

EDINBURGH TRAM PROJECT

Review of Progress and Management of the Project

January 2011 to June 2012

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FOI(S)A Exempt

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CONTENTS

- 1.0 Introduction**
- 2.0 Early Analysis and Emerging Conclusions
period January 2011 to March 2011**
- 3.0 An overview of Tactics Strategy and Aims from Mediation**
- 4.0 Approach to bring a Management Structure to deal with the
Project Circumstances**
- 5.0 Client Control and Reporting**
- 6.0 Progress Programme and Next Initiative**
- 7.0 Financial Briefing Report – May 2012**
- 8.0 Cost Engineering**
- 9.0 Communications**
- 10.0 Forensic Work and Preparation for Inquiry
(to be provided on 28th May 2012)**

APPENDICES

- (i) Governance Structure Diagram**
- (ii) Contractor's Progress Report**
- (iii) Turner & Townsend Progress Report Extract**

1.0 INTRODUCTION

The purpose of this report is to give the reader a clear overview of the project position, with specific reference to the period between January 2011 and June 2012.

The report endeavours to provide detail on programme, finance, contract and points of commercial governance, engagement with Lothian Buses, getting ready for operations, engagement with Stakeholders, communications, traffic modelling and York Place, as well as setting out the process for a forensic review.

The format of the report is to provide a narrative to introduce the enclosed documents, which have been extracted from the live project file in order to give transparency to the project path.

It is recommended that a detailed briefing be given to the reader in order to set the context of the points noted.

2.0 EARLY ANALYSIS AND EMERGING CONCLUSIONS PERIOD JANUARY 2011 TO MARCH 2011

First Observations and Emerging Thoughts

At the instigation of the City of Edinburgh Council ("CEC") Chief Executive Sue Bruce, an all-day project review to assess readiness for mediation was held on Saturday 29th January 2011.

The notes attached were created on the basis of the dynamic and the topics covered. They are the opinion of the author, not that of the Council.

This meeting was the first of many that followed as the tactics and detail were examined and refined in the lead up to mediation in March 2011.

3.0 AN OVERVIEW OF TACTICS STRATEGY AND AIMS FROM MEDIATION

The attached report gathers the actions and strategy immediately post mediation.

The report was reviewed by Bilfinger Berger and Siemens ("Infracore") to ensure that all parties were content with the position prior to the first Principals (i.e. the senior directors of Bilfinger Berger, Siemens and CAF) meeting post mediation. The report was adopted by the Principals at that meeting.

Edinburgh Trams

Report on Progress since Completion of Heads of Terms to 8th April 2011



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Document 1 of 2
Report

Issue Date: 7th April 2011

Hg Consulting

EDINBURGH TRAMS

**REPORT ON PROGRESS SINCE COMPLETION OF
HEADS OF TERMS TO 8TH APRIL 2011**

CONTENTS

- 1.0 Heads of Terms / Minute of Variation
- 2.0 Governance and Management of the Project
- 3.0 Priority Works
- 4.0 Management of Design and Consents Procedures
- 5.0 Re-Energisation of Project
- 6.0 Conclusions

APPENDICES (DOCUMENT 2 OF 2)

- 1 Heads of Terms (CEC, BBS, TIE)
- 2 Draft Minute of Variation as at 5th April 2011
- 3 Heads of Terms (Redacted) (CEC, CAF, TIE)
- 4 Mini Test Track - Operational Readiness Workshop List
- 5 Hg Minutes from Briefing Meetings on 14th and 18th March 2011
- 6 Project Delivery Plan from 13th March to 8th April 2011
- 7 Risk Register
- 8 Prioritised Works Programme and Narrative
- 9 Princes Street Remedial Works – Traffic Management
- 10 Prioritised Works – Scope / Red / Yellow line Boundary
- 11 Prioritised Works Price
- 12 CEC Approvals – Technical Approval Comments
- 13 Design and Consent Issues (as at 30 March 2011)
- 14 Red Flag Briefing Note – Scottish Water
- 15 Design & Build – Design Tracker
- 16 Notes from Commercial Workshop – 31st March
- 17 Re-Mobilisation Payments – Bilfinger Berger/Siemens Split
- 18 Vesting of Materials stored at Broxburn

EDINBURGH TRAMS**REPORT ON PROGRESS SINCE COMPLETION OF HEADS OF TERMS TO 8TH APRIL 2011****1.0 HEADS OF TERMS / MINUTE OF VARIATION****1.1 Development of Heads of Terms to Form Minutes of Variation**

In order to reduce time and increase efficiency of instruction, a briefing meeting with City of Edinburgh Council ("CEC") solicitors and McGrigors was held on 14th March 2011.

A joint briefing meeting with Kevin Russell, Axel Eickhorn and Colin Smith, together with McGrigors and Pinsent Masons was held on 20th March 2011.

The Minute of Variation draft attached is as at 5th April 2011 (see Appendix 2).

1.2 Minute of Variation Timetable**1.2.1 Airport to Haymarket – 15th April 2011**

The tie / BBS Minute of Variation to the present contract requires to be agreed prior to and signed on the 15th April 2011.

In Hg Consulting's view, The signing of the Minute of Variation on the 15th of April 2011 should only be carried out with the benefit of confirmation from BBS and CAF that they will complete contractual arrangements to allow the novation of CAF's present contractual obligations from BBS to tie in the additional Minute of Variation to be signed on 1st July 2011.

The tie / BBS and tie / CAF Minutes of Variation should be signed simultaneously on 15th April 2011.

1.2.2 Haymarket to York Place – 1st July 2011

It has been agreed that the additional Minute of Variation Haymarket to York Place is to be ready for signature by 1st July 2011.

This additional Minute of Variation will be subject to full funding being confirmed to tie by CEC. The confirmation of funding is to be made by 1st September 2011.

The requirement of the project team is to have a design that is sufficiently advanced and consented to allow a detailed price to be agreed that will become an agreed Target Sum by 1st July 2011. Hg Consulting would recommend that the agreement of the Target Sum has a long stop date of 1st August 2011.

1.3 City of Edinburgh Council instructions to Contract Procedures

Since mediation the contract control from the client sponsor has been of greater influence.

The proposed methodology for CEC required changes is to notify CEC of requests or decisions by way of a letter to tie requesting that a change order be issued.

This instruction will be pre-agreed by CEC and BBS and the letter of instruction copied to the Contractor.

Matters presently being processed as noted above, as at 5th April 2011, include:

- letter to get Cathedral Lane Substation moved forward (excluding any further Global Henderson changes);

EDINBURGH TRAMS

REPORT ON PROGRESS SINCE COMPLETION OF
HEADS OF TERMS TO 8TH APRIL 2011**1.3 City of Edinburgh Council instructions to Contract Procedures cont'd**

- letter to confirm that the terminal point is to be York Place;
- letter to confirm that there will be a full closure of Princes Street and that the Embargo has been lifted;
- letter to tie regarding their non involvement in BBS design (as per item 11.3 of HoT). Note civil and system and trackwork design will be issued to tie for information only to allow them to complete their obligations with third parties e.g. ICP;
- letter to tie covering audit (trackwork) and in general to allow BBS to complete the design and agree this with CEC;
- letter to tie regarding no further involvement in Roseburn Viaduct scope as the scope is agreed with CEC and included in the agreed Total Price as per Mar Hall - tie need to issue instruction to BBS for the agreed scope as outlined in the Project Phoenix document;
- letter to confirm that no signage is to be installed on top of tram stops;
- letter to confirm whether the depot access road, Hammer head Option 2 (as per tie letter INF CORR 7508/DB dated 11 March 2011) is to be implemented and the costs (Design & Construction) are additional to the agreed Total Price, per Mar Hall;
- letter to confirm whether the Gogar castle access road (as per tie letter INF CORR 7510/DB dated 11 March 2011) is to be implemented and the costs (Design & Construction) are additional to the agreed Total Price, per Mar Hall;
- Letter to tie regarding instruction to BBS for designing a temporary Overhead Catenary System to the east of Depot Access Bridge to facilitate the energisation of the mini test track and associated tracks within the Depot;
- Letter to tie regarding instruction to BBS for designing the new Termination Point at York Place (St Andrew Square); and
- Letter to tie regarding instruction to BBS for incorporation of an additional cycle path at Section 1A as requested by CEC.

1.4 CAF**1.4.1 Integration to BBS Systems**

A series of meetings have been held between CAF and tie, culminating in a meeting between Richard Jeffrey, Vic Emery and Antonio Campos.

The latest tie / CAF Heads of Terms (Redacted) is attached (see Appendix 3).

The remaining issues that require to be managed and included in the tie / CAF Minute of Variation, to be compatible with BBS arrangements are:

- (i) Specification, location and scope of mini test track; and
- (ii) Programme, integration of systems and compatibility of entire plant, equipment, infrastructure, software, trams, etc.

EDINBURGH TRAMS

REPORT ON PROGRESS SINCE COMPLETION OF
HEADS OF TERMS TO 8TH APRIL 2011**2.0 GOVERNANCE AND MANAGEMENT OF THE PROJECT****2.1 Client / Contractor**

The project is funded by the Scottish Government (Transport Scotland) and City of Edinburgh Council. The project sponsor is City of Edinburgh Council.

The arms length project management company is tie Limited ("tie").

tie is CEC's agent to deliver the Edinburgh Trams project.

2.2 Project Delivery

The present proposal requires an adjusted scope per item five of the Head of Terms signed on 12 March 2011, which includes:

1. tie procuring and managing the utility diversion works required from on street works.
2. CAF providing the tram element of the contract.
3. BBS providing infrastructure and systems from the Airport to Haymarket and to York Place.

2.3 Project Control and Meeting Structure

A separate report on 15th April will be made on the governance from the project office upward (see diagram in Hg minutes, per Appendix 5).

From the project office downward it has been noted that meetings have been prolific.

A review of all meetings is presently underway to reduce the number of meetings and attendees in order to provide a structure of meetings that will have:

- (i) an agenda;
- (ii) minutes;
- (iii) actions and action by; and
- (iv) required minimum personnel.

This exercise is being led by Martin Foerder, Alfred Brandenburger and Colin Smith, with an aim for reporting and implementation by the end of April 2011.

Project strategic weekly meetings have been put in place, with input from a number of CEC technical staff and with attendance by tie staff. These cover:

- Risk
- Programme
- Commercial
- Design and Consents

EDINBURGH TRAMS

REPORT ON PROGRESS SINCE COMPLETION OF HEADS OF TERMS TO 8TH APRIL 2011

1.4.1 Integration to BBS Systems cont'd

On my researching historic files, I believe this information has been considered previously, but that no final decision was made (see Appendix 4).

The tie / CAF Minute of Variation

A joint meeting is proposed by Hg between BBS, CAF, CEC and tie to review previous discussions and re-establish a close definition regarding items (i) and (ii) above. Thereafter the resolution of this meeting should be inputted to the tie / BBS and tie / CAF Minutes of Variation respectively.

1.4.2 Partial Possession and Handover/Commissioning Procedures

The programme and process will be built off the present BBS programme proposal of five trams from 15th October 2011 and the balance from mid December 2011.

An alternative proposal to take full possession of the Depot on 16th December 2011, with trams being delivered and commissioned from January 2012, is being discussed and a return call from CAF is awaited.

Requirements for commissioning, training of staff and resourcing, leading to a full handover compliant with ROGS to the end user, need to be embraced and understood by tie and the tram operator.

BBS are to comply with Employer's requirements.

EDINBURGH TRAMS

REPORT ON PROGRESS SINCE COMPLETION OF
HEADS OF TERMS TO 8TH APRIL 2011**2.3 Project Control and Meeting Structure cont'd**

It is proposed to add:

- Utilities; and
- Princes Street Remedial Works

Those meetings have been chaired by Hg on behalf of CEC (see Appendix 5).

The work activities of the client group and contractor were marshalled in line with the project delivery plan from 13th March 2011 to 8th April 2011 (see Appendix 6).

2.4 Key Outputs of Weekly Meetings

In future the foregoing could be reduced to fortnightly meetings.

2.4.1 Risk

An updated revised risk register for the whole project has been created. It has been agreed that this will be reviewed and managed by the Risk meeting forum on a weekly basis (see Appendix 7).

2.4.2 Programme

Software and programme are to be shared with agreed filters and a three-monthly look ahead programme is to be updated on a monthly basis. Again, the programme will be managed at weekly strategic meetings with a mitigating approach to early warnings (see Appendix 8).

2.4.3 Commercial

Monthly milestone valuations are to be carried out, based on work complete/delivered in line with the agreed milestones and broken down into BBS costs and Preliminaries.

Milestones are to be pre-agreed.

Hg Consulting has requested financial information from all contracted parties in order to prepare a project cash flow for the City of Edinburgh Council.

2.4.4 Design and Consents

There is weekly involvement with BBS and SDS in order to identify project threats to completing the design and to provide whole project team solutions to overcome issues, e.g. lettering above tram stops.

From 8th April it is proposed to deal with the following two project packages given their importance to an efficient interface with the public:

(a) Princes Street Remedial Works

To deal with the finalisation of the traffic management plan, stakeholder engagement, revision and implementation of previous good practice manuals, together with decision by the client to communications dealing with no embargo. Consideration is required regarding the 28-day notification period; with a decision to be taken by the client to either reduce the period to 14 days or to leave it at 28 days, but extend the duration on site closer to Christmas by 14 days.

EDINBURGH TRAMS

REPORT ON PROGRESS SINCE COMPLETION OF HEADS OF TERMS TO 8TH APRIL 2011

(b) Princes Street Remedial Works cont'd

The Traffic Management Plan including early enabling works (temporary lights, etc.) is presently being worked upon for consideration by CEC. The enabling works precedes the end of the 28-day notification period by 21 days therefore this is the critical item that needs to be dealt with first (see Appendix 9).

(c) Tie Utilities Package

This project meeting is to ensure compatibility between the tie utilities project package and BBS requirements, as well as to provide works attendance support if and when required to manage project programme impacts.

EDINBURGH TRAMS

REPORT ON PROGRESS SINCE COMPLETION OF
HEADS OF TERMS TO 8TH APRIL 2011**3.0 PRIORITY WORKS****3.1 Definition and Scope****3.1.1 Drawing of red / yellow line boundary of works**

To ensure clarity the scope of the Priority Works has been defined per a note in the Hg minutes and further designated by means of red / yellow line boundary scope drawings.

These drawings should be attached to the tie / BBS Minute of Variation (see Appendix 10).

3.2 Programme of Priority Works**3.2.1 Commencement –3rd May / 4th April 2011**

Early commencement agreed on Priority Works on the depot and the mini test track was implemented in good faith on 4th April 2011 and costs are to be reimbursed. The balance of works is due to commence on 3rd May 2011.

3.2.2 Integration of CAF delivery dates

As noted earlier in this report, the integration of the CAF/BBS systems is required.

In Hg Consulting's view, a clear commitment is required from BBS and CAF to provide to existing Employer Requirements a project plan including, but not limited to, specification, testing, commissioning and programme of the integrated tram systems. This plan should be appended to the additional Minute of Variation to be signed on 1st July 2011.

3.3 Cost of Prioritised Works**3.3.1 Method of agreeing value**

The Prioritised Works Price has been extracted from the agreed lump sum and is as attached (see Appendix 11).

The tie interpretation of value is lower.

Both parties however have agreed the method of value, based, where applicable, on quantities and rates.

Similarly, Preliminaries has been discussed with full transparency.

3.3.2 Reduced and simplified milestones for payment, based on works not timeline

It has been agreed to reduce the milestones to monthly, paid on works completed or delivered in the month.

Hg Consulting has requested financial information from all contracted parties in order to prepare a project cash flow for the City of Edinburgh Council.

EDINBURGH TRAMS**REPORT ON PROGRESS SINCE COMPLETION OF HEADS OF TERMS TO 8TH APRIL 2011**

3.4 Ancillary and Other Works**3.4.1 Works contained within existing lump sum that can be brought forward**

It has been agreed that works that are designed and consented for which a value has been agreed, can be brought forward and contained in the lump sum price and within the approved client budget should be considered and committed too in order that this work will not delay the overall completion should it only be commenced after 2 September 2011.

3.4.2 Advance works from Haymarket to York Place – project that advantageous to consider early commitment

Works within the Target Sum package should be considered and committed too in order that this work will not delay the overall completion should it only be commenced after 2 September 2011, e.g. advance site investigation works in connection with Haymarket to York Place.

3.5 Princes Street Remedial Work**3.5.1 Design Solution**

Trackform has been agreed. CEC to confirm that non material variation to Planning only is required.

3.5.2 Traffic Management

The Traffic Management Plan has been agreed in principle on the basis of no embargo.

3.5.3 No embargo / programme

Matters of Pre-Start enabling works, notice procedures and previous positive lessons learnt should be dealt with and agreed prior to going live on this matter after 15th April.

Strategic details are to be dealt with at the weekly Princes Street Remedial Works project meeting.

EDINBURGH TRAMS**REPORT ON PROGRESS SINCE COMPLETION OF HEADS OF TERMS TO 8TH APRIL 2011**

4.0 MANAGEMENT OF DESIGN AND CONSENTS PROCEDURE**4.1 Fast Track Approval Procedures****4.1.1 CEC Process (Planning and Roads)**

CEC has implemented a consents task force and relocated resources to the Lochside Avenue offices.

This has resulted in a dramatic change in culture, creating a team spirit over seven-day working, the esprit de corps typified by delivery to site of a "35 person lunch" team curry.

A positive response to the accelerated consents process by SDS has brought about additional SDS resources to keep up with the CAD requirements of the fast track approvals (see Appendix 13).

Consultations over detailed discussions and programming of design resource and design prioritisation are now happening from desk to desk, rather than by appointments in different city offices.

The line management of this team through Andy Conway and Bob McCafferty goes straight to Dave Anderson, CEC Director, with a copy to Colin Smith.

A present proposal under discussion would be to have on site works inspected by Engineer Inspectors, as opposed to tie project managers.

Red Flag reports are being brought forward from the weekly design and consents meetings. These reports, e.g. Scottish Water, are brought to the attention of Dave Anderson, CEC Director. Thereafter an agreed action plan to mitigate is agreed with the project team (see Appendix 14).

This procedure will capture issues and will be followed in any dealings with the parties below:

- Third party landowners
- Network Rail
- Scottish Water
- Utility companies
- Forth Ports
- SEPA
- Historic Scotland
- Scottish Natural Heritage

4.1.2 Design Gatekeeper

At the Design and Consents weekly meeting Martin Foerder, Alfred Brandenburger and Colin Smith act as gatekeepers. The gatekeeper function is a mechanism whereby in the event that design is not up to a level ready for submission it is rejected. To date there have been no rejections.

EDINBURGH TRAMS

REPORT ON PROGRESS SINCE COMPLETION OF HEADS OF TERMS TO 8TH APRIL 2011

4.2 Design and Build

4.2.1 Contractors Self Certification

BBS carry design and build liability under this contract.

4.2.2 Sign off Protocols Tracker on Certificate Stages

tie is the duty holder under ROGS until this is transferred to the operator (to be named).

“Cases for safety” remain with the duty holder; this includes assurances on all systems.

The Independent Competent Person (“ICP”) is presently employed by tie.

The ICP requires Design Assurance Certification.

To meet with the ICP requirements, BBS have prepared and issued a number of protocol statements and processes (see Appendix 15)

It has been agreed, without compromise to the process, that audits will be carried out at appropriate dates. This timetable is to be agreed, commencing in July 2011.

EDINBURGH TRAMS**REPORT ON PROGRESS SINCE COMPLETION OF HEADS OF TERMS TO 8TH APRIL 2011****5.0 RE-ENERGISATION OF PROJECT****5.1 Payments****5.1.1 Value and Trigger**

In terms of Price clause (6) of the Heads of Terms, at the weekly commercial meeting it was recognised that the value of the following items required to be assessed:

- (i) Value of Prioritised Works;
- (ii) Value of Prioritised Works Preliminaries; and
- (iii) An agreed monthly milestone pattern, based on works completion

In addition, discussion had taken place at Mar Hall on the question of mobilisation and the cost of re-energisation of the project.

5.1.2 Payment Dates

Dates were discussed and in outline settled as follows:

Issue of Certificate Hg1	8 th April 2011
Trigger Point 1 – Signing of Minute of Variation	15 th April 2011
Ownership of materials transferred to CEC	15 th April 2011
Payment of Certificate Hg1	22 nd April 2011
Issue of Certificate Hg2	3 rd May 2011
Trigger Point 2 – Site Mobilisation, valuation of structures completed, design detail closed out - period 14 th March to 3 rd May 2011	3 rd May 2011
Payment of Certificate Hg2	17 th May 2011
Payment of Cumulative Certificate	13 th July, 10 th August and 31 st August 2011

5.2 Certificate Process

Certification on the specified dates would value the payment of the certified sum 14 days after the certificate date.

EDINBURGH TRAMS

REPORT ON PROGRESS SINCE COMPLETION OF
HEADS OF TERMS TO 8TH APRIL 2011**5.2.1 Hg1 and Hg2 (Hg Cumulative Certificate)**

Certification by Hg Consulting, Chartered Quantity Surveyors would be based on an impartial assessment of value delivered to the project. The duty of care provided by this certificate would be to City of Edinburgh Council.

The payment of the certified value would be conditional on:

- (i) the signing of the Minute of Variation by the Parties;
- (ii) vesting of title of materials with the Employer and implementation of a Bond or other financial instrument or measure to be agreed (see Appendix 18);
- (iii) transfer and ownership of the advanced design of the project to 15th April 2011;
- (iv) transfer of ownership of the project specific research and development intellect of the Siemens systems and controls; and
- (v) Transfer of ownership of works structures.

Further payments of Preliminaries, materials and equipment due for payment but not yet paid, in the sum of £13m, would be spread over the period from June to September 2011.

To ensure clarity of position, Hg facilitated a commercial workshop with BBS and tie where each party was able to present its assessment of mobilisation costs. After presentation, the other party was invited to comment. The differences in interpretation were noted.

Both parties, BBS and tie, agreed to exchange the details of their papers and the presentations on the day were recorded on white boards, photographed and thereafter typed up for record purposes (see Appendix 16).

The first part of the meeting closed; BBS and tie left the meeting.

The second part of the meeting reconvened after a short recess with BBS and CEC (Alan Coyle and Colin Smith).

The difference of view had been clearly expressed in the earlier session, with the BBS requirement noted as £49m and tie's opinion at £19m.

BBS confirmed that they could not mobilise on the basis of a £19m payment.

After discussion it was agreed to take a proposal to the Principals on the basis of that noted below.

It was affirmed that the sums being discussed were already contained in the lump sum agreement of £362,500,000. The mobilisation certification process was to release cash flow against a measurement of value being transferred to the employer.

EDINBURGH TRAMS

REPORT ON PROGRESS SINCE COMPLETION OF
HEADS OF TERMS TO 8TH APRIL 2011**5.2.1 Hg1 and Hg2 (Hg Cumulative Certificate) cont'd**

The proposal is further broken down between Bilfinger Berger and Siemens (see Appendix 17).

Certificate 1	£27,000,000	dated 8 th April 2011
Certificate 2	£9,000,000	dated 3 rd May 2011
	<hr/>	
	£36,000,000	
Cumulative Certificate June to 31 st August 2011	£13,000,000	Dated: 13 th July 2011 10 th August 2011 31 st August 2011
	<hr/>	
	£49,000,000	
	<hr/>	

5.3 Target Sum – Haymarket to York Place

It has been discussed and agreed that based on the design target of 1st July 2011 a Target Sum will be determined, based on quantities and rates for materials, equipment and works, in line with market rates.

Preliminaries will be agreed in the form as utilised for the Priority Works.

Milestones will be pre-agreed and monthly.

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REPORT ON PROGRESS SINCE COMPLETION OF
HEADS OF TERMS TO 8TH APRIL 2011

6.0 CONCLUSIONS

Working practices have changed; there is further improvement to be sought.

Project Governance structures are being streamlined and reformed.

Commitment and resource must be maintained to ensure the ability to agree the Minutes of Variation of 15th April 2011.

Commitment to the weekly site project management of strategic issues should be continued to project conclusion.

Regular reporting and communications between the Principals should be maintained.

The next key action is to bring to conclusion the Minutes of Variation of 15th April and 1st July 2011, recorded in an acceptable form to the parties, which must include the integration of systems and specification of the mini test track, together with a compliant project delivery plan.

Edinburgh Trams

Report on Progress since Completion of Heads of Terms to 8th April 2011



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REPORT ON PROGRESS SINCE COMPLETION OF
HEADS OF TERMS TO 8TH APRIL 2011

Appendix I – Heads of Terms (CEC, BBS, TIE)

Appendix 1

EDINBURGH TRAMS PROJECT
HEADS OF TERMS FOLLOWING MEDIATION – MARCH 2011
AGREED BY
CITY OF EDINBURGH COUNCIL
TIE LIMITED
BILFINGER BERGER CIVIL UK LIMITED AND SIEMENS PLC
(the "parties")



1. PREAMBLE

- 1.1 The parties have participated in a mediation with Mr Michael Shane, Mediator, on 8-12 March 2011, in order to resolve disputes and differences arising from the Edinburgh Tram Project. The parties have reached agreement on certain matters which are recorded in these Heads of Terms;
- 1.2 These Heads of Terms reflect the "ETN Mediation - Without Prejudice - Mar Hall Agreed Key Points of Principle" statement signed by the parties, the Mediator and CAF on 10 March 2011 at Mar Hall, Bishopton (the "Mar Hall Principles") which are incorporated herein; and
- 1.3 These Heads of Terms are non-binding and subject to Contract.

2. DEFINITIONS

- 2.1 Unless otherwise specified capitalised terms referred to herein have the meaning set out in the contract entered into between tie, Bilfinger Berger Civil UK Limited and Siemens plc dated 14 May 2008 in relation to Edinburgh Tram Network, as amended by Minute of Variation between the parties dated 14 May 2008, the Princes Street Supplemental Agreement entered into between the parties in March 2009 and re-executed on 29 May 2009, a Minute of Variation between the parties dated 3 June 2009 and a Minute of Variation between the parties dated 23 April 2010 (such contract as so amended being referred to herein as the "Infraco Contract").

3. GENERAL

- 3.1 The Infraco Contract shall not be amended and shall remain in force save as amended by the minutes of agreement to be entered into between the parties to give effect to these Heads of Terms and the principles herein.
- 3.2 The parties shall agree all amendments to the Infraco Contract, the Tram Supply Agreement and Tram Maintenance Agreement and any other documents which are necessary in order to implement these Heads of Terms on or before 1 July 2011.

4. PARTIES

- 4.1 On or before 15 April 2011 the parties will agree: (a) changes to their respective management teams and working practices; and (b) the basis for carrying out the Prioritised Works.

5. **SCOPE**

- 5.1 Infraco shall not be required to carry out further Infraco Works related to the section St Andrew Square to Newhaven except as provided for below.
- 5.2 The Infraco shall complete the integrated Design from Airport to Newhaven (Phase 1A) to meet the Employer's Requirements.
- 5.3 The Infraco will supply to CEC materials and equipment in relation to systems and trackwork for the section St Andrew Square to Newhaven and the parties shall agree a supply and payment schedule.
- 5.4 The Infraco Works from Haymarket to St Andrew Square shall be defined as the On-Street Works and shall be agreed between the parties. tie shall take the risk relating to all utility diversion works required to complete the On-Street Works.
- 5.5 The remaining Infraco Works from the Airport to Haymarket shall be defined as the Off-Street Works including the enabling works to be performed at Lindsay Road Retaining Wall, Lindsay Road lowering and the civil works at Tower Place Bridge including rail installation.
- 5.6 The works at the Depot (including depot access), mini-test track (to be defined by agreement), Haymarket Yards, Princes Street Remedial Works (to be agreed) and any other works agreed by the parties shall be defined as the Prioritised Works and form part of the Off-Street Works.
- 5.7 The Employer's Requirements shall be amended to reflect the revised scope.

6. **PRICE**

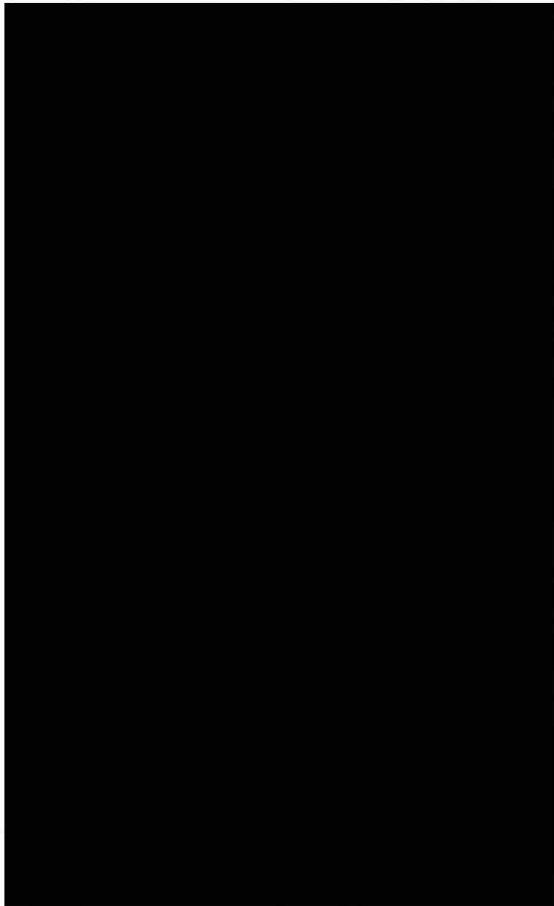
- 6.1 The Total Price for the Infraco Works other than the On-Street Works shall be the sum of THREE HUNDRED AND SIXTY TWO MILLION FIVE HUNDRED THOUSAND POUNDS (£362,500,000.00) and shall relate only to the Off-Street Works. The price for the On-Street Works shall be dealt with in accordance with clause 6.3.
- 6.2 An additional price and any programme changes will be agreed in respect of the carrying out of the Edinburgh Gateway Interchange enabling works and added to the Total Price.
- 6.3 The On-Street Works will be paid for on a Target Sum basis. A Target Sum of £39 million is proposed. The mechanism for calculating and amending the Target Sum will be agreed.
- 6.4 A revised, simplified milestone payment schedule shall be agreed.
- 6.5 Infraco shall procure that the current parent company guarantees, performance bonds and retention bonds will be retained at the presently required levels for the Off-Street Works.

7. **FUNDING**

- 7.1 The parties acknowledge that tie will require additional funding for works beyond the Prioritised Works. CEC shall use reasonable endeavours to obtain such additional funding.
- 7.2 Unless CEC confirms to Infraco's reasonable satisfaction that sufficient funding is available to meet its obligations under the Infraco Contract, as amended by these Heads of Terms, the Infraco Contract shall automatically terminate at 5pm on 1 September 2011 (the "Funding Deadline").

as agreed between all the parties in accordance with the confidentiality agreement signed by the parties and their representatives at Mar Hall on Tuesday 8 March 2011.

- 14.5 The parties acknowledge that these Heads of Terms reflect their present intentions in relation to the matters set out herein, but except for this paragraph, paragraphs 14.3 and 14.4 above and paragraph 14.6 below, these Heads of Terms shall not be legally binding on the parties.
- 14.6 These Heads of Terms shall be governed and construed in accordance with Scots law. Each Party hereby irrevocably submits to the exclusive jurisdiction of the Court of Session as regards any claim, dispute or matter arising out of or in connection with these Heads of Terms and their implementation and effect.



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&

MINI-TEST TRACK
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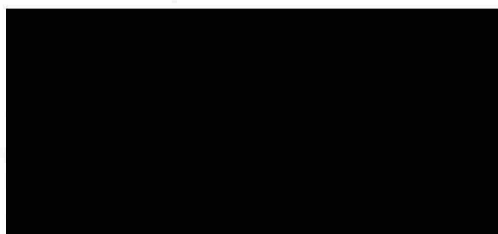
CAF: Richard Garner, Antonio Campos

Tie Ltd: Richard Jeffery, Vic Emery,

Note taker: Ritchie Somerville

1. **Contractual Relationships:** Both parties to instruct lawyers that they want to novate, or similar mechanism, and not renegotiate, the contract.
2. **Date of Novation:** All agreements have to happen simultaneously, on the 1 July or as-agreed, in a tripartite agreement.
3. **Payment mechanics for lump sum payment:** Payment of €5.1M is at signature of novation, 1 July 2011 or date as arises. Additional payments after 15th October due to delay would be paid as per Marr Hall agreement on the basis of a straight line relationship, and would be paid at delivery date of the depot and mini test track and earlier if agreed.
4. **Reliability and performance bond:** Mechanism to be agreed to ensure that trams are always covered by bonds as per contract, and on number of trams to be agreed. Croydon arrangement needs to be subject to separate discussion.
5. **Tram Integration:** CAF obligation is to provide trams to meet the employer's requirements. Siemens have responsibility for integration for the total system. Consortium Exit Agreement to be clear that Siemens take the integration of tram into overall system risk: to be visible to all. CAF/Tie agreement notes that this is a Siemens risk, tie held harmless.
6. **Liquidated Damages:** Agreed. Post Novation, failure to meet the dates in the Novation agreement by CAF would be subject to liquidated damages.
7. **Payment during Commissioning:** Full Vehicle Commissioning Payments will be made upon satisfactory completion of commission to the extent possible on the mini test track.
8. **CEC to guarantee:** agreed
9. **Excess Trams:** Subject to agreement on terms, prior to signature of Minute of Agreement, reasonable costs for modification of Tram, external costs to CAF arising from lease/sale negotiations, are not due on CAF.
10. **EU procurement rules:** Both parties agree to remain silent on this. Item to be removed
11. **Funding:** Both parties agree to remain silent on this. Item to be removed.

Wednesday, 30 March 2011 2:57 PM





EDINBURGH TRAMS

**REPORT ON PROGRESS SINCE COMPLETION OF
HEADS OF TERMS TO 8TH APRIL 2011**

Appendix 2 - Draft Minute of Variation as at 5th April 2011

MINUTE OF VARIATION TO THE INFRACO CONTRACT

among

(1) tie LIMITED

and

(2) BILFINGER BERGER CIVIL UK LIMITED

and

(3) SIEMENS plc

and

(4) CONSTRUCCIONES Y AUXILIAR DE FERROCARRILES S.A.

in respect of the PRIORITISED WORKS on the EDINBURGH TRAM NETWORK

MINUTE OF VARIATION

among

- (1) **tie LIMITED** (company number SC230949), whose registered office is at City Chambers, High Street, Edinburgh, Midlothian, EH1 1YJ ("**tie**") which expression shall include its personal representatives, successors, permitted assignees and transferees;
- (2) **BILFINGER BERGER CIVIL UK LIMITED**, a company incorporated in England and Wales under number 02418086 and having its registered office at 3rd Floor Braywick Gate, Braywick Road, Maidenhead, Berkshire SL6 1DA ("**BBUK**") which expression shall include its personal representatives, successors, permitted assignees and transferees;
- (3) **SIEMENS PLC**, a company incorporated in England and Wales under number 00727817 and having its registered office at Faraday House, Sir William Siemens Square, Frimley, Camberley, Surrey, GU16 8QD ("**Siemens**") which expression shall include its personal representatives, successors, permitted assignees and transferees; and
- (4) **CONSTRUCCIONES Y AUXILIAR DE FERROCARRILES S.A.**, a company registered in Spain and having its registered office at J. M. Iturrioz 26, 20200 Beasain, Spain ("**CAF**") which expression shall include its personal representatives, successors, permitted assignees and transferees,

(2), (3) and (4) together the "**Infraco**".

BACKGROUND

- A tie and Infraco entered into a contract on 14 May 2008 under which Infraco was appointed to carry out and/or manage the design, construction, installation, commissioning, tram procurement, system integration, infrastructure maintenance, tram maintenance and supply of related equipment and materials, trams and related infrastructure in respect of the Edinburgh Tram Network (such contract, amended as detailed below, is herein after referred to as the "**Infraco Contract**").
- B By an agreement in writing dated 13 May 2008 ("**Tram Supply Agreement**") tie appointed CAF to design, manufacture and supply 27 Trams and to supply documentation and associated equipment in connection with the Edinburgh Tram Network.
- C By a Minute of Variation in writing dated 14 May 2008, tie, BBUK, Siemens and CAF agreed that CAF would become a party to the Infraco Contract.
- D By an agreement in writing dated 14 May 2008 ("**Novation of Tram Supply Agreement**") tie and Infraco agreed, with the consent of the Tram Supplier, that Infraco would take over the rights and liabilities of the "Client" (as defined in the Tram Supply Agreement) under the Tram Supply Agreement.
- E The Infraco Contract was amended by the Princes Street Supplemental Agreement entered into between the Parties in March 2009 and re-executed on 29 May 2009, a Minute of Variation between the Parties dated 3 June 2009 and a Minute of Variation between the Parties dated 23 April 2010.
- F Following a mediation between the Parties which took place at Mar Hall between 8 and 12 March 2011, tie and Infraco have agreed to vary the Infraco Contract to the extent specifically set out in this Minute of Variation to give effect to the Prioritised Works.

1 DEFINITIONS AND INTERPRETATION

- 1.1 The definitions given in the recitals to this Minute of Variation apply to this Minute of Variation.
- 1.2 In the context of this Minute of Variation where the Infraco Contract has defined a meaning to any capitalised word or expression used in this Minute of Variation, the same meaning shall be given to it in this Minute of Variation, except as follows:
- "CEC" means the City of Edinburgh Council;
- "Certificate 1 - First Materials and Equipment and First Mobilisation" means the certificate to be issued by the Certifier in accordance with Clause 6 (*Certificate 1 - First Materials and Equipment and First Mobilisation*);
- "Certificate 2 - Second Mobilisation" means the conditional certificate to be issued by the Certifier in accordance with Clause 7 (*Certificate 2 - Second Mobilisation*);
- "Certificate 3 (A, B & C) - Second Materials and Equipment" means the conditional certificates to be issued by the Certifier in accordance with Clause 8 (*Certificate 3 (A, B & C) - Second Materials and Equipment*);
- "Certifier" means the person appointed pursuant to the Certifier Agreement;
- "Certifier Agreement" means the agreement between [], CEC, tie and Infraco for the certification of completion of the Prioritised Works and amounts payable under this Minute of Variation; [Note: Certifier to be appointed and paid for by CEC. Certifier Agreement to provide that Certifier will be impartial, provide a duty of care to Infraco.]
- "Communications Protocol" means the communications protocol set out in Schedule Part 4 (*Communications Protocol*);
- "Heads of Terms" means the heads of terms signed by tie, CEC, BBUK and Siemens in Glasgow on Saturday 12 March 2011;
- "Infraco Works Recommencement Date" means 2 September 2011 subject to the Parties entering into an additional Minute of Variation as per the Heads of Terms on or before 1 July 2011.;
- "Materials and Equipment" means the materials and equipment listed in Schedule Part 2 (*Materials and Equipment*);
- "Off-Street Works" means that part of the Infraco Works from the Airport to Haymarket (chainage 712,579.5 to 200,000), including the enabling works to be performed at Lindsay Road Retaining Wall (at outbound chainages W1A 100,168 to 100,404; W1B 100,225 to 100,266, W1C 100,387 to 100,412 and W1D 100,467 to 100,478), Lindsay Road lowering (outbound chainage 100,230 to 100,560 and Lindsay Road LOD at east end) and the civil works at Tower Place Bridge (outbound chainage 101,430 to inbound chainage 101,517) including rail installation;
- "On-Street Works" means that part of the Infraco Works from Haymarket to York Place (chainage 200,000 to 120,650), other than in respect of any Utilities diversion works;]
- "Fixed Sum Prioritised Works Price" means the price for carrying out the Fixed Sum Prioritised Works set out in Schedule Part 1 (*Scope, Programme and Pricing of the Prioritised Works*);
- "Fixed Sum Prioritised Works Target Price " means the price for carrying out the Prioritised Works other than the Fixed Sum Prioritised Works;

"Fixed Sum Prioritised Works" means the Prioritised Works to which a Fixed Sum Prioritised Works Milestone applies;

"Prioritised Works" means that part of the Infraco Works comprising the Depot (excluding any works to the east of the Depot Access Bridge), Depot Access Bridge and Depot Access Road, mini test track, Haymarket Yards, A8 Underpass, Princes Street Remedial Works and any other works agreed by the Parties to comprise the Prioritised Works as more particularly described in the Scope. The Prioritised Works shall comprise part of the Off-Street Works and part of the On-Street Works;

"Prioritised Works Commencement Date" means the later of:

(i) 3 May 2011; and

ii) the date on which all of the following events have occurred:

- (a) Infraco receives the amount payable pursuant to Clause [] (*Certificate 1 - First Materials and Equipment and First Mobilisation*);
- (b) A Mobilisation Certificate has been issued by tie pursuant to Clause [] (*Certificate 2 - Second Mobilisation*);
- (c) All Consents required to start the Prioritised Works have been issued by tie or provided by the relevant Approval Body;
- (d) tie have provided, or procured, possession and/or access to all work areas required to carry out the Prioritised Works [in accordance with the Prioritised Works Programme]

"Fixed Sum Prioritised Works Milestone" means each of the milestones for payment set out in Schedule Part 1 (Scope, Programme and Pricing of Prioritised Works) identified as a Fixed Sum Prioritised Works Milestone;

"Fixed Sum Prioritised Works Target Milestone" means each of the milestones for payment set out in Schedule Part 1 (Scope, Programme and Pricing of Prioritised Works) identified as a Fixed Sum Prioritised Works Target Milestones;

"Prioritised Works Programme" means that part of the New Programme which relates to the Prioritised Works;

"New Programme" means the programme for the Infraco Works set out in Schedule Part 1 (*Scope, Programme and Pricing of Prioritised Works*);

"Schedule" means the Schedule in [] Parts annexed to this Minute of Variation;

"Scope" means the scope of the Prioritised Works set out in Schedule Part 1 (*Scope, Programme and Pricing of Prioritised Works*) identified by means of specific drawing and chainage numbers;

"Total Price" has the meaning given in the Heads of Terms;

"Valuation Certificate" has the meaning given in Clause 9 (*Payment for the Prioritised Works*);

"Valuation Dates" means the dates set out in Schedule Part 3 (*Valuation Dates*), and Valuation Date shall be construed accordingly; and

"Vesting Certificate" means a vesting certificate in a form agreed between the Parties.

- 1.3 Clause headings in this Minute of Variation are for the convenience of the Parties only and do not affect its interpretation.
- 1.4 Unless the context otherwise requires:
- 1.4.1 words importing gender include masculine, feminine and neuter;
- 1.4.2 the singular includes the plural, and vice versa; and
- 1.4.3 a reference to any Clause, Sub-Clause or Schedule is, except where it is expressly stated to the contrary, a reference to such clause, sub-clause or schedule to this Minute of Variation and reference in any Schedule to any Part, Paragraph or Sub-Paragraph is, except where it is expressly stated to the contrary, a reference to such part, paragraph or sub-paragraph of that Schedule (as the case may be);

2 AMENDMENT OF THE INFRACO CONTRACT

- 2.1 The Parties hereby agree that the Infraco Contract is amended in accordance with the terms of and as required to implement this Minute of Variation.
- 2.2 The terms and conditions of this Minute of Variation, together with the Schedule, represent the entire agreement between the Parties relating to this variation of the Infraco Contract. Save as amended or dis-applied by this Minute of Variation, all the terms and conditions of the Infraco Contract remain in full force and effect.

3 APPLICATION OF THE INFRACO CONTRACT TO THE PRIORITISED WORKS

- 3.1 From the Prioritised Works Commencement Date the Prioritised Works will be carried out in accordance with the Infraco Contract as amended by the application of this Minute of Variation.
- 3.2 From the Prioritised Works Commencement Date until the Infraco Works Recommencement Date Infraco shall not carry out any Infraco Works other than the Prioritised Works. **[Note: Any ongoing obligations in relation to the supply of trams to be identified. Payments to CAF to be understood. Will there be any payments to CAF during the Priorities Works Period]**
- 3.3 Infraco shall from the date of this Minute of Variation self certify that the civils and systems and trackwork Design is in accordance with the Employer's Requirements. The self certification of the civils and systems and trackwork Design by Infraco:
- 3.3.1 entitles Infraco to commence the construction of the Prioritised Works to which it relates; and
- 3.3.2 replaces any requirement for tie's approval or review of the Design in the Infraco Contract.
- 3.4 For the avoidance of doubt, tie shall have no right or obligation to review and/or approve the civils and systems and trackwork Design and the Infraco shall be relieved of its obligations under Clause 10 and Schedule Part 14 of the Infraco Contract insofar as they relate to the civils and systems and trackwork Design by tie.
- 3.5 Infraco is not required to obtain any further Permits to Commence Works for any of the Prioritised Works subject to providing tie with such information as is reasonably required to allow tie to comply with the stakeholder notification requirements for which they are responsible.

4 SOLE ENTITLEMENT OF INFRACO TO PAYMENT, EXTENSIONS OF TIME OR OTHER RELIEF

Notwithstanding the terms of the Infraco Contract, the Parties have agreed that the Infraco's sole entitlement to payment, extension of time or other relief in respect of the Materials and Equipment, Mobilisation, Prioritised Works (including preliminaries in relation thereto) and the impact of the Materials and Equipment and Prioritised Works on the Infraco Works shall be as set out in this Minute of Variation.

5 AMENDMENT TO THE PROGRAMME

- 5.1 The Parties have agreed that from the Prioritised Works Commencement Date:
- 5.1.1 the New Programme shall be the Programme referred to in the Infraco Contract and the Planned Sectional Completion Dates and Planned Service Commencement Dates shall be amended to reflect the programme dates shown for sectional completion and service commencement in the New Programme; and
- 5.1.2 the Prioritised Works shall be carried out in accordance with the Prioritised Works Programme.
- 5.2 Any embargo on working as provided for in Schedule Part 3 (*Code of Construction Practice*) of the Infraco Contract shall not apply to the carrying out of the Prioritised Works to the extent it would be inconsistent with the Prioritised Works Programme.

6 CERTIFICATE 1 – FIRST MATERIALS AND EQUIPMENT AND FIRST MOBILISATION CERTIFICATE

- 6.1 On 8 April 2011 the Certifier issued a certificate to Infraco and tie, entirely conditional upon the entering into of this Minute of Variation by the Parties on [15 April 2011], certifying payment of the agreed sum of £[] (payable as to £[] in respect of an agreed first mobilisation payment to BBUK and £[] in respect of an agreed first mobilisation payment to Siemens in respect of the transfer to CEC of ownership in and unencumbered title to such Materials and Equipment as the certificate relates. Such payment and transfer shall be made by tie and Infraco respectively on the later of (i) 21 April 2011 and (ii) the date of execution of this Minute of Variation.
- 6.2 On the date that title to Materials and Equipment is transferred by Infraco to CEC pursuant to this Clause 6 or Clause 8 Infraco shall issue Vesting Certificates to CEC in respect of any Materials and Equipment which have not been delivered to the Depot or such other part of the Site where Infraco Works are being carried out.
- 6.3 The Parties acknowledge that the Materials and Equipment, or any part thereof, supplied pursuant to this Clause 6 or Clause 8 may not be incorporated as part of the Infraco Works pursuant to the Infraco Contract.

7 CERTIFICATE 2 - SECOND MOBILISATION CERTIFICATE

On 3 May 2011 tie shall procure that the Certifier shall issue a certificate to Infraco and tie, certifying payment of the agreed sum of £[] (payable as to £[] to BBUK and £[] to Siemens, and payment shall be made by tie on the later of (i) 17 May 2011.

8 **CERTIFICATES 3 (A, B & C) – SECOND MATERIALS AND EQUIPMENT**

- 8.1 On 15 June 2011 tie shall procure that the Certifier issues a certificate (Certificate 3A) to [Infraco] and tie, certifying payment of the agreed sum of £[] (payable as to £[] to Siemens) in respect of an agreed second payment to Siemens in respect of the transfer to tie of ownership in and unencumbered title to such Materials and Equipment as the certificate relates, such payment and transfer shall be made by tie and Infraco respectively on 29 June 2011.
- 8.2 On 13 July 2011 tie shall procure that the Certifier issues a certificate (Certificate 3B) to [Infraco] and tie, certifying payment of the agreed sum of £[] (payable as to £[] to Siemens) in respect of an agreed third payment to Siemens in respect of the transfer to tie of ownership in and unencumbered title to such Materials and Equipment as the certificate relates, such payment and transfer shall be made by tie and Infraco respectively on 27 July 2011.
- 8.3 On 10 August 2011 tie shall procure that the Certifier issues a certificate (Certificate 3C) to [Infraco] and tie certifying payment of the agreed sum of £[] (payable as to £[] to Siemens) in respect of an agreed fourth payment to Siemens in respect of the transfer to tie of ownership in and unencumbered title to such Materials and Equipment as the certificate relates, such payment and transfer, shall be made by tie and Infraco respectively on 24 August 2011.

9 **PAYMENT FOR THE PRIORITISED WORKS**

- 9.1 Subject to the terms of this Minute of Variation tie shall pay the Fixed Sum Prioritised Works Price and the Fixed Sum Prioritised Works Target Price for the carrying out and completion of the Prioritised Works.
- 9.2 On each Valuation Date tie shall procure that the Certifier shall certify:
- 9.2.1 the completion of each Fixed Sum Prioritised Works Milestone which has been completed since the last Valuation Date; and
- 9.2.2 the completion of each Fixed Sum Prioritised Works Target Milestone which has been completed since the last Valuation Date

and the Certifier shall issue a certificate ("**Valuation Certificate**") to tie and Infraco certifying the same and the amount payable on completion of the Fixed Sum Prioritised Works Milestone and/or Fixed Sum Prioritised Works Target Milestone as set out in Schedule Part 1.

- 9.3 On receipt of a Valuation Certificate, Infraco shall submit a valid VAT invoice to tie and payment will become due to the Infraco on receipt by tie of such valid VAT invoice (the "**Prioritised Works Payment Due Date**"). The final date for payment by tie to the Infraco of a valid VAT invoice shall be the date occurring 14 calendar days after the Prioritised Works Payment Due Date.
- 9.4 A certificate issued by the Certifier under this Clause 9 shall be final and binding on the Parties except in the case of manifest error or fraud.
- 9.5 All sums expressed or referred to in this Minute of Variation and all sums due under certificates issued by the Certifier pursuant to this Minute of Variation are stated exclusive of Value Added Tax thereon. In addition to payments due under this Minute of Variation and such certificates tie shall in addition pay to the Infraco any Value Added Tax properly chargeable by Infraco thereon.
- 9.6 For the avoidance of doubt, where any Fixed Sum Prioritised Work Milestones are in respect of preliminaries such Fixed Sum Prioritised Work Milestones shall be deemed to

be a time based payment and shall be certified for payment once the relevant time period has elapsed without the need for further valuation or substantiation.

10 TOTAL PRICE

- 10.1 The Parties agree that the Fixed Sum Prioritised Work Price and all sums payable by tie pursuant to Clause 6, 7, and 8 of this Minute of Variation shall comprise part of the Total Price,
- 10.2 The Parties agree that the Fixed Sum Prioritised Work Target Milestones shall comprise part of the Target Sum.
- 10.3 tie acknowledges that to the extent that tie instigates any tie Change to the Prioritised Works or there is a Mandatory tie Change to the Prioritised Works any cost arising will be in addition to the Total Price or Target Sum included at paragraph 6.3 of the Heads of Terms [and that the valuation of any tie Change in these circumstances shall be in accordance with Clause 80.6 of the Infraco Contract.]

11 MAR HALL CONFIDENTIALITY AGREEMENT

The Parties acknowledge and agree to remain bound by the provisions of the Mar Hall Confidentiality Agreement entered into on behalf of each of them on 8 March 2011.

12 COMMUNICATIONS PROTOCOL

By their execution of this Minute of Variation the Parties agree to be bound by the Communications Protocol.

13 MORATORIUM

- 13.1 The Parties agree that provided amendments to the Infraco Contract to reflect the principles of the Heads of Terms are agreed by the Parties by or before 1 July 2011 that:
- 13.1.1 tie/CEC will not terminate the Infraco Contract on the basis of any Remediable Termination Notices and/or Underperformance Warning Notices served prior to 12 March 2011 or on any of the same grounds identified therein; and
- 13.1.2 all existing claims and further claims by Infraco under the Infraco Contract which relate to events which occurred prior to entering into of this Minute of Variation will not be prosecuted; and
- 13.1.3 tie/CEC shall not seek to recover liquidated and ascertained damages in respect of any delay in achieving the Planned Sectional Completion Dates in the Infraco Contract or the Agreed Tram Commissioning Dates in the Infraco Contract/Tram Supply Agreement.
- 13.2 tie hereby waives its rights in relation to any claim against Infraco or any of the Infraco Members under the Infraco Contract which would not have arisen but for the entering into and implementation of this Minute of Variation.
- 13.3 The Parties agree that all existing disputes notified by either Infraco or tie under the Dispute Resolution Procedure set out in Schedule Part 9 to the Infraco Contract shall be effectively stayed or "frozen" until the earlier of (a) 2 September 2011 and (b) 2 July 2011, where the Parties have failed to enter into a subsequent Minute of Variation by that date. At any time after the relevant date either Party shall be entitled to serve notice on the other of its intention to recommence any of the existing disputes, the dispute recommencing 7 calendar days following the service of such notice. Should this occur, the Parties agree that no issue

shall arise in relation to any failure by either Party to comply with the timescales set out in Schedule Part 9 of the Infraco Contract, during the period of suspension and/or as a consequence of this period of suspension provided always that the relevant period of suspension shall run up to the date the dispute recommences in accordance with this Clause 13.3.

14 KEY SUB-CONTRACTORS

14.1 Each Infraco Member may appoint Key Sub-Contractors to carry out part of the Infraco Works. The Parties acknowledge that there shall be no requirement for each Infraco Member to be a party to any sub-contract with any Key Sub-Contractor.

14.2 Each Infraco Member shall be free to choose the form of sub-contract to be entered into with each Key Sub-Contractor and tie/CEC shall have no entitlement to impose any restrictions on the management or replacement of the Key Sub-Contractors.

15 PRESERVATION OF RIGHTS

15.1 Subject to Clause 15.2 each Party preserves its rights and remedies in relation to any existing breach or other claim under the Infraco Contract as amended by this Minute of Variation as at the date of entering into this Minute of Variation (whether known or not at the date of execution of this Minute of Variation). The Parties further acknowledge that save to the extent varied by this Minute of Variation their respective rights and obligations in respect of the Infraco Works to the extent performed to date (other than works which will be remedied by the Princes Street Remedial Works forming part of the Prioritised Works) shall subsist.

15.2 The Parties agree and acknowledge that the New Programme includes all extensions of time to which Infraco is or may have become entitled to under the Infraco Contract in relation to Compensation Events and/or Notified Departures which occurred prior to the signing of the Heads of Terms.

16 DISPUTES

The Parties agree that any dispute, difference or unresolved claim between the Parties in connection with or arising from this Minute of Variation shall be dealt with in accordance with the provisions set out in Schedule Part 9 (*Dispute Resolution Procedure*) of the Infraco Contract.

17 VARIATION

This Minute of Variation is a variation to the Infraco Contract for the purposes of Clause 108 (Variations to be in Writing) of the Infraco Contract.

18 LAW AND JURISDICTION

Clause 117 (*Applicable Law*) of the Infraco Contract applies.

IN WITNESS WHEREOF these presents on this and the preceding [] pages together with the Schedule in [] Parts and Appendix which are annexed and subscribed as relative hereto are executed as follows:

EXECUTED for and on behalf of tie LIMITED

at

on April 2011 by:

Authorised Signatory

Full Name

Witness Signature

Full Name

Address

**EXECUTED for and on behalf of BILFINGER
BERGER CIVIL UK LIMITED**

at

on April 2011 by:

Authorised Signatory

Full Name

Witness Signature

Full Name

Address

EXECUTED for and on behalf of SIEMENS PLC

at

on April 2011 by:

Authorised Signatory

Full Name

Witness Signature

Full Name

Address

**EXECUTED for and on behalf of CONSTRUCCIONES
Y AUXILIAR DE FERROCARRILES S.A.**

at

on April 2011 by:

tie Limited ("tie")

and

Construcciones y Auxiliar de Ferrocarriles S.A. ("CAF")

Draft

HEADS OF TERMS

[] March 2011

INTRODUCTION

- A. The Parties have agreed to procure the novation by BBCUK and Siemens to tie of the Tram Supply Agreement ("TSA") and Tram Maintenance Agreement ("TMA") as amended in terms of these Heads of Terms and to this end the Parties have agreed to enter into such agreements as are necessary to give effect to these heads of terms including the schedule hereto ("Heads of Terms").
- B. these Heads of Terms set out the key commercial principles agreed between the Parties in respect of the novation;
- C. these Heads of Terms are indicative and non-binding only;
- D. save where otherwise defined in these Heads of Terms, defined terms used in these Heads of Terms including the Recitals and Schedule to these Heads of Terms have the meaning set out in the contract entered into between tie, Bilfinger Berger Civil UK Limited and Siemens plc dated 14 May 2008 in relation to the Edinburgh Tram Network, as amended by Minute of Variation between tie, BBCUK, Siemens and CAF dated 14 May 2008, the Princes Street Supplemental Agreement entered into between tie, BBCUK, Siemens and CAF in March 2009 and re-executed on 29 May 2009, a Minute of Variation between tie, BBCUK, Siemens and CAF dated 3 June 2009 and a Minute of Variation between tie, BBCUK, Siemens and CAF dated 23 April 2010 (such contract as so amended being referred to herein as the "Infraco Contract"); and
- E. the following defined terms shall have the meaning given in the TSA: Employer's Requirements, "Performance Bond", "Reliability Bond" and "Tram Manufacturing and Delivery Programme" [Drafting Note: We are currently considering whether any other terms need to be defined by reference to the TSA/TMA rather than the Infraco Contract.]

PROJECT CONTRACT HEADS OF TERMS	
SUBJECT MATTER	AGREED POSITION
Parties	the Parties to these Heads of Terms;
1. Novation	<p>The Parties agree to use reasonable endeavours to enter into novation agreements, or such other contractual arrangements as may be necessary to achieve effective contractual nexus between CAF and tie, novating and amending the <u>TSA and TMA, amending the</u> Infraco Contract, <u>TSA and the TMA</u> and entering into such other agreements to amend related documents to give effect to these Heads of Terms on or before 1 July 2011 or such other date as may be agreed between the Parties.</p> <p>Entry into the novation agreements and other agreements will be conditional upon (i) a variation to the Infraco Contract in terms acceptable to the Parties terminating the existing contractual relationship between tie and the Infraco insofar as it relates to the supply and maintenance of the Trams, and (ii) CAF being removed as a party to the Infraco Contract and related documents, ceasing to be a member of the Infraco consortium and the terms of related discharges, indemnities, performance bonds and other security documents being agreed; and (iii) satisfactory contractual arrangements being entered into amongst CEC, tie, BBCUK and Siemens to amend the Infraco Contract to reflect the Heads of Terms entered into between those parties on 12 March 2011, it being acknowledged that all those agreements and arrangements will be entered into on the same date, are interconditional and are subject to each such agreement and arrangement becoming unconditional.</p>
2 Fees, costs and expenses	The Parties shall each bear their own professional and other costs and expenses associated with these Heads of Terms.
3. Announcements	No announcement (whether internal or external) or press communication or release of information concerning these Heads of Terms shall be made by either Party other than as agreed between the Parties.
4. Binding effect of the Heads of Terms	The Parties acknowledge that these Heads of Terms reflect their present intentions in relation to the matters described at Clause 1 above, but except for Clauses 2 and 3 above, this Clause 4 and Clause 5 below, these Heads of Terms shall not be legally binding on the Parties.
5. Governing Law and Jurisdiction	<p>These Heads of Terms shall be governed and construed in accordance with Scots law.</p> <p>Each Party hereby irrevocably submits to the exclusive jurisdiction of the Court of Session as regards any claim, dispute or matter arising out of or in connection with these Heads of Terms and their implementation and effect.</p>



EDINBURGH TRAMS

**REPORT ON PROGRESS SINCE COMPLETION OF
HEADS OF TERMS TO 8TH APRIL 2011**

Appendix 3 - Heads of Terms (Redacted) (CEC, CAF, TIE)

PART 4
COMMUNICATIONS PROTOCOL

PART 3
VALUATION DATES

PART 2
MATERIALS AND EQUIPMENT

THIS IS THE SCHEDULE REFERRED TO IN THE FOREGOING MINUTE OF VARIATION

PART 1

SCOPE, PROGRAMME AND PRICING OF PRIORITISED WORKS

Authorised Signatory
Full Name
Witness Signature
Full Name
Address

IN WITNESS WHEREOF these presents on this and the preceding 2 pages together with the Schedule in 1 Part which is annexed and subscribed as relative hereto are executed as follows:

EXECUTED for and on behalf of

tie LIMITED

at

on

March 2011 by:

Authorised signatory

Full Name

Witness Signature

Full Name

Address

EXECUTED for and on behalf of

CONSTRUCCIONES Y AUXILIAR DE FERROCARRILES S.A. (CAF)

Formatted: Spanish (Spain-Traditional Sort)

at

on

March 2011 by:

Authorised signatory

Full Name

Witness Signature

Full Name

Address

SCHEDULE

AGREED KEY COMMERCIAL PRINCIPLES

Novation

1. The Parties will enter into novation agreements, or such other contractual arrangements as may be necessary to achieve contractual nexus between CAF and tie novating the TSA and the TMA from BBCUK and Siemens to tie and amending the Infraco Contract the TSA and the TMA on terms to be agreed on or before 1 July 2011 or such other date as may be agreed between the Parties.

Delay Costs

2. Payment mechanics for delay costs:

- 2.1. The TSA and TMA will be varied such that a lump sum for delay costs amounting to €5.1million will be payable by tie to CAF on the later of the anticipated date of signing of the contractual arrangements described at Clause 1 of these Heads of Terms being 1 July 2011 (or such other date as maybe agreed between the Parties) and the date that those contractual arrangements become unconditional.
- 2.2. To the extent that the Depot (including Depot access bridge) ~~availability date~~ and/or the mini-test track ~~are completed and become available for delivery and commissioning of the Trams availability date fall~~ after 15 October 2011 then additional payments payable ~~on a monthly basis on the respective delivery dates of the Depot (including Depot access bridge) and the mini-test track (or earlier if agreed)~~ will become due from tie to CAF to be calculated by reference to separate monthly rates for each of the Depot (including Depot access bridge) and the mini-test track payable on a straight line basis, the precise mechanics of which are to be agreed with a ~~maximum~~ sum of €0.466m being payable should the Depot (including Depot access bridge) not be ~~complete and available for available for delivery of the Trams until~~ by 24 March 2012 ~~and~~ the mini-test track not be ~~complete and available for commissioning of the Trams until~~ by 9 July 2012. Should delays extend beyond either of those dates then further delay payments will be calculated in ~~accordance with clause 49 of the TSAa similar manner using the same monthly rates.~~

3. Payment of Lump Sum

CAF and tie will agree the profile for the additional payments referred to at paragraph 2.2 above.

4. Programme

CAF and tie will work together to produce a specific version of the Tram Manufacturing and Delivery Programme and the other relevant programmes under the TSA to reflect each of the completion/availability dates set out above and other changes required to reflect the revised programme.

5. Reliability Bond and Performance Bond

A mechanism is to be agreed such that the Trams ~~to be operated on the ETN~~ are always covered either by the Performance Bond or the Reliability Bond in accordance with the terms of the TSA and TMA, with the switch to Reliability Bond from Performance Bond to occur upon delivery of a number of Trams (~~number to be agreed~~) ~~to be operated on the ETN~~. The impact of the excess Tram arrangements referred to at paragraph 11 below on the timing of the Performance Bond and Reliability Bond will require to be agreed.

6. Integration

- 6.1. The Parties agree that the responsibility for the integration of the Trams with the Edinburgh Tram Network shall rest with BBCUK and Siemens as Infraco and that tie shall be held harmless. The contractual arrangements between the Parties, BBCUK and Siemens will make this clear;
- 6.2. CAF will interface and cooperate with BBCUK and Siemens as Infraco to the extent reasonably required by tie to facilitate the integration of the Trams with the Edinburgh Tram Network by BBCUK and Siemens as Infraco.
- 6.3. It is acknowledged that the CAF obligation is to provide Trams to meet the Employer's Requirements.

7. Liquidated Damages

CEC/Transport Scotland/TEL/tie shall have no claims against CAF for liquidated damages in respect of any delay under the Infraco Contract, the TSA or the TMA that has occurred or will occur due to progress of manufacture of the Trams ~~or any other acts, omissions, matters or events occurring~~ prior to the date of the novation of the TSA and TMA ~~in respect of which it may be alleged that CAF is not entitled to an extension of time or other relief under the TSA or the TMA~~ and the conclusion of all other agreements to be entered into under these Heads of Terms but after such date of novation CAF will be subject to liquidated damages ~~for its failure to meet the relevant dates~~ under the TSA and/or TMA ~~in respect of any acts, omissions, matters or events occurring after such date of novation for which CAF is not entitled to extension of time or other relief under the TSA or TMA.~~

8. Number of Trams

~~Subject to the contractual arrangements described at paragraph 1 above becoming unconditional~~ CEC/Transport Scotland/TEL/tie will accept and pay for all 27 Trams under the TSA and will not be entitled to reject any of them, but without prejudice to CAF's obligations to provide Trams certified by the Tram Inspector in accordance with TSA and any right that may exist under the TSA to reject Trams that do not comply with the Employer's Requirements under the TSA.

9. Payment During Commissioning

Completion of and access to the Depot (including Depot access) and the mini-test track (to be defined by agreement) will allow some but not all commissioning to be carried out. The payment provisions of the TSA will provide for payment of the elements of the sums due under the TSA relating to commissioning following completion of the commissioning that can be carried out at the Depot (including Depot access) and the mini-test track (to be defined by agreement) and notwithstanding that full commissioning has not been completed ~~subject to tie being satisfied that it has sufficient security in place in respect of the remaining tests still required.~~

10. CEC Guarantee

CEC shall guarantee the obligations of tie under the TSA and the TMA.

11. Excess Trams

The Parties agree to make such changes to the Infraco Contract, the TSA and TMA as may be necessary and to provide such ~~consents and~~ assistance as may be reasonably required to enable tie/CEC, in conjunction with CAF, to sell, lease or otherwise deal with any Trams which are in excess of the current requirements of tie for that part of the Edinburgh Tram Network running from Airport to St Andrew Square subject to agreement between the Parties on terms including ~~the reasonable~~ ~~costs payments (including a margin) to be paid to CAF~~ for modification of the Trams ~~and assistance provided as previously described~~, with it being acknowledged ~~also~~ that any

external costs to CAF arising from these matters/lease/sale negotiations are not for the account of CAF.

12. Other terms

The Parties agree to negotiate in good faith to make such other amendments to the Infraco Contract, the TSA, the TMA and related documents, as are necessary or appropriate (i) to give effect to the principles agreed between them at the Mar Hall mediation over the period from 7 to 11 March 2011 and (ii) to give effect to these Heads of Terms (iii) to reflect the change in parties to the various documents and the change in contractual structure (iv) as a consequence of delays to the date of implementation of these Heads of Terms (v) to address any other changes to the ETN project that may become apparent that impact on the works and services to be carried out and provided by CAF under the TSA and/or the TMA (vi) as a consequence of the shorter Edinburgh Tram Network and (vii) as a consequence of the need for fewer Trams or the Trams achieving a lower mileage on the shorter Edinburgh Tram Network.



EDINBURGH TRAMS

**REPORT ON PROGRESS SINCE COMPLETION OF
HEADS OF TERMS TO 8TH APRIL 2011**

**Appendix 4
Mini Test Track - Operational Readiness Workshop List**

Date	To:	CC:
10 December 2009	Meeting to discuss Tram Inspector and Tram Testing with: Martin Foerder, Miguel Berozpe, Kevin Russell, Alejandro Urriza, Steven Bell and Alastair Richards - Slide showing the mini-test track presented by AR.	
7 January 2010	Operational Readiness Meeting with: David Lowe, Elizabeth Parkes; Sinead Scott; Edward Inglis, Clare Norman; Margaret Bayne - Established initial stages of testing including Stage 3 the Mini- test track	Steven Bell; Richard Jeffrey; Mandy Haeburn-Little; Stewart McGarrity; Claire Logan; Susan Clark; Kenneth McLeod
11 February 2010	Operational Readiness Meeting with: David Lowe(C), Elizabeth Parkes; Sinead Scott; Edward Inglis(S), Clare Norman; Margaret Bayne -	Steven Bell; Richard Jeffrey; Mandy Haeburn-Little; Stewart McGarrity; Claire Logan; Susan Clark; Kenneth McLeod
8 March 2010	Operational Readiness Meeting with: David Lowe(C), Elizabeth Parkes; Sinead Scott; Edward Inglis(S); Mathias Hecht(S); Norbert Wunder(S); Margaret Bayne	Steven Bell; Richard Jeffrey; Mandy Haeburn-Little; Stewart McGarrity; Claire Logan; Susan Clark; Kenneth McLeod
12 April 2010	Operational Readiness Meeting with: Edward Inglis(S), David Lowe(C), Mathias Hecht(S), Bernd Nieswand(S), Norbert Wunder(S), Kevin Keating, Elizabeth Parkes, Sinead Scott, Clare Norman, Margaret Bayne, Andrew Scott	Alastair Richards
10 May 2010	Operational Readiness Meeting with: Edward Inglis(S); DLowe@caf.net ; ' mathias.hecht@siemens.com '; ' bernd.nieswand@siemens.com '; 'Wunder, Norbert(S)'; Kevin Keating; Elizabeth Parkes; Sinead Scott; Clare Norman; Andrew Scott; ' alastair.scott@civil.bilfinger.co.uk '; ' james.cowie@civil.bilfinger.co.uk '; Margaret Bayne - Started to discuss the OHLE arrangements	Alastair Richards; Bob Cummins; Steven Bell; Richard Jeffrey; Susan Clark; Frank McFadden; AUrriza@caf.net ; mberozpe(S)
17 June 2010	Operational Readiness Meeting with: Edward Inglis(S), David Lowe(C), Mathias Hecht(S), Bernd Nieswand(S), Norbert Wunder(S), Kevin Keating, Elizabeth Parkes, Sinead Scott, Clare Norman, Margaret Bayne, Andrew Scott - Limit constraints of Depot Access Bridge and	Bob Cummins, Steven Bell, Susan Clark, Frank McFadden, Alejandro Urriza(C), Miguel Berrozpe(S)

	Gogarburn tramstop discussed	
6 July 2010	<p>Operational Readiness Meeting with: Inglis, Edward(S); DLowe@caf.net; 'mathias.hecht@siemens.com'; bernd.nieswand@siemens.com; Wilken, Michael(S); 'Wunder, Norbert'; Kevin Keating; Elizabeth Parkes; Sinead Scott; Clare Norman; Andrew Scott; alastair.scott@civil.bilfinger.co.uk; james.cowie@civil.bilfinger.co.uk; Margaret Bayne; Riley, John(S) - Progress Update</p>	<p>Bob Cummins; Steven Bell; Susan Clark; Frank McFadden; AUrriza@caf.net; Berrozpe, Miguel(S)</p>
4 August 2010	<p>Operational Readiness Meeting with: Inglis, Edward(S); DLowe@caf.net; 'mathias.hecht@siemens.com'; bernd.nieswand@siemens.com; Wilken, Michael(S); 'Wunder, Norbert'(S); Kevin Keating; Elizabeth Parkes; Sinead Scott; Clare Norman; Andrew Scott; alastair.scott@civil.bilfinger.co.uk; james.cowie@civil.bilfinger.co.uk; Margaret Bayne; Riley, John(S) - Progress Update</p>	<p>Bob Cummins; Steven Bell; Susan Clark; Frank McFadden; AUrriza@caf.net(C); Berrozpe, Miguel(S)</p>
13 August 2010	<p>Meeting with: Frank Wenzel(S), Andy Scott and Alastair Richards To discuss the extent of OHLE for the mini-test track and interface with Edinburgh Gateway Project.</p>	
13 September 2010	<p>Operational Readiness Meeting with: Alastair Scott(B), Edward Inglis(S), David Lowe(C), Kevin Keating, Clare Norman, Elizabeth Parks, Sinead Scott, Andrew Scott, Margaret Bayne, Mathias Hecht(S), Bernd Nieswand(S), Norbert Wunder(S), Michael Wilken(S) - Main focus was OHLE following previous meeting.</p>	
7 October 2010	<p>Operational Readiness Meeting with: Alastair Scott(B), Edward Inglis(S), David Lowe(C), Kevin Keating, Clare Norman, Elizabeth Parks, Sinead Scott, Andrew Scott, Margaret Bayne, Mathias Hecht(S), Bernd Nieswand(S), Norbert Wunder(S), Michael Wilken(S) - Section B to Airport discussed after mini- test track</p>	<p>Alejando Urriza(C), Miguel Berrozpe(S), Martin Foerder(B)</p>

26 November 2010	Operational Risks During Testing and Commissioning Workshop ' alastair.scott@civil.bilfinger.co.uk '; Inglis, Edward; DLowe@caf.net ; Clare Norman; Andrew Scott; ' mathias.hecht@siemens.com '; Wilken, Michael(S); bernd.nieswand@siemens.com ; Norbert.Wunder@siemens.com ; Riley, John(S); Gary.Roper@Siemens.com ; Sheena Smith; Colin Kerr; Alastair Richards; Kevin Keating; Sinead Scott <ul style="list-style-type: none">- Detailed analysis of the risks associated with each stage of testing.	
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EDINBURGH TRAMS

**REPORT ON PROGRESS SINCE COMPLETION OF
HEADS OF TERMS TO 8TH APRIL 2011**

**Appendix 5
Hg Minutes from Briefing Meetings on 14th and 18th March 2011**

**NOTES OF BRIEFING MEETING HELD ON MONDAY 14TH MARCH 2011
AT BBS CONSORTIUM OFFICE, EDINBURGH**

ATTENDEES:

Martin Foerder (MF)	Bilfinger Berger UK Limited	martin.foerder@civil.bilfinger.co.uk
Alfred Brandenburger (AB)	Siemens	Alfred.Brandenburger@siemens.com
Colin Smith (CS)	for City of Edinburgh Council	csmith@hg-group.co.uk

DISTRIBUTION:

Attendees plus:		
Dave Anderson	City of Edinburgh Council	Dave.Anderson@edinburgh.gov.uk

ACTION

1.0 INTRODUCTIONS

- 1.1 CS advised that he has been asked by City of Edinburgh Council to assist them with the project to completion.
- 1.2 CS is to provide references on project experience from Schoenstatt, East Dunbartonshire Council and The Millennium Commission (Glasgow Science Centre) **CS**
- 1.3 CS to review figures on existing funding to BBS to ensure priority works commissioned stay within existing approvals. **CS**

2.0 KEY DATES DISCUSSED

Draft Project Delivery Plan, plus attachments. Draft papers for Principals meeting	31 st March 2011
Principals meeting	7 th April 2011
Minute of Variation for Prioritised Work	15 th April 2011
Target date for site start priority works	3 rd May 2011
Siemens material mobilisation and first mobilisation payment BB and Siemens – payment figure to be agreed (certified 7 th April 2011)	21 st April 2011
Second mobilisation payment for BB and Siemens – payment figure to be agreed (certified 3 rd May 2011)	17 th May 2011
Individual start/finish dates for Priority Works	To be agreed
Minute of Variation of the Off-Street Works (other than Prioritised Works) and On-Street Works on or before	1 st July 2011
Mini test track – Target date	15 th October 2011
Next briefing meeting	18 th March 2011
Commencement of Design, Risk, Programme and Finance meetings on site	22 nd /23 rd March 2011

3.0 PRIORITY WORKS

- 3.1 Programme to be prepared and agreed for each element noted below:
- Depot Access Bridge
 - Depot (Civils and Systems)
 - Mini test track (Civils and Systems)
 - Haymarket yards
 - Princes Street remedial works
- Revised, simplified payment schedule shall be agreed.

**NOTES OF BRIEFING MEETING HELD ON MONDAY 14TH MARCH 2011
AT BBS CONSORTIUM OFFICE, EDINBURGH**

	ACTION
3.2 CS proposed that Preliminaries to be detailed per NBS CESMM – CS to provide model document. This may not be possible since both Bilfinger Berger and Siemens have their origin in Germany and this may result that different methods to calculate Preliminaries may apply. Preliminaries will be part of the revised, simplified payment schedule. Both parties to embrace the intention and to consider the methodology to achieve a workable solution.	CS/BBS
3.3 Preliminaries to be valued and paid monthly in accordance with agreed payment schedule. Formal detail to be considered and agreed.	ALL
4.0 SIEMENS MATERIALS	
4.1 Materials available for title transfer to be listed.	AB
4.2 Certificate to be prepared for 7 th April; payment by 21 st April 2011.	CEC
5.0 MANAGEMENT STRUCTURE (SEE DIAGRAM)	
5.1 CS to request that all tie contractual correspondence is passed to him for initialling.	CS
5.2 Dave Anderson, City of Edinburgh Council ("CEC") Director, to be CEC Project Director.	ALL
5.3 Informal communication links from CEC and to Bilfinger and Siemens offices in Germany to be established.	ALL
5.4 MF and AB advised that Kevin Russell and Axel Eickhorn are their deputies and can be communicated with fully on all matters.	ALL
6.0 MEETINGS MANAGEMENT	
6.1 Meetings to be held on site (Depot site office if possible, if not another site location to be found) on a weekly basis.	
6.2 Meeting to be chaired by CS.	
6.3 Attendees to be agreed by MF, AB and CS.	
6.4 Notes to be taken by CS.	
6.5 Topics to be covered: Risk, Programme, Design/Consents, Finance/Commercial	
7.0 PROGRAMMING	
7.1 Meetings to be held weekly, chaired by CS. Agenda is to be pre-circulated and minutes are to be taken by CS.	ALL/CS
7.2 Programme access and software agreed as Primavera.	NOTE
7.3 Look ahead programmes are to be utilised.	ALL
8.0 CAF MINI TEST TRACK	
8.1 All parties are to consider and use reasonable endeavours to deliver the mini test track by 15 th October 2011, which is a key date for CAF. A mini test track draft programme is to be issued for the first programme meeting on 22 nd March 2011.	MF/AB

**NOTES OF BRIEFING MEETING HELD ON MONDAY 14TH MARCH 2011
AT BBS CONSORTIUM OFFICE, EDINBURGH**

	ACTION
9.0 PROGRESS GENERALLY	
9.1 Progress tracker to be prepared and controlled by CS. In the event of failure to meet a deadline once, that item will be red flagged and reported to David Anderson.	ALL
9.2 Design, gatekeeper process established (MF/AB/CS).	ALL
9.3 Schedule of outstanding consent applications to be copied and passed to CS by 18/03/11.	MF
10.0 EDINBURGH GATEWAY	
10.1 Requirement for this to be designed and priced by September 2011.	ALL
11.0 UTILITIES	
11.1 Key dates to be discussed at first programme meeting to consider interface with client utilities package for the On-Street Works.	ALL
12.0 DESIGN	
12.1 Design to be prioritised on the basis of: (1) Priority Works (including Edinburgh Gateway) and remaining Off-Street Works (2) Haymarket to St Andrew Square (3) St Andrew Square to Newhaven	
13.0 CEC STATUTORY CONSENTS	
13.1 CS to invite Roads, Planning, etc. officers on site (through Dave Anderson) for weekly meetings	CS
14.0 COMMUNICATIONS	
14.1 CEC to prepare and instigate any required statement, thereafter to be passed to MF and AB for approval. MF and AB are required to forward to relevant company head quarters for final approval and release.	ALL
14.2 No outside agency required from BSC point of view.	NOTE
15.0 WORKS PACKAGES	
15.1 Haymarket to St Andrew Square (On-Street Works)	
(a) Consideration to be made, though agreed in principle that Preliminaries and work done is to be valued on a progressive basis (monthly), based on unit quantities or equipment pieces, etc. against agreed rates. Consideration to be given on the well developed On-Street Supplemental Agreement (OSSA).	ALL
15.2 Remedial Works – Princes Street	
(a) Construction detail programme and consents to be discussed and agreed on 23/03/11, thereafter a project delivery plan is to be created.	ALL
(b) Consideration of lifting the summer embargo on programme.	CS/CEC

**NOTES OF BRIEFING MEETING HELD ON MONDAY 14TH MARCH 2011
AT BBS CONSORTIUM OFFICE, EDINBURGH**

ACTION

16.0 RISK REGISTER

16.1 Risk register to be jointly managed, populated and valued. Risk review to take place weekly.

ALL

17.0 LEGAL INPUT

17.1 CS to pass copy of key issues from CEC/CAF agreement for this meeting group to ensure that obligations are met.

CS

17.2 MF/AB/CS to agree instructions to ensure clear briefing (perhaps joint briefing) of solicitors to avoid duplication/miscommunication.

ALL

18.0 DATES FOR NEXT MEETING

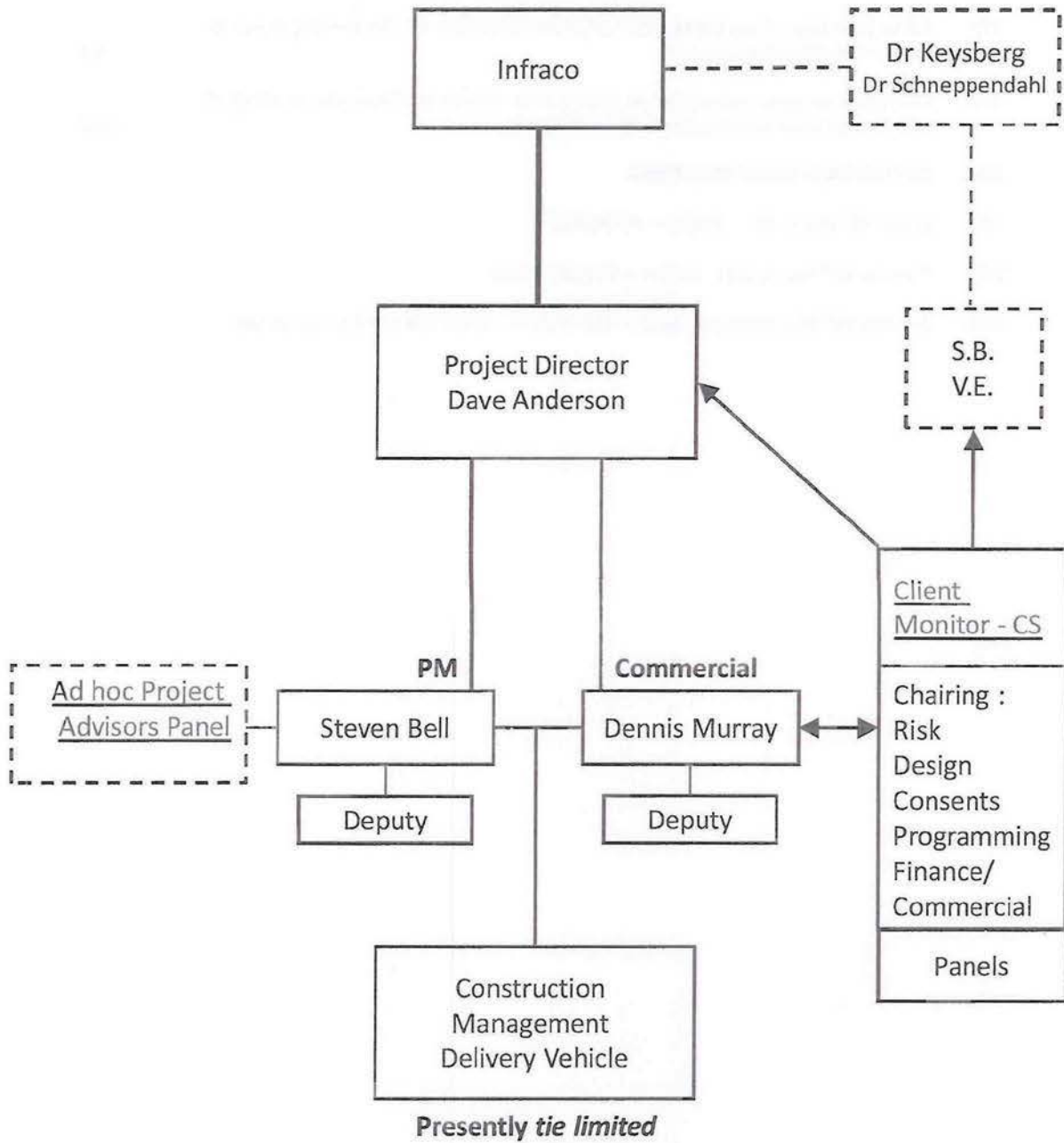
18.1 Friday 18th March 2011, 9.30am – MF/AB/CS

18.2 Tuesday 22nd March 2011, 1.00pm – Tie/BSC Office

18.3 Tuesday 22nd March/Wednesday 23rd March 2011 – times and order to be agreed

Governance Structure

RGS/11.03.11/v2



**NOTES OF BRIEFING MEETING HELD ON FRIDAY 18TH MARCH 2011
AT BBS CONSORTIUM OFFICE, EDINBURGH**

ATTENDEES:

Martin Foerder (MF)	Bilfinger Berger Civil UK Limited	martin.foerder@civil.bilfinger.co.uk
Kevin Russell (KR)	Bilfinger Berger Civil UK Limited	Kevin.Russell@civil.bilfinger.co.uk
Bob McCafferty (BMcC)	City of Edinburgh Council	Bob.McCafferty@edinburgh.gov.uk
Axel Eickhorn (AE)	Siemens	axel.eickhorn@siemens.com
Colin Smith (CS)	for City of Edinburgh Council	csmith@hg-group.co.uk

DISTRIBUTION:

Attendees plus:		
Dave Anderson (DA)	City of Edinburgh Council	Dave.Anderson@edinburgh.gov.uk
Alfred Brandenburger (AB)	Siemens	Alfred.Brandenburger@siemens.com
Steven Bell (SB)	Tie Limited	Steven.Bell@tie.ltd.uk

ACTION

1.0 NOTES OF THE MEETING HELD ON 14TH MARCH 2011

- 1.1 The notes of the meeting held on 14th March 2011 were adopted.
- 1.2 CS provided references from East Dunbartonshire Council and the Glasgow Science Centre; reference from Schoenstatt to follow **CS**
- 1.3 CS is reviewing figures on existing funding to BBS to ensure priority works commissioned stay within existing approvals. **CS**
- 1.4 CS confirmed that the Governance paper was virtually complete. CS confirmed his advice that CEC should retain an "arms length" development company. **CS**
- 1.5 CS to obtain names of deputies to Steven Bell and Dennis Murray. **CS**

2.0 KEY DATES DISCUSSED

- 2.1 It was noted that the Principals Meeting previously scheduled for 7th April will now be taking place on 8th April.
- 2.2 **Mini Test Track** - Early programming suggesting worst case January 2012. Earlier start (4 April 2011) may improve this to December 2011, however, BBS to be paid from 4 April 2011 (already included in price, but to be paid for during the Prioritised Works period). Further discussion to endeavour to get this as close as possible to October 2011. This matter is to be discussed further at the meeting scheduled for 23rd March. **ALL**
- 2.3 **Depot** – Scottish Water issue around pipe specification. CS to address with CEC to assist to close out objections from SW by next meeting. **CS/ BMcC**

MF suggested that in order to take advantage of available resources, BBS would start Depot works earlier (4 April 2011), however, BBS to be paid from 4 April 2011 (already included in price, but to be paid for during the Prioritised Works period).
- 2.4 CS is to issue a simple Priority Works tracker. **CS**

3.0 MEETINGS

- 3.1 Forthcoming meeting dates and attendees were discussed and agreed. CS is to issue invites. **CS**

**NOTES OF BRIEFING MEETING HELD ON FRIDAY 18TH MARCH 2011
AT BBS CONSORTIUM OFFICE, EDINBURGH**

ACTION

3.2 Design / Consents Meeting - Tuesday 22/3/11 at 2.30pm

Venue – BBS Meeting Room 2

Attendees: BBS - SNe / SDe / AEi / KRu
CEC - Bob Mc McCafferty or nominee
Tie - Steven Bell or nominee
Hg - Colin Smith

Maximum of 8 attendees

Agenda:

Agreement on Princes Street remedial work and programme
Review of matters outstanding and prioritisation in line with works programme
AOB

3.3 Programme Meeting - Wednesday 23/3/11 at 10.30am

Venue: Depot Site Office Meeting Room

Attendees BBS - SSh / MHe / ABr / KRu
Tie - Susan Clark
CEC - Ritchie Somerville
Hg - Colin Smith

Maximum of 8 attendees

Agenda:

Prioritisation works
Test Track target date 15th October
Look aheads
AOB

3.4 Risk Meeting - Wednesday 23/3/11 at 12.30pm

Venue: Depot Site Office Meeting Room

Attendees BBS - NHi / MHu / ABr / KRu
Tie - Steven Bell or nominee
Hg - Colin Smith

Maximum of 8 attendees

Agenda:

Creation of Risk register for Priority Works
Risk owners
Risk quantum
Risk mitigation
AOB

3.5 Financial / Commercial Meeting - Wednesday 23/3/11 at 2.30pm

Venue: Depot Site Office Meeting Room

Attendees BBS – DGo / AEi / ABr / KRu
Tie - Dennis Murray
CEC - Alan Coyle
Hg Colin Smith

Maximum of 8 attendees

Agenda:

Certificates 7th April and 3rd May
Prelims
Milestones and build up of same
Rates
AOB



**NOTES OF BRIEFING MEETING HELD ON FRIDAY 18TH MARCH 2011
AT BBS CONSORTIUM OFFICE, EDINBURGH**

	ACTION
4.0 CORRESPONDENCE	
4.1 Contractual matters per Heads of Terms to be in abeyance. CS to issue letter to BBS and Tie. <i>Post meeting note: A draft letter was circulated at the lawyers meeting on 21st March.</i>	CS
5.0 PRIORITY WORKS	
5.1 MF issued a draft programme for Priority Works for review prior to the programme meeting to be held on site on 22/03/11.	
5.2 Scope of work to St Andrew Square was discussed. There is a possibility that the most cost effective solution would be to extend the termination point to York Place (as currently designed). <i>Post Meeting Note: It was agreed between the Parties on 22/03/2011 and confirmed by CEC that the Termination Point shall be at York Place – this needs to be formalised to BBS.</i>	CS
5.3 Consideration is to be given to timing of CEC Public Realm Works at St Andrew Square.	BMcC
6.0 LEGAL MATTERS	
6.1 Minute of Variation – MF proposed that the lawyers meet on Monday 21 st March to avoid duplication and wasted effort. CS agreed with this. Meeting invites are to be issued by CS; meeting to be held at Hg, 20 Lynedoch Crescent, Glasgow at 10.00am	CS
6.2 Redacted copy of CAF agreement to be forwarded to BBS	CS
7.0 ANCILLARY WORKS TO ASSIST PROGRAMME	
7.1 MF/KR suggested matters to be considered (already included in price, but to be paid for during the Prioritised Works period): (1) Tree removal (2) Murrayfield testing of ground conditions (3) CBR testing of On Street	
8.0 TRANSPORT SCOTLAND	
8.1 MF enquired if Transport Scotland were being advised of progress. CS confirmed that they would be updated regularly.	
9.0 SCOTTISH WATER	
9.1 Scottish Water consents lapse after six months. It was noted that CS would follow this up on behalf of CEC. Choice of pipe material at depot is an issue with SW. BSC have laid GRP; SW insist on ductile. CS to check with CEC building control (George Findlay) and Andrew McBride (Transport Development Control) to establish if CEC have a similar policy on this. If not then CS to take up with SW on behalf of CEC.	CS

**NOTES OF BRIEFING MEETING HELD ON FRIDAY 18TH MARCH 2011
AT BBS CONSORTIUM OFFICE, EDINBURGH**

	ACTION
10.0 PRINCES STREET	
10.1 Lifting of Summer embargo and 28 day notification to Stakeholders to be reviewed by CEC.	BMcC
10.2 BBS to review traffic management on this basis and to consider full closure or central closure allowing traffic to remain on Princes Street.	BBS
10.3 Consideration is to be given to two other developments (2 cranes) and SGN works at west end of Princes Street (expected completion in October 2011)	BBS
11.0 FORTH PORTS	
11.1 Copy of correspondence passed to CS for client discussion	CS
12.0 TRAM STOP	
12.1 Superimposed letters on roof to be removed. CS to confirm.	CS
13.0 COMMERCIAL	
13.1 MF explained that the balance due to BBS will be the total value agreed at Mar Hall less amounts certified to 31 March 2011. This balance will be distributed into the simplified milestone schedule. CS required transparency into the build up of the amounts to be able to administer the certification of milestones and Preliminaries.	
13.2 Prioritised Works milestones are to be agreed then same principles to be used to establish overall milestone schedule. Details to be discussed at the 23 March Commercial / Financial Meeting.	
13.3 CS tabled NBS / CESM and RICS documents for BBS consideration on Preliminaries.	
13.4 MF advised that Preliminaries will be included in the milestone schedule and the amounts are to be certified on a monthly basis.	ALL
14.0 SIEMENS MATERIALS	
14.1 List of Materials and values to be provided and location to be identified (Broxburn / Leith / other). Details to be discussed at the 23 March Commercial / Financial Meeting.	AE
15.0 EDINBURGH GATEWAY	
15.1 Draft options report to be provided to tie/Network Rail regarding retaining wall and SW pipe. Option 4 is BBS preferred option and this will be discussed in detail at a meeting to be held on 22 March 2011. Once a solution has been identified, the design can be completed and a cost for the construction can be prepared	ALL
16.0 ON-STREET SUPPLEMENTAL AGREEMENT (OSSA)	
16.1 A copy of the OSSA was passed to CS for review.	CS
17.0 STATUTORY CONSENTS	
17.1 A schedule of outstanding consent issues was passed to CS for review.	CS

**NOTES OF BRIEFING MEETING HELD ON FRIDAY 18TH MARCH 2011
AT BBS CONSORTIUM OFFICE, EDINBURGH**

ACTION

- 17.2 Difference in scope and programme for agreement of consents and approvals was noted. Both parties agreed to close out all consents and approvals from Airport to Newhaven by 30 April 2011. Priority will be given to close out between Airport and SAS.

BSC also noted that they would self certify compliance with Employer's Requirements.

ALL

18.0 PUBLIC RELATIONS

- 18.1 BBS involvement with CEC to Stakeholders

ALL

- 18.2 MOP (taxi drivers) open day to promote project to be considered

ALL

19.0 DATES FOR NEXT MEETING

- 19.1 See schedule of meetings under item 3.0.

- 19.2 CS is to attend the Infraco Progress Meeting to be held at 1.00pm on 22nd March 2011.

EDINBURGH TRAMS

**REPORT ON PROGRESS SINCE COMPLETION OF
HEADS OF TERMS TO 8TH APRIL 2011**

**Appendix 6
Project Delivery Plan from 13th March to 8th April 2011**



HoT's Key actions Programme										
ID	Task Name	Resource Names	March 2011	April 2011	May 2011	June 2011	July 2011	August 2011	September 2011	October 2011
59	Heads of Terms key dates									
60										
61	Priority works per BBS programme to end of year 2011 TBA	All			04/05					
62	Principals meeting			08/04						
63	Minute of variation progress meeting - Priority Works	Principals / lawyers	15/03	21/03						
64	Minute of variation progress meeting - Priority Works	Principals / lawyers		24/03						
65	Minute of variation progress meeting - Priority Works	Principals / lawyers			15/04					
66	Completion of minute of Variation - Priority Works	Principals / lawyers	15/03	08/04						
67	Completion of CAF Minute of Variation	Principals / lawyers								
68										
69	Minute of Variation - off street works and on street works	Principals / lawyers		08/04						
70										
71	Mobilisation									
72										
73	Staff and materials mobilisation	BBS			21/04					
74	On site mobilisation and photo opportunity	BBS All			03/05					

Project: Edinburgh Trams
Date: Tue 22/03/11

Task Milestone Rolled Up Task Rolled Up Progress
 Progress Summary Rolled Up Milestone Split External Tasks
 Project Summary Group By Summary Deadline

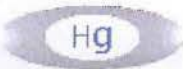
Page 2

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ETN Risk Register

31/03/2011

Risk ID No	Discipline	Category	Event/Title	Cause	Further Description and Impact	Owner	Unmitigated Impact					Measure	Timescale	Current Status: 31-Mar-2011	Mitigated Impact									
							Probability	Capex Cost	Programme	HMS	Reputation				Environmental	Ranking	Probability	Capex Cost	Programme	HMS	Reputation	Environmental	Ranking	
R001	Construction	Safety	Fire in Depot Building	Failure to control fire hazards during construction or commissioning	Fire in depot building causes damage to structure, trains or control room equipment, delaying system operation	BBS	2	5	5	3	3	2	22	(1) Include fire hazard assessment in all Work Package Plans (2) Robust control of material storage and waste disposal (3) Rigorous enforcement of no-smoking rules (4) All temporary and permanent electrical installations to be designed, installed to design and monitored. Adaption of temporary electrical systems to be rigorously controlled (5) Appropriate permit systems to be used (eg Hot Works)	asap	Open	1	3	3	2	2	1	1	1
R002	Construction	Safety	Death, injury or damage to third parties (people or property) during construction	(1) Failure to supervise works correctly (2) Failure to install or maintain guarding, lighting, signage, TM, temporary roads and paths (3) Failure to inform third parties of works	Construction incidents causing death or injury, damage to works or adjacent infrastructure, delay and/or additional costs, involvement in investigation process, legal penalties or insurance issues, reputation damage.	BBS/IE	2	3	4	4	3	1	14	(1) Operate robust Construction Health & Safety management system (2) Identify risks at Work Package Plan stage and mitigate in method planning and appropriate control measures (3) Ensure works are carried out in compliance with WPP, and that WPP is amended in advance of implementation if work methodology changes in necessary (4) Mitigate noise generation by selection of appropriate methodology, equipment at WPP stage. (5) Use appropriate, well maintained equipment, ensuring equipment is operated correctly and shut down when not in use (6) Implement appropriate mitigation (noise baffles/absorbers, main power instead of generators) (7) Robust Permit to Dig procedures (8) Communications in place to call out utility for urgent repairs	asap	Open	1	2	2	3	2	1	1	1
R003	Construction	Environment	Construction noise limit exceedances	Construction methodology, including use of plant and equipment on-site, results in CoCP or statutory noise level exceedances	Failure to plan works methodology or plant utilization to minimise noise impact, or failure to implement mitigation measures, results in noise level exceedances, work stoppage, delay and/or additional costs, penalties, reputation damage.	BBS	3	2	2	3	3	2	12	(1) mitigate noise generation by selection of appropriate methodology, equipment at WPP stage. (2) Use appropriate, well maintained equipment, ensuring equipment is operated correctly and shut down when not in use (3) Implement appropriate mitigation (noise baffles/absorbers, main power instead of generators)	asap	Open	1	1	2	1	2	1	1	
R004	Construction	Quality	Damage to Utility Apparatus	(1) Failure to locate apparatus prior to excavation (2) Failure to excavate carefully around known apparatus (3) Failure to protect apparatus during works or	(1) Safety hazard to workforce or public (gas release) (2) Interruption to supply - impact on third parties and/or reputation damage (3) Penalties and/or compensation claims	BBS/IE	2	2	2	4	3	3	14	(1) Robust Permit to Dig procedures (2) Communications in place to call out utility for urgent repairs	asap	Open	2	1	1	2	1	1	1	
R005	Construction	Environment	Hydrocarbon Spill during filling/decanting	(1) Spillage from discharge pump during fueling (2) leakage from storage tanks	Hydrocarbon contamination of the ground, groundwater and watercourses, resulting in ecological damage, penalties, legal action, delay and/or clean-up costs	BBS/IE	2	1	3	3	3	3	11	(1) Fueling of mobile equipment to be carried out in low risk locations, using appropriate equipment (2) comply with Oil Storage Regulations (3) Storage away from sensitive receptors and/or drainage systems (4) Ensure spill kits available for minor spillage (5) Implement an emergency response plan, including specialist response contractor.	asap	Open	1	1	1	1	2	2	1	1
R006	Construction	Environment	Death or injury of protected wildlife or damage to plants and/or damage to wildlife habitats	Failure to prevent death or injury of protected birds, amphibians etc and/or excavated material placed on/in watercourse or embankment, destruction of nesting sites, damage to wetland areas.	Failure to identify presence of protected wildlife and take appropriate mitigation measures, or failure to implement/execute agreed measures for wildlife or ecological protection. Can delay works; Breaches to licence conditions - prosecution if found reckless	BBS	2	2	3	3	2	4	14	(1) Ensure licence conditions within method statements (2) Check Ecologist who is the licensee for conditions - ensure wildlife survey data is complete and available to site team (3) Training for site team (toolbox talks)	asap	Open	1	1	2	2	2	3	1	
R007	Engineering	Quality	Failure of Designer to verify works completion in accordance with design	(1) Failure by designer to carry out verification inspections (2) Failure of site team to ensure verification inspections are carried out properly and monitor results	(1) Verification not Assured & Evidence Provided as such, resulting in delay to handover to system contractor or operator. (2) do or ICP not given suitable level of confirmation that the works have been completed to required standards.	BBS	2	4	4	4	3	3	14	(1) Increased monitoring by Quality team to verify that proper checks are being carried out and records kept - review resource requirement (2). More focus on design support from SDS	asap	Open	2	2	2	2	1	1	1	
R008	Construction	Environment	Silt pollution of watercourse or drainage	Water runoff from exposed earth/bank	Failure to plan for runoff, or failure to maintain control measures, leads to silt runoff. Breaches to licence conditions - prosecution if found reckless	BBS	2	1	3	3	3	3	11	(1) Strict observance of CAR licence conditions (2) Robust planning of work activities, including assessment of pollution risk in WPP development, eg piles of exposed earth should be temporarily stored away from the vicinity of watercourses (3) Installation of silt matting as a control measure where appropriate	asap	Open	2	1	1	1	2	1	1	
R009	Construction	Environment	Release of pollution from contaminated land	Excavation, piling and digging on contaminated land releases contamination to receptors - land, air, water	Failure to identify contamination, or failure to implement agreed measures/procedures for known contamination, results in breach of associated environment legislations, especially water legislation if released to the water environment, results in work stoppage, delay and/or additional costs, penalties, reputation damage.	BBS	2	1	3	3	3	3	11	(1) Carry out Phase I and Phase II investigation and then remediation procedure as per agreement with the local authority (2) Establish control procedure for contaminated groundwater (3) Brief workforce on identification of contamination, and reporting requirements	asap	Open	1	1	3	2	2	2	1	
R010	Proj Mgt	Commercial	Client budget insufficient to complete project	(1) Cost growth due to delay or change (2) Less of contributions for third parties (3) Political change	(1) Client unable to fund increased or delayed scope of works (2) Contractor unable to recover entitlement to payment arising from deferred resolution of change/issues etc.	IE/BBS	4	5	5	5	5	5	24	Time impact minimal (post contract) (1) Limit contractor exposure to non-payment due to lack of funds	asap	Open	2	2	2	2	2	2	2	
R011	Construction	Quality	Failure of Contractors / Sub-Contractors to self-certify completion & closing out of NCRs	(1) Failure by site staff to follow ITPs and relevant quality procedures.	(1) Self Certification of Works not Assured & Evidence Provided as such, resulting in delay to handover to system contractor or operator (2) do or ICP not given suitable level of confirmation that the works have been completed to required standards.	BBS	2	4	4	4	2	2	14	(1) Increased monitoring by Quality team to verify that proper checks are being carried out and records kept in accordance with ITPs - review resource requirements.	asap	Open	2	2	2	2	2	2	1	
R012	Engineering	Management	Delay in acceptance of infrastructure by ICPA/HM9	Failure to follow defined procedure of progressive assurance with ICP and/or HM9, leaving issues unresolved at start-up	Failure to complete ROGS process, including assurance/verification and evidence of risk assessment/mitigation in design/construction/operation/maintenance, results in refusal of permission to open for Passenger service, resulting in delay, rework or documentation costs and possible penalties/LADS	BBS/IE	2	3	4	3	3	3	14	(1) Comply with defined process to achieve progressive assurance in good time (2) Develop verification and required handover documentation in good time	asap	Open	1	2	3	3	3	3	1	
R013	Construction	Environment	Damage to wildlife habitat	Excavated material placed on/in watercourse or embankment, destruction of nesting sites, damage to wetland areas	Accidental damage to unforeseen wildlife habitat, or failure to prevent damage to known habitat (Owl, Badger, birds, water voles, amphibians). Breaches to licence conditions - prosecution if found reckless	BBS/IE	1	1	3	3	3	3	5	(1) Ensure licence conditions within method statements (2) Check Ecologist who is the licensee for conditions - ensure wildlife survey data is complete and available to site team (3) Training for site team (toolbox talks)	asap	Open	1	1	2	2	2	2	1	
R014	Engineering	Quality	Construction Information Control	Lack of QA control of construction information	Failure to implement rigorous QA control of information for construction leads to avoidable errors, rework, delay and/or cost	BBS	1	3	3	3	2	2	5	(1) Establish robust document register (drawings and other documents) (2) Establish robust procedure for release of information for construction	asap	Open	1	1	1	1	1	1	1	
R015	Construction	Management	Traffic Management scope growth	TM requirements become more extensive or onerous than expected.	Non approval of TM proposals, or impact of changes/programme delay, results in more extensive and costly TM	BBS	2	3	3	3	2	2	11	(1) Utilise competent TM staff, working closely with existing TM control process (2) Ensure that any impact of external change is notified to Client and followed up for continue entitlement	asap	Open	2	2	3	3	1	1	1	
R016	Engineering	Management	Delay in Design Approval	(1) Late or incomplete design submission (2) failure to design to requirements (3) Extended design approval periods	(1) Failure by SDS to make complete design submissions (2) Failure by BSC to ensure design submissions are complete (3) Failure by approvers to meet approval/approval programme (4) failure by TM to ensure approval/inspection timescales are achieved	BBS	2	3	3	3	3	3	11	(1 and 2) Robust design management by BSC (3 and 4) Detailed monitoring of approval process by BSC	asap	Open	2	3	3	3	3	3	1	



EDINBURGH TRAMS

**REPORT ON PROGRESS SINCE COMPLETION OF
HEADS OF TERMS TO 8TH APRIL 2011**

Appendix 7 - Risk Register

ETN Risk Register

31/03/2011

Risk ID No	Discipline	Category	Event/Titles	Cause	Further Description and Impact	Owner	Unmitigated Impact					Timescale	Current Status: 31-Mar-2011	Mitigated Impact						
							Probability	Cost	Programme	Risk	Reputation			Environment	Ranking	Probability	Cost	Programme	Risk	Reputation
R017	Construction	Commercial	Client/Third parties require use of additional or premium hoarding/fencing	External pressure to provide additional or more costly hoarding/fencing than is necessary for construction safety.	Client/public perception of Heras type fencing is poor and could lead to pressure to provide premium fencing (eg Princes Street, or Edinburgh Park) for project image reasons, resulting in extra cost.	BBS	2	2	1	3	11	asap	Open	2	2	1	1	1	1	
R018	Proj Mgt	Safety	Security Incident	Terrorism, Vandalism, Trespass, Arson	Delay to works due to time lost or damage caused as a result of a security incident. Environmental impact and adverse publicity	BBS/af	3	3	2	2	12	asap	Open	1	2	2			4	
R019	Construction	Environment	Archaeological or Human Remains	Discovery of unforeseen archaeological or human remains during excavation	(1) Delay to works during action by authorities	lie	1	3	3		6	asap	Open	1	2	3			6	
R020	Proj Mgt	Management	Exceptional adverse weather	Extreme weather outwith normal weather pattern	(1) Delay to work due to access restrictions or reduced outputs (eg concrete placing in prolonged cold weather) (2) Damage to work in progress - rework	BBS/af	3	2	2		12	asap	Open	1	1	2			4	
R021	Construction	Management	Industrial Action	Strikes in site labour force or suppliers affect works progress or delivery	Lost time due to strikes or delivery delays	BBS	1	2	2		4	asap	Open	1	1	2			4	
R022	Tram Supply		Delayed delivery of key components	Material Scheduling Issue	Free issue equipment (lie)	lie	1	1	1	1	1	asap	Open		1	1	1	1	1	
R023	Tram Supply	Management	Delay due to off-site test track not available	Scheduling Issue	Fully booked test tracks, dynamic test issues	CAF	1	3	2	1	6		Open	1	3	2	1	3	6	
R024	Tram Supply	Management	Power not available to re-commission first tram	Scheduling Issue		BBS	4	4	5	3	24	asap	Open	2	3	2	1	1	11	
R025	Tram Supply	Management	Delay due to interface problems discovered	Design Issue	TPDS, radio, paragraph, wheel interface - faulty, unavailable, signals, free issue equipment not ready (lie)	lie/BBS /CAF	3	4	1	1	13	asap	Open	2	2	1	1	1	9	
R026	Tram Supply	Production	Delay due to tram production rate inconsistent	Manufacturing	Strike, materials, delivery schedule impact	CAF	1	2	2	1	6	asap	Open	1	2	2	1	1	4	
R028	Construction	Design & Installation	Reduced system envelope of TRW system (less than 1200mm) on street	Height available for BBS system and its substructure is less than 1,200 mm due to crossing of utilities or other underground obstacles	Indication of numerous locations with system envelope less than 1,200 mm in line in-street alignment. Problem: MUDFA as-built drawings are not yet available. Currently there are 3 (three) locations in focus and under discussion. These locations are: Leith Walk Railway Bridge; 275 kV cable Leith Walk; Scottish Power Tunnel at Leith Walk. This leads to necessity of special Trackform solutions.	BBS/af	3	3	3		12	asap	Open	2	2	2			5	
R029	Tram Supply	Management	Tram Storage	Delay of Depot	Lack of available/suitable storage	CAF	5	4		3	25	asap	Open	2	4	3	2	2	14	
R031	Tram Supply	Environment	Delay to delivery of tram 2 to 23 due to shipping problem	Scheduling Issue	Bad weather, availability of shipping containers	CAF	1	3	2	1	6	asap	Open	1	3	2	1	6		
R032	Construction	Management	Utilities works	MUDFA utilities not diverted by lie	Mudfa works not complete, Mudfa works obstructing access to work areas	lie	4	3	5		24	asap	Open	2	1	3			11	
R034	Installation	Management	Delayed NVR approvals as applicable	Lack of early applications/discussions with NVR	Delayed start of works, Disruptions to off-street works	BBS	2	4	3	1	1	14	asap	Open	2	2	2	1	1	1

EDINBURGH TRAMS



**REPORT ON PROGRESS SINCE COMPLETION OF
HEADS OF TERMS TO 8TH APRIL 2011**

Appendix 8 - Prioritised Works Programme and Narrative

NARRATIVE TO ACCOMPANY THE PROGRAMME PREPARED FOLLOWING THE MEDIATION ON 8 to 12 MARCH 2011 Revision 2.

Prioritised Works

All works to commence on 3 May 2011 following the signing of the MOV for the Prioritised Works by 15 April 2011, with the exception of the mini test track and the Depot external works which are programmed to recommence on 4 April 2011.

Princes Street

There is no allowance in the programme for dealing with utility works or delay resulting there from.

Scope

1. Princes Street Road/Rail Joint – Enhanced Design

The works involve the removal and replacement of bituminous surfacing on Princes Street to accommodate a concrete shoulder running strip adjacent to the rails. The concrete/surfacing works are limited to the tram lanes only. All road markings, road studs and areas of Antiskid/Coloured Surfacing within the areas that are affected by the works will be replaced / reinstated. The length of the works is as detailed below.

Inbound Track (East Bound Carriageway)

- Section 1C Chainage 121,370 - Chainage 121,976
- Section 1D Chainage 130,000 - Chainage 130,380

Outbound Track (West Bound Carriageway)

- Section 1C Chainage 121,374 - Chainage 121,980
- Section 1D Chainage 130,000 - Chainage 130,380

The Programme is based on the programme assumption that the whole of Princes Street shall be available and that there will be no interruption of a summer Embargo, i.e. Full Closure of Princes Street from 3 May 2011 until end November 2011.

2. OLE Works & Street Lighting

OLE Foundations within the section from Hanover Street to Waverley Junction (7 nr) and South Charlotte Street to Lothian Road (4 nr) will be completed. Note there are utility/basement/design conflicts associated with these foundations that require resolution. All OLE poles will be erected and street lighting installed.

3. Tram Stop

The tramstop finishes will be completed but no furniture including the shelter, PID, bins etc will be installed.

4. Scottish Water

Completion of works from the original phase of construction works and includes provision of additional crossing due to OLE conflict. The pipework is in place and only the connection has to be completed. Notifications and SW requirements may affect the actual start date.

5. BT

BT remedial works in the area of South St David Street will be completed.

6. Chambers

The remedial works will commence on 3 May 2011 and be completed.

7. Finishes

All outstanding works to footways, pedestrian barrier, signs and track drainage will be completed.

Haymarket Viaduct

The Track is to be constructed from the tangent point at the end of the straight section of track at the eastern end of Haymarket Viaduct to the tangent point at inbound track Chainage 200,260 and the tangent point at outbound track Chainage 200,207 and the road fully reinstated. Prioritised Works to Haymarket Viaduct is restricted to that necessary to lay the tracks including the concrete infill of the Rheda City track construction. (N.B. construction work on track curves must start and finish at tangent points).

Although the track bed is constructed in the second phase of traffic management, a third phase of traffic management is required (that can only take place after phases 1 & 2) to complete the outbound track (Chainage 200,207 to 200,260) that runs in Haymarket Yards. This third phase is not part of the Prioritised Works.

Depot Access Bridge

Construction continues and is anticipated to be complete in April 2011.

The Depot

Internal work on the Depot Building continues. External works are programmed to recommence on 4 April 2011. The Depot Building will be available to take delivery of up to the first five trams from 15 October 2011 following the issue by tie of a partial completion certificate in respect of the Depot Building. The trams will be unloaded on track 15 and stabled inside the Depot Building. The unloading and shunting activities of each tram into the Depot Building shall be limited to the hours between 18h00 on the delivery date and 07h00 on the following day. The Programme assumes that tram delivery will not interfere with the Prioritised Works.

The works in the Depot area to the east of the Depot Access Bridge that become redundant once the Edinburgh Gateway is instructed have been deleted from the Programme and hence "Section A" needs to be redefined. The Depot (excluding area east of Depot Access Bridge) will be available to take delivery of any further trams from 16 December 2011 following the issue by tie of a completion certificate in respect of Section A. Note warrantee period commences with the issue of the completion certificate. This will involve handover of Depot and commencement of handover procedures with the Operator.

To create a Programme that represents a complete scope of works, provisional activities have been added to represent what may require construction under the

Edinburgh Gateway. The duration and logic applied to these activities is provisional only. The actual impact of the Edinburgh Gateway on the Programme can only be determined once the works are instructed and the appropriate IFC drawings are available.

Mini Test Track

To achieve the shortest programme period the mini test track constitutes a single track on the inbound track from chainage 531,230 to 531,800. These locations are determined by the OHLE design. This track will be connected to the depot via the depot west entrance switch. A temporary Overhead Catenary System will be installed using the final back stay at chainage 531,749 at the west end and a new back stay to be installed around chainage 531,260 in the east end of the mini test track. This will result in an energised and usable track of about 400m. The period reflected in the programme includes a 2 week period for energisation tests. A temporary Overhead Catenary System will be designed and implemented on the east side of the Depot Access Bridge to enable all tracks within the Depot to be energised. The additional costs associated with implementing this temporary Overhead Catenary System to accommodate energisation of the mini test track will need to be agreed. This temporary Overhead Catenary System will be replaced at a later time with the permanent Overhead Catenary System when the Edinburgh Gateway has been designed and constructed.

The Edinburgh Gateway works also prevent the installation of the final radio mast in time to be available for the operation of the mini test track.

The programme considers that for all works adjacent to the mini test track and the final works on the mini test track area will be executed under normal construction conditions, without any restrictions. Therefore this track cannot be permanently used for testing purposes until the final installation is completed.

A8 Underpass

Phases 1, 2 and 4 are programmed to recommence on 3 May 2011.

Auxiliary Items

The Programme includes for the following auxiliary items:

- Additional Testing in Murrayfield Corridor
- Water of Leith Sewer Lining Works
- Demolition of Plots 97/102
- Testing of Contamination
- Advanced Site investigation Works in Section 1C/1D

Remaining Off Street Works

The remaining off street works are programmed to commence on or about 2 September 2011 following the signing of a MOV by 01 July 2011.

The CAF works no longer form part of the programme however periods have been allowed for their works as previously advised by CAF to allow calculation of the dates for Section Completion A and Section Completion B.

General

The data date of the programme is 31 March 2011. For work activities currently under construction their anticipated actual progress at 31 March 2011 has been taken as the start point of the programme.

The programme for the works recognises the allowed working hours stated in the Code of Construction Practice of 0700 to 1900 Monday to Friday and 0800 to 1300 on a Saturday. However a 40 hour effective working week has been used to calculate the duration of activities to take account of rest breaks, un-exceptional weather delays and travel between work sites. Construction work will be required outside the hours stated in the Code of Construction Practice for Rail Possessions, work on busy road junctions, stringing catenary cables etc. The necessary approvals will be sought in advance for such works in accordance with the tender documents and the programme assumes that such approval will be granted as necessary to maintain the programme.

Assumptions and factual statements upon which the programme has been prepared are as set out in this document. General assumptions are as follows.

The programme assumes that all outstanding drawings have been issued at IFC status by the 31 March 2011 (excluding "Roseburn Viaduct" [the structures at Roseburn Street] (20 June 2011) and the redesign of S21B, C and D (16 May 2011))

The programme assumes that all Third Party approvals / licenses will be in place for these works to commence and proceed as shown.

Detailed programmes are available for all structures. The programme shows summaries of these programmes.

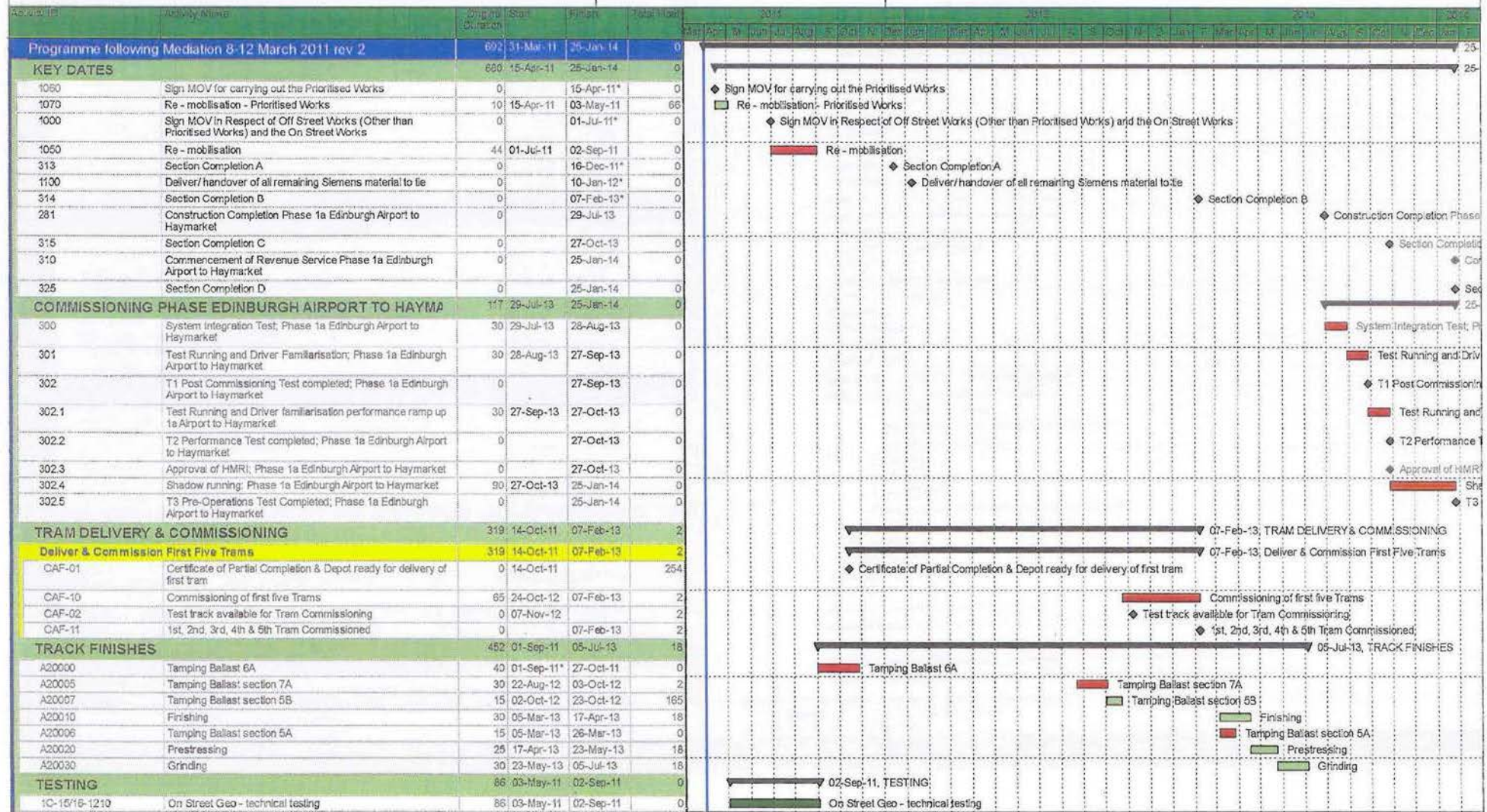
The construction works in general are subject to Network Rail approval. An eleven week period has been assumed for all Network Rail WPP and form C approvals, which includes a three week "cooling off period" for the WPP. The Programme generally shows the latest dates for these approvals.

Programme following Mediation
on 8 - 12 March 2011 (110331)

**EDINBURGH TRAM
NETWORK**



31-Mar-11 16:40



Date	Revision	Checked	Approved
17-Mar-11	Revision 0	SCS/MHE	BSC
21-Mar-11	Revision 1	SCS/MHE	BSC
31-Mar-11	Revision 2	SCS/MHE	BSC

Remaining Level of Effort
 Actual Work
 Remaining Work
 Critical Remaining Work

Milestone
 Milestone

Summary

WED00000134_0078

EDINBURGH TRAM NETWORK

Activity ID	Activity Name	Signed Date	Start	Finish	Total Hours	2011												2012												2013															
						Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec				
1A-24-5A-TEST-110	Start remaining E&M works along track		0	16-Feb-12		319	Start remaining E&M works along track																																						
TTM PHASE 5B (LINDSAY ROAD WEST BOUND)						97	16-Feb-12	05-Jul-12	222	TTM PHASE 5B (LINDSAY ROAD WEST BOUND)																																			
1A-24-TTM-05B-1000	TTM - PHASE 5B - Lindsay Road EB closed		0	16-Feb-12		225	TTM - PHASE 5B - Lindsay Road EB closed																																						
1A-24-TTM-05B-01	Commence TTM Works		0	16-Feb-12		225	Commence TTM Works																																						
1A-24-TTM-05B-1010	TTM PHASE 5B COMPLETE		0	05-Jul-12		222	TTM PHASE 5B COMPLETE																																						
TEMPORARY AND PRELIMINARY WORKS						7	16-Feb-12	27-Feb-12	225	TEMPORARY AND PRELIMINARY WORKS																																			
1A-24-5B-1000	Establish temporary traffic management		1	16-Feb-12	17-Feb-12	225	Establish temporary traffic management																																						
1A-24-5B-1010	Site clearance		5	17-Feb-12	24-Feb-12	225	Site clearance																																						
1A-24-5B-1020	Investigate services / outfall positions / inlet-outlet positions / levels		1	24-Feb-12	27-Feb-12	225	Investigate services / outfall positions / inlet-outlet positions / levels																																						
LINDSAY ROAD (WESTBOUND)						92	16-Feb-12	28-Jun-12	222	LINDSAY ROAD (WESTBOUND)																																			
1A-24-5B-1030	COMMENCE ROAD WORKS (LINDSAY ROAD-WESTBOUND)		0	16-Feb-12		222	COMMENCE ROAD WORKS (LINDSAY ROAD-WESTBOUND)																																						
1A-24-5B-1040	ROAD WORKS COMPLETE (LINDSAY ROAD)		0		28-Jun-12	222	ROAD WORKS COMPLETE (LINDSAY ROAD)																																						
WESTBOUND						88	16-Feb-12	22-Jun-12	222	WESTBOUND																																			
1A-24-5B-1050	Remove existing footway		5	16-Feb-12	23-Feb-12	222	Remove existing footway																																						
1A-24-5B-1060	Plane Main Carriageway & Footway		5	23-Feb-12	01-Mar-12	222	Plane Main Carriageway & Footway																																						
1A-24-5B-1070	Plane/break/low(er) / excavate to Formation (Lindsay Road)		49	01-Mar-12	11-May-12	222	Plane/break/low(er) / excavate to Formation (Lindsay Road)																																						
1A-24-5B-1080	Capping layer (600mm)		49	02-Mar-12	14-May-12	224	Capping layer (600mm)																																						
1A-24-5B-1090	Drainage and Outfalls		49	05-Mar-12	15-May-12	222	Drainage and Outfalls																																						
1A-24-5B-1100	Ducts and Chambers		49	05-Mar-12	15-May-12	222	Ducts and Chambers																																						
1A-24-5B-1110	Kerbing		10	10-May-12	24-May-12	224	Kerbing																																						
1A-24-5B-1120	Footpath Works		27	15-May-12	22-Jun-12	222	Footpath Works																																						
SURFACING						4	24-May-12	31-May-12	240	SURFACING																																			
1A-24-5B-1130	220mm Sub-base		1	24-May-12	25-May-12	240	220mm Sub-base																																						
1A-24-5B-1140	225mm Base		1	25-May-12	29-May-12	240	225mm Base																																						
1A-24-5B-1150	60mm Binder Course		1	29-May-12	30-May-12	240	60mm Binder Course																																						
1A-24-5B-1160	35mm Surface Course - Main Carriageway and Boundary		1	30-May-12	31-May-12	240	35mm Surface Course - Main Carriageway and Boundary																																						
ROAD FINISHING						20	31-May-12	28-Jun-12	222	ROAD FINISHING																																			
1A-24-5B-1170	Road Signs and Markings		1	31-May-12	01-Jun-12	240	Road Signs and Markings																																						
1A-24-5B-1180	Landscaping		9	14-Jun-12	27-Jun-12	222	Landscaping																																						
1A-24-5B-1190	Remove temporary traffic management		1	27-Jun-12	28-Jun-12	222	Remove temporary traffic management																																						
COMMISSIONING AND TESTING						5	28-Jun-12	05-Jul-12	222	COMMISSIONING AND TESTING																																			
1A-24-5B-TEST-100	Handover / Acceptance of Roadworks and Trackworks		5	28-Jun-12	05-Jul-12	222	Handover / Acceptance of Roadworks and Trackworks																																						
1A-24-5B-TEST-110	Start remaining E&M works along track		0	05-Jul-12		222	Start remaining E&M works along track																																						
TTM PHASE 7 (CH. - 160-450)						69	02-Sep-11	09-Dec-11	368	TTM PHASE 7 (CH. - 160-450)																																			
1A-24-TTM-07-1000	TTM PHASE 7 - Road closed (Ch.200-450)		0	02-Sep-11		360	TTM PHASE 7 - Road closed (Ch.200-450)																																						
1A-24-TTM-07-1010	TTM PHASE 7 COMPLETE		0		09-Dec-11	368	TTM PHASE 7 COMPLETE																																						
TEMPORARY AND PRELIMINARY WORKS						3	02-Sep-11	07-Sep-11	360	TEMPORARY AND PRELIMINARY WORKS																																			
1A-24B-7-1000	Establish temporary traffic management		1	02-Sep-11	05-Sep-11	360	Establish temporary traffic management																																						
1A-24B-7-1010	Site clearance		1	05-Sep-11	06-Sep-11	360	Site clearance																																						
1A-24B-7-1020	Investigate services / outfall positions / inlet-outlet positions / levels		1	06-Sep-11	07-Sep-11	360	Investigate services / outfall positions / inlet-outlet positions / levels																																						
Lindsay Road Retaining Wall W1A - Remaining Works						69	02-Sep-11	09-Dec-11	358	Lindsay Road Retaining Wall W1A - Remaining Works																																			
RW Finishing Works and Backfilling						69	02-Sep-11	09-Dec-11	358	RW Finishing Works and Backfilling																																			
1A-24-7-W1A-150	Waterproofing		9	02-Sep-11	16-Sep-11	358	Waterproofing																																						
1A-24-7-W1A-160	Drainage		8	09-Sep-11	21-Sep-11	358	Drainage																																						
1A-24-7-W1A-190	Brickwork		13	15-Sep-11	04-Oct-11	397	Brickwork																																						
1A-24-7-W1A-170	Stone drainage trench		13	16-Sep-11	05-Oct-11	368	Stone drainage trench																																						
Date	Revision	Checked	Approved	Page 4 of 28												Remaining Level of Effort		Critical Remaining Work																											
17-Mar-11	Revision 0	SCS/MHE	BSC													Actual Work		Milestone																											
21-Mar-11	Revision 1	SCS/MHE	BSC													Remaining Work		Summary																											
31-Mar-11	Revision 2	SCS/MHE	BSC																																										

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Programme following Mediation

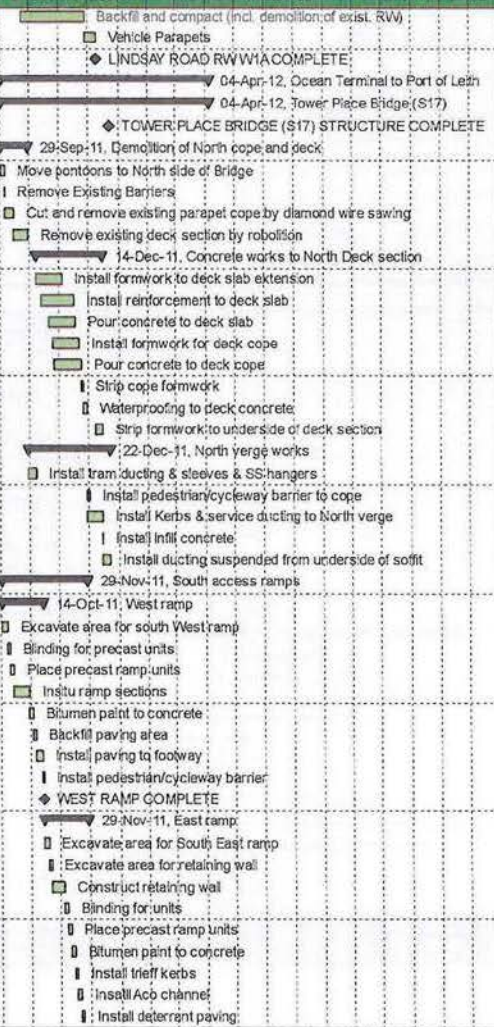
on 8 - 12 March 2011 (110331)

EDINBURGH TRAM NETWORK



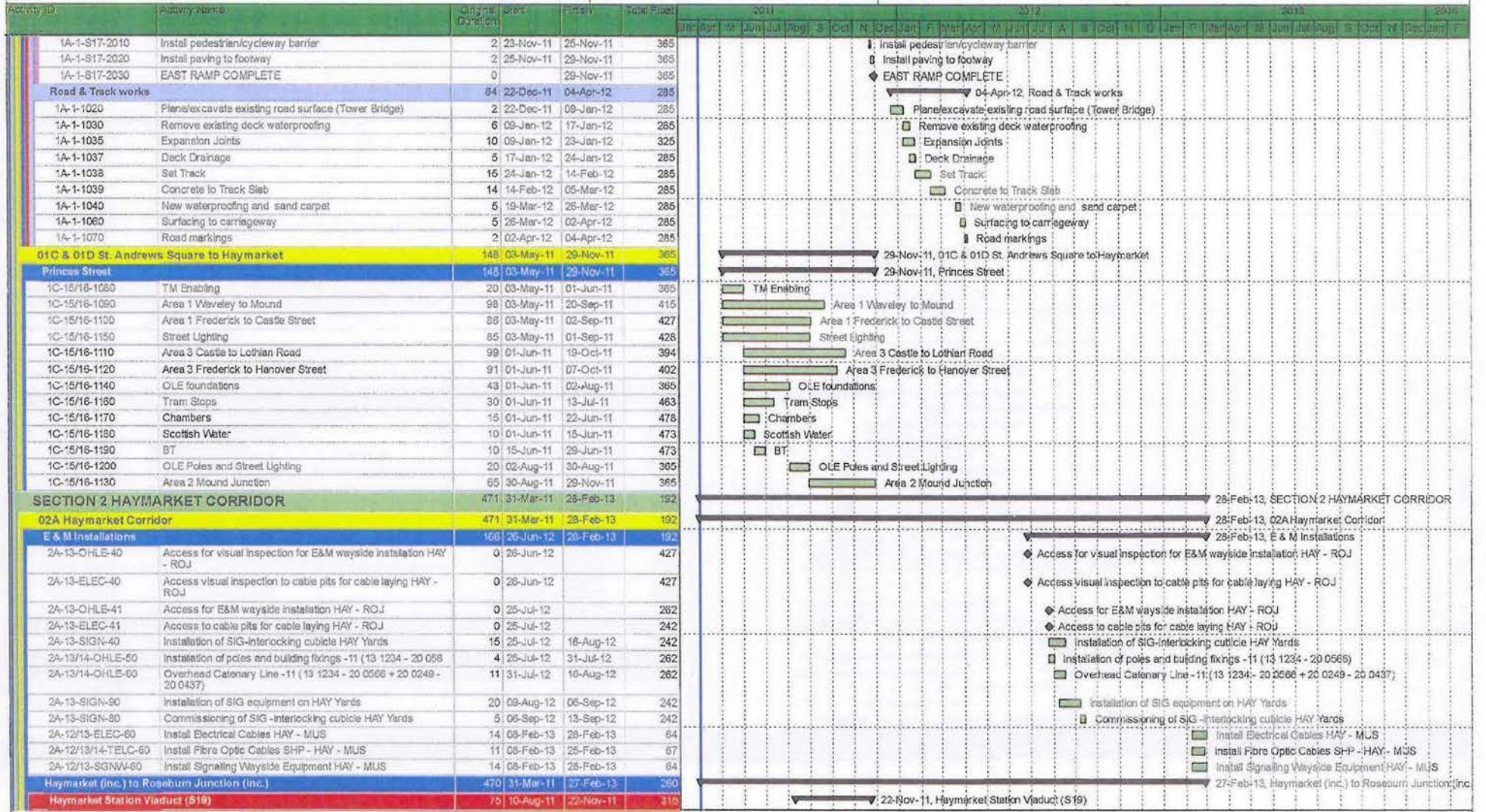
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Activity ID	Activity Name	Original Duration	Start	Finish	Total Weeks	2011					2012					2013							
						Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
1A-24-7-W1A-180	Backfill and compact (incl. demolition of exist. RW)	48	23-Sep-11	28-Nov-11	358																		
1A-24-7-W1A-200	Vehicle Parapets	8	28-Nov-11	09-Dec-11	358																		
1A-24-7-W1A-210	LINDSAY ROAD RW/WIA COMPLETE	0		09-Dec-11	358																		
Ocean Terminal to Port of Leith						142	02-Sep-11	04-Apr-12	285														
Tower Place Bridge (S17)						142	02-Sep-11	04-Apr-12	285														
1A-1-S17-1000	TOWER PLACE BRIDGE (S17) STRUCTURE COMPLETE	0		22-Dec-11	285																		
Demolition of North cope and deck						19	02-Sep-11	29-Sep-11	285														
1A-1-S17-1670	Move pontoons to North side of Bridge	1	02-Sep-11	05-Sep-11	285																		
1A-1-S17-1675	Remove Existing Barriers	1	05-Sep-11	06-Sep-11	285																		
1A-1-S17-1680	Cut and remove existing parapet cope by diamond wire saw	7	06-Sep-11	15-Sep-11	285																		
1A-1-S17-1690	Remove existing deck section by robotition	10	15-Sep-11	29-Sep-11	285																		
Concrete works to North Deck section						47	07-Oct-11	14-Dec-11	286														
1A-1-S17-1700	Install formwork to deck slab extension	20	07-Oct-11	04-Nov-11	285																		
1A-1-S17-1710	Install reinforcement to deck slab	24	13-Oct-11	16-Nov-11	285																		
1A-1-S17-1720	Pour concrete to deck slab	20	20-Oct-11	17-Nov-11	285																		
1A-1-S17-1730	Install formwork for deck cope	20	24-Oct-11	21-Nov-11	285																		
1A-1-S17-1740	Pour concrete to deck cope	20	26-Oct-11	23-Nov-11	285																		
1A-1-S17-1750	Strip cope formwork	2	23-Nov-11	25-Nov-11	285																		
1A-1-S17-1760	Waterproofing to deck concrete	2	25-Nov-11	29-Nov-11	285																		
1A-1-S17-1770	Strip formwork to underside of deck section	4	08-Dec-11	14-Dec-11	286																		
North verge works						59	29-Sep-11	22-Dec-11	285														
1A-1-S17-1820	Install tram ducting & sleeves & SS hangers	6	29-Sep-11	07-Oct-11	285																		
1A-1-S17-1760	Install pedestrian/cycleway barrier to cope	2	29-Nov-11	02-Dec-11	293																		
1A-1-S17-1790	Install Kerbs & service ducting to North verge	10	29-Nov-11	14-Dec-11	285																		
1A-1-S17-1800	Install Infill concrete	1	14-Dec-11	15-Dec-11	285																		
1A-1-S17-1810	Install ducting suspended from underside of soffit	5	15-Dec-11	22-Dec-11	285																		
South access ramps						62	02-Sep-11	29-Nov-11	365														
West ramp						30	02-Sep-11	14-Oct-11	397														
1A-1-S17-1830	Excavate area for south West ramp	3	02-Sep-11	07-Sep-11	365																		
1A-1-S17-1840	Blinding for precast units	2	07-Sep-11	09-Sep-11	365																		
1A-1-S17-1850	Place precast ramp units	2	09-Sep-11	13-Sep-11	365																		
1A-1-S17-1860	In situ ramp sections	12	13-Sep-11	29-Sep-11	365																		
1A-1-S17-1870	Bitumen paint to concrete	2	29-Sep-11	03-Oct-11	365																		
1A-1-S17-1880	Backfill paving area	3	03-Oct-11	06-Oct-11	365																		
1A-1-S17-1890	Install paving to footway	4	06-Oct-11	12-Oct-11	365																		
1A-1-S17-1900	Install pedestrian/cycleway barrier	2	12-Oct-11	14-Oct-11	365																		
1A-1-S17-1910	WEST RAMP COMPLETE	0		14-Oct-11	397																		
East ramp						32	14-Oct-11	29-Nov-11	365														
1A-1-S17-1920	Excavate area for South East ramp	3	14-Oct-11	19-Oct-11	365																		
1A-1-S17-1930	Excavate area for retaining wall	2	19-Oct-11	21-Oct-11	365																		
1A-1-S17-1940	Construct retaining wall	10	21-Oct-11	04-Nov-11	365																		
1A-1-S17-1950	Blinding for units	2	04-Nov-11	09-Nov-11	365																		
1A-1-S17-1960	Place precast ramp units	2	08-Nov-11	10-Nov-11	365																		
1A-1-S17-1970	Bitumen paint to concrete	2	10-Nov-11	14-Nov-11	365																		
1A-1-S17-1980	Install trieff kerbs	3	14-Nov-11	17-Nov-11	365																		
1A-1-S17-1990	Install Aco channel	2	17-Nov-11	21-Nov-11	365																		
1A-1-S17-2000	Install deterrent paving	2	21-Nov-11	23-Nov-11	365																		



Date	Revision	Checked	Approved
17-Mar-11	Revision 0	SCS/MHE	BSC
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17-Mar-11	Revision 0	SCS/MHE	BSC
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Remaining Level of Effort	Critical Remaining Work
Actual Work	Milestone
Remaining Work	Summary

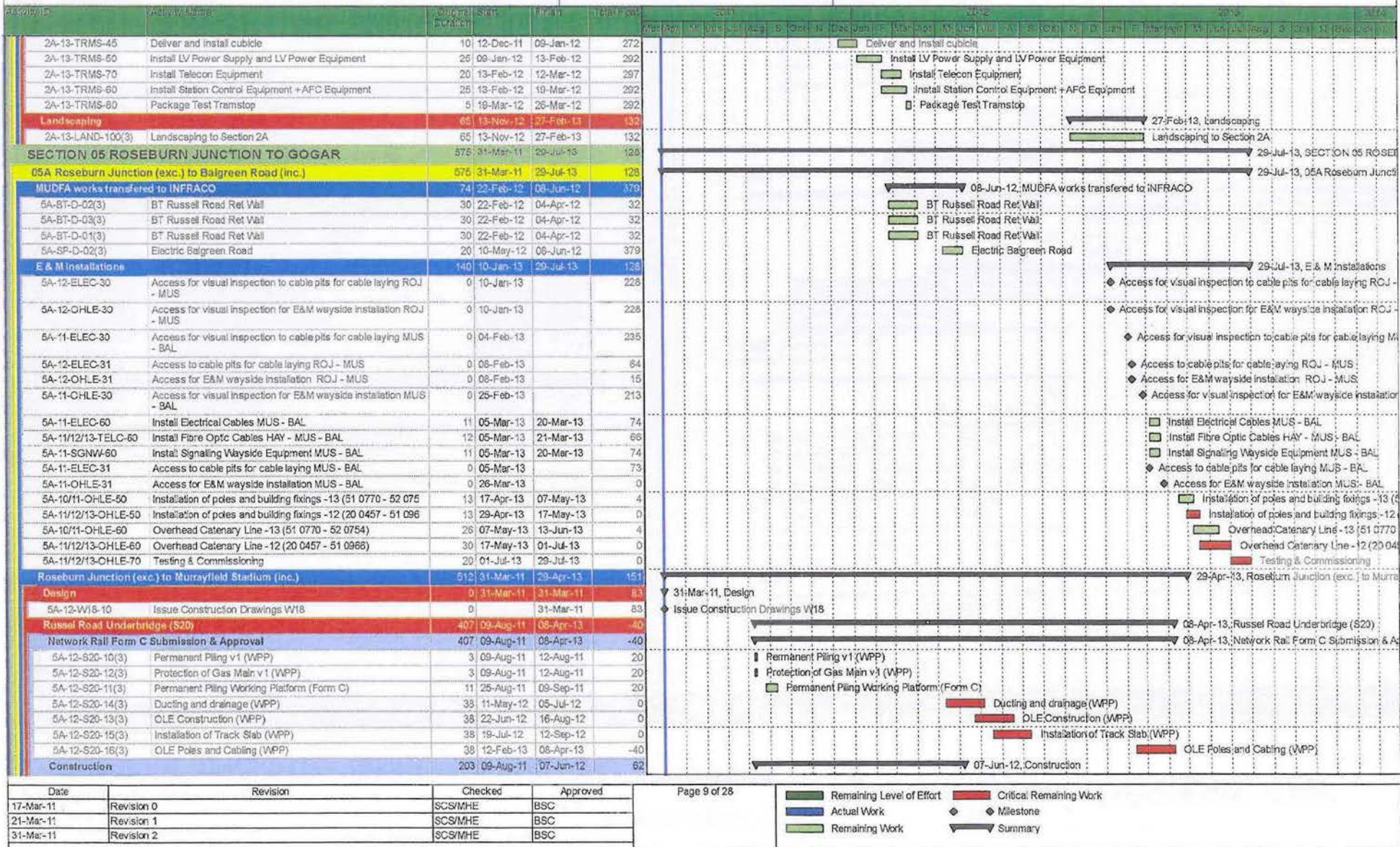
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Programme following Mediation
on 8 - 12 March 2011 (110331)

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31-Mar-11 16:40



Date	Revision	Checked	Approved
17-Mar-11	Revision 0	SCS/MHE	BSC
21-Mar-11	Revision 1	SCS/MHE	BSC
31-Mar-11	Revision 2	SCS/MHE	BSC

Page 9 of 28

- █ Remaining Level of Effort
- █ Actual Work
- █ Remaining Work
- █ Critical Remaining Work
- ◆ Milestone
- ▶ Summary

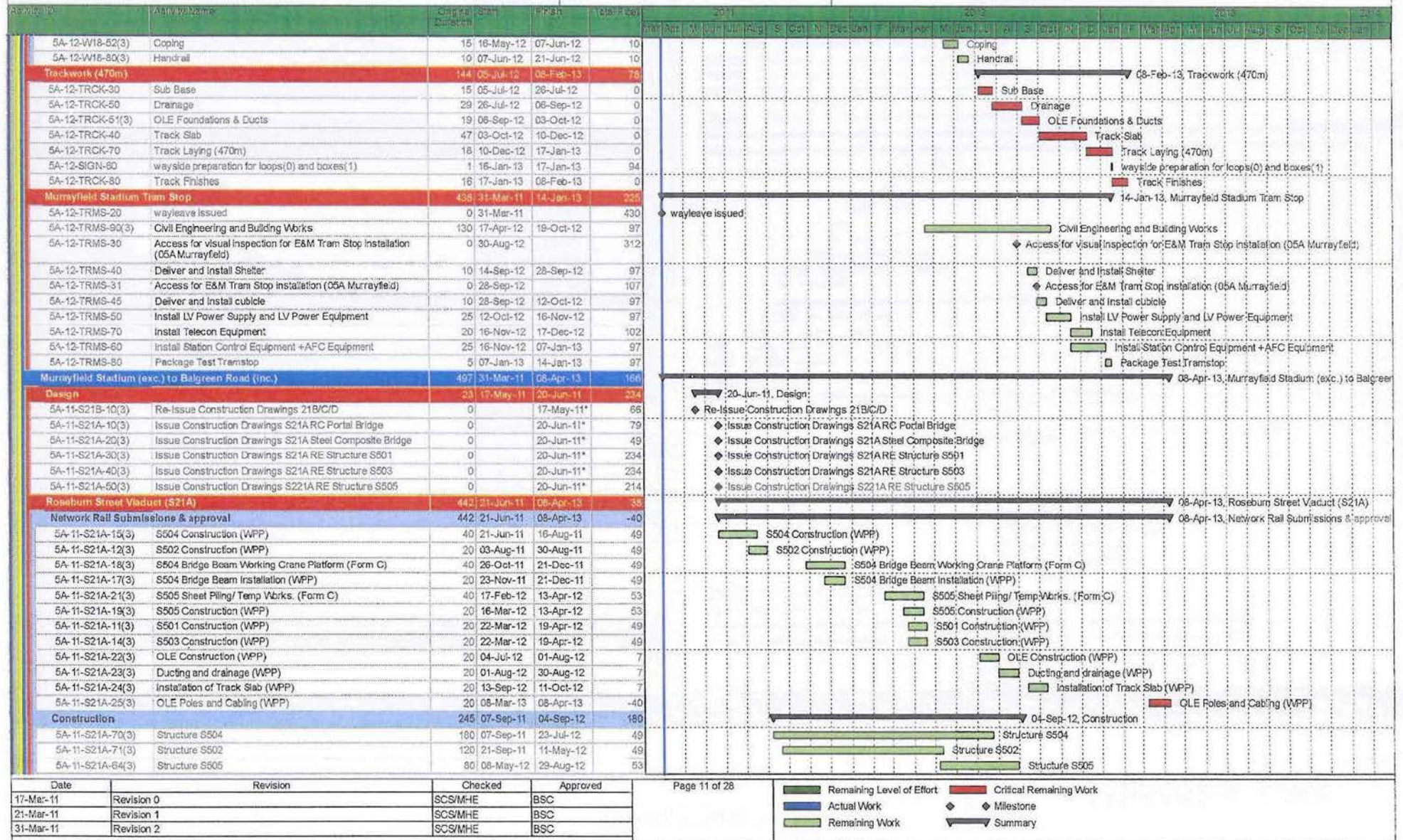
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Programme following Mediation
on 8 - 12 March 2011 (410331)

EDINBURGH TRAM NETWORK



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Date	Revision	Checked	Approved
17-Mar-11	Revision 0	SCS/MHE	BSC
21-Mar-11	Revision 1	SCS/MHE	BSC
31-Mar-11	Revision 2	SCS/MHE	BSC

■ Remaining Level of Effort ■ Critical Remaining Work
■ Actual Work ◆ Milestone
■ Remaining Work ▼ Summary

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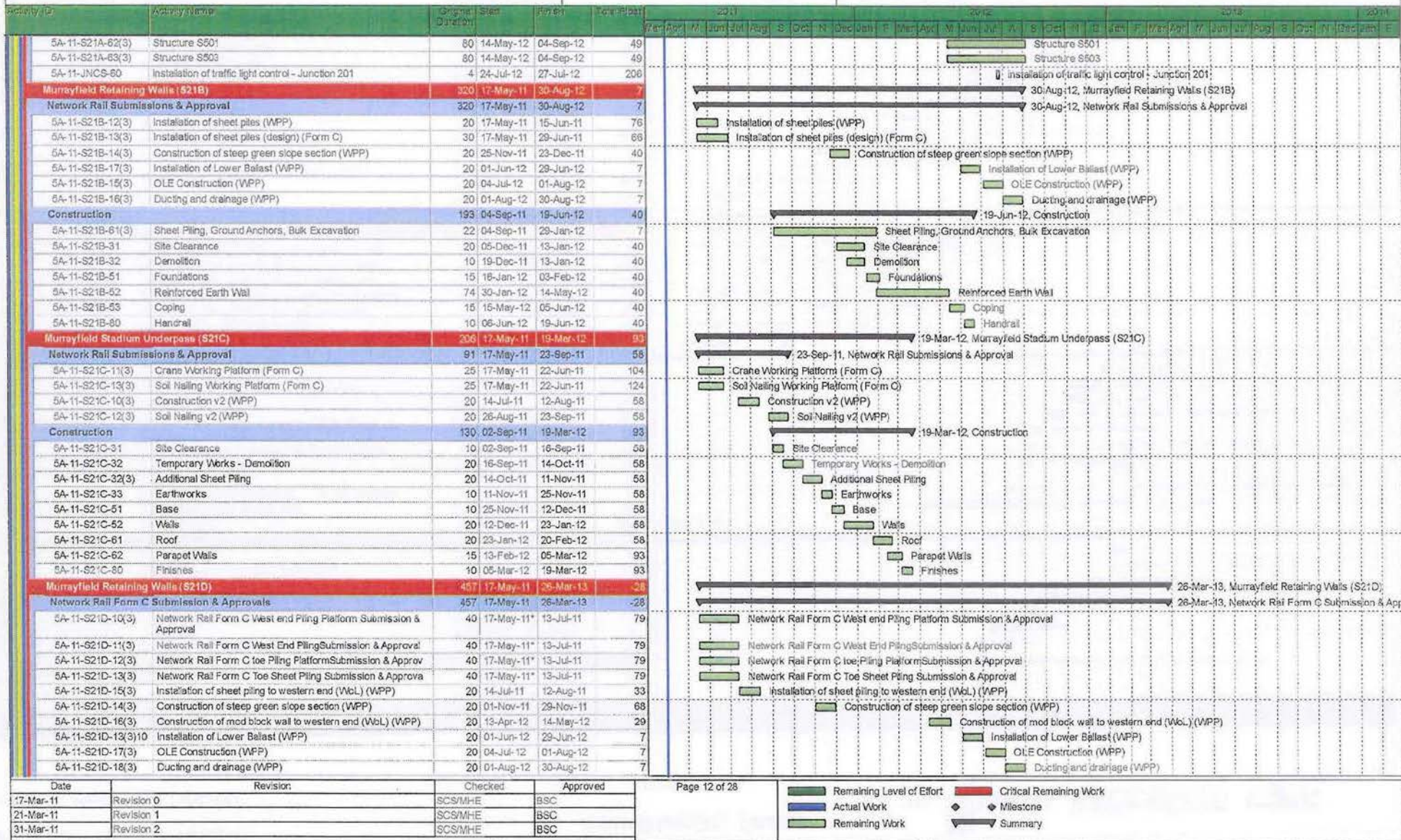
Programme following Mediation

on 8 - 12 March 2011 (110331)

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31-Mar-11 16:40



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Programme following Mediation

on 8 - 12 March 2011 (110331)

EDINBURGH TRAM NETWORK



31-Mar-11 16:40

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2011							2012							2013					2014																					
						Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec							
5A-11-W6-24(3)	OLE Poles and Cabling (WPP)	20	26-Feb-13	26-Mar-13	-28																																									
Construction							<ul style="list-style-type: none"> OLE Poles and Cabling (WPP) 																																							
5A-11-W6-51(3)	Bulk Excavation	35	02-Sep-11	11-May-12	56	<ul style="list-style-type: none"> Bulk Excavation 																																								
5A-11-W6-52	Starter Layer	25	19-Sep-11	24-Oct-11	68	<ul style="list-style-type: none"> Starter Layer 																																								
5A-11-W6-52	Green Slope	57	09-Nov-11	13-Feb-12	56	<ul style="list-style-type: none"> Green Slope 																																								
5A-11-W6-53	Parapet	10	26-Apr-12	11-May-12	56	<ul style="list-style-type: none"> Parapet 																																								
Balgreen Road Bridge (S22A)							<ul style="list-style-type: none"> Balgreen Road Bridge (S22A) 																																							
Network Rail Submissions & Approval							<ul style="list-style-type: none"> Network Rail Submissions & Approval 																																							
5A-11-S22A-12(3)	Bored piling working platform to both abutments (Form C)	40	09-Aug-11	04-Oct-11	76	<ul style="list-style-type: none"> Bored piling working platform to both abutments (Form C) 																																								
5A-11-S22A-11(3)	Sheet piling working platform to west abutment (Form C)	40	12-Aug-11	07-Oct-11	56	<ul style="list-style-type: none"> Sheet piling working platform to west abutment (Form C) 																																								
5A-11-S22A-19(3)	Construction of bridge (WPP)	20	12-Aug-11	09-Sep-11	78	<ul style="list-style-type: none"> Construction of bridge (WPP) 																																								
5A-11-S22A-16(3)	Installation of bored piling to both abutments (WPP)	20	08-Sep-11	04-Oct-11	76	<ul style="list-style-type: none"> Installation of bored piling to both abutments (WPP) 																																								
5A-11-S22A-15(3)	Installation of sheet piling to west abutment (WPP)	20	09-Sep-11	07-Oct-11	56	<ul style="list-style-type: none"> Installation of sheet piling to west abutment (WPP) 																																								
5A-11-S22A-17(3)	Construction of mod block wall to west abutment (W9) (WPP)	20	16-Nov-11	15-Dec-11	98	<ul style="list-style-type: none"> Construction of mod block wall to west abutment (W9) (WPP) 																																								
5A-11-S22A-13(3)	Mobile crane working platform to place pc beams (Form C)	40	29-Feb-12	28-Apr-12	80	<ul style="list-style-type: none"> Mobile crane working platform to place pc beams (Form C) 																																								
5A-11-S22A-14(3)	Edge parapet cantilever formwork (WPP)	20	28-Mar-12	26-Apr-12	80	<ul style="list-style-type: none"> Edge parapet cantilever formwork (WPP) 																																								
5A-11-S22A-18(3)	Placing of pc beams (WPP)	20	26-Mar-12	26-Apr-12	80	<ul style="list-style-type: none"> Placing of pc beams (WPP) 																																								
East Abutment							<ul style="list-style-type: none"> East Abutment 																																							
5A-11-S22A-130(3)	Sheet Piling & Excavation	17	30-Sep-11	25-Oct-11	112	<ul style="list-style-type: none"> Sheet Piling & Excavation 																																								
5A-11-S22A-160(3)	Bored Piling / Excavation / Testing	28	25-Oct-11	09-Dec-11	112	<ul style="list-style-type: none"> Bored Piling / Excavation / Testing 																																								
5A-11-S22A-180(3)	Columns	10	05-Dec-11	19-Dec-11	112	<ul style="list-style-type: none"> Columns 																																								
5A-11-S22A-190(3)	Reinforced Earth Wall+Backfilling	9	19-Dec-11	13-Jan-12	112	<ul style="list-style-type: none"> Reinforced Earth Wall+Backfilling 																																								
5A-11-S22A-220(3)	Access Platform Ret Walls & Reinforced Earth	12	02-Apr-12	19-Apr-12	56	<ul style="list-style-type: none"> Access Platform Ret Walls & Reinforced Earth 																																								
5A-11-S22A-200(3)	Pile Caps	15	26-Apr-12	18-May-12	80	<ul style="list-style-type: none"> Pile Caps 																																								
West Abutment							<ul style="list-style-type: none"> West Abutment 																																							
5A-11-S22A-210(3)	Sheet Piling & Excavation	17	29-Oct-11	22-Nov-11	56	<ul style="list-style-type: none"> Sheet Piling & Excavation 																																								
5A-11-S22A-240(3)	Bored Piling /Excavation / Testing	28	22-Nov-11	12-Jan-12	56	<ul style="list-style-type: none"> Bored Piling /Excavation / Testing 																																								
5A-11-S22A-260(3)	Columns	10	12-Jan-12	29-Jan-12	56	<ul style="list-style-type: none"> Columns 																																								
5A-11-S22A-280(3)	Reinforced Earth Wall+Backfilling	12	26-Jan-12	13-Feb-12	56	<ul style="list-style-type: none"> Reinforced Earth Wall+Backfilling 																																								
5A-11-S22A-360(3)	Access Platform retaining Wall & Reinforced Earth	12	10-Apr-12	26-Apr-12	56	<ul style="list-style-type: none"> Access Platform retaining Wall & Reinforced Earth 																																								
5A-11-S22A-390(3)	Pile Caps	15	26-Apr-12	18-May-12	80	<ul style="list-style-type: none"> Pile Caps 																																								
Bridge Deck							<ul style="list-style-type: none"> Bridge Deck 																																							
5A-11-S22A-290(3)	Bridge Deck	84	18-May-12	20-Aug-12	80	<ul style="list-style-type: none"> Bridge Deck 																																								
Network Rail Access Bridge (S22B)							<ul style="list-style-type: none"> Network Rail Access Bridge (S22B) 																																							
Network Rail Submissions & Approval							<ul style="list-style-type: none"> Network Rail Submissions & Approval 																																							
5A-11-S22B-10(3)	King post wall to east abutment (Form C)	30	30-Jun-11	12-Aug-11	56	<ul style="list-style-type: none"> King post wall to east abutment (Form C) 																																								
5A-11-S22B-11(3)	King post piling working platform to east abutment (Form C)	30	30-Jun-11	12-Aug-11	56	<ul style="list-style-type: none"> King post piling working platform to east abutment (Form C) 																																								
5A-11-S22B-12(3)	Sheet piling to west abutment (Form C)	30	30-Jun-11	12-Aug-11	56	<ul style="list-style-type: none"> Sheet piling to west abutment (Form C) 																																								
5A-11-S22B-13(3)	Sheet piling working platform to west abutment (Form C)	30	30-Jun-11	12-Aug-11	56	<ul style="list-style-type: none"> Sheet piling working platform to west abutment (Form C) 																																								
5A-11-S22B-16(3)	Installation of king post wall to east abutment (WPP)	30	30-Jun-11	12-Aug-11	56	<ul style="list-style-type: none"> Installation of king post wall to east abutment (WPP) 																																								
5A-11-S22B-17(3)	Installation of sheet piling to west abutment (WPP)	30	30-Jun-11	12-Aug-11	56	<ul style="list-style-type: none"> Installation of sheet piling to west abutment (WPP) 																																								
5A-11-S22B-20(3)	Construction of bridge (WPP)	30	30-Jun-11	12-Aug-11	56	<ul style="list-style-type: none"> Construction of bridge (WPP) 																																								
5A-11-S22B-14(3)	Mobile crane working platform to remove extg bridge (Form C)	40	11-Nov-11	23-Jan-12	56	<ul style="list-style-type: none"> Mobile crane working platform to remove extg bridge (Form C) 																																								
5A-11-S22B-18(3)	Demolition of existing bridge (WPP)	20	12-Dec-11	23-Jan-12	56	<ul style="list-style-type: none"> Demolition of existing bridge (WPP) 																																								
5A-11-S22B-15(3)	Mobile crane working platform to place pc beams (Form C)	40	19-Dec-11	27-Feb-12	56	<ul style="list-style-type: none"> Mobile crane working platform to place pc beams (Form C) 																																								
5A-11-S22B-19(3)	Placing of pc beams (WPP)	20	30-Jan-12	27-Feb-12	56	<ul style="list-style-type: none"> Placing of pc beams (WPP) 																																								
Construction							<ul style="list-style-type: none"> Construction 																																							

Date	Revision	Checked	Approved
17-Mar-11	Revision 0	SCS/MHE	BSC
21-Mar-11	Revision 1	SCS/MHE	BSC
31-Mar-11	Revision 2	SCS/MHE	BSC

Page 14 of 28



WED00000134_0091

Programme following Mediation
 on 8 - 12 March 2011 (110331)

EDINBURGH TRAM NETWORK



31-Mar-11 18:4

Activity ID	Activity Name	Original Duration	Start	Finish	Total Effort	2011	2012	2013	2014																				
Week	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar					
5A-11-SUBS-80	Testing and Commissioning		14/09-Jul-12	27-Jul-12	207																								
05B Balgreen Road (exc.) to Edinburgh Park Central (Inc.)		497	31-Mar-11	08-Apr-13	201																								
MUDFA & Utilities Completions						31-Mar-11, MUDFA & Utilities Completions 08-Apr-13, 05B Balgreen Road (exc.) to Edinbu																							
5B-09-UTL-10(3)	Stoughton Road North to Bankhead (South Gyle Access Sewer Diversion)	0	31-Mar-11	31-Mar-11*	200																								
E & M Installations						21-Mar-13, E & M Installations Access for visual inspection to cable pits for cable laying BAL - SGT Access for visual inspection for E&M wayside installation BAL - SGT Access to cable pits for cable laying BAL - SGT Access for E&M wayside installation BAL - SGT Installation of poles and building fixings -14 (52 0535 - 52 203) Access for visual inspection for E&M wayside installation EPS - EDP Access for visual inspection to cable pits for cable laying EPS - EDP Install Electrical Cables EPS - EDP Access for E&M wayside installation EPS - EDP Access to cable pits for cable laying EPS - EDP Install Signaling Wayside Equipment EPS - EDP Access for visual inspection for E&M wayside installation BNK - EPS Access for visual inspection to cable pits for cable laying BNK - EPS Access for visual inspection to cable pits for cable laying SGT - BNK Access for visual inspection for E&M wayside installation SGT - BNK Installation of SIG-interlocking cubicle EPS Access to cable pits for cable laying BNK - EPS Install Fibre Optic Cables BNK - EPS - EDP Install Signaling Wayside Equipment BNK - EPS Installation of poles and building fixings -16 (52 3059 - 52 4464) Access for E&M wayside installation BNK - EPS Install Electrical Cables BNK - EPS Overhead Catenary Line -14 (52 0535 - 52 2032) Overhead Catenary Line -16 (52 3059 - 52 4464 + 52 3621 - 52 3696) Installation of SIG equipment on crossover EPS Commissioning of SIG-interlocking cubicle EPS Install Signaling Wayside Equipment SGT - BNK Access to cable pits for cable laying SGT - BNK Install Fibre Optic Cables SGT - BNK - EPS Access for E&M wayside installation SGT - BNK Install Electrical Cables SGT - BNK Install Fibre Optic Cables BAL - SGT - BNK Install Signaling Wayside Equipment BAL - SGT Install Electrical Cables BAL - SGT Installation of poles and building fixings -15 (52 1827 - 52 327)																							
5B-10-ELEC-30	Access for visual inspection to cable pits for cable laying BAL - SGT	0	10-Apr-12		416																								
5B-10-OHLE-30	Access for visual inspection for E&M wayside installation BAL - SGT	0	10-Apr-12		416																								
5B-10-ELEC-31	Access to cable pits for cable laying BAL - SGT	0	10-May-12		253																								
5B-10-OHLE-31	Access for E&M wayside installation BAL - SGT	0	10-May-12		207																								
5B-09/10-OHLE-50	Installation of poles and building fixings -14 (52 0535 - 52 203)	10	10-Jul-12	23-Jul-12	230																								
5B-07-OHLE-30	Access for visual inspection for E&M wayside installation EPS - EDP	0	24-Jul-12		452																								
5B-07-ELEC-30	Access for visual inspection to cable pits for cable laying EPS - EDP	0	24-Jul-12		452																								
5B-07-ELEC-60	Install Electrical Cables EPS - EDP	7	23-Aug-12	03-Sep-12	295																								
5B-07-OHLE-31	Access for E&M wayside installation EPS - EDP	0	23-Aug-12		269																								
5B-07-ELEC-31	Access to cable pits for cable laying EPS - EDP	0	23-Aug-12		287																								
5B-07-SGNW-60	Install Signaling Wayside Equipment EPS - EDP	7	23-Aug-12	03-Sep-12	287																								
5B-08-OHLE-30	Access for visual inspection for E&M wayside installation BNK - EPS	0	25-Sep-12		416																								
5B-08-ELEC-30	Access for visual inspection to cable pits for cable laying BNK - EPS	0	25-Sep-12		416																								
5B-09-ELEC-30	Access for visual inspection to cable pits for cable laying SGT - BNK	0	17-Oct-12		332																								
5B-09-OHLE-30	Access for visual inspection for E&M wayside installation SGT - BNK	0	17-Oct-12		332																								
5B-08-SIGN-40	Installation of SIG-interlocking cubicle EPS	15	24-Oct-12	14-Nov-12	246																								
5B-08-ELEC-31	Access to cable pits for cable laying BNK - EPS	0	24-Oct-12		245																								
5B-07/08-TELC-60	Install Fibre Optic Cables BNK - EPS - EDP	8	24-Oct-12	05-Nov-12	258																								
5B-08-SGNW-60	Install Signaling Wayside Equipment BNK - EPS	8	24-Oct-12	05-Nov-12	258																								
5B-07/08-OHLE-50	Installation of poles and building fixings -16 (52 3059 - 52 4464)	9	24-Oct-12	06-Nov-12	233																								
5B-08-OHLE-31	Access for E&M wayside installation BNK - EPS	0	24-Oct-12		232																								
5B-06-ELEC-60	Install Electrical Cables BNK - EPS	8	24-Oct-12	05-Nov-12	258																								
5B-09/10-OHLE-60	Overhead Catenary Line -14 (52 0535 - 52 2032)	26	06-Nov-12	13-Dec-12	179																								
5B-07/08-OHLE-60	Overhead Catenary Line -16 (52 3059 - 52 4464 + 52 3621 - 52 3696)	24	07-Nov-12	12-Dec-12	179																								
5B-08-SIGN-90	Installation of SIG equipment on crossover EPS	5	07-Nov-12	14-Nov-12	246																								
5B-08-SIGN-80	Commissioning of SIG-interlocking cubicle EPS	5	14-Nov-12	21-Nov-12	246																								
5B-09-SGNW-60	Install Signaling Wayside Equipment SGT - BNK	10	15-Nov-12	29-Nov-12	159																								
5B-09-ELEC-31	Access to cable pits for cable laying SGT - BNK	0	15-Nov-12		159																								
5B-08/09-TELC-60	Install Fibre Optic Cables SGT - BNK - EPS	9	15-Nov-12	28-Nov-12	161																								
5B-09-OHLE-31	Access for E&M wayside installation SGT - BNK	0	15-Nov-12		148																								
5B-09-ELEC-60	Install Electrical Cables SGT - BNK	10	15-Nov-12	29-Nov-12	159																								
5B-09/10-TELC-60	Install Fibre Optic Cables BAL - SGT - BNK	12	28-Nov-12	17-Dec-12	161																								
5B-10-SGNW-60	Install Signaling Wayside Equipment BAL - SGT	13	29-Nov-12	19-Dec-12	159																								
5B-10-ELEC-60	Install Electrical Cables BAL - SGT	13	29-Nov-12	19-Dec-12	159																								
5B-08/09-OHLE-50	Installation of poles and building fixings -15 (52 1827 - 52 327)	10	13-Dec-12	10-Jan-13	148																								

Date	Revision	Checked	Approved
17-Mar-11	Revision 0	SCS/MHE	BSC
21-Mar-11	Revision 1	SCS/MHE	BSC
31-Mar-11	Revision 2	SCS/MHE	BSC

Remaining Level of Effort	Critical Remaining Work
Actual Work	Milestone
Remaining Work	Summary

WED00000134_0092

Programme following Mediation
on 8 - 12 March 2011 (410331)

EDINBURGH TRAM NETWORK



31-Mar-11 16:41

Activity Name	Original Duration	Start	Finish	Actual Hours	2011	2012	2013	2014
5A-11-S22B-10(3) Sheet Piling	40	02-Sep-11	28-Oct-11	56		Sheet Piling		
5A-11-S22B-20(3) Demolish Existing Bridge Deck / New GIL Beams	25	13-Feb-12	19-Mar-12	56		Demolish Existing Bridge Deck / New GIL Beams		
5A-11-S22B-30(3) New Bridge Deck & Parapets	10	19-Mar-12	02-Apr-12	56		New Bridge Deck & Parapets		
5A-11-S22B-40(3) Parapets & Finishes	11	02-Apr-12	16-Apr-12	272		Parapets & Finishes		
5A-11-JNCS-70(3) Installation of traffic light control - Junction 202	4	18-Apr-12	24-Apr-12	272		Installation of traffic light control - Junction 202		
Balgreen Road Retaining Wall - W9	37	19-Jan-12	12-Mar-12	98				
Construction	37	19-Jan-12	12-Mar-12	98				
5A-11-W9-110(3) Foundations	5	19-Jan-12	26-Jan-12	98		Foundations		
5A-11-W9-115(3) Reinforced Earth Wall	17	26-Jan-12	20-Feb-12	98		Reinforced Earth Wall		
5A-11-W9-120(3) Coping	10	20-Feb-12	05-Mar-12	98		Coping		
5A-11-W9-125(3) Handrail	5	05-Mar-12	12-Mar-12	98		Handrail		
Trackwork (1006m)	169	20-Jul-12	02-Apr-13	66				
5A-11-TRCK-30 Prepare Formation & Lower Ballast	23	20-Jul-12	23-Aug-12	7		Prepare Formation & Lower Ballast		
5A-11-TRCK-50 OLE Foundations	20	23-Aug-12	20-Sep-12	7		OLE Foundations		
5A-11-TRCK-60 Drainage & ducts	30	20-Sep-12	01-Nov-12	7		Drainage & ducts		
5A-11-TRCK-40 Upper Ballast	20	01-Nov-12	29-Nov-12	7		Upper Ballast		
5A-11-TRCK-45 Track Slab	20	01-Nov-12	29-Nov-12	7		Track Slab		
5A-11-TRCK-70 Tracklaying (1006m)	28	17-Jan-13	26-Feb-13	7		Tracklaying (1006m)		
5A-11-SIGN-80 wayside preparation for loops(0) and boxes(4)	2	22-Feb-13	26-Feb-13	90		wayside preparation for loops(0) and boxes(4)		
5A-11-TRCK-80 Top Ballast	5	26-Feb-13	05-Mar-13	7		Top Ballast		
5A-11-TRCK-81 Fencing & Finishing	19	05-Mar-13	02-Apr-13	66		Fencing & Finishing		
Balgreen Road Tram Stop	389	31-Mar-11	22-Oct-12	284				
5A-11-TRMS-20 wayleave issued	0	31-Mar-11		430		wayleave issued		
5A-11-TRMS-90 Civil Engineering and Builders Work	65	10-May-12	13-Aug-12	156		Civil Engineering and Builders Work		
5A-11-TRMS-30 Access for visual inspection for E&M Tram Stop installation (05A Balgreen Road)	0	20-Jun-12		371		Access for visual inspection for E&M Tram Stop installation (05A Balgreen Road)		
5A-11-TRMS-40 Deliver and Install Shelter	10	06-Jul-12	20-Jul-12	156		Deliver and Install Shelter		
5A-11-TRMS-31 Access for E&M Tram Stop installation (05A Balgreen Road)	0	20-Jul-12		188		Access for E&M Tram Stop installation (05A Balgreen Road)		
5A-11-TRMS-45 Deliver and Install cubicle	10	20-Jul-12	03-Aug-12	156		Deliver and Install cubicle		
5A-11-TRMS-50 Install LV Power Supply and LV Power Equipment	25	03-Aug-12	10-Sep-12	156		Install LV Power Supply and LV Power Equipment		
5A-11-TRMS-70 Install Telecom Equipment	20	10-Sep-12	08-Oct-12	161		Install Telecom Equipment		
5A-11-TRMS-60 Install Station Control Equipment + AFC Equipment	25	10-Sep-12	15-Oct-12	156		Install Station Control Equipment + AFC Equipment		
5A-11-TRMS-80 Package Test Tramstop	5	15-Oct-12	22-Oct-12	156		Package Test Tramstop		
Jenners Depository Sub Station	326	31-Mar-11	27-Jul-12	335				
5A-11-SUBS-120 wayleave granted (substation area)	0	31-Mar-11		366		wayleave granted (substation area)		
5A-11-SUBS-110 meter issue for power supply clarified	0	31-Mar-11		386		meter issue for power supply clarified		
5A-11-SUBS-90 Civil Engineering and Building Works	65	16-Nov-11	01-Mar-12	187		Civil Engineering and Building Works		
5A-11-SUBS-30 Access for visual inspection for E&M Substation installation (05A Jenners Depository)	0	01-Feb-12		187		Access for visual inspection for E&M Substation installation (05A Jenners Depository)		
5B-11-SUBS-100 cable duct for Power Infeed	5	01-Feb-12	08-Feb-12	187		cable duct for Power Infeed		
5A-11-SUBS-130 installation HV cable	30	08-Feb-12	21-Mar-12	187		installation HV cable		
5A-11-SUBS-31 Access for E&M Substation installation (05A Jenners Depository)	0	01-Mar-12		187		Access for E&M Substation installation (05A Jenners Depository)		
5A-11-SUBS-40 Power Infeed from Public Net available inc HV cable	0	21-Mar-12		187		Power Infeed from Public Net available inc HV cable		
5B-10-SUBS-45 Install HV Power Supply and Equipment (SP)	15	21-Mar-12	12-Apr-12	187		Install HV Power Supply and Equipment (SP)		
5A-11-SUBS-50 Install LV Power Supply and LV Power Equipment	15	12-Apr-12	03-May-12	207		Install LV Power Supply and LV Power Equipment		
5B-11-SUBS-55 Energisation Scottish Power	0	26-Apr-12		399		Energisation Scottish Power		
5A-11-SUBS-70 Install Telecom and Scada	15	03-May-12	25-May-12	207		Install Telecom and Scada		
5A-11-SUBS-60 Installation of TRS Equipment	30	25-May-12	09-Jul-12	207		Installation of TRS Equipment		

Date	Revision	Checked	Approved
17-Mar-11	Revision 0	SCS/MHE	BSC
21-Mar-11	Revision 1	SCS/MHE	BSC
31-Mar-11	Revision 2	SCS/MHE	BSC

Remaining Level of Effort Critical Remaining Work
 Actual Work Milestone
 Remaining Work Summary

Programme following Mediation

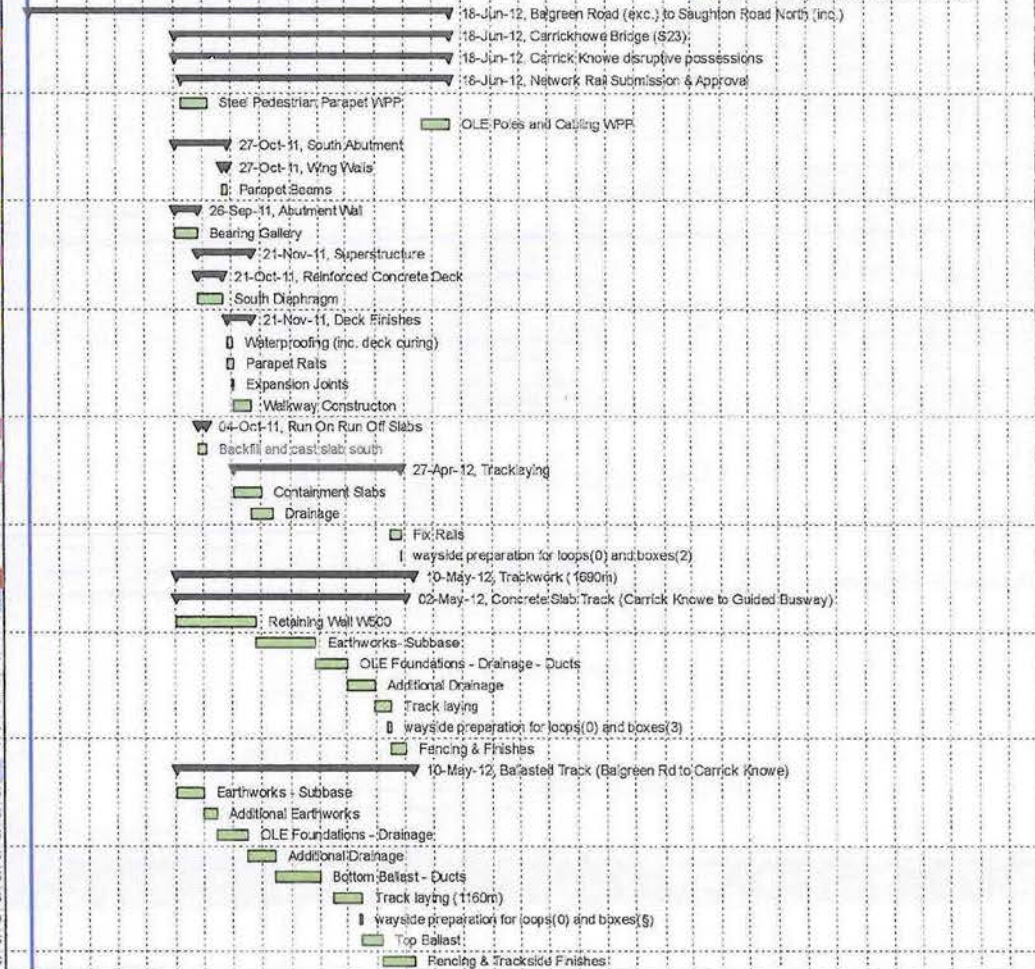
on 8 - 12 March 2011 (110331)

EDINBURGH TRAM NETWORK



31-Mar-11 16:44

Activity ID	Activity Name	Original Start	Start	Finish	BSA P101
5B-06/09-OHLE-60	Overhead Catenary Line -15 (52 1827 - 52 3273)	24	10-Jan-13	13-Feb-13	148
5B-10/11-TELC-60	Install Fibre Optic Cables MUS - BAL - SGT	12	05-Mar-13	21-Mar-13	73
Balgreen Road (exc.) to Saughton Road North (inc.)					
		300	31-Mar-11	18-Jun-12	363
Carrickknowe Bridge (S23)					
		192	02-Sep-11	18-Jun-12	235
Carrick Knowe disruptive possessions					
		192	02-Sep-11	18-Jun-12	235
Network Rail Submission & Approval					
		168	08-Sep-11	18-Jun-12	215
5B-10-S23-10(3)	Steel Pedestrian Parapet WPP	20	08-Sep-11	06-Oct-11	383
5B-10-S23-11(3)	OLE Poles and Cabling WPP	20	21-May-12	18-Jun-12	184
South Abutment					
		39	02-Sep-11	27-Oct-11	211
Wing Walls					
		4	21-Oct-11	27-Oct-11	211
5B-10-S23-76S	Parapet Beams	4	21-Oct-11	27-Oct-11	211
Abutment Wall					
		16	02-Sep-11	26-Sep-11	211
5B-10-S23-56S(3)	Bearing Gallery	16	02-Sep-11	26-Sep-11	211
Superstructure					
		40	26-Sep-11	21-Nov-11	371
Reinforced Concrete Deck					
		19	26-Sep-11	21-Oct-11	211
5B-10-S23-76S10	South Diaphragm	19	26-Sep-11	21-Oct-11	211
Deck Finishes					
		17	27-Oct-11	21-Nov-11	371
5B-10-S23-82	Waterproofing (inc. deck curing)	3	27-Oct-11*	01-Nov-11	211
5B-10-S23-81	Parapet Rails	5	27-Oct-11	03-Nov-11	383
5B-10-S23-80	Expansion Joints	2	01-Nov-11	03-Nov-11	211
5B-10-S23-83	Walkway Construction	12	03-Nov-11*	21-Nov-11	211
Run On Run Off Slabs					
		6	26-Sep-11	04-Oct-11	228
5B-10-S23-71	Backfill and cast slab south	6	26-Sep-11	04-Oct-11	228
Tracklaying					
		114	03-Nov-11	27-Apr-12	210
5B-10B-S23-84	Containment Slabs	20	03-Nov-11*	02-Dec-11	295
5B-10-S23-85	Drainage	15	21-Nov-11	13-Dec-11	288
5B-10B-TRCK-70	Fix Rails	9	16-Apr-12	27-Apr-12	210
5B-10C-SIGN-600	wayside preparation for loops(0) and boxes(2)	1	26-Apr-12	27-Apr-12	210
Trackwork (1690m)					
		161	02-Sep-11	10-May-12	266
Concrete Slab Track (Carrick Knowe to Guided Busway)					
		60	02-Sep-11	25-Nov-11	207
5B-10C-TRCK-30	Earthworks - Subbase	34	25-Nov-11	27-Jan-12	207
5B-10C-TRCK-40	OLE Foundations - Drainage - Ducts	24	27-Jan-12	01-Mar-12	207
5B-10C-TRCK-41(3)	Additional Drainage	21	01-Mar-12	30-Mar-12	207
5B-10C-TRCK-70	Track laying (1160m)	10	30-Mar-12	16-Apr-12	207
5B-10C-SIGN-60	wayside preparation for loops(0) and boxes(3)	2	12-Apr-12	16-Apr-12	278
5B-10C-TRCK-80	Fencing & Finishes	12	16-Apr-12	02-May-12	207
Ballasted Track (Balgreen Rd to Carrick Knowe)					
		168	02-Sep-11	10-May-12	271
5B-10A-TRCK-30	Earthworks - Subbase	20	02-Sep-11	30-Sep-11	156
5B-10A-TRCK-31(3)	Additional Earthworks	10	30-Sep-11	14-Oct-11	156
5B-10A-TRCK-50	OLE Foundations - Drainage	23	14-Oct-11	16-Nov-11	156
5B-10A-TRCK-60	Additional Drainage	20	16-Nov-11	15-Dec-11	156
5B-10A-TRCK-40	Bottom Ballast - Ducts	23	15-Dec-11	31-Jan-12	156
5B-10A-TRCK-70	Track laying (1160m)	22	14-Feb-12	15-Mar-12	156
5B-10A-SIGN-60	wayside preparation for loops(0) and boxes(5)	2	13-Mar-12	15-Mar-12	309
5B-10A-TRCK-78	Top Ballast	15	15-Mar-12	05-Apr-12	156
5B-10A-TRCK-80	Fencing & Trackside Finishes	23	05-Apr-12	10-May-12	166



Date	Revision	Checked	Approved
17-Mar-11	Revision 0	SCS/MHE	BSC
21-Mar-11	Revision 1	SCS/MHE	BSC
31-Mar-11	Revision 2	SCS/MHE	BSC

- Remaining Level of Effort
- Actual Work
- Critical Remaining Work
- Milestone
- Summary

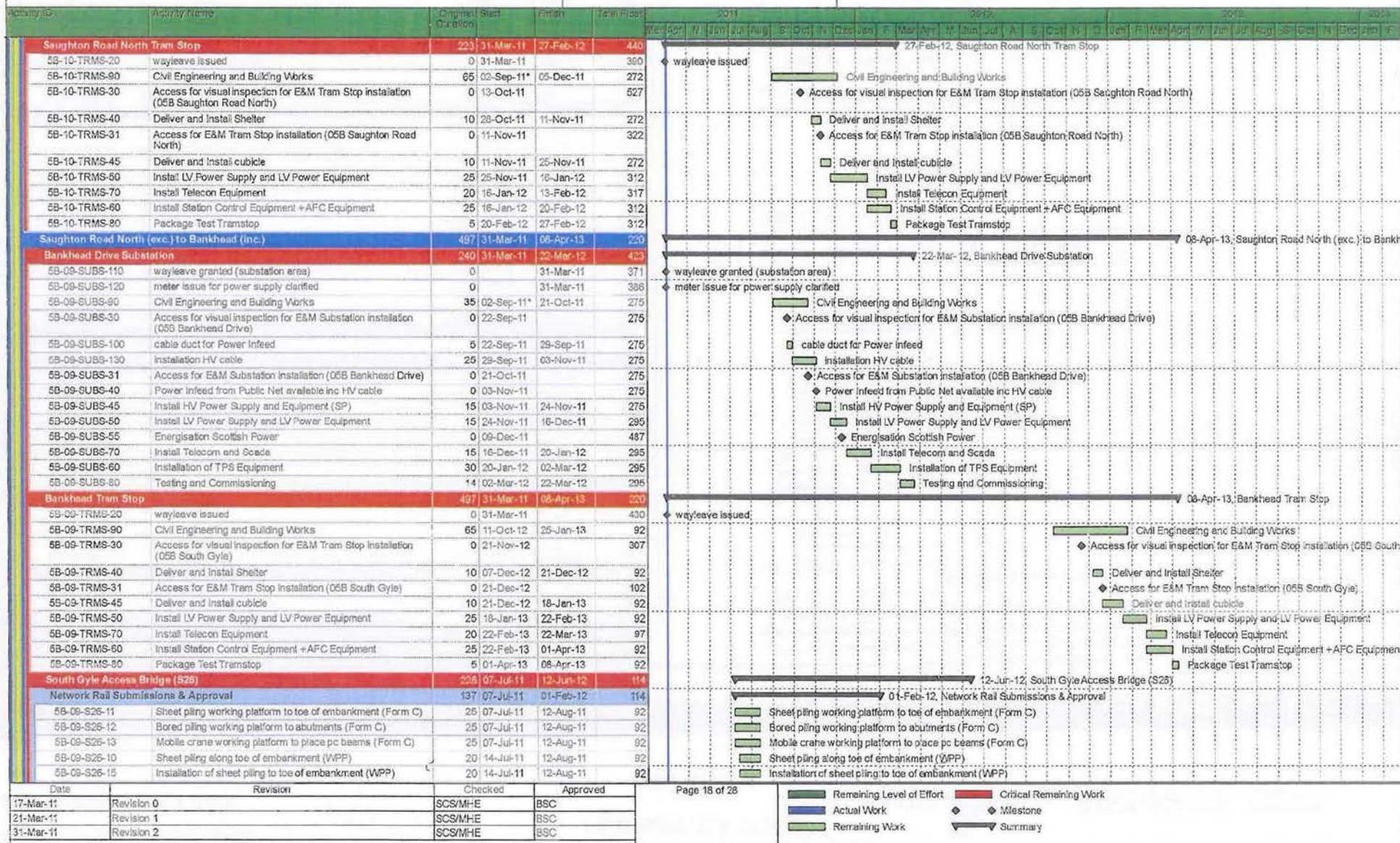
WED00000134_0094

Programme following Mediation
on 8 - 12 March 2011 (110331)

EDINBURGH TRAM NETWORK



31-Mar-11 16:41



Date	Revision	Checked	Approved
17-Mar-11	Revision 0	SCS/MHE	BSC
21-Mar-11	Revision 1	SCS/MHE	BSC
31-Mar-11	Revision 2	SCS/MHE	BSC

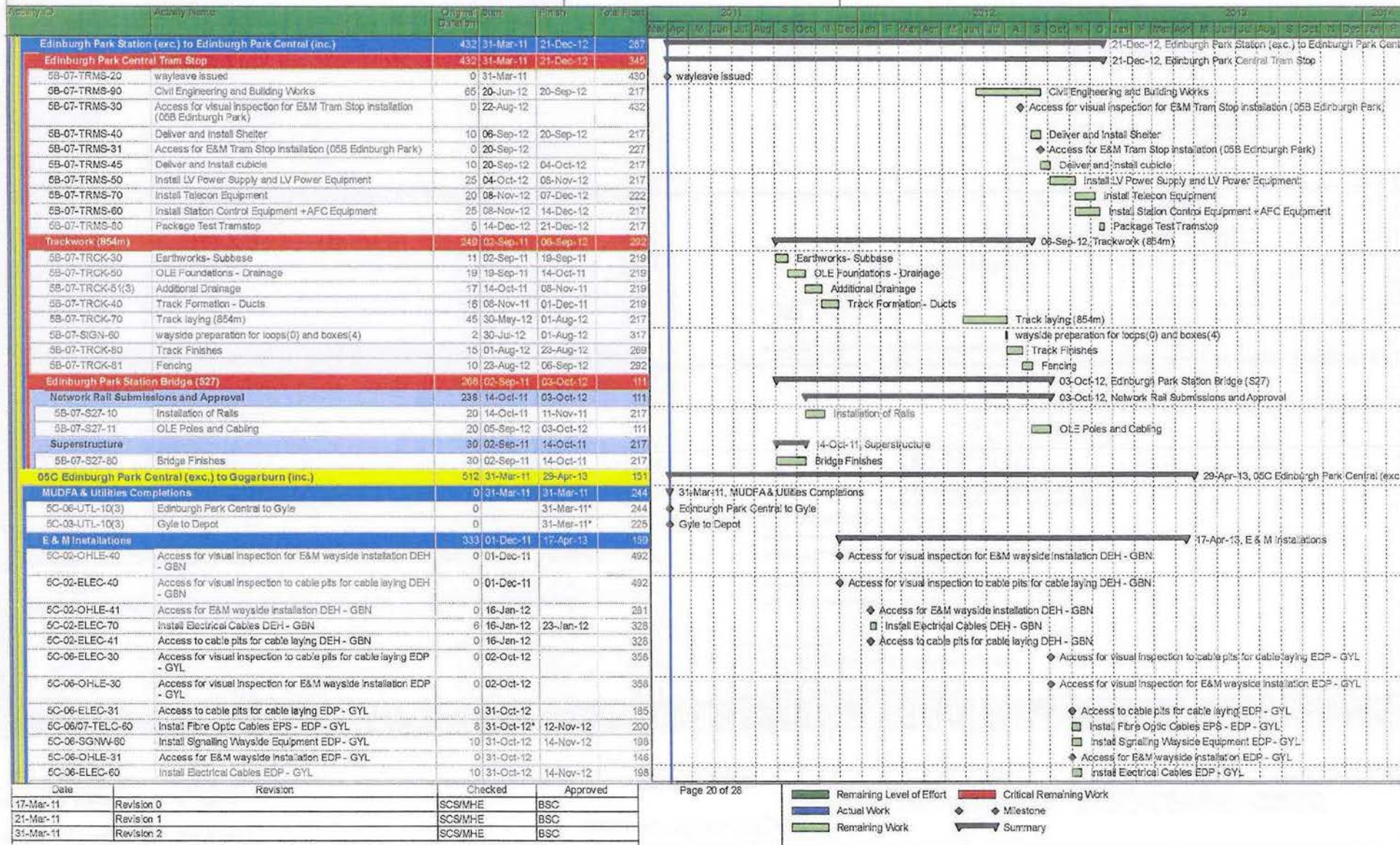
Page 18 of 28

- ▨ Remaining Level of Effort
- ▨ Actual Work
- ▨ Remaining Work
- ♦ Milestone
- ▾ Summary
- ▨ Critical Remaining Work

WED00000134_0095

**Programme following Mediation
on 8 - 12 March 2011 (110331)**

**EDINBURGH TRAM
NETWORK**



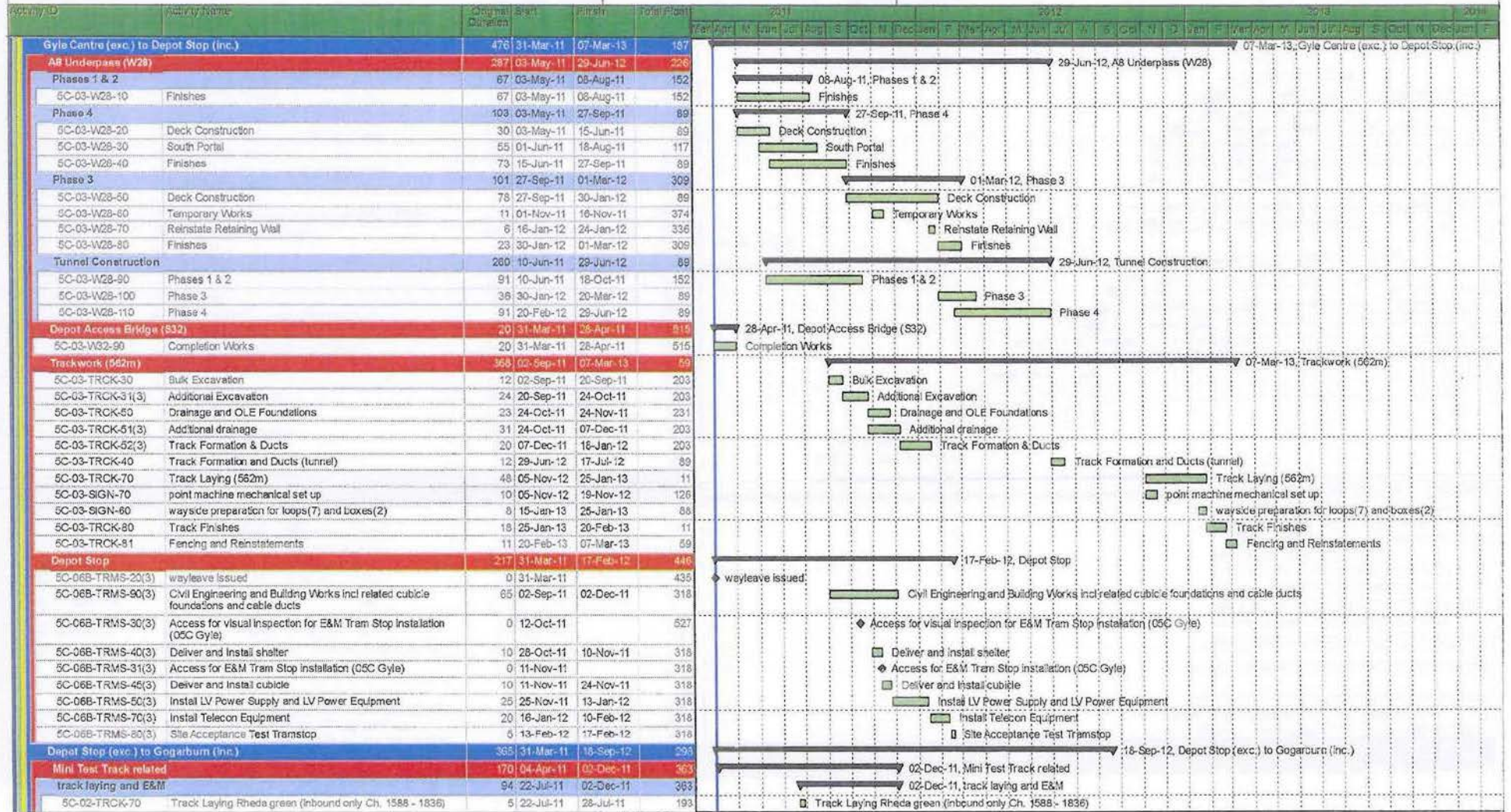
WED00000134_0097

Programme following Mediation
on 8 - 12 March 2011 (110331)

EDINBURGH TRAM NETWORK



31-Mar-11 16:4



Date	Revision	Checked	Approved
17-Mar-11	Revision 0	SCS/MHE	BSC
21-Mar-11	Revision 1	SCS/MHE	BSC
31-Mar-11	Revision 2	SCS/MHE	BSC

Remaining Level of Effort	Critical Remaining Work
Actual Work	Milestone
Remaining Work	Summary

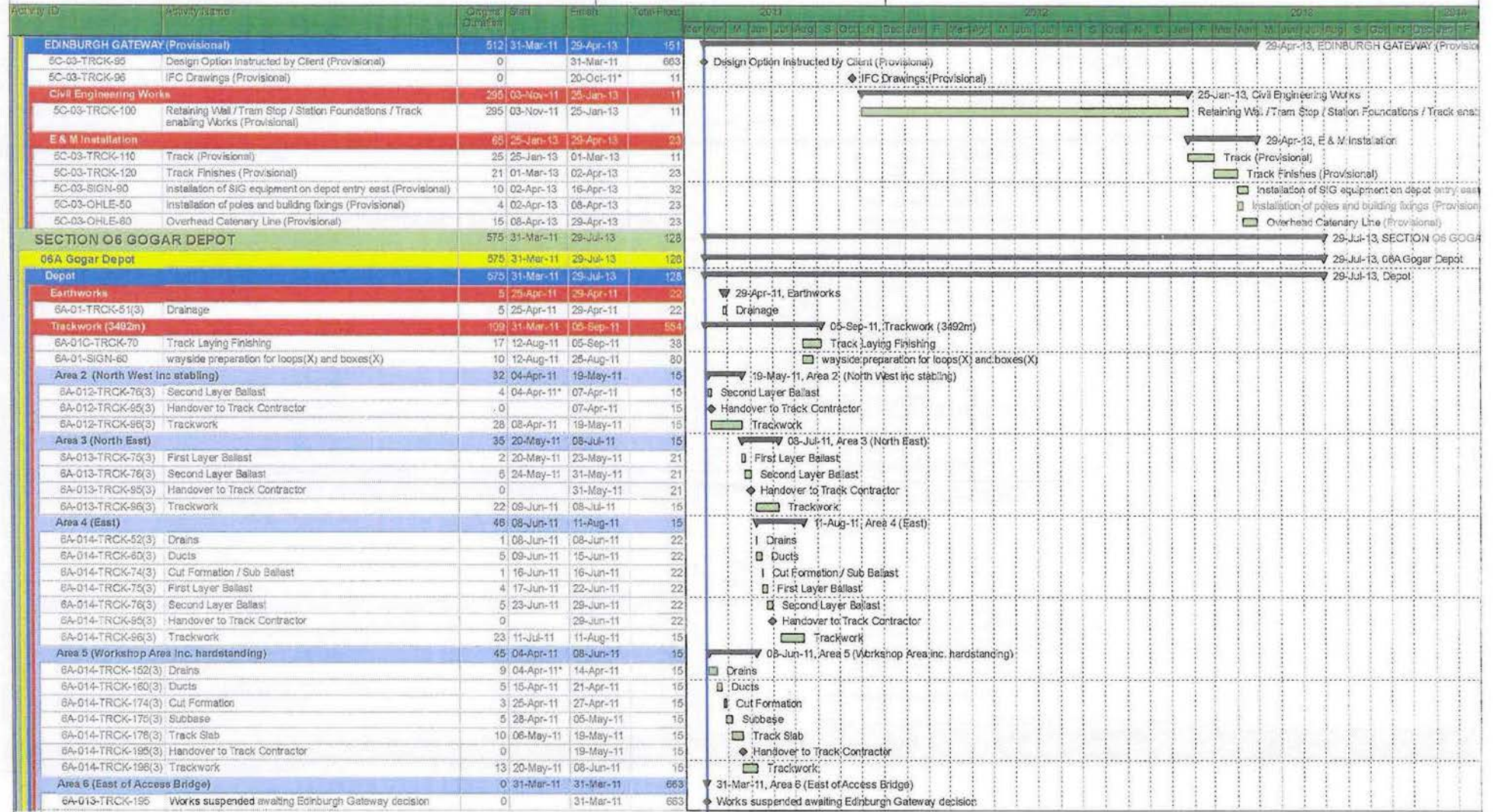
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Programme following Mediation
on 8 - 12 March 2011 (110331)

EDINBURGH TRAM NETWORK



31-Mar-11 16:41



Date	Revision	Checked	Approved
17-Mar-11	Revision 0	SCS/MHE	BSC
21-Mar-11	Revision 1	SCS/MHE	BSC
31-Mar-11	Revision 2	SCS/MHE	BSC

Remaining Level of Effort	Critical Remaining Work
Actual Work	Milestone
Remaining Work	Summary

WED00000134_0101

Programme following Mediation

on 8 - 12 March 2011 (110331)

EDINBURGH TRAM NETWORK



31-Mar-11 16:41

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2011												2012											
						Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Depot Building						<p>18-Oct-11, Depot Building</p> <p>20-Sep-11, E & M Workshop Equipment Installation</p> <p>18-Oct-11, Inspection & Handover</p> <p>05-Jul-11, Access Roads</p> <p>16-Dec-11, E & M Installations</p> <p>29-Jul-13, Operation Control Center</p>																							
E & M Workshop Equipment Installation						<p>18-Oct-11, Depot Building</p> <p>20-Sep-11, E & M Workshop Equipment Installation</p> <p>18-Oct-11, Inspection & Handover</p>																							
Access Roads						<p>05-Jul-11, Access Roads</p> <p>16-Dec-11, E & M Installations</p>																							
E & M Installations						<p>16-Dec-11, E & M Installations</p> <p>07-Nov-12, E & M Installations</p>																							
SECTION 07 GOGAR TO EDINBURGH AIRPORT						<p>16-Jan-13, SECTION 07 GOGAR TO EDINBURGH AIRPORT</p>																							
07A Gogarburn (exc.) to Edinburgh Airport (Inc.)						<p>07-Nov-12, E & M Installations</p>																							
E & M Installations						<p>07-Nov-12, E & M Installations</p>																							

Date	Revision	Checked	Approved
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21-Mar-11	Revision 1	SCS/MHE	BSC
31-Mar-11	Revision 2	SCS/MHE	BSC

█ Remaining Level of Effort █ Critical Remaining Work
█ Actual Work ◆ Milestone
█ Remaining Work ▼ Summary

WED00000134_0102