV's and On Street Works Estimates	209,363		209,363	Includes TNC 543, 547, 554, 600, 604, 606, 629, 630	01	08
Total		1,413,558	1,204,195	209,363			

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Infracost Report Section 3A - Change in Progress - Clause 80

TNC No.	Description	Forecast Amount	Previous Period	Change from Previous Period	Notes	Section Code	Change Code
524	Airport to Gyle - NIL Design Finalisation (also includes Construction)	-40,559	30,000	-70,559		07	01
525	Airport to Gyle - Site Access for Remedial Works	0	0	0	all costs associated with this change allocated to TNC 576	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	Saving from Infracost, not included during the period as cost not shown in utility budget	07	04
539	System Wide - Delay in signing - impact on commencement and completion	4,541,161	4,541,161	0	Meeting scheduled to review cost incurred at delay commencement	00	02
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	111,163	50,000	61,163	Allowance for ducting	01	08
555	Haymarket - OLE 196B design revision to avoid main sewer	0	10,000	-10,000	Design costs to be grouped under tnc 562 (BBS PMC 045)	01	08
556	Track Work Materials York Place to Newhaven - Price Fixing for Rheda City C and D	0	0	0	Included in VE register	01	12
557	Haymarket 1 - OLE Base Relocations (Design mods)	0	100,000	-100,000	Design costs to be grouped under tnc 562 (BBS PMC 045)	01	08
571	Hope Street Junction Design	5,000	5,000	0		01	08
573	Roseburn Delta - Non DDA Compliant Footpath	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 Viaduct Staircase and Parapet. TNC now withdrawn - Network Rail carrying out work	0	0	0	Verbal update - NR have indicated that they will remove the staircase and parapet in Haymarket contract. Current cost report allowance offset by contribution (cost neutral).	02	08
586	St Andrew Square - tie in detail	15,228	30,000	-14,772	Change resulting from value engineering exercise	01	08
587	Revise design for amendments to setts areas and specification	30,000	30,000	0	Subject to separate CEC budget?	01	08
592	Haymarket Yards - Realign kerbs at Car Park Entrance	0	0	0	Currently on hold pending A. Sim review.	05	08
593	Secondary Phase 1a - Cessation of Design Work North of York Place	0	0	0	Saving opportunity being investigated in relation to future ownership of design etc prior to finalising value.	01	08
594	Edinburgh Gateway slope option. Awaiting construction estimate	4,200,000	4,850,000	-650,000		05	08

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Infracost Report Section 3A - Change in Progress - Clause 80

TNC No.	Description	Forecast Amount	Previous Period	Change from Previous Period	Notes	Section Code	Change Code
599	Floating track slab	980,000	0	980,000	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.	01	08
601	Clarification on length of shelter to RBS tram stop (8m)	25,000	25,000	0	Liability for change still to be clarified - basis of contract price unclear	05	08
603	Bus Tracker Interface Specification	10,000	0	10,000	Cost based on option 2	01	08
605	Depot - Sub-Station Switching	80,000	80,000	0	Includes allowance up to Section B completion date (8/3/13)	06	08
608	Delete 110v sockets on Off Street Tram Stops	-16,500	-16,500	0	Assume £1.5k per tram stop. Awaiting estimate	05	08
609	Traffic Management provision in section 1A	130,000	130,000	0		01	08
610	Edinburgh Gateway - Siemens Long Lead Items	0	0	0	Cost covered within the Edinburgh Gateway costs.	05	08
618	Gogar Depot 1800 mm Diameter Manhole - TQ736	15,000	0	15,000		06	0
619	Omit Track Welding Equipment	-3,000	0	-3,000		06	0
620	Airport Tram Stop Design	10,000	0	10,000		05	0
621	Amend the dates of the HV meter installation at substations	12,507	0	12,507		05	0
622	LV power for sub-station and Tramstop.	0	0	0		05	0
623	Repair minor damage to Depot (Intercom, fence panel and broken slabs	3,000	0	3,000		07	0
624	Compressed Air Supply to Depot Gantry Road and workshop	5,000	0	5,000		07	0
625	Engineering attendance on site at Cathedral Lane.	55,000	0	55,000		01	0
626	Advanced procurement of Edinburgh Gateway Materials and Equipment.	0	0	0	Costs included in tNC 594	05	0
627	Delete pedestrian guardrail in the area outside St John's Church (Design)	5,000	0	5,000		01	0
628	Prepare MUDFA As Built drawings	100,000	0	100,000	Requirements to be confirmed	01	0

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Infracost Report Section 3A - Change in Progress - Clause 80

TNC No.	Description	Forecast Amount	Previous Period	Change from Previous Period	Notes	Section Code	Change Code
632	Resolve Depot Building water ingress	0	0	0	Assumed to be BBS liability	06	0
636	Twin Crossing at Lochside Avenue	20,000	0	20,000		05	0
Total		10,293,000	9,864,661	428,339			

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Infraco Cost Report Section 3B - Change in Progress - Schedule 45

TNC No.	Description	In Progress	Certified	Total Forecast	Previous Period	Change from Previous Period	Notes	Section Code	Change Code
513.1	Revised design to minimise utility diversions / conflicts - used for slit trenching and trial holes	0	17,210	17,210	17,210	0		01	08
521	Haymarket - Temporary Accommodation	0	1,543	1,543	1,543	0		01	08
522	Haymarket 1 - Road Reconstruction	0	0	0	0	0	Included in VE register	01	08
523	Haymarket 1 - Additional CBR / Plate Testing	0	0	0	0	0	Included within on street priority works (contract milestones)	01	08
528	Haymarket 1 - Slit trench excavation to validate utilities	0	6,565	6,565	6,565	0	Included within on street priority works (contract milestones)	01	08
532	Princes Street - Temporary traffic management design - WITHDRAWN	0	0	0	0	0	Further information required	01	10
533	Princes Street - 500mm Water Main Diversion	0	0	0	0	0	Costs contained within 535	01	08
535	Princes Street - 500mm Water Main Diversion - rev 3 dwg	0	252,986	252,986	252,986	0		01	08
537	Haymarket 1 - Additional visit of Tar planer to facilitate slewing of BT ducts - WITHDRAWN	0	0	0	0	0	Withdrawn	01	08
543	Haymarket H1 - Utilities affecting the construction of OHLE foundations	156	283,651	283,807	283,651	156	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	0	0	0	20,000	-20,000	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	0	21,482	21,482	0		00	08
547	Haymarket H1 - Third Party (McNicholas) affecting ability to progress the works	0	3,787	3,787	3,787	0		00	08
548	Haymarket H1 - BT Fibre Optic Service requires diverting	0	83,053	83,053	83,053	0		00	08
549	Princes Street - Amend the design of the St. Johns Church OLE bases	0	12,284	12,284	12,284	0	Opportunity to deduct original scope to be pursued once acceptance of revised pole locations is achieved.	01	08
551	Princes Street - 2011 Christmas Embargo - Temporary Surfacing of Track Infills	0	203,511	203,511	203,511	0		01	08
552	Princes Street - BT diversion @ junction of Princes Street and South St. David Street	0	0	0	0	0	Costs included within TNC 535	01	08
554	St Andrew Square & Shandwick Place - Traffic Management Requirements	84,048	135,710	219,758	219,758	0	Refer to Revised issue of TNC	01	10
560	St. Andrew Square - Omit £0.7m of repairs to road surface finishing	-700,000	0	-700,000	-700,000	0		01	08

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Infraco Cost Report Section 3B - Change in Progress - Schedule 45

TNC No.	Description	In Progress	Certified	Total Forecast	Previous Period	Change from Previous Period	Notes	Section Code	Change Code
570	Omit the Removal of Trees in Shandwick Place	-9,066	0	-9,066	-9,066	0		01	08
579	Removal of embargo and revised traffic management	0	0	0	0	0	Change resulting from value engineering exercise	01	07
583	Ordering setts for on street works	-90,000	0	-90,000	0	-90,000	Saving based on spreadsheet issued to CEC (GE to AC 22/05/2012). Final value still to be agreed with BBS	01	08
584	Road Reconstruction specification	0	0	0	0	0	Change resulting from value engineering exercise	01	08
588	Stafford St Return of Parking Spaces	0	0	0	0	0		01	08
590	New cycleway from The Mound into Princes Street	20,000	0	20,000	20,000	0	Costs included in PMC 108 - to be allocated to tNC	01	08
596	Section 1D - Costs associated with amended drainage design	67,504	12,626	80,131	12,626	67,504		01	08
598	Section 1D - Incorporate geotextile liner into Clifton Terrace void in accordance with requirements from Archaeologist	1,740	1,760	3,500	3,500	0		01	08
600	Shandwick place - OLE bases affecting utilities (Piling)	67,755	304,957	372,712	319,096	53,616		01	08
604	St Andrew Sq - OLE bases affecting utilities (Piling)	3,344	66,169	69,513	66,867	2,646		01	08
606	York Place - Waverley Bridge - Works Delayed and disrupted as a result of works carried out by Third parties	19,780	24,331	44,111	26,272	17,839		01	08
607	Delete 110v sockets on On Street Tram Stops	-4,500	0	-4,500	-4,500	0	Assume £1.5k per tram stop. Awaiting estimate	01	08
611	Excavation of Track Slab to be carried out by McNicholas	0	0	0	0	0	Refer to Anticipated change section for costs	01	08
612	Tram stops branding changes. Requirement for etched glass to be confirmed (cost excluded)	0	0	0	0	0	Value TBC	00	08
614	Rothesay Place Traffic Management Amendment	10,000	0	10,000	10,000	0		01	08
629	Utilities affecting Track Excavation at Shandwick Place (S1)	14,109	1,621	15,730	0	15,730		01	0
630	Utilities affecting Track Excavation at Shandwick Place (S2)	4,110	1,794	5,904	0	5,904		01	0
631	Third parties affecting progress at Shandwick Place (S2)	7,522	0	7,522	0	7,522		01	0
633	Ponding on Princes St at junctions of Frederick St/Castle St	40,000	0	40,000	0	40,000	Contract liability for all Princes St snags to be established	01	0

Infraco Cost Report Section 3B - Change in Progress - Schedule 45

TNC No.	Description	In Progress	Certified	Total Forecast	Previous Period	Change from Previous Period	Notes	Section Code	Change Code
634	Descope duct installation at Cathedral Lane	0	0	0	0	0	In Anticipated change section	01	0
635	Amend on street drainage scope	0	0	0	0	0	In Anticipated change section	01	0
Total		-442,015	1,413,558	971,542	870,625	100,917			

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Infraco Cost Report Section 4 - Anticipated Change

Ref No	Description	Forecast Amount	Previous Period	Change from Previous Period	Notes	Section Code	Change Code
1	Pricing Assumptions - 6.4.2.1 Floating Track Slab	0	980,000	-980,000	Cost now contained in tNC 599	01	08
2	Pricing Assumptions - 6.4.2.3 York Place Terminal Point	944,000	944,000	0	Excludes design costs (in change section of report) and sheet piling work to strengthen basement (included in risk allowance).	01	08
3	Pricing Assumptions - 6.4.2.4 Cathedral Lane Substation	250,000	250,000	0	This 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	01	08
4	Pricing Assumptions - 6.4.2.6 Dublin Street	50,000	50,000	0	Excludes piling if required.	01	08
6	Track Lowering - bridging trackform over utilities in St Andrew Square	500,000	500,000	0		01	08
7	Piled OLE base in lieu of utility diversion	110,000	165,000	-55,000	Total of 49 piles. Awaiting on street estimates from BBS to confirm value. Original estimate value £750k. Reduced for piles completed and included within the On Street change in progress section.	01	08
10	Settlement Agreement exclusions not included elsewhere	0	404,378	-404,378	Refer to Schedule E, items 7,8,10,11,12,14. 6 removed - now included in change in progress	01	08
14	Roseburn Delta - non DDA footpath	30,000	30,000	0	No design required. Temporary footpath alignment to be agreed on site. Potential modifications to surface water drainage resulting from revised earthworks and Scottish Water approvals.	05	08
15	MUDFA Reinstatement - Hope Street / Lothian Road	30,000	30,000	0	CEC may undertake this work	01	08
20	Further design changes to OLE resulting from utilities (York Place)	50,000	50,000	0	Initial value of £200k drawn down into tNCs	01	08
23	Drainage redesign and amendments to numbers / depths of manholes, carrier drains / drainage connections.	50,000	250,000	-200,000	Additional design £50k; costs associated with standing time and or delay captured in Schedule Part 45 Costs	01	08

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Infraco Cost Report Section 4 - Anticipated Change

Ref No	Description	Forecast Amount	Previous Period	Change from Previous Period	Notes	Section Code	Change Code
24	Remove drainage from Infraco scope	-450,000		-450,000	Extent of deduction to be fully established. BBS have advised a total saving of £250k. T&T believe the value is larger and have made further allowance within this number.	01	08
25	Remove excavation of trackbox from Infraco's contract	-500,000	-500,000	0	Value to be determined by detailed site measure and application of Schedule 45 rates. Quantification to be agreed with BBS.	01	08
26	Remove ducting in Cathedral Lane from Infraco's contract	-75,000	-75,000	0		01	08
27	Amend road reconstruction depth from Contract Requirements	-700,000	0	-700,000	Principles instructed, saving subject to site conditions	01	08
28	Opportunity to reduce cost associated with the temporary tram stop at York Place	-150,000	0	-150,000	Design optimisation - still to be realised	01	08
29	Schedule Part E, Items 7. OLE Pole surface finish and decorative top (Finials)	49,760	0	49,760	Current requirements to be established	01	08
30	Schedule Part E, Item 8. Trackside Signage	37,320	0	37,320	Current requirements to be established	01	08
31	Schedule Part E, Item 10. OLE Change: Grosvenor Street Pole Movement	12,440	0	12,440	Current requirements to be established	01	08
32	Schedule Part E, Item 11. Unsuitable building fixings Section 1A	118,258	0	118,258	Current requirements to be established	01	08
33	Schedule Part E, Item 12. SDS Lighting Design update impacts OLE combined poles	62,200	0	62,200	Current requirements to be established	01	08
34	Schedule Part E, Item 14. SDS alignment update to match built structures	124,400	0	124,400	Current requirements to be established	01	08
35	Defer tram stop construction	30,000	0	30,000	Tram stop construction delayed to mitigate risks associated with vandalism	00	08
36	Install fencing to mini test track	20,000	0	20,000		05	08
37	Redesign of OLE bases along Roseburn corridor where they are sited outside of the LOD	100,000	0	100,000		05	08
38	Princes Street snagging			0	Further investigation of liability associated with work to be established.	01	08

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Infraco Cost Report Section 4 - Anticipated Change

Ref No	Description	Forecast Amount	Previous Period	Change from Previous Period	Notes	Section Code	Change Code
Total		693,378	3,078,378	-2,385,000			

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Infraco Cost Report Section 5 - Opportunities

Ref No	Description	Approved Changes	Changes in Progress	Anticipated Changes	Contributions	Secured	To be secured	Total Opportunity	Value per CS report Jan 2012	Notes
01	Remove embargoes and revised TM	0	0	0	0	0	0	0	-6,460,000	Subject to completion of sections in advance of contract dates. Initial opportunity based on 22 week time saving assumed in the Rev 4C programme. Current master programme indicates 4 week saving as a result of York Place
02	Edinburgh Gateway	0	0	0	-4,200,000	-4,200,000	0	-4,200,000	0	Awaiting instruction from Transport Scotland
03	Setts (separate CEC budget)	0	-90,000	0	-890,000	-980,000	0	-980,000	-1,000,000	Funded by separate CEC budget (added to contributions register)
04	De-scope public realm at St Andrew Sq	0	-700,000	0	0	-700,000	0	-700,000	-700,000	Instructed
05	Contributions 3rd Party Agreements	0	0	0	-2,866,875	-2,866,875	0	-2,866,875	-2,500,000	Refer to contributions register
06	De-scope works at Forth Ports	-2,443,000	0	0	0	-2,443,000	0	-2,443,000	-2,450,000	Instructed
07	Omit Airport Tram Kiosk and Canopy	-150,000	0	0	0	-150,000	0	-150,000	-150,000	Approved, replacement materials t.b.c
08	Temporary tram stop at York Place	0	0	-150,000	0	-150,000	0	-150,000	-150,000	Design optimisation
09	Redeployment of Trams	0	0	0	0	0	0	0	-5,000,000	Included in CEC budget code
10	Cancel track York Place to Newhaven	-1,100,000	0	0	0	-1,100,000	0	-1,100,000	-1,100,000	Instructed
11	Omit Siemens works at Tower Place	-100,000	0	0	0	-100,000	0	-100,000	-100,000	Instructed
12	Turner & Townsend / CEC resources	0	0	0	0	0	0	0	0	Ongoing
13	Shared recovery vehicle	0	0	0	0	0	0	0	0	Not taken forward
14	Road re-construction depth	0	0	-700,000	0	-700,000	0	-700,000	-700,000	Principles instructed, saving subject to site conditions
15	Design freeze north of York Place	0	0	0	0	0	0	0	-250,000	Infraco design costs expended
16	Reduced requirement for storage	0	0	0	0	0	0	0	-1,000,000	Included in CEC budget code
17	Lay off TM at Forth Ports/Leith Walk	0	0	0	0	0	0	0	-180,000	TM not included in Infraco budget provision
18	Roseburn Viaduct Cladding	-308,004	0	0	0	-308,004	0	-308,004	-300,000	Instructed

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Infraco Cost Report Section 5 - Opportunities

Ref No	Description	Approved Changes	Changes in Progress	Anticipated Changes	Contributions	Secured	To be secured	Total Opportunity	Value per CS report Jan 2012	Notes
19	Delete Crew Relief Facility	-74,001	0	0	0	-74,001		-74,001		Instructed
Total		-4,175,005	-790,000	-850,000	-7,956,875	-13,771,880	0	-13,771,880	-22,040,000	

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Infracost Report Section 6 - Credits & Contributions

Ref No	Description	Included in Contract Sum	Approved Changes	Changes in Progress	Anticipated Changes	Total Forecast	Previous Period	Change from Previous	Contribution Received	Notes	Section Code	Change Code
01	Edinburgh Gateway Feasibility	860,000	82,995	0		940,000	940,000	0	528,000	£1.2m in total. Remainder of the costs included in CEC sections of the project budget.	05	08
02	New Ingliston Future Proof measures	540,000	0	0		540,000	540,000	0		Construction works element of overall settlement with NIL. Remaining amount contained in Land budget	07	08
03	Henderson Global - Cathedral Lane substation	166,404	233,596	0		400,000	400,000	0		Full extent of agreement with Henderson Global to be established. Allowance assumes all design costs and proportion of construction costs associated with future substation will be borne by Henderson Global. Cost of £470k has been submitted to Henderson Global	01	08
04	RBS Tramstop	500,000	0	0		500,000	500,000	0		Allowance included subject to final agreement with RBS	07	08
05	St Andrew Square Public Realm design		133,075	0		133,075	133,075	0	133,000	As per agreed change value. Assumed to be recovered from separate budget	01	08
06	Forth Ports		0	0		0	0	0		Forth Ports work removed from scope - no further contribution from Forth Ports assumed	01	08
07	CEC Miscellaneous. Mainly George Street CEC costs (£298k)	318,213	0	0		318,213	318,213	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.	01	08
08	Network Rail - Haymarket station refurbishment	0	13,798	0		13,798	13,000	798		Majority of this work now being carried out by Network Rail. Remaining allowance for wall to crew relief facilities	02	08
09	Contribution from CEC for public realm work (granite setts) at St Andrews Square	890,000	0	0		890,000	1,000,000	-110,000		No change in scope allowed for - setts funded by CEC. Saving based on spreadsheet issued to CEC (GE to AC 22/05/2012).	01	08
10	Network Rail - Scottish Power Cable diversion - Haymarket Station (TNC 591)		21,789	0		21,789	21,789	0			05	08
11	Edinburgh Gateway Construction		0	4,200,000		4,200,000	4,850,000	-650,000			05	08
Total		3,274,617	485,253	4,200,000	0	7,956,875	8,716,077	-759,202	979,213			

Infraco Cost Report Section 7 - Change Summary

Change Code	Description	Approved Change	Change in Progress	Anticipated Change	Contributions	Total
01	Scope Change	-1,726,583	5,324,832	-1,260,622		2,337,627
02	PAVs (Utilities, etc)	718,479	-513,257	1,954,000		2,159,222
03	Miscellaneous Client Risk Items	10,000	210,000	0		220,000
04	Time Delay	0	4,541,161	0		4,541,161
05	Project Contributions	0	0	0	-7,956,875	-7,956,875
Total		-998,104	9,562,736	693,378	-7,956,875	1,301,135

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.

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Infraco Cost Report Section 8 - Period Movement

Ref No.	Description	Approved Off	Approved On	In Progress Off	In Progress On	Total
524	Airport to Gyle - NIL Design Finalisation (also includes Construction)	0		-70,559	0	-70,559
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		61,163	0	61,163
543	Haymarket H1 - Utilities affecting the construction of OHLE foundations	0		0	156	156
545	Site Wide - Power to bus trackers affecting the ability to remove site clearance items	0		0	-20,000	-20,000
553	SDS to provide the services of Matt Fell until August 2012	40,869		0	0	40,869
555	Haymarket - OLE 196B design revision to avoid main sewer	0		-10,000	0	-10,000
557	Haymarket 1 - OLE Base Relocations (Design mods)	0		-100,000	0	-100,000
562	On Street Generally - OLE Design Changes for On Street Section (PMC 045) - SIEMENS DESIGN WORKS	115,000		0	0	115,000
563	On Street - Amend pile caps from square / rectangular to circular	-5,000		0	0	-5,000
567	On Street Generally - Drainage Design Changes Due to Utilities Conflicts	40,000		0	0	40,000
583	Ordering setts for on street works	0		0	-90,000	-90,000
586	St Andrew Square - tie in detail	0		-14,772	0	-14,772
594	Edinburgh Gateway slope option. Awaiting construction estimate	0		-650,000	0	-650,000
595	Haymarket Viaduct - Deletion of fitting out of Crew Relief Facility	-74,001		70,000	0	-4,001

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Infraco Cost Report Section 8 - Period Movement

Ref No.	Description	Approved Off	Approved On	In Progress Off	In Progress On	Total
596	Section 1D - Costs associated with amended drainage design	0		0	67,504	67,504
599	Floating track slab	0		980,000	0	980,000
600	Shandwick place - OLE bases affecting utilities (Piling)	0		0	53,616	53,616
603	Bus Tracker Interface Specification	0		10,000	0	10,000
604	St Andrew Sq - OLE bases affecting utilities (Piling)	0		0	2,646	2,646
606	York Place - Waverley Bridge - Works Delayed and disrupted as a result of works carried out by Third parties	0		0	17,839	17,839
616	Haymarket Viaduct - construct wall for blocking off void under the bridge deck as a result of the crew relief facility being omitted	798		0	0	798
618	Gogar Depot 1800 mm Diameter Manhole - TQ736	0		15,000	0	15,000
619	Omit Track Welding Equipment	0		-3,000	0	-3,000
620	Airport Tram Stop Design	0		10,000	0	10,000
621	Amend the dates of the HV meter installation at substations	0		12,507	0	12,507
623	Repair minor damage to Depot (Intercom, fence panel and broken slabs	0		3,000	0	3,000
624	Compressed Air Supply to Depot Gantry Road and workshop	0		5,000	0	5,000
625	Engineering attendance on site at Cathedral Lane.	0		55,000	0	55,000
627	Delete pedestrian guardrail in the area outside St John's Church (Design)	0		5,000	0	5,000

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Infraco Cost Report Section 8 - Period Movement

Ref No.	Description	Approved Off	Approved On	In Progress Off	In Progress On	Total
628	Prepare MUDFA As Built drawings	0		100,000	0	100,000
629	Utilities affecting Track Excavation at Shandwick Place (S1)	0		0	15,730	15,730
630	Utilities affecting Track Excavation at Shandwick Place (S2)	0		0	5,904	5,904
631	Third parties affecting progress at Shandwick Place (S2)	0		0	7,522	7,522
633	Ponding on Princes St at junctions of Frederick St/Castle St	0		0	40,000	40,000
636	Twin Crossing at Lochside Avenue	0		20,000	0	20,000
Total		117,666	0	498,339	100,917	716,922

Anticipated Change				150,000	-2,535,000	-2,385,000
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Opportunities				0	6,752,091	6,752,091
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Change to Anticipated Final Cost	117,666	0	648,339	4,318,008	5,084,013
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Contributions			-649,202	-110,000	-759,202
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Change to Anticipated Final Project Cost	117,666	0	1,297,541	4,428,008	5,843,215
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Utilities Cost Report: Section 1 - Utilities Summary

	Budget Information			Committed			Forecast					Third Party Contributions		Variance		Actuals	
	A	B	C = A + B	D	E	F = D + E	G	H	I	J	K = F + G + H + I + J	L	M = K - L	N = M - C	O = M / C - 1	P	Q
	Original Budget	Budget Variation	Current Budget	Original Contract Value	Approved Contract Changes	Current Contract Value	Changes in Progress	Anticipated Change	Opportunities	Risk / Provision	Anticipated Final Cost	Estimated Contribution Value	Anticipated Final Project Cost	Budget Variance (Value)	Budget Variance (%)	Cost of Work Done	Outstanding Amount
Post Settlement Utilities	2,912	4,861	7,773	2,912	4,861	7,773	0	11,304	0	0	19,077	0	19,077	11,304	145.4%	7,782	-9
McNicholas	1,812	4,763	6,575	1,812	4,763	6,575	0	6,417	0	0	12,992	0	12,992	6,417	97.6%	6,570	5
01 Conflicts	1,812	2,547	4,359	1,812	2,547	4,359		2,620			6,979		6,979	2,620	60.1%	3,689	670
01A Drainage		444	444		444	444		1,156			1,600		1,600	1,156	260.4%	1,225	-781
01B Grosvenor St / Haymarket Sewer Collapse		0	0		0	0		0			0		0	0		0	0
01C Tower Place Bridge		0	0		0	0		50			50		50	50		0	0
02 Legacy Works		500	500		500	500		687			1,187		1,187	687	137.4%	614	-114
03 Standby Team		0	0		0	0		0			0		0	0		0	0
04 Management Team		549	549		549	549		1,015			1,564		1,564	1,015	184.9%	506	43
05 Design Team		692	692		692	692		844			1,536		1,536	844	122.0%	515	177
06 Accomodation		31	31		31	31		45			76		76	45	145.2%	21	10
Statutory Utility Companies	0	1,198	1,198	0	1,198	1,198	0	2,187	0	0	3,385	0	3,385	2,187	182.6%	1,212	-14
01 Scottish Power		126	126		126	126		210			336		336	210	166.7%	100	26
02 Scottish Gas Networks		55	55		55	55		144			199		199	144	261.8%	36	19
03 Scottish Water		505	505		505	505		1,199			1,704		1,704	1,199	237.4%	722	-217
04 Virgin Media		104	104		104	104		178			282		282	178	171.2%	115	-11
05 Verizon		20	20		20	20		0			20		20	0	0.0%	8	12
06 Cable & Wireless		49	49		49	49		104			153		153	104	212.2%	36	13
07 Fibrenet		250	250		250	250		-62			188		188	-62	-24.8%	189	61
08 BT		89	89		89	89		544			633		633	544	611.2%	69	20
09 Siemens		0	0		0	0		20			20		20	20		7	-7
12 Contributions (all companies)		0	0		0	0		-150			-150		-150	-150		-70	70
00 Legacy Works	1,100	-1,100	0	1,100	-1,100	0		2,700			2,700		2,700	2,700		0	0

Comments:
 All values are in £k.
 Conflict resolution forecast to complete based resourced schedule.
 Legacy works forecast based on current budget. Work is iongoing to establish the full scope.

Risk
 Refer to Risk register for risks identified against McNicholas programme
 All risk is held at programme level. This section of the cost report makes no allowance for risk.

Actions
 Drainage scope and extent of work emerging. Provisional allowance included at present.
 Full forecast of legacy scope of works to be carried out once scope is properly defined.

Appendix 4 – Change Log

Line No.	Track No.	Location	Description	On Street / Off Street	Change Category	Letter Ref	Estimate No.	Estimate Date	Value	Time Implications	Approved by	Approved on	Costs	Comments
521	001	Hyphenation Cycle Link	Change the design to widen the footway alongside the south side of the Hyphenation Cycle Link	On Street	AS/DMS	AS/DMS	NA	15/06/2011	£20,235.31	13.00	CEC	24/07/2011	£20,235.31	Previously PAV/TCO
522	002	Queen Lower Roadway	Revised the design of Queen Drive to re-reroute the footpath to the north of Queen Drive	On Street	AS/DMS	AS/DMS	NA	15/06/2011	£10,238.32	6.00	CEC	24/07/2011	£10,238.32	Previously PAV/TCO
523	003	Depot Access Bridge	Amend the design of this CLE at the Depot Access Bridge to enable construction of the bridge	Off Street	AS/DMS	AS/DMS	NA	18/09/2011	£9,233.43	6.00	CEC	24/07/2011	£9,233.43	Previously PAV/TCO
524	004	Barrington Place	Revised the design of Barrington Place as part of the design for Section 102/02/03	On Street	AS/DMS	AS/DMS	NA	09/09/2011	£46,347.00	6.00	CEC	24/07/2011	£46,347.00	Previously PAV/TCO
525	005	Fort Pines Terminal Point	Production of a feasibility report, with a feasibility design for option 1, on time modelling etc.	On Street	AS/DMS	AS/DMS	NA	15/06/2011	£236,032.00	6.00	CEC	24/07/2011	£236,032.00	Previously PAV/TCO
526	006	The Moorland	Design for providing a new cycleway from the Moorland to Prince Street	On Street	AS/DMS	AS/DMS	NA	15/06/2011	£1,668.71	6.00	CEC	24/07/2011	£1,668.71	Previously PAV/TCO
527	007	R Andrew Square	Provide a justification report and completion of the R Andrew Square Public realm design	On Street	AS/DMS	AS/DMS	NA	23/09/2011	£13,075.48	6.00	CEC	24/07/2011	£13,075.48	Previously PAV/TCO
528	008	R Andrew Square	Design for future use by CEC	On Street	AS/DMS	AS/DMS	NA	23/09/2011	£13,075.48	6.00	CEC	24/07/2011	£13,075.48	Previously PAV/TCO
529	009	14th of April Avenue	Obtain EAL approval for the highway design drawings at 14th of April Avenue from CEC	Off Street	AS/DMS	AS/DMS	NA	04/08/2011	£13,025.09	6.00	CEC	24/07/2011	£13,025.09	Previously PAV/TCO
530	010	Camphill	Design of Camphill at Lane Substation	On Street	AS/DMS	AS/DMS	NA	04/08/2011	£13,025.09	6.00	CEC	24/07/2011	£13,025.09	Previously PAV/TCO
531	011	Sugar Lane	Design of Camphill at Lane Substation	On Street	AS/DMS	AS/DMS	NA	04/08/2011	£13,025.09	6.00	CEC	24/07/2011	£13,025.09	Previously PAV/TCO
532	012	Down Terminal	Design of Camphill at Lane Substation	On Street	AS/DMS	AS/DMS	NA	04/08/2011	£13,025.09	6.00	CEC	24/07/2011	£13,025.09	Previously PAV/TCO
533	013	Van Ness	Revised design to minimise utility diversions / conflicts - used for all trenching and trial holes	On Street	AS/DMS	AS/DMS	NA	09/11/2011	£43,747.07	6.00	CEC	24/07/2011	£43,747.07	Previously PAV/TCO
534	014	Van Ness	Revised design to minimise utility diversions / conflicts - used for all trenching and trial holes	On Street	AS/DMS	AS/DMS	NA	21/01/2011	£31,211.55	6.00	CEC	24/07/2011	£31,211.55	Previously PAV/TCO
535	015	Van Ness	Revised design to minimise utility diversions / conflicts - used for all trenching and trial holes	On Street	AS/DMS	AS/DMS	NA	21/01/2011	£31,211.55	6.00	CEC	24/07/2011	£31,211.55	Previously PAV/TCO
536	016	Van Ness	Revised design to minimise utility diversions / conflicts - used for all trenching and trial holes	On Street	AS/DMS	AS/DMS	NA	21/01/2011	£31,211.55	6.00	CEC	24/07/2011	£31,211.55	Previously PAV/TCO
537	017	Van Ness	Revised design to minimise utility diversions / conflicts - used for all trenching and trial holes	On Street	AS/DMS	AS/DMS	NA	21/01/2011	£31,211.55	6.00	CEC	24/07/2011	£31,211.55	Previously PAV/TCO
538	018	Van Ness	Revised design to minimise utility diversions / conflicts - used for all trenching and trial holes	On Street	AS/DMS	AS/DMS	NA	21/01/2011	£31,211.55	6.00	CEC	24/07/2011	£31,211.55	Previously PAV/TCO
539	019	Van Ness	Revised design to minimise utility diversions / conflicts - used for all trenching and trial holes	On Street	AS/DMS	AS/DMS	NA	21/01/2011	£31,211.55	6.00	CEC	24/07/2011	£31,211.55	Previously PAV/TCO
540	020	Van Ness	Revised design to minimise utility diversions / conflicts - used for all trenching and trial holes	On Street	AS/DMS	AS/DMS	NA	21/01/2011	£31,211.55	6.00	CEC	24/07/2011	£31,211.55	Previously PAV/TCO
541	021	Van Ness	Revised design to minimise utility diversions / conflicts - used for all trenching and trial holes	On Street	AS/DMS	AS/DMS	NA	21/01/2011	£31,211.55	6.00	CEC	24/07/2011	£31,211.55	Previously PAV/TCO
542	022	Van Ness	Revised design to minimise utility diversions / conflicts - used for all trenching and trial holes	On Street	AS/DMS	AS/DMS	NA	21/01/2011	£31,211.55	6.00	CEC	24/07/2011	£31,211.55	Previously PAV/TCO
543	023	Van Ness	Revised design to minimise utility diversions / conflicts - used for all trenching and trial holes	On Street	AS/DMS	AS/DMS	NA	21/01/2011	£31,211.55	6.00	CEC	24/07/2011	£31,211.55	Previously PAV/TCO
544	024	Van Ness	Revised design to minimise utility diversions / conflicts - used for all trenching and trial holes	On Street	AS/DMS	AS/DMS	NA	21/01/2011	£31,211.55	6.00	CEC	24/07/2011	£31,211.55	Previously PAV/TCO
545	025	Van Ness	Revised design to minimise utility diversions / conflicts - used for all trenching and trial holes	On Street	AS/DMS	AS/DMS	NA	21/01/2011	£31,211.55	6.00	CEC	24/07/2011	£31,211.55	Previously PAV/TCO
546	026	Van Ness	Revised design to minimise utility diversions / conflicts - used for all trenching and trial holes	On Street	AS/DMS	AS/DMS	NA	21/01/2011	£31,211.55	6.00	CEC	24/07/2011	£31,211.55	Previously PAV/TCO
547	027	Van Ness	Revised design to minimise utility diversions / conflicts - used for all trenching and trial holes	On Street	AS/DMS	AS/DMS	NA	21/01/2011	£31,211.55	6.00	CEC	24/07/2011	£31,211.55	Previously PAV/TCO
548	028	Van Ness	Revised design to minimise utility diversions / conflicts - used for all trenching and trial holes	On Street	AS/DMS	AS/DMS	NA	21/01/2011	£31,211.55	6.00	CEC	24/07/2011	£31,211.55	Previously PAV/TCO

TRC No.	PAC No.	ICO No.	Location	Description	Reason for Change	On Street / Off Street	Class B / Schedule 45	TAT Change	Change Category	Budget Cont'd for Risk and Potential Change	Date TAC Board	Letter Ref	Date Estimate Due	Date Estimate Received	Estimate Change Value (€m)	Estimate Change Value (€m)	Time Implications	Date Approved by CCT/RT	Date Approved or Rejected	Agreed Cost for Contract Change	Date TCO Board	Comments		
583	83	551	Airport	Decommission ramp to access taxiway	Value engineering constraint	On Street	Class 80	SM	C/R	-€100,000.00	23/02/2012	HF CORR 834	20/03/2012	N/A	N/A	N/A	27/02/2012	CC	27/02/2012	-€100,000.00	29/02/2012	TCO SWP RETURNED SIGNED BY BBS 18/11/2012		
590	83	N/A	The Moorland	New railway from The Moorland to Frith Street	Value engineering constraint	On Street	Schedule 45	RL	U/C	€1,700,000.00	23/02/2012	HF CORR 835	04/05/2012	N/A	N/A	N/A	20/02/2012	CC	20/02/2012	€1,700,000.00	22/02/2012	TCO ISSUED, NEGOTIATE WITH NETWORK RAIL ON RETURNING AN INVOICED CABLE MOVE		
591	85	561	Haymarket Viaduct	Diversion of Scottish Power Cable at Haymarket Viaduct	Value engineering constraint	Off Street	Class 80	SM	U/C	€1,700,000.00	23/02/2012	HF CORR 836	20/03/2012	N/A	N/A	N/A	14/04/2012	CC	14/04/2012	€1,700,000.00	22/02/2012	TCO ISSUED, NEGOTIATE WITH NETWORK RAIL ON RETURNING AN INVOICED CABLE MOVE		
592	85	N/A	Haymarket Viaduct	Widening access to car park entrance	Value engineering constraint	Off Street	Class 80	SM	U/C	N/A	ON HOLD												NOTE - ALADDIN SIM OF C/C APPROVED FOR ON HOLD	
593	84	558	Secondary Phase 1A	Construction of Design Work North of York Place	Design Constraint	On Street	Class 80	RL	DC	N/A	01/04/2012	HF CORR 837	27/03/2012										RE - FURTHER CLARIFICATION ON SCOPE REQUIRED, BBS RETURNED SIGNED 18/11/2012	
594	14	557	Edinburgh Gateway	Edinburgh Gateway slope option - 15% DC	Design Development	On Street	Class 80	SM	DC	€1,700,000.00	13/02/2012	HF CORR 838	04/04/2012										TCO RETURNED FROM BBS 26.312, ESTIMATE DUE FOR TAC BOARD ON 17/11	
594.1	14	N/A	Edinburgh Gateway	Edinburgh Gateway slope option (revision to add for complete design)	Design Development	Off Street	Class 80	SM	DC	N/A	18/02/2012	HF CORR 839	SEE LETTER										INC INVOICED	
594.2	14	559.1	Edinburgh Gateway	Edinburgh Gateway slope option (revision requiring design of special trackwork due to envelope clearance between track and level)	Design Development	Off Street	Class 80	SM	DC	€1,700,000.00	01/04/2012	HF CORR 840	18/04/2012										INC INVOICED	
595	84	564	Haymarket Viaduct	Location of New Rail Footing	Design Development	Off Street	Class 80	SM	DC	-€700,000.00	24/04/2012	HF CORR 841	03/04/2012	N/A	N/A	N/A	06/03/2012	CC	06/03/2012	-€700,000.00	08/03/2012			
596	88	N/A	Section 1D	Utilities drawing with various 10KV/20KV	Utilities constraint	On Street	Class 80	RL	P/W	N/A	15/02/2012	HF CORR 842	N/A										TCO TO TRACK ROW	
597	88	N/A	Section 1D	On-site construction of Box 12/24/26	Utilities constraint	On Street	Schedule 45	RL	P/W	N/A	15/02/2012	HF CORR 843	N/A										TCO TO TRACK ROW	
598	89	N/A	Section 1D	On-site construction of Box 12/24/26	Utilities constraint	On Street	Schedule 45	RL	P/W	N/A	15/02/2012	HF CORR 844	N/A										TCO TO TRACK ROW	
598	89	N/A	Section 1D	On-site construction of Box 12/24/26	Utilities constraint	On Street	Schedule 45	RL	P/W	N/A	15/02/2012	HF CORR 845	N/A										TCO TO TRACK ROW	
599	89	N/A	Section 1D	On-site construction of Box 12/24/26	Utilities constraint	On Street	Schedule 45	RL	P/W	N/A	15/02/2012	HF CORR 846	N/A										TCO TO TRACK ROW	
600	72	N/A	Section 1D	On-site construction of Box 12/24/26	Utilities constraint	On Street	Schedule 45	RL	P/W	N/A	15/02/2012	HF CORR 847	N/A										TCO TO TRACK ROW	
601	72	N/A	Section 1D	On-site construction of Box 12/24/26	Utilities constraint	On Street	Schedule 45	RL	P/W	N/A	15/02/2012	HF CORR 848	N/A										TCO TO TRACK ROW	
602	89	560	Section 1C - Glasgow Tram Stop	Change of Length of Shelter	RIS Requirement	On Street	Class 80	SM	DC	€1,700,000.00	15/02/2012	HF CORR 849	18/04/2012										NOTE - MAKE SURE OTHER REPORT COVERS FOR PERIOD BEFORE PERIOD DUE/51 ESTIMATE	
602	30	562	North York Place	On-site construction of Box 12/24/26	RIS Requirement	Off Street	Class 80	RL	DC	-€33,000.00	20/02/2012	HF CORR 850	N/A										ORIGINALLY FEMASO AS CANNOT BE CHANGED TO CAUSE BY ALADDIN TO TRACK	
603	89	N/A	Section 1A	On-site construction of Box 12/24/26	Utilities constraint	Off Street	Class 80	RL	DC	N/A	20/02/2012	HF CORR 851	N/A										AWAITING DECISION ON OPTIONS FROM LONDON BUSES	
604	86	561	York Place - Westfield Bridge	Utilities affecting the construction of ONIE Foundations (PHYS)	Utilities constraint	On Street	Schedule 45	RL	P/W	N/A	05/04/2012	HF CORR 852	N/A										NOTE - THIRD AND FINAL PART OF PILING FOR OTHER AFFECTING THE 600 AND 561	
605	86	561	Depot	Utilities affecting the construction of ONIE Foundations (PHYS)	Utilities constraint	Off Street	Class 80	SM	DC	N/A	05/04/2012	HF CORR 853	N/A											
605.1	86	561.1	Depot	Utilities affecting the construction of ONIE Foundations (PHYS)	Utilities constraint	Off Street	Class 80	SM	DC	N/A	05/04/2012	HF CORR 854	N/A											
606	79	N/A	York Place - Westfield Bridge	Utilities affecting the construction of ONIE Foundations (PHYS)	Utilities constraint	On Street	Schedule 45	RL	P/W	N/A	05/04/2012	HF CORR 855	N/A											NOTE - MAKE SURE OTHER REPORT COVERS FOR PERIOD BEFORE PERIOD DUE/51 ESTIMATE
607	84	N/A	On Street - Generally	Work delays and disrupted as result of work carried out by contractor	Contractor constraint	On Street	Schedule 45	RL	C/R	N/A	02/04/2012	HF CORR 856	N/A										RECORDED PERIOD DUE/51 ESTIMATE	
608	95	N/A	Off Street - Generally	Work delays and disrupted as result of work carried out by contractor	Contractor constraint	Off Street	Class 80	RL	C/R	N/A	02/04/2012	HF CORR 857	N/A											
609	81	N/A	Off Street - Section 1A	Work delays and disrupted as result of work carried out by contractor	Contractor constraint	Off Street	Class 80	RL	C/R	N/A	02/04/2012	HF CORR 858	N/A											
610	84	564	Edinburgh Gateway	Work delays and disrupted as result of work carried out by contractor	Contractor constraint	Off Street	Class 80	SM	DC	N/A	02/04/2012	HF CORR 859	N/A											
611	102	N/A	On Street - Generally	Work delays and disrupted as result of work carried out by contractor	Contractor constraint	On Street	Schedule 45	RL	U/C	N/A	10/05/2012	HF CORR 860	N/A											
612	102	N/A	On Street - Generally	Work delays and disrupted as result of work carried out by contractor	Contractor constraint	On Street	Schedule 45	RL	C/R	N/A	10/05/2012	HF CORR 861	N/A											
613	102	N/A	On Street - Generally	Work delays and disrupted as result of work carried out by contractor	Contractor constraint	On Street	Schedule 45	RL	C/R	N/A	10/05/2012	HF CORR 862	N/A											
613	103	N/A	On Street - Generally	Work delays and disrupted as result of work carried out by contractor	Contractor constraint	On Street	Schedule 45	RL	C/R	N/A	10/05/2012	HF CORR 863	N/A											
614	104	N/A	On Street - Generally	Work delays and disrupted as result of work carried out by contractor	Contractor constraint	On Street	Schedule 45	RL	C/R	N/A	10/05/2012	HF CORR 864	N/A											
615	104	N/A	On Street - Generally	Work delays and disrupted as result of work carried out by contractor	Contractor constraint	On Street	Schedule 45	RL	C/R	N/A	10/05/2012	HF CORR 865	N/A											
616	104	N/A	On Street - Generally	Work delays and disrupted as result of work carried out by contractor	Contractor constraint	On Street	Schedule 45	RL	C/R	N/A	10/05/2012	HF CORR 866	N/A											
617	105	N/A	On Street - Generally	Work delays and disrupted as result of work carried out by contractor	Contractor constraint	On Street	Schedule 45	RL	C/R	N/A	10/05/2012	HF CORR 867	N/A											
617	105	N/A	On Street - Generally	Work delays and disrupted as result of work carried out by contractor	Contractor constraint	On Street	Schedule 45	RL	C/R	N/A	10/05/2012	HF CORR 868	N/A											
618	105	N/A	On Street - Generally	Work delays and disrupted as result of work carried out by contractor	Contractor constraint	On Street	Schedule 45	RL	C/R	N/A	10/05/2012	HF CORR 869	N/A											
619	105	N/A	On Street - Generally	Work delays and disrupted as result of work carried out by contractor	Contractor constraint	On Street	Schedule 45	RL	C/R	N/A	10/05/2012	HF CORR 870	N/A											
620	105	N/A	On Street - Generally	Work delays and disrupted as result of work carried out by contractor	Contractor constraint	On Street	Schedule 45	RL	C/R	N/A	10/05/2012	HF CORR 871	N/A											
621	111	N/A	On Street - Generally	Work delays and disrupted as result of work carried out by contractor	Contractor constraint	On Street	Schedule 45	RL	U/C	€1,500,000.00	16/04/2012	HF CORR 872	N/A											
622	117	N/A	On Street - Generally	Work delays and disrupted as result of work carried out by contractor	Contractor constraint	On Street	Schedule 45	RL	U/C	€1,500,000.00	16/04/2012	HF CORR 873	N/A											
623	117	N/A	On Street - Generally	Work delays and disrupted as result of work carried out by contractor	Contractor constraint	On Street	Schedule 45	RL	U/C	€1,500,000.00	16/04/2012	HF CORR 874	N/A											
624	117	N/A	On Street - Generally	Work delays and disrupted as result of work carried out by contractor	Contractor constraint	On Street	Schedule 45	RL	U/C	€1,500,000.00	16/04/2012	HF CORR 875	N/A											
625	117	N/A	On Street - Generally	Work delays and disrupted as result of work carried out by contractor	Contractor constraint	On Street	Schedule 45	RL	U/C	€1,500,000.00	16/04/2012	HF CORR 876	N/A											
626	117	N/A	On Street - Generally	Work delays and disrupted as result of work carried out by contractor	Contractor constraint	On Street	Schedule 45	RL	U/C	€1,500,000.00	16/04/2012	HF CORR 877	N/A											
627	117	N/A	On Street - Generally	Work delays and disrupted as result of work carried out by contractor	Contractor constraint	On Street	Schedule 45	RL	U/C	€1,500,000.00	16/04/2012	HF CORR 878	N/A											
628	117	N/A	On Street - Generally	Work delays and disrupted as result of work carried out by contractor	Contractor constraint	On Street	Schedule 45	RL	U/C	€1,500,000.00	16/04/2012	HF CORR 879	N/A											

TRC No.	PAC No.	ICD No.	Location	Description	Reason For Change	On Street / Off Street	Change Category D/J/U/PS	Budget Cont. for Risk and Potential Changes	Date TRC Board	Letter Ref	Date Estimate Due	Date Estimate Received	Estimate Change Value (\$/mg)	Estimate Change Value (\$/mg)	Time Implications	Date Approved to CEC	Approved by CEC/ST	Date Approved or Rejected	Agreed Cost for Approved Contract Changes	Date CCO Board	Comments
623	35	N/A	On Street - Section D East End of Shandwick St (Upper Road Junction)	Utilities affecting Track Excavation at G1	Utilities encountered while excavating the Track Box	On Street	PAV		1,6/05/2012	HP CORE 8317	12/06/2012	N/A Schedule 45	N/A Schedule 45		PAV	21/05/2012	CEC	11/05/2012	N/A	16/05/2012	
628	100	N/A	On Street - Section D Shandwick St (at Road Place)	Utilities affecting Track Excavation at S2	Utilities encountered while excavating the Track Box	On Street	PAV				45	N/A Schedule 45	N/A Schedule 45		PAV					N/A	
631	101	N/A	On Street - Section D Shandwick St (at Road Place)	Third parties affecting ability to progress excavating Track Box	Third parties	On Street	PAV				45	N/A Schedule 45	N/A Schedule 45		PAV					N/A	
632		579	Off Street - Depot	Depot building water ingestion resolution	Resolve water ingestion around the building door and inspection pit.	Off Street	UC									21/05/2012	CEC	11/05/2012		16/05/2012	
633		N/A	On Street - Prince St	Priority 9 Paving at Junction (between S2 Court & R)	Paving on Prince St	On Street	UC		22/05/2012	HP CORE 8329	N/A Schedule 45	N/A Schedule 45	N/A Schedule 45			21/05/2012	CEC	21/05/2012	N/A		
634		N/A	On Street - Cathedral Lane	Excavation and duct installation for Place to Cathedral Lane now by Utility Contractor	Address utilities cables in their course, and avoid disruption to traffic work.	On Street	UC		22/05/2012	HP CORE 8331	N/A Schedule 45	N/A Schedule 45	N/A Schedule 45			21/05/2012	CEC	21/05/2012		N/A	
635			On Street - Drainage	On Street Drainage Slope	Identifies drainage now being carried out by Utilities Contractor and that remaining with Infraco	On Street	UC		28/05/2012												
636		371	Off Street - Lochside Place	Twin Crossing at Lochside Avenue	Priority of new bases to existing pipes and valves are within DCE + 2m envelope.	Off Street	UC		22/05/2012	HP CORE 8332	15/06/2012					21/05/2012	CEC	21/05/2012		21/05/2012	

DC - Design Change
UC - Unforeseen Circumstances
OF - Client Request
PAV - Price Variation
PS - Pricing Assumption Variation

ID	Title	Description	Risk Category	Impact	Status	Risk Analysis - 1st 3rd 5th 10th				Risk Analysis - 1st 3rd 5th 10th				Risk Rating
						1st	3rd	5th	10th	1st	3rd	5th	10th	
ED001	Due to design issues and interface between...	Design of interface between construction contracts (I/C)	Design	High	Active	5	3	2	1	5	3	2	1	High
ED002	Design of interface between construction contracts (I/C)	Design of interface between construction contracts (I/C)	Design	High	Active	5	3	2	1	5	3	2	1	High
ED003	Design of interface between construction contracts (I/C)	Design of interface between construction contracts (I/C)	Design	High	Active	5	3	2	1	5	3	2	1	High
ED004	Design of interface between construction contracts (I/C)	Design of interface between construction contracts (I/C)	Design	High	Active	5	3	2	1	5	3	2	1	High
ED005	Design of interface between construction contracts (I/C)	Design of interface between construction contracts (I/C)	Design	High	Active	5	3	2	1	5	3	2	1	High
ED006	Design of interface between construction contracts (I/C)	Design of interface between construction contracts (I/C)	Design	High	Active	5	3	2	1	5	3	2	1	High
ED007	Design of interface between construction contracts (I/C)	Design of interface between construction contracts (I/C)	Design	High	Active	5	3	2	1	5	3	2	1	High
ED008	Design of interface between construction contracts (I/C)	Design of interface between construction contracts (I/C)	Design	High	Active	5	3	2	1	5	3	2	1	High
ED009	Design of interface between construction contracts (I/C)	Design of interface between construction contracts (I/C)	Design	High	Active	5	3	2	1	5	3	2	1	High
ED010	Design of interface between construction contracts (I/C)	Design of interface between construction contracts (I/C)	Design	High	Active	5	3	2	1	5	3	2	1	High
ED011	Design of interface between construction contracts (I/C)	Design of interface between construction contracts (I/C)	Design	High	Active	5	3	2	1	5	3	2	1	High
ED012	Design of interface between construction contracts (I/C)	Design of interface between construction contracts (I/C)	Design	High	Active	5	3	2	1	5	3	2	1	High
ED013	Design of interface between construction contracts (I/C)	Design of interface between construction contracts (I/C)	Design	High	Active	5	3	2	1	5	3	2	1	High
ED014	Design of interface between construction contracts (I/C)	Design of interface between construction contracts (I/C)	Design	High	Active	5	3	2	1	5	3	2	1	High
ED015	Design of interface between construction contracts (I/C)	Design of interface between construction contracts (I/C)	Design	High	Active	5	3	2	1	5	3	2	1	High
ED016	Design of interface between construction contracts (I/C)	Design of interface between construction contracts (I/C)	Design	High	Active	5	3	2	1	5	3	2	1	High
ED017	Design of interface between construction contracts (I/C)	Design of interface between construction contracts (I/C)	Design	High	Active	5	3	2	1	5	3	2	1	High
ED018	Design of interface between construction contracts (I/C)	Design of interface between construction contracts (I/C)	Design	High	Active	5	3	2	1	5	3	2	1	High
ED019	Design of interface between construction contracts (I/C)	Design of interface between construction contracts (I/C)	Design	High	Active	5	3	2	1	5	3	2	1	High
ED020	Design of interface between construction contracts (I/C)	Design of interface between construction contracts (I/C)	Design	High	Active	5	3	2	1	5	3	2	1	High

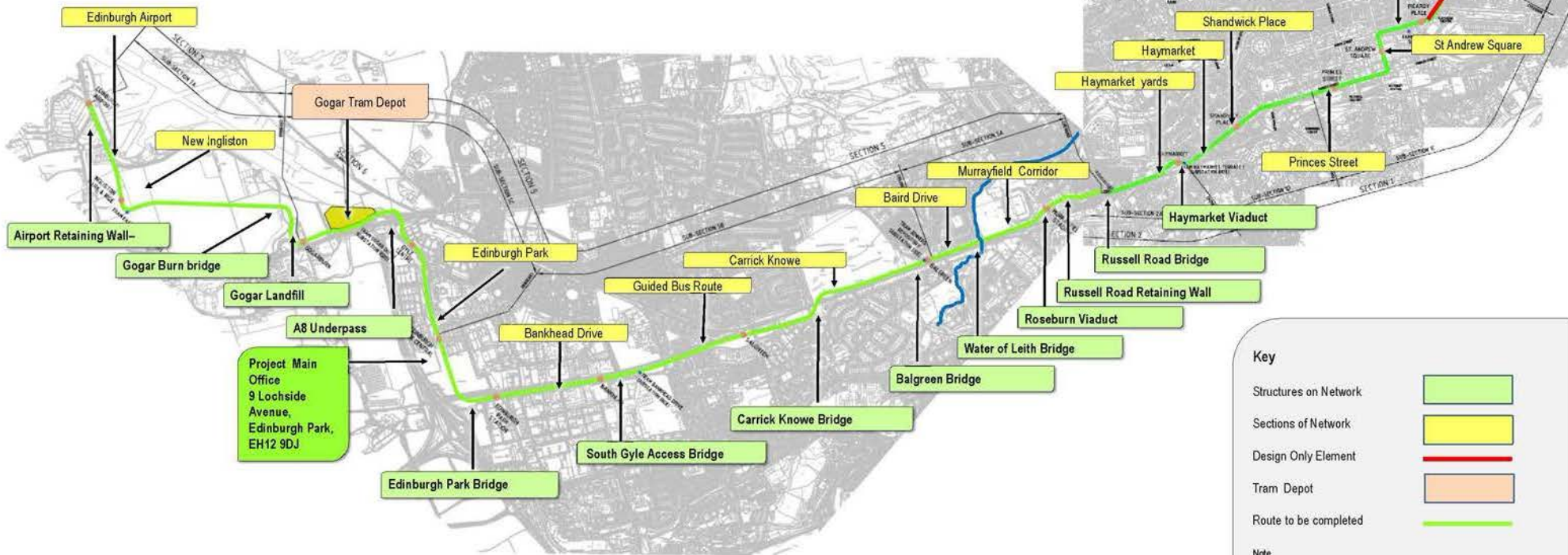
ID	Title	Description	Status	Priority	Risk	Impact	Milestone 1 (2023)		Milestone 2 (2024)		Milestone 3 (2025)		Milestone 4 (2026)		Overall Status
							Start	End	Start	End	Start	End	Start	End	
ED001	Project Kick-off	Initial project setup, team formation, and stakeholder identification.	Active	High	Low	High	2023-01-01	2023-01-31	2023-02-01	2023-02-28	2023-03-01	2023-03-31	2023-04-01	2023-04-30	On Track
ED002	Requirements Gathering	Collecting and analyzing requirements from stakeholders.	Active	High	Low	High	2023-02-01	2023-02-28	2023-03-01	2023-03-31	2023-04-01	2023-04-30	2023-05-01	2023-05-31	On Track
ED003	System Architecture Design	Designing the overall system architecture and data flow.	Active	High	Low	High	2023-03-01	2023-03-31	2023-04-01	2023-04-30	2023-05-01	2023-05-31	2023-06-01	2023-06-30	On Track
ED004	Database Design	Designing the database schema and tables.	Active	High	Low	High	2023-03-01	2023-03-31	2023-04-01	2023-04-30	2023-05-01	2023-05-31	2023-06-01	2023-06-30	On Track
ED005	Backend Development	Developing the server-side logic and APIs.	Active	High	Low	High	2023-04-01	2023-04-30	2023-05-01	2023-05-31	2023-06-01	2023-06-30	2023-07-01	2023-07-31	On Track
ED006	Frontend Development	Developing the user interface and client-side logic.	Active	High	Low	High	2023-04-01	2023-04-30	2023-05-01	2023-05-31	2023-06-01	2023-06-30	2023-07-01	2023-07-31	On Track
ED007	Integration Testing	Testing the integration between different components.	Active	High	Low	High	2023-05-01	2023-05-31	2023-06-01	2023-06-30	2023-07-01	2023-07-31	2023-08-01	2023-08-31	On Track
ED008	Deployment	Deploying the application to the production environment.	Active	High	Low	High	2023-06-01	2023-06-30	2023-07-01	2023-07-31	2023-08-01	2023-08-31	2023-09-01	2023-09-30	On Track
ED009	Post-deployment Support	Monitoring the application performance and handling issues.	Active	High	Low	High	2023-07-01	2023-07-31	2023-08-01	2023-08-31	2023-09-01	2023-09-30	2023-10-01	2023-10-31	On Track
ED010	Project Review	Conducting a final review of the project and lessons learned.	Active	High	Low	High	2023-08-01	2023-08-31	2023-09-01	2023-09-30	2023-10-01	2023-10-31	2023-11-01	2023-11-30	On Track

Risk ID	Risk Description	Risk Category	Risk Status	Risk Analysis - High Impact						Risk Analysis - Low Impact							
				Impact	Probability	Frequency	Complexity	Visibility	Control	Impact	Probability	Frequency	Complexity	Visibility	Control		
R001	Contract award process is delayed due to late submission of bids.	Procurement	Active	3	2	2	2	2	2	2	2	2	2	2	2	2	2
R002	Key personnel are unavailable during critical project phases.	Human Resources	Active	3	2	2	2	2	2	2	2	2	2	2	2	2	2
R003	Scope creep leading to budget overruns.	Project Management	Active	3	2	2	2	2	2	2	2	2	2	2	2	2	2
R004	Communication gaps between stakeholders.	Stakeholder Management	Active	3	2	2	2	2	2	2	2	2	2	2	2	2	2
R005	Technical issues or bugs in the software development process.	IT/Development	Active	3	2	2	2	2	2	2	2	2	2	2	2	2	2
R006	Supply chain disruptions affecting material availability.	Logistics/Procurement	Active	3	2	2	2	2	2	2	2	2	2	2	2	2	2
R007	Regulatory changes impacting project compliance.	Legal/Compliance	Active	3	2	2	2	2	2	2	2	2	2	2	2	2	2
R008	Market volatility affecting project budget.	Finance	Active	3	2	2	2	2	2	2	2	2	2	2	2	2	2
R009	Security concerns or data breaches.	Information Security	Active	3	2	2	2	2	2	2	2	2	2	2	2	2	2
R010	Integration challenges between different systems.	IT/Development	Active	3	2	2	2	2	2	2	2	2	2	2	2	2	2
R011	Vendor performance issues.	Procurement	Active	3	2	2	2	2	2	2	2	2	2	2	2	2	2
R012	Resource allocation conflicts.	Human Resources	Active	3	2	2	2	2	2	2	2	2	2	2	2	2	2
R013	Quality control issues in manufacturing.	Production	Active	3	2	2	2	2	2	2	2	2	2	2	2	2	2
R014	Customer satisfaction and feedback.	Customer Relations	Active	3	2	2	2	2	2	2	2	2	2	2	2	2	2

Appendix 5 – Risk Register

Appendix 6 – Route Map

Edinburgh Tram Network – Route Map & Key Locations



Appendix 7 – 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
TPS	Traction Power Supply
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

Proposed All Party Oversight Group Dates (2012)

June 2012 – December 2012

Monday 25 June 2012 at 12pm

Thursday 2 August 2012 at 2pm

Tuesday 28 August 2012 at 2pm

Tuesday 25 September 2012 at 3pm

Monday 22 October 2012 at 2pm

Monday 19 November 2012 at 2pm

Monday 10 December 2012 at 2pm

Recommendation

To agree to consult with the Leader of the Council on the suitability of the dates identified above.