

Edinburgh Tram Network

SDS Progress Report -

Period 21

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1 TOP ISSUES

1. Acceleration of Design Completion
2. Receipt of outstanding information to complete design
3. Revised Forth Ports Agreement
4. Instructions for Mandatory Project Changes
5. Resolution to Outstanding SDS Changes
6. Priority List for CEC Reviews Extended Construction Support Resourcing for **tie**
7. Picardy Place
8. Traffic Modelling
9. Audits
10. New CEC comments on previously agreed Non-Standard Signs package
11. The Letter Instruction with agreed Organisation charts is outstanding for Extended Design and Construction Support for this period.
12. Crawley Tunnel Design
13. CAF DKE run

2 COMMERCIAL

2.1 General

This report covers Period 11th October 09 to 07th November 09. The progress is detailed for the time period of 11th October 09 to 21st October '09, during which actual events occurred. There are several critical issues outstanding on the project. These are presented per the drawings in Appendix A.

SDS has submitted a proposal at BSC's request to provide additional staff to accelerate a large portion of the design to an earlier than currently programmed submission date.

The Letter Instruction with agreed Organisation charts is outstanding for Extended Design and Construction Support for this period. It is important for all parties that these instructions are issued in a timely manner.

2.1.1 Applications for Payment

SDS, BSC and **tie** have had 2 meetings this period, and have another one next week to go through the historical differences on the Extended Construction and Design Support. This will hopefully conclude with all parties agreeing a way forward of validating the application for payment in an agreed and timely manner.

SDS met with BSC and **tie** related to the ongoing Extended Construction Support (ECS) function, and the possibility of reducing the current percentage ECS for a time period (possibly for a quarterly period in lieu of a month to month review) and having agreed percentages of time to be paid without the requirement for supporting timesheets. This is ongoing.

2.1.2 Change Control

Approximately £2.5 million worth of Change Instruction has been instructed to SDS to date. This is a progression in terms of the change process, and SDS is keen to work on this success to 'unlock' other outstanding changes, and to make the process more efficient for further changes.

SDS, BSC and **tie** met on the 12th August '09 to discuss the 'Pre Novation' changes, and as an outcome of this meeting SDS have withdrawn 4no. changes. **tie** are due to reply to the other 2 changes, to confirm if they can be instructed.

2.1.3 ATR's

There is still outstanding payment on ATR's which BSC and SDS need to resolve this period – Kate Shudall and John Higgins to resolve in a meeting on Wednesday 28th October.

2.2 Summary of Changes

- Changes Identified; - 220
- Change Notification Received; - 146
- Change Estimates Submitted; - 119
- Changes Withdrawn/Closed; - 50
- Change Instructions Received; - 75

2.3 Programme

Version 51 of the SDS programme was provided to BSC at the end of Period 20. Next update will be at end of Period 21.

SDS has been working on an accelerated programme to improve on the dates identified in V50. This proposal includes an estimation of the requirements for all not yet instructed works, which has a significant impact on the overall closure date for the design elements. This proposal has been discussed several times is under consideration by BSC.

3 APPROVALS

3.1 General

SDS is closing in on obtaining the final planning and technical approvals required. There has been a recent increase in the number of approvals required due to new instructions received, and as such, the percentages may indicate lower than last period.

From a total of 230 planning and technical approvals:

- 88% are approved (202).
- 8% are pending approval (19).

- 4% are to be submitted (9).

Current status (today) is:

92% Planning Approvals granted.

84% Technical Approvals granted.

The remaining outstanding approvals are either: 1) to be approved imminently, 2) have been subject to re-prioritisation and long standing changes, or 3) are new with recent changes instructed which has caused the original dates to slide significantly.

To get to 100%, we need to unblock/overcome key obstacles:

- Commercial - Gogarburn tram stop Prior Approvals.
- Roads Approvals and Prioritisation – Section 1C2 and the entirety of Section 3 need to be reviewed and approved by CEC. SDS understands that this is being completed in line with a prioritisation list.
- Resolution of redesign issues arising in Section 7.
- Instruct additional changes which require new approvals.

The CEC/tie/BSC/SDS Approvals Task Force continues to meet every other week and is proving to be a productive catalyst for troubleshooting any Approval issues and clearly identifying actions for the group to resolve. CEC have issued a letter to SDS on 18 September 09 outlining several changes.

Various changes being instructed as part of the approvals process will also require updates to the planning approvals. These items will be included in this report upon receipt of the formal instructions. Variations to the planning approvals due to technical comments / Siemens designs are not included. SDS has been advised that Siemens are undertaking their own approvals regime. Alignment of planning drawings with technical comments is subject to final confirmation of the technical closeouts from CEC.

The Approvals Look Ahead and Approvals Trackers are emailed to BSC (Stefan Rotthaus) on a weekly basis.

3.2 Systemwide

- Scottish Water Approval/Consents. Formal process now agreed and SDS has received the majority of the formal approvals.

3.3 Section 1

3.3.1 Outstanding – Planning

- None

3.3.2 Outstanding - Technical

- 1C2, Roads with CEC. Being held due to prioritisation and CEC issues with modelling.
- 1C1 Drainage with designers awaiting confirmation of design.

- 1A3 SW Approvals submitted.
- 1A Forth Ports Drainage – advised by CEC that this is a required approval. Instruction required, as the roads were to be adopted by CEC at onset of contract per original Forth Ports agreement. Estimate provided to BSC for this new work.

3.3.3 Subsection 1A1 – Dock Gates to Foot of the Walk

a) Roads, Street Lighting, Landscaping, Drainage 1A1

- IFC already issued.
- Change due to new demarcation request by CEC required.
- Closeout Report issued to CEC.

b) Tram Stop – Bernard Street (Ch 102+240)

- IFC already issued.

c) Tram Stop – Foot of the Walk (Ch102+700)

- IFC already issued.

3.3.4 Subsection 1A2 – Victoria Docks Entrance Bridge to Dock Gates

a) Roads, Street Lighting, Landscaping, and Drainage

- IFC already issued.
- Change due to new demarcation request by CEC required.
- Closeout Report issued to CEC.

b) Tram Stop – Port of Leith (Ch 101+780)

- IFC already issued.

c) Victoria Dock Entrance Bridge – S16 (Ch 101+370)

- IFC already issued.

d) Tower Place Bridge - S17 (Ch101+470)

- IFC already issued.

3.3.5 Subsection 1A3– Ocean Terminal to Victoria Docks Entrance Bridge

a) Roads, Track, Street Lighting and Landscaping

- Forth Ports - Final agreement between CEC and Forth Ports on the proposed bypass road (Road 8) pending.
- SDS has requested copy of agreement with Scottish Government and designs for the movement of the access gate to the Scottish Government complex with Forth Port has

indicated is being completed. SDS has completed review and assessment of required gate move in line with request by BSC and ATR approved.

- SDS has previously issued drawing under ATR showing the relocated gate position.

b) Drainage – Subsection 1A3 – Ocean Terminal to Port of Leith

- Approved by CEC. Comments being addressed.
- Forth Ports approval awaiting instruction.

c) Tram Stop – Ocean Terminal (Ch 100+950)

- Approved by CEC. Comments being addressed.

3.3.6 Subsection 1A4

a) Roads, Track, Street Lightning and Landscaping – Subsection 1A4 – Newhaven to Ocean Terminal

- IFC already issued (without pending changes noted below).
- Change due to new demarcation request by CEC required.
- New change due to new cycleway connection outside LOD requested by CEC – revised estimate provided.
- New change due to traffic signal modification outside LOD requested by CEC – instruction received.
- New change due to CEC request for connection of high and low level at Lindsay Road Retaining Wall. Instruction awaited.
- Closeout report issued to CEC (not including new changes noted above). CEC letter of 18 September 09 indicates refusal to confirm closeout without new changes being incorporated.

b) Drainage – Subsection 1A4 Newhaven to Ocean Terminal

- Prior Approval granted.
- Forth Ports have completed construction of a new substation and access drive through this area. No as-built information available. DCR0111 has been instructed and survey procured. SDS has formally advised of issues arising from new as-built condition by Forth Ports. Change order required.

c) Tram Stop – Newhaven (Ch 100+080)

- IFC already issued.

d) Lindsay Road Retaining Wall – W1 (Ch 100+170)

- IFC already issued.
- New change due to CEC request for connection of high and low level at Lindsay Road Retaining Wall. Change order required.

e) Substation – Leith Sands – SS16 (Ch 100+570)

- New change due to Forth Ports having completed construction of a new substation and access drive through this area. No as-built information available. Survey has indicated that Forth Ports have not constructed their infrastructure in location originally provided to SDS. SDS has advised of issues arising from new as-built condition by Forth Ports. Change order required.

3.3.7 Subsection 1B

a) Roads, Track, Drainage, Street Lighting, Landscaping, and Drainage – Subsection 1B

- IFC already issued.
- Change due to new demarcation request by CEC required
- Closeout Report Issued to CEC. Acceptance received with comments.

b) Tram Stop – Balfour Street (Ch 110+670)

- IFC already issued.

c) Substation – Leith Walk – SS11 (Ch110+380)

- IFC already issued.

3.3.8 Subsection 1C1 – Section 1B to north of Annadale Street

a) Roads, Track, Street Lightning, Landscaping, and Drainage – Subsection 1C1 – London Road

- IFC already issued.
- SW approved drainage via email. Design to be submitted to Business Stream and Scottish Water for formal approval with 1C2 due to interrelationship.
- Closeout Report issued to CEC.

b) Tram Stop – McDonald Road (Ch110+670)

- IFC already issued.
- Revised IFC issued reflecting shift in Tramstop due to levels issues arising.

3.3.9 Subsection 1C2 – North of Annadale Street to Broughton Street

a) Roads, Track, Street Lighting and Landscaping – Subsection 1C2 – London Road to Picardy Place

- TAA submittal with CEC for approval. SDS submitted supplemental information based on initial comments received from CEC via letter.
- Prior Approval granted.
- SW approved drainage via email. Design to be submitted to Business Stream and Scottish Water for formal approval with 1C1 due to interrelationship.

- Change due to works outside LOD on Little King Street to be undertaken. Field visit identified issued with instruction provided to reverse direction of street. SDS provided email to CEC outlining issues and proposal. CEC response required to confirm.
- Potential change due to developer request. Estimate submitted.
- Potential change due to CEC revised requirements. Letter received from CEC on 18 September 09 indicating changes required to the area. Change order required.

b) Substation – Cathedral Lane – SS12 (Ch120+400)

- Building Warrant granted.
- Full planning permission granted.
- IFC Issued.
- Change due to developer request to be completed. Estimate provided.

c) Tram Stop – Picardy Place (Ch120+600)

- TAA submittal with CEC for approval. Initial informal comments from CEC on submittal addressed
- Prior Approval granted.

3.3.10 Subsection 1C3 – Broughton Street to Section 1D

a) Roads, Track, Street Lighting and Landscaping – Subsection 1C3 – York Place

- IFC already issued.
- Closeout report issued to CEC. Acceptance received with comments.
- Letter received from CEC on 18 September 09 indicating changes required to the Elder Street junction and removal of bus lane along York Place. Change order required.

b) Tram Stop – Princes Street (Ch121+950)

- IFC already issued.

c) Tram Stop – St Andrew Square (Ch121+150)

- IFC already issued.

3.3.11 Subsection 1D

a) Roads, Track, Drainage, Street Lighting and Landscaping – Subsection 1D

- IFC already issued.
- Closeout Report issued to CEC. Acceptance received with comments.
- CEC have indicated the potential that they may wish to change the concept at Torphichen Street. Clarification required and instruction as appropriate required.

b) Tram Stop – Shandwick Place (Ch130+710)

- IFC already issued.

3.4 Section 2

3.4.1 Subsection 2A

a) Roads, Track, Street Lighting and Landscaping – Subsection 2A

- IFC already issued.
- Closeout Report issued to CEC.
- Revised street lighting Issued for Construction which deals with agreed Operational Design Review comment.
- Revised design for Phase 1A/1B separation underway. Revised approvals required.

b) Drainage

- IFC already issued.

c) Substation – Russell Road – SS03 (Ch 200+790)

- IFC already issued

d) Russell Road Bridge – S20 (Ch 200+770)

- IFC already issued

e) Substation – Haymarket – SS02 (Ch 200+070)

- Prior Approval granted and Siemens now to complete the design and issue the IFC.

f) Tram Stop – Haymarket (Ch 200+070)

- IFC already issued.
- Revised design issued to CEC to deal with comments received on bus and tram shelter location and integration. Revised IFC issued.

g) Haymarket Station Viaduct – S19 (Ch 200+020)

- IFC already issued

h) Verity House Access road retaining wall

- IFC already issued.

i) Crew Relief Facility

- Building Warrant granted.
- IFC issued.

3.5 Section 3

3.5.1 Outstanding – Planning: None

3.5.2 Outstanding - Technical:

- All 6 technical approvals that are with CEC for consideration are currently on hold due to the agreed prioritisation list between **tie** and CEC. SDS is in delay with respect to these items.
- Drainage information submitted to Scottish Water (SW).

3.5.3 Subsection 3A

a) Roads, Track, Street Lighting and Landscaping – Subsection 3A

- Prior Approval achieved.
- Roads, Drainage and Street Lighting IFC is outstanding as TAA comments are outstanding. Section 3 has been de-prioritised by CEC therefore it is not know at present when comments are likely to be received. Letter sent to BSC 08 July 2008. **tie** responded 07 August 2008 (SDS received 27 August 2008) accepting there has been delay to IFC. **tie** stated expected IFC submission 09 August 2008, which was not achieved. The de-prioritisation is apparently as **tie** to CEC agreement. SDS awaits approval and any comments.

b) Drainage

- Submittal with SW for approval.
- Section 3 has been de-prioritised by CEC therefore it is not know at present when comments are likely to be received. Letter sent to BSC 08 July 2008. **tie** responded 07 August 2008 (SDS received 27 August 2008) accepting there has been delay to IFC. **tie** stated expected IFC submission 09 August 2008, which was not achieved. The de-prioritisation is apparently as **tie** to CEC agreement. SDS awaits approval and any comments.

c) Tram Stop – Crewe Toll for Western General (Ch 303+010)

- IFC already issued.

d) Roseburn Corridor Retaining Structure H (Ch 302+600) (Ch 303+030)

- IFC already issued.

e) Tram Stop – Telford Road (Ch 302+604)

- IFC already issued.

f) Roseburn Corridor Retaining Structure G (Ch 302+300) (Ch 302+600)

- IFC already issued.

g) Telford Road Bridge – S10 (Ch 302+220)

- IFC already issued.

- h) Groathill Road South Bridge – S09 (Ch 302+010)
 - IFC already issued.
- i) Substation – Craigleith – SS13 (Ch 301+960)
 - Prior Approval granted and Siemens now to complete the design and issue the IFC.
- j) Roseburn Corridor Retaining Structure F (Ch301+900) (Ch 302+300)
 - IFC already issued.
- k) Tram Stop – Craigleith (Ch 301+860)
 - IFC already issued.
- l) Queensferry Road Bridge – S07 (Ch 301+700)
 - IFC already issued.
- m) Holiday Inn Access Bridge – S07 (Ch 301+630)
 - IFC already issued.
- n) Roseburn Corridor Retaining Structure E (Ch 301+600) (Ch 301+900)
 - IFC already issued.
- o) Craigleith Drive Bridge – S06 (Ch 301+320)
 - IFC already issued.
- p) Roseburn Corridor Retaining Structure D (Ch 301+200) (Ch 301+600)
 - IFC already issued.
- q) Ravelston Dykes Bridge – S05 (Ch 300+960)
 - IFC already issued.
- r) Roseburn Corridor Retaining Structure C (Ch 300+900) (Ch 301+200)
 - IFC already issued.
- s) Tram Stop – Ravelston (Ch 300+860)
 - IFC already issued.
- t) St George's School Footbridge – S04 (Ch 300+650)
 - IFC already issued.
- u) St George's School Access Bridge – S03 (300+640)
 - IFC already issued.

- v) Roseburn Corridor Retaining Structure B (Ch 300+500) (Ch 300+900)
 - IFC already issued.
- w) Coltbridge Viaduct – S02 (Ch 300+470)
 - IFC already issued.
- x) Tram Stop – Roseburn (Ch 300+260)
 - IFC already issued.
- y) Roseburn Terrace Bridge – S01 (Ch 300+210)
 - IFC already issued.
- z) Roseburn Corridor Retaining Structure A (Ch 300+200) (Ch 300+500)
 - IFC already issued.

3.5.4 Subsection 3B

- a) Roads, Track, Street Lighting and landscaping – Subsection 3B
 - Roads, Drainage and Street Lighting IFC is outstanding as TAA comments are outstanding. Section 3 has been de-prioritised by CEC therefore it is not know at present when comments are likely to be received. Letter sent to BSC 08 July 2008. **tie** responded 07 August 2008 (SDS received 27 August 2008) accepting there has been delay to IFC. **tie** stated expected IFC submission 09 August 208, which was not achieved. The de-prioritisation is apparently as **tie** to CEC agreement. SDS awaits approval and any comments.
- b) Drainage – Subsection 3B
 - Submittal with SW for approval.
 - Section 3 has been de-prioritised by CEC therefore it is not know at present when comments are likely to be received. Letter sent to BSC 08 July 2008. **tie** responded 07 August 2008 (SDS received 27 August 2008) accepting there has been delay to IFC. **tie** stated expected IFC submission 09 August 208, which was not achieved. The de-prioritisation is apparently as **tie** to CEC agreement. SDS awaits approval and any comments.
- c) Tram Stop – Caroline Park (Ch 311+310)
 - IFC already issued.

- d) Substation – Granton Mains East – SS14 (Ch 310+950)
 - Prior Approval granted and Siemens now to complete the design and issue the IFC.
- e) Tram Stop – West Pilton (Ch 310+670)
 - IFC already issued.
- f) Crewe Road Gardens Bridge – S12 (Ch 310+390)
 - IFC already issued.

3.5.5 Subsection 3C

- a) Roads, Track, Street Lighting and Landscaping – Subsection 3C
 - Roads, Drainage and Street Lighting IFC is outstanding as TAA comments are outstanding. Section 3 has been deprioritised by CEC therefore it is not know at present when comments are likely to be received. Letter sent to BSC 08 July 2008. **tie** responded 07 August 2008 (SDS received 27 August 2008) accepting there has been delay to IFC. **tie** stated expected IFC submission 09 August 2008, which was not achieved. The deprioritisation is as **tie** to CEC agreement. SDS awaits approval and any comments.
- b) Drainage – Subsection 3C
 - Submittal with SW for approval.
 - Section 3 has been de-prioritised by CEC therefore it is not know at present when comments are likely to be received. Letter sent to BSC 08 July 2008. **tie** responded 07 August 2008 (SDS received 27 August 2008) accepting there has been delay to IFC. **tie** stated expected IFC submission 09 August 2008, which was not achieved. The de-prioritisation is apparently as **tie** to CEC agreement. SDS awaits approval and any comments.
- c) Tram Stop – Saltire Square (Ch 320+370)
 - IFC already issued.
- d) Tram Stop – Granton (Ch 321+120)
 - IFC already issued.
- e) Substation – Granton Road – SS15 (Ch 400+020)
 - Prior Approval granted and Siemens now to complete the design and issue the IFC.

3.6 Section 5

3.6.1 Outstanding - Planning:

Approvals:

- 5/07a – Murrayfield Turnstiles and Accommodation Works (Full Planning Permission).change order has been received. Design was on hold for a period of time, however is now underway.

- 5/07d – Murrayfield Accommodation Works (Advertising Consent). Change order has been received. Consultation with CEC underway.
- 5/23 – Roseburn Street Bridge – new prior approval required to accommodate change in design. Informal consultation underway, Prior Approval to be submitted immanently.
- 5/24 – Gogar Interchange. SDS is preparing this new design in accordance with the Network Rail guidance and letter received from CEC. BSC have advised that this design should be completed in line with current design in the area (i.e. no instruction to construct a revised design). SDS has formally written to BSC to confirm.
- 5/30 - Tram Stop Gogarburn. SDS awaiting Change Order. **tie** has indicated in recent Approvals Task Force meeting that this stop may now revert to a standard tram stop.

Building Warrants:

- 5/05c - JB McLean – submitted, pending consideration. Additional comments received from CEC. SDS and BSC preparing required information to address CEC comments and resubmit. Extension of time requested formally by CEC to deal with this application.
- 5/07c – Murrayfield Accommodation Works. Change order has been received. Consultation underway.
- Potential demolition warrants required at properties 96 and 101. Instruction required for SDS to progress.

3.6.2 Outstanding - Technical:

- Balgreen Road Network Rail Access Bridge with CEC and Network Rail for approval. Network Rail has initially rejected the design requesting reduced clearance over roadway. SDS has responded to the comments and Network Rail is currently reconsidering the position based on the further clarification / information provided. Meeting held 01 July 09 to resolve issues raised. Confirmation of acceptance of proposal agreed in principle by CEC and NWR at above meeting is required. SDS has submitted revised design to CEC and NWR. CEC comments received. SDS pursuing NWR to finalise approval.
- Revised Roseburn Street Bridge and retaining structures – instruction has been issued and designs have been issued to CEC for review and approval.

3.6.3 Subsection 5A

a) Roads, Track, Street Lighting and Landscaping – Subsection 5A

- IFC already issued.
- Closeout Report issued to CEC.

b) Drainage – Subsection 5A

- IFC already issued.

c) Balgreen Road Tram Bridge – S22 (Ch 511+400)

- IFC already issued

d) Balgreen Road Network Rail Access Bridge (Ch 511+410)

- Design issued to Network Rail and CEC.

- Minor comments received from CEC via email. SDS has addressed
 - Network Rail has initially rejected the design requesting reduced clearance over roadway. SDS has responded to the comments and Network Rail is currently reconsidering the position based on the further clarification / information provided. Meeting held 01 July 09 to resolve issues raised. Confirmation of acceptance of proposal agreed in principle by CEC and NWR at above meeting is required. SDS has submitted revised design to CEC and NWR. CEC comments received.
- e) Baird Drive Retaining Wall – W8 (Ch 511+190)
- IFC already issued
- f) Water of Leith Bridge – S21E (Ch 511+060)
- IFC already issued.
 - Revised IFC issued based on change instructed.
- g) Murrayfield Training Pitches Retaining Wall (Ch 510+870) (Ch 511-060)
- IFC already issued
- h) Murrayfield Stadium Underpass – S21C (Ch 510+860)
- IFC already issued
- i) Murrayfield Stadium retaining Wall – S21B (Ch 510+650) (Ch 510-870)
- IFC already issued
- j) Roseburn Street Bridge – S21A (Ch 510+580)
- Change Order Received.
 - New TAA required.
 - New Prior Approval required.
 - Design underway.
 - Several pieces of information were outstanding a number of weeks, as outlined in various correspondence between SDS, BSC, and tie. Design now progressing with information recently provided.
 - Bridge and retaining structures issued to CEC for technical approvals.
 - Informal consultation started with planning. Submittal of Prior Approval immanent.
- k) Murrayfield Tramstop Retaining Wall – W18 (Ch 510-450)
- Change Order received.
 - SDS progressing design.
- l) Tram Stop – Murrayfield (Ch 510-470)
- IFC issued.

m) Russell Road Retaining Wall 1 – W3 (Ch 510-200)

- IFC already issued.

n) Russell Road Retaining Wall 2 – W4 (Ch 510-150)

- IFC already issued

3.6.4 Subsection 5B

a) Roads, Track, Drainage, Street Lighting and Landscaping – Subsection 5B

- IFC already issued
- Closeout Report issued to CEC. Acceptance received with comments.

b) Drainage

- IFC already issued

c) Tram Stop – Edinburgh Park Central (Ch 524+530)

- IFC already issued

d) Edinburgh Park Station Bridge – S27 (Ch 524+010)

- IFC already issued

e) Tram Stop – Edinburgh Park Station (Ch 523+740)

- IFC already issued

f) Tram Stop – Bankhead (Ch 522+960)

- IFC already issued

g) Bankhead Drive Retaining Wall – W11 (Ch 522+800)

- IFC already issued

h) South Gyle Access Bridge – S26 (Ch 522+750)

- IFC already issued
- Pending change at South Gyle Access Bridge. Partial instruction received.
- SW has indicated that they have not previously accepted principle of instruction provided by **tie. tie** to confirm.
- Additional works are required based on tie selected alternative. SDS to identify in Preliminary Design report. Change order required for additional works.

i) Substation – Bankhead Drive – SS22 (Ch 522+580)

- Prior Approval already Granted, Siemens to complete the design and issue IFC.

- j) Tram Stop – Saughton (Ch 521+690)
 - IFC already issued
- k) Carrick Knowe Underbridge – S23 (Ch 521+030)
 - IFC already issued.
 - Revised IFCs issued based on various instructions provided.
- l) Substation – Jenners Depository (Balgreen) – SS21 (Ch 520+060)
 - Prior Approval already Granted, Siemens to complete the design and issue IFC.
- m) Tram Stop – Balgreen (Ch 520+050)
 - IFC already issued

3.6.5 Subsection 5C

- a) Roads, Track, Drainage, Street Lighting and Landscaping – Subsection 5C
 - IFC already issued
 - Closeout Report issued to CEC.
 - Instruction for upgrading of Lochside Avenue junction received. Updated TAA progressing. Awaiting CEC clarification on requirements.
- b) Drainage
 - IFC already issued
- c) Tram stop – Gogarburn (Ch 531+860)
 - On hold as instructed by tie awaiting RBS concept design / scope clarification.
- d) Depot Access bridge – S32 (Ch531+230)
 - IFC already issued.
- e) A8 Underpass – S28 (Ch 531+000)
 - IFC already issued.
- f) Tram Stop – Gyle Centre (Ch 530+770)
 - IFC already issued.
- g) Gyle Stop Retaining Wall – W19 (Ch 530+750)
 - IFC already issued.

3.7 Section 6

3.7.1 Outstanding - Technical:

- None

3.7.2 Subsection 6A

a) Roads, Street Lighting & Landscaping – Subsection 6 – Depot

- IFC already issued.
- Closeout report submitted to CEC.

b) Drainage – Subsection 6 – Depot

- Design received formal approval from SW.
- Revised IFC submitted.

c) Depot Earthworks

- IFC already issued.
- Revised IFC for South Batter design issued.
- Revised IFC for north batter design issued
- New drainage design for top of north embankment imminent.

d) Depot Internal Retaining Walls

- IFC already issued.
- On-going discussion between tie / BSC regarding use of soil nail slope.

e) Depot Ductwork – External Services

- IFC already issued.
- SDS progressing with revised design based on Siemens requirements provided.

f) Depot General Layout

- IFC already issued.

g) Depot Building Foundations

- IFC already issued.

h) Depot Main Building

- IFC already issued.

i) Ground Floor Slab and Pits

- IFC already issued.
- Revisions to IFC undertaken to account for Siemens design element details provided.

- j) Depot Building Steel Superstructure
 - IFC already issued.
 - Reviews of contractor drawings on-going.
- k) Track – Subsection 6 – Depot
 - IFC already issued.
- l) Depot Halt
 - IFC already issued.
- m) OLE in Depot
 - IFC already issued.
 - SDS received letter confirming Siemens pole layout. Foundation layout drawings to Siemens design being progressed.
- n) Substation – Gogar Depot – SS01
 - IFC already issued.

3.8 Section 7

3.8.1 Outstanding - Planning:

Approvals:

- 7/29a – Airport Kiosk (Full Planning Permission). Change order has been received.

Building Warrants:

- 7/29b – Airport Kiosk. Change order has been received.

3.8.2 Subsection 7A

a) Roads, Track, Drainage, Street Lighting and Landscaping

- IFC already issued
- Closeout Report issued to CEC.
- Revised earthworks and landscaping layout required due to topo issues arising and design update a Gogar. Amendment to Prior Approval required.
- Revised track vertical alignment issued.
- Revised earthworks and drainage design issued.
- Design progressing on earthworks solution at Gogar Landfill.

b) Species Mitigation Plan

- Issued as approved by SNH

- c) Tram Stop – Edinburgh Airport (Ch 712+560)
 - IFC Issued (less pending changes).
 - New change for Airport Kiosk received. Design progressing.
 - New change for interface with CCRC received. Design progressing.
 - New change for Airport Canopy received. Design progressing.
- d) Gogar Burn Retaining Wall Two – W14 (Ch 712+220) (Ch 712+570) –
 - IFC already issued.
 - Issue identified with burn migration. Change instruction required.
- e) Gogar Burn Retaining Wall One – W14 (Ch 712+100) (Ch 712+190)
 - IFC already issued
 - Issue identified with burn migration. Change instruction required.
- f) Gogarburn Culvert Three – S34 (Ch712+030)
 - IFC already issued
- g) Gogarburn Culvert Two – S31 (711+830)
 - IFC already issued
- h) Tram Stop – Ingliston Park & Ride (Ch 711+740)
 - IFC already issued
- i) Substation – Tram Eastfield Road (Ch 711-630)
 - Prior Approval granted. Siemens to issue IFC upon completion of their design.
- j) Gogarburn Culvert One – S30 (Ch 711+420)
 - IFC already issued
- k) Gogarburn Bridge – S29 (Ch 710+400)
 - IFC already issued

4 ISSUE FOR CONSTRUCTION PROGRESS SUMMARY

As of 17 October 2009, the Issue for Construction packages status is as follows:

From a total of 114 IFC Packages, 102 (90%) have been delivered.

The remaining packages outstanding are being finalised, and have been subject to changes and/or delays due to resolution of comments. It should be noted that several IFC drawings already submitted will require to be updated in line with the emerging changes.

5 UTILITIES

5.1 Utilities

5.1.1 Section 1A

- Section 1A (1-5) IFC drawings have been issued to **tie** (Excluding SW foul which has been Approved by SW with plate requiring further information) .
- Section 1A (6-10) IFC drawings have been issued to **tie**.
- Section 1A (11-12) IFC drawings have been issued to **tie**.
- Section 1A (13-20) IFC drawings have been issued to **tie**.
- Change Order issued to SDS for re-design of Baltic Street, tie/SDS held first design meeting at which tie highlighted that they require additional diversions to be design and that an additional change request would be submitted.

5.1.2 Section 1B

- IFC drawings have been issued to **tie**.
- The IDC has been carried out and issued to **tie** showing the conflicts between the Utilities IFC infrastructure design and the Approved infrastructure design.

5.1.3 Section 1C

- IFC drawings have been issued to **tie**
- 1C (Picardy Place) **tie** have requested that SDS compare the IFC design with the roads and track layout issued to CEC for approval, The IDC has been carried out and issued to **tie** showing the conflicts between the designs.
- The redesign of the Mound Gas design has been issued IFC.

5.1.4 Section 1D

- IFC drawings have been issued to **tie**.
- Haymarket Junction utilities redesign is complete and issued IFC.

5.1.5 Section 2A

- IFC drawings have been issued to **tie**

5.1.6 Section 5A

- IFC drawings have been issued to **tie** (except Scottish Water Sewers at Water of Leith)
- Water of Leith Sewer lining issued IFC to **tie**.
- Roseburn St Viaduct Change means that the utility diversions need to be reassessed in proximity to the new structure. Awaiting information from Network Rail/tie.

5.1.7 Section 5B

- IFC drawings have been issued to **tie**.

- All sewer design issued for IFC except at South Gyle Access, design approved by Scottish Water. tie have undertaken an external survey of the South Gyle Access Bridge conflicting sewer, SDS to produce design report.

5.1.8 Section 5C

- IFC drawings have been issued to tie.

5.1.9 Section 6A

- IFC drawings have been issued to tie.

5.1.10 Section 7A

- 7A was carried out under RATS, tie to supply XYZ coordinate as-builts for comparison to design and issue any required IFC's.

5.1.11 Section 7B (utilities only section)

- Design being carried out by others (not SDS scope)

6 ADDITIONAL CONSTRUCTION SUPPORT

6.1 TQs

- TQs received during the reporting period, refer to the Weekly Report Summaries and the TQ register referenced below.

Note TQ Register ULE90130-SW-MAT-00080 is provided to BSC on a weekly basis.

6.2 Month Ahead Org Chart and Activities

Proposed staffing for the upcoming month, based on anticipated construction activities from the BSC look-ahead programme is included as Appendix B.

Roads Construction Support Teams

- Support and attendance to section progress meetings
- Section 1C/1D (Princes Street)
 - a. Supervision and consideration of road and footway construction.
 - b. Monitoring of ongoing activities in line with ITP requirements
 - c. Supervision of ongoing formation testing.
 - d. Responding to on site and technical queries as required
 - e. Ensuring compliance with drainage designs
 - f. Ongoing monitoring of installation of ducting and drainage.
 - g. Monitoring and inspection of Tram Stop construction

- h. Monitoring of collection of data on voids and obstructions
- Section 1A
 - a. Responding to on site and technical queries as activity commences with BSC package contractor McKean.
 - b. Supporting Forth Ports applications and queries
 - c. Attending meetings as required

Geotechnical Construction Support Teams

- Section 1C/1D
 - a. Assistance with formation testing for trackform ground improvement layer and OLE foundations and road construction.
- Section 6
 - a. Depot remediation works design
 - b. Ongoing technical support to construction team through Technical Queries
 - c. Attendance at client and package contractor progress meetings
 - d. Monitoring of ongoing activities in line with ITP requirements
 - e. Formation inspection for depot foundations
 - f. Slope inspections
- Section 7
 - a. Ongoing investigations and verifications of ground conditions in line with Farrans programme of works
 - b. Ongoing technical support to construction team through technical queries
 - c. Attendance at client and package contractor progress meetings as required
 - d. Monitoring of activities in line with ITP requirements
 - e. Design support for remediation works at OGL error area
- Section 5
 - a. Inspection and witness of OLE base locations
 - b. Inspection and witness of formations
 - c. Ongoing technical support to construction team through technical queries
 - d. Review and check suitability of arising for use in make up

- e. Monitoring of the placement of material
- f. Monitoring of activities in line with ITP requirements
- g. Support at Audit

Civil and Structural teams

- a. Ongoing review of Construction programmes to ensure appropriate supervision of construction activities and ITP requirements.
 - b. Review & contribution to developing ITP plans.
 - c. Attendance at development workshops as required.
 - d. Monitor and manage TQ's in and out
 - e. Manage and provide detail for design changes as a result of site queries
- Section 1C/1D
 - a. Princes Street area only, supervision and consideration of GI survey input for trackform ground improvement layer and OLE foundations
 - b. Monitoring FWD.CBR testing for Formation and road make up
 - c. Review of drainage and ducting as installed
 - d. Responding to site queries related to Ducting and drainage and others as necessary
 - e. Attendance at Contractor and package contractor progress meetings
 - f. Review of Crawley Tunnel remedial works
 - g. Support to BSC in resolution of Tower Place Bridge issues with Forth Ports
 - Section 7
 - a. Ongoing inspections of, bridge and culvert concrete works.
 - b. Design input and monitoring of beams at S29
 - c. Attendance at Contractor and Package contractor progress meetings
 - d. Ongoing technical support to construction teams through technical queries
 - Section 5
 - a. Ongoing inspections of piling for OLE foundations and S27 & S23 bridge works.
 - b. Attendance at contractor and package contractor progress meetings
 - c. Monitoring of construction activities in line with ITP requirements
 - d. Ongoing technical support to construction teams through technical queries

7 DESIGN AND ADDITIONAL DESIGN SUPPORT

7.1 Activities Undertaken

SDS has continued to provide as-needed Additional Design Support to BSC as required and attended several meetings related to various items. Main focus over the past 4 weeks has been around:

- Coordination of CAF DKE and swept path run
- Coordination of review of implications to Street Lighting from Siemens OLE design.
- Meeting and IDR of emerging BSC OLE designs
- Design and coordination of requirements for Road Rehabilitation Works
- Design and coordination of requirements for upcoming design for BSC Trackform integration
- Design and coordination of requirements for OLE design.
- Design and coordination of requirements for OLE foundation designs

7.2 Ongoing Design Issues

7.2.1 Picardy Place

- 29 Jul 2008
- Section 1C-2
- Layout generally agreed with Roads Authority at coordination meeting 06th August pending confirmation of updated modelling results. CEC to advise any further TAA issues. Impact on PA, TA and IFC.
- CEC planning desire 6no. additional cross sections as advised 01-September 08 via email.
- CEC Planning have provided no feedback on plaza concept provided for informal comment.
- Informal Consultation drawings issued to CEC 26th Sep '08. Meeting to finalise PA on 02 Oct '08.
- Informal meeting of tie / CEC / SDS on 30 September 2008 where CEC identified new constraints with hotel.
- Informal meeting with CEC on 1st October 2008 to discuss design development. SDS issued letter on 2 October 2008.
- Prior Approval meeting on 2 October 2008. SDS issued information to CEC via email.
- Prior Approval issued on 17 October 2008.
- Comments on Prior Approval received informally from CEC on 30 October 2008.
- Technical Approval issued on 3rd November 2008. SDS responding to initial comments from CEC on TAA submittal.
- CEC informally noted to SDS on 20 November 2008 that they may wish to change Roads layout.
- Prior Approval including CEC comments re-submitted on 28 November 2008.
- TAA including CEC comments resubmitted on 28 November 2008.

- Updated Planning drawings submitted 05 December based on advance TAA comments received.
- Road Safety Audit and Tram Stop submitted to CEC on 12 December 2009.
- Meeting on 15 January 09 with CEC to discuss potential comments and provide clarifications.
- Meeting on 21 January 2009 to discuss CEC modelling concerns. No response from CEC on information provided.
- Email from CEC on 30 March 09 indicates potential CEC change to layout of the area. Clarification required.
- SDS received change notice from BSC. SDS reviewing and preparing estimate.
- **tie** requested this change be included on w/e 08 May Design Changes meeting.
- CEC identified that they have issue with operation of junction based on CEC internal modelling. Junction is designed to instruction provided and subsequent discussions during design development. SDS has done significant advance modelling and has advised CEC of potential issue in advance of CEC raising the issue.
- CEC indicated in recent TRO Meetings that paper sits with M. Paulson and awaits final decision before instruction can be issued.
- Letter issued by CEC on 18 September 09 identifying additional changes required.

7.2.2 CEC preference for Demarcation between Tramway and Roadway (DCR0136)

- 09 Sept 2008
- Section 1
- CEC design comment unresolved as CEC need to determine preferred method of demarcation. Cost implications being discussed between **tie** and CEC. SDS awaiting resolution. Action with **tie** / CEC.
- SDS / BSC attended meeting on 11 November 2008 at the request of **tie** to discuss potential options proposed by **tie** / CEC.
- Samples placed by **tie** in Haymarket Car Park 14 November 2008.
- Draft letter received from CEC noting acceptance of imprinted concrete and desire to change concept at various locations.
- CEC note this as open issue in Section 1B, affecting closeout.
- SDS received letter directly from CEC outlining changed requirements.
- No further action to be taken by SDS until instructed with requirements.
- SDS submitted letter to BSC on 22 January 2009. SDS requested to revise estimate.
- Change Notice received.
- SDS submitted change estimate w/e 27 Feb 09.
- SDS awaiting completed report from PRIMSO before completing safety assessment. **tie** to provide.
- SDS received letter from BSC requesting information. SDS provided response letter.
- SDS received completed PRIMSO report from **tie** on 17 March.

- SDS received letter from BSC on 23 March 09. Response provided under letter cover 29 April 09.
- Discussed at Change Meeting on 23 April. SDS to provide substantiation on suitability of original SDS design 29 April 09.
- Change order required.

7.2.3 Transdev comments on 5C Technical Approval – Roads (DCR0102)

- 17 Sept 2008
- Section 5C
- Transdev have written a paper on the design at Edinburgh Park. SDS has notified BSC of Change and will review paper when instructed.
- SDS received response to letter from BSC. SDS has returned response confirming position that change is required.
- Change Notice received. SDS submitted estimate w/e 27 Feb 09. SDS requested to provide revised estimate.
- Meeting scheduled for week of 22 June 09 to discuss responses.
- SDS evaluating relevant comments as outcome of meeting.
- Letter received from BSC containing tie position on this issue. SDS reviewing letter and SDS / BSC to have meeting to discuss as agreed in Design-Change Issues meeting.

7.2.4 TRO Drawings (DCR0083, DCR0110, DCR0119)

- 17 Oct 2008
- Section 1
- **tie** (Keith Rimmer) informally handed SDS marked up drawings catching fundamental changes to kerb lines for drawings already approved by CEC and in some instances, Issued For Construction to BSC. Change Order required.
- These drawings must be formally submitted to SDS under cover of **tie** letter for audit trail and QA / QC procedures.
- Discussion is required prior to execution of design work with the priority of Section 1B as changes to the Technical Drawings (i.e. gullies / kerbs etc) will need to be immediately instructed to BSC as construction work is already ongoing.
- Additional work outside the LOD arising from drawing mark-ups.
- Informal meeting with CEC on 14 November 2008 to discuss the mark-ups.
- SDS provided updated responses to Public Exhibition comments on 08 January 2009.
- SDS prepared scope and estimate for Changes (DCR0110)
- **tie** / CEC request final drawings for public deposit to be provided before Christmas. CEC have indicated that they have not yet reviewed sections 2-7. CEC indicate that they wish TAL 5/05 to be modelled. SDS yet to be instructed to use TAL 5/05, and have previously advised of potential issues which may arise.
- SDS advised **tie** via email on 08 January 2009 about issues arising from TAL5/05 and need for change order to SDS.
- BSC requested a meeting for discussion of TRO changes. BSC to advise.

- Change notices received, SDS submitted estimates w/e 27/02/09.(DCR0083, DCR0119)
- SDS received letter on 24 March 09.
- SDS has requested meetings with BSC to discuss, however these have been cancelled by BSC prior to meeting.
- Discussed at change meeting on 23 April 09. Agreed that higher level meeting to be scheduled to resolve commercial issue, as there is a fundamental disagreement with **tie**.
- CEC provided new comments with respect to recent made TRO along Fastlink after 26 May 09 meeting.
- Site walkout scheduled for 08 June 09 for Little King Street requirements.
- Meeting scheduled with CEC for 10 June 09 to confirm all requirements for TRO and aligned design moving forward.
- Additional meeting held on 17 June 09 completing information not covered in meeting of 10 June 09.
- TRO drawings issued to BSC / **tie** on 19 August 2009.
- Letter received from CEC outlining additional requirements and design for TRO drawings.
- Additional meeting held on 14 September 09 to talk through changes. Change order received.
- SDS has submitted final TRO drawings to **tie** / CEC containing all comments.
- Outstanding commercial issues to be resolved.

7.2.5 Operator Comments

- 21 Oct 2008
- System-wide
- At the Design Assurance Presentation, SDS and BSC were informed that Transdev are currently undertaking Operator reviews of the Design. Any changes arising out of this must be instructed via the Change Control procedure.
- 2A Operational Review was on Thursday 30th October 2008. BSC could not attend.
- 6A Operational Review was on Wednesday 29 October 2008. BSC in attendance (Colin Brady).
- There is an ATR outstanding for attendance at these meetings and any future meetings.
- Letter from BSC received on 02 March 09. SDS to formally respond indicating that no revisions to be made unless formally instructed.
- SDS provided response letter to BSC on 09 March 09 (our ref ULE90130-SW-LET-01442)
- Meeting scheduled for week of 22 June 09 to discuss responses.
- SDS evaluating relevant comments as outcome of meeting.

7.2.6 Cycle Connection at Hawthornevale (DCR0141)

- Section 1A
- CEC requested new cycleway connection outside LOD. Change order required.
- Change estimate submitted w/e 27 Feb 09.
- Discussed at 23 April 09 change meeting. **tie** to review and respond.
- Discussed at 28 May 09 Meeting. CEC to respond and clarify what facility is desired and **tie** to instruct.
- Estimate issued. Change order required.

7.2.7 Section 1C3 Closeout

- Section 1C3
- CEC provided letter closing out 1C3.
- Meeting anticipated to be held week of 29 June 09 to discuss and new / remaining comments to and requirements to close.
- New informatives included which must be closed during construction with procurement of items.

7.2.8 Little King Street Reversal

- Section 1C2
- SDS and CEC completed walkout on 08 June 09 and identified several potential issues arising out of instruction.
- Current change instruction does not account for all required works if moved forward.
- SDS provided email to CEC on 12 June 09 outlining issues arising, potential impacts, and proposed resolution. Preliminary information on modelling impacts of not reversing direction of street included to assist CEC in decision making process.
- Formal response from CEC required.
- Letter issued by CEC on 18 September 09 outlining issues with this area.

7.2.9 Murrayfield Tramstop

- Section 5A
- CEC (Roads) requested technical submittal of information outwith remit of Roads Authority. SDS responded to BSC.
- BSC issued email to **tie** indicating issue arising.
- SDS not proposing to take any action unless formally instructed.

7.2.10 Elder Street / York Place Design Change

- Section 1C3
- **tie** (D. Fraser) informally requested a design change to the TRO and Roads design via email to SDS (S. Ney) on 19 June 09.

- SDS response was that no action to be taken unless formally instructed through appropriate contractual channels.
- Letter issued by CEC on 18 September 09 outlining changes to this area to accommodate Henderson Global Development. Change order required.

7.2.11 Balgreen Road Access Bridge

- Section 5A
- Network Rail (NR) intends to reject proposal after SDS clarifications provided. Design requested by NR is betterment to existing condition, and would be a further departure to the Roads design.
- Meeting with BSC, tie, NR and CEC on 01 July 09 to resolve issues.
- Confirmation by NWR and CEC of agreed solution required.
- Revised design issued to CEC and NWR including concept discussed at 01 July 09 meeting.
- SDS has submitted updated design to CEC and NWR for approval.
- Acceptance and comments received from CEC.
- Acceptance and comments awaited from NWR. SDS pursuing NWR for approval.

7.2.12 Gogar Intermodal Stop

- Section 5C
- Kick-off meeting held 17 June 09 with Transport Scotland.
- Change order received. Tie to schedule workshop for 02 July 09 to discuss design details.
- SDS preparing list of required items from NR designer in advance of meeting.
- SDS completed actions arising from initial meeting.
- Dedicated design team in place.
- SDS issued information requested by Network Rail.
- Network Rail to confirm which proposal they intend to progress forward with.
- Meeting held 22 September to confirm scope requirements.
- Preliminary design completed.
- Assisted Mott McDonald with NWR planning application as requested.
- Informal Consultation with CEC ongoing.
- BSC confirmed at progress meeting on 21 October 09 that design should be finalised assuming new interchange to be built after implementation of base tram scheme.

7.2.13 Murrayfield Accommodation Works

- Section 5A
- SDS received additional change order for the balance of the scope.
- Meeting undertaken with SRU leading to design comments,
- SRU then submit additional comments once amendments had commenced.

- **tie** to discuss with BSC and SDS impacts to original change.
- Informal consultation underway.
- Formal Prior Approval Issued to CEC

7.2.14 Phase 1A/1B Split

- Sections 2A, 3A, 5A
- SDS submitted change and awaiting instruction. Discussed at 26 June 09 Design Change Meeting. Agreed included at Novation.
- Design being programmed and progressed based on discussion with BSC.

7.2.15 CAF DKE Swept Path Analysis

- Systemwide
- Assumptions and analysis finalised.
- Several issues requiring more in-depth analysis have been identified during the review process.
- Draft results issued to BSC via email.
- Closeout report drafting underway. Submission immanent.

7.2.16 Crawley Tunnel

- Section 1C
- Revised requirements for north side design presented to SDS after completion of original approved design.
- Revised design for tunnel incorporates agreed requirement to eliminate arch from top of tunnel in impacted area.
- Scottish Water have identified potential requirement to replace pipes within accessible areas of tunnel. Clarification required.
- Revised Scottish Water requirements may introduce alternative design solution (fill) which would require additional design to accommodate. Clarification required.

7.3 Additional Resources

The Design Team Leaders detailed below can be made available to respond to TQ's and attend the appropriate meeting (subject to suitable notice) on the proviso that BSC give instruction that these DTL's time spent will be paid for.

<u>DISCIPLINE</u>	<u>Code</u>	<u>DTL (and contact details)</u>
Tram	TRM	Tony Goodyear
Track (and Alignment)	TRK	Phil Bull
Track Auxiliaries	TRA	Mike Reeves
Roads	RDS	Mike Rogers
Pavement Design	RDS	Orlando Walters
Structures (P)	STR-P	Andy Groves
Structures (H)	STR-H	Colin Walker
Traction Power Supply	TPS	Graeme Evans
Sub Stations	SUB	Brian Hall
Depot	DEP	Richard Young
Tram Stops / Gogar Interchange	STP	John Ash
Overhead Line Equipment	OLE	Mike Coupe
Supervisory, Control and Comms	SCC	Mike Goldsworthy
Low Voltage Supplies	LVS	Richard Young
Street Lighting	STL	Anthony Walsh
Drainage	DRN	Mike Rogers
Ducting	DUC	Chris Reid
Geotechnical	GEO	David Raeside
Environment	ENV	Kat Dennis
Utilities (L2 - Sections 2, 5, 6 and 7)	UTL	Alan Dolan
Utilities (L1 - Sections 1 and 3)	UTL	Brian McCrear
Landscape	LSC	John Ramsay
Noise		Rupert Taylor

APPENDICES

APPENDIX A – RFI REGISTER

BSC RFI Register

HB#	BIW Ref	RFI Reference	Title	Issuer	Issue date	Requested response date	Response date	Response HB#	Open/closed
92191	SDS RFI-00001	ULE90130-SW-RFI-00120	Earth Bonding Requirements	C. Reid	23/02/09				
92193	SDS RFI-00002	ULE90130-SW-RFI-00121	Base Plate Hole & Anchor Bolt Diameter	C. Reid	23/02/09				
92194	SDS RFI-00003	ULE90130-SW-RFI-00122	Locking Nut Confirmation	C. Reid	23/02/09				
92195	SDS RFI-00004	ULE90130-SW-RFI-00123	Ghout Below Base Plate Information	C. Reid	23/02/09				
92196	SDS RFI-00005	ULE90130-SW-RFI-00124	Loading Issue	C. Reid	23/02/09				
92197	SDS RFI-00006	ULE90130-SW-RFI-00125	Axes Convention for applied load effects	A. Groves	23/02/09				
92199	SDS RFI-00007	ULE90130-SW-RFI-00126	Load Effects at Other Limit State	A. Groves	23/02/09				
92202	Not Issued	ULE90130-SW-RFI-00127	Inclination of Backstay Cables	A. Groves	Not issued				
92348	SDS RFI-00008	ULE90130-SW-RFI-00128	Inclination of Backstay Cables	A. Groves	23/02/09				
92349	SDS RFI-00009	ULE90130-SW-RFI-00129	Inclination of Backstay Cables	A. Groves	23/02/09				
92350	SDS RFI-00010	ULE90130-SW-RFI-00130	Inclination of Backstay Cables	A. Groves	23/02/09				
92575	SDS RFI-00011	ULE90130-SW-RFI-00131	Vibration Assessment	C. Reid	23/02/09				
92576	SDS RFI-00012	ULE90130-SW-RFI-00132	Vibration Assessment	C. Reid	23/02/09				
92577	SDS RFI-00013	ULE90130-SW-RFI-00133	Deflection/Rotation Limits	A. Groves	23/02/09	25/02/09			
92876	SDS RFI-00014	ULE90130-SW-RFI-00134	Rheda City Interfaces	C Reid	02/03/09	asap	20/04/2009	94295	
92881	SDS RFI-00015	ULE90130-SW-RFI-00135	Rheda City Interfaces	C Reid	02/03/09	asap	20/04/2009	94295	
92883	SDS RFI-00016	ULE90130-SW-RFI-00136	Grooved Rail Bearers	C Reid	02/03/09	asap	20/04/2009	94295	
92889	SDS RFI-00017	ULE90130-SW-RFI-00137	Rheda City Derailment	C Reid	02/03/09	asap	20/04/2009	94295	
92890	SDS RFI-00018	ULE90130-SW-RFI-00138	Trackform at S20 Russell Road Bridge	C Reid	02/03/09	asap	20/04/2009	94295	
92891	SDS RFI-00019	ULE90130-SW-RFI-00139	Groove Rail Containment	C Reid	02/03/09	asap	20/04/2009	94295	
92897	SDS RFI-00020	ULE90130-SW-RFI-00140	Groove Rail Containment	C Reid	02/03/09	asap	20/04/2009	94295	
94197	SDS RFI-00021	ULE90130-01-RFI-00078	Transitions to ballasted track	C Pope	15/04/09	asap			
94486	SDS RFI-00022	ULE90130-05-RFI-00018	At grade crossing grass track (Rheda green trackform)	C Pope	29/04/09	asap			
94526	SDS RFI-00023	ULE90130-05-RFI-00019	Rheda city green document	C Pope	29/04/09	asap			
94527	SDS RFI-00024	ULE90130-01-RFI-00079	Transitions to ballasted track	C Pope	29/04/09	asap			
94879	SDS RFI-00025	ULE9013-SW-RFI-00141	CCTV Camera Specification	S Ney	15/05/09				
95179	SDS RFI-00026	ULE90130-06-RFI-00003	Basic design - special track forms	C Pope	22/05/09	asap			
97808	SDS RFI-00027	ULE90130-SW-RFI-00142	Requirements for Earthing and Bonding	Huseyim Yildirim	27/08/09				
97809	SDS RFI-00028	ULE90130-SW-RFI-00143	Depot Sub Station	Huseyim Yildirim	27/08/09				
97810	SDS RFI-00029	ULE90130-SW-RFI-00144	Traction Power Containment	Huseyim Yildirim	27/08/09				
97812	SDS RFI-00030	ULE90130-SW-RFI-00145	Gogar Depot Wesurail Tramwash Proposal	Huseyim Yildirim	27/08/09		15/09/2009	98430	
97813	SDS RFI-00031	ULE90130-SW-RFI-00146	Gogar Depot Wesurail Tramwash Proposal	Huseyim Yildirim	27/08/09		15/09/2009	98430	
97817	SDS RFI-00032	ULE90130-SW-RFI-00147	Gogar Depot Wesurail Tramwash Proposal	Huseyim Yildirim	27/08/09		15/09/2009	98430	
97818	SDS RFI-00033	ULE90130-SW-RFI-00148	Gogar Depot Wesurail Tramwash Proposal	Huseyim Yildirim	27/08/09		15/09/2009	98430	
97823	SDS RFI-00034	ULE90130-SW-RFI-00149	Traction Power	Huseyim Yildirim	27/08/09				
98454	SDS RFI-00035	ULE90130-06-RFI-00004	OLE pole foundation ch.121+674	C Reid	18/09/09	-	28/09/2009	98896	
98587	SDS RFI-00036	ULE90130-06-RFI-00005	Gogar depot sub-station building Siemens drawings	S Schatten	23/09/09	29/09/09			
98589	SDS RFI-00037	ULE90130-06-RFI-00006	Gogar depot sand silo details	S Schatten	23/09/09	29/09/09	19/10/2009	99361	
98590	SDS RFI-00038	ULE90130-06-RFI-00007	Gogar depot sanding plant details	S Schatten	23/09/09	29/09/09			
98592	SDS RFI-00039	ULE90130-06-RFI-00008	Gogar depot sand silo details (2)	S Schatten	23/09/09	29/09/09			
98592	SDS RFI-00040	ULE90130-06-RFI-00009	Gogar depot Wesurail tramwash issued drawings	S Schatten	23/09/09	29/09/09	14/10/2009	99278	
98940	SDS RFI-00041	ULE90130-06-RFI-00010	Airside Drainage and Levels North Batter Area	N Baldwin	06/10/09	05/10/09	12/10/2009	99186	
98951	SDS RFI-00042	ULE90130-05-RFI-00032	Section 5B TPDS Detector Locations for Connection to Trackside Ducting	M Fell	05/10/09	07/10/09			
98982	SDS RFI-00043	ULE90130-06-RFI-00011	Depot Tramwash Siemens Drawings	R Young	06/10/09	07/10/09	12/10/2009	99184	
99087	SDS RFI-00044	ULE90130-06-RFI-00012	Depot Technical Specification of PFAFF Manual Turntable (1)	R Young	07/10/09	09/10/09	13/10/2009	99228	
99088	SDS RFI-00045	ULE90130-06-RFI-00013	Depot Technical Specification of PFAFF Manual Turntable (2)	R Young	07/10/09	09/10/09	12/10/2009	99185	
99246	SDS RFI-00046	ULE90130-06-RFI-00014	Gogar Depot Wesurail Tramwash Drawing	S Thiyagarajah	14/10/09	15/10/09			
99253	SDS RFI-00047	ULE90130-06-RFI-00015	Gogar Depot Building Bogie Wash Details	D James	14/10/09	20/10/09			
99450	SDS RFI-00048	ULE90130-06-RFI-00016	Sand Filling System	S. Thiyagarajah	22/10/09	23/10/09			
99470	SDS RFI-00049	ULE90130-06-RFI-00017	GOGAR DEPOT – Equipments & Communication Room	I Akerkaou	22/10/09	28/10/09			

BFB00004336_0037

APPENDIX B – CRITICAL ISSUES DRAWINGS

Doc Ref ULE90130-SW-DRG-00651 (Line 1)

Doc Ref ULE90130-SW-DRG-00652 (Line 2)



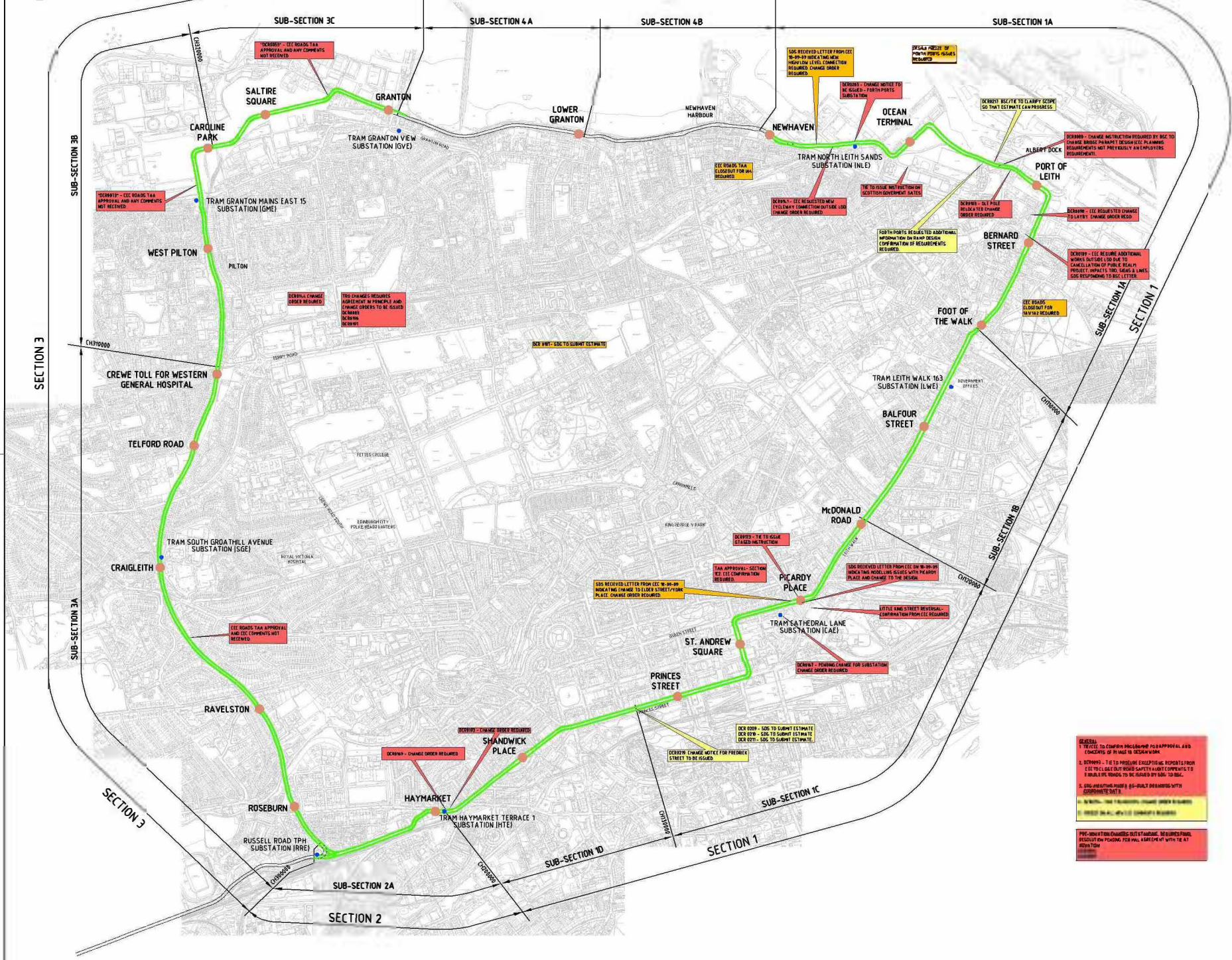
SECTION 3

SECTION 4 (NOT IN SCOPE)

SECTION 1


1 DWG HUMMINGBIRD REF. 88229
PDF HUMMINGBIRD REF. 88239

- KEY**
- DENOTES OUTSTANDING ISSUE (NEW)
 - DENOTES OUTSTANDING ISSUE 1-4 WEEKS OLD
 - DENOTES OUTSTANDING ISSUE GREATER THAN 4 WEEKS OLD



Issue ID	Issue Description	Issue Type	Issue Status	Issue Age
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

For Information Only



EDINBURGH TRAM NETWORK

2 CITY POINT
45 HAYMARKET TERRACE

**SYSTEM WIDE
LINE 1
POST - INNOVATION
PROJECT ISSUES**

APPROVED BY	DATE
Chandler J	01
24/01/2024	13000

ULE90130-SW-DRG-00651 14

BFB00004336_0039



THE FOLLOWING INFORMATION IS REQUIRED TO BE PROVIDED TO THE DESIGN:

EARTHING AND BONDING V115 TO BE UPDATED.
 TRAM WASH TRACKWORK DRAWING.
 BOGIE TURNABLE ORIENTATION OPPONENT.
 DETAILED DESIGN OF TRACKWORK INCLUDING THE CONFIRMATION OF STUBSUPPORTS WITHIN THE PLINTH TRACKS.
 TRACKWORK FINISHES DRAWING FOR THE DEPOT TO BE AMENDED BY SIEMENS.
 HEAVY LOADS AND DETAILED DESIGN INFORMATION FROM PLINTH SUB-CONTRACTOR SUCH THAT STRUCTURE/ELEVATION CAN BE ADJUSTED TO SUIT GAS ROUTE CONFIRMATION AND PRESSURE TO BE CONFIRMED.
 CHANGE ORDERS FOR OUTSTANDING DESIGN.
 DETAILS OF SAND PLANT ARRANGEMENT/PAIN T BOOTH.
 DEPOT EXTERNAL TRACKWORK DETAILED DESIGN (TURN-OUTS (COMPONENTS))
 CONFIRMATION OF LIFT/TPIT CHANGES.
 SYSTEM WIDE CONFIRMATION DATES OF SIEMENS TRACKWORK DETAIL DESIGN SHOWING SYSTEM WIDE DETAIL DESIGN OF EXPANSION JOINTS, TRACK FORMS, TURN-OUTS, DETAIL DESIGN TRANSITION RAILS, DETAILED DESIGN, WHEED CITY ON OPEN FORMATION.
 TRAM SHELTER DETAILED DESIGN.
 TRAM STOP FURNITURE DETAILED DESIGN (PODS, CCTV POLES, BINS, SEATING, FLOOR FIXINGS/UPSTANDS, EARTHING AND BONDING ARRANGEMENTS).
 FINAL DESIGN INFORMATION RELATING TO TRACK FORM.
 VIBRATION MITIGATION - AREAS OF SPECIAL TRACK FORM TO BE USED.
 CROSS SECTION OF SPECIAL TRACK FORM FOR NOISE AND VIBRATION MITIGATION.
 DEPOT TRACKWORK DETAILS.
 BONDING DETAIL REQUIREMENTS FOR ALL STRUCTURES.
 REQUIREMENTS FOR STRAY CURRENT MITIGATION MEASURES FOR THE ENTIRE ROUTE.
 SWITCH AND CROSSING TRACK FORM DETAILS.
 POINTS MOTOR DETAILS FOR STREET SECTIONS.
 TRAFFIC MODELLING INPUT AND FINALISATION OF ALL MODELS TO FREEZE TRAFFIC JUNCTIONS.
 FINALISATION OF THE HEAVY RAIL LIGHT RAIL INTERCHANGE STATION AT GOGAR INTERCHANGE.
 275KV DUCTING CABLE ROUTE TO BE OUTSIDE SECTION 10 ID AND DELIVERED AS A 'SPECIAL' PACKAGE.
 CONFIRMATION OF REQUIREMENT SAT RBS TRAMSTOP.
 MUDFA AS BUILT INFORMATION FOR DC CORRELATION.
 ADDITIONAL ACCOMMODATION, IF FACILITIES ARE REQUIRED FOR ADDITIONAL R/B ACCELERATION TEAM FREED OF CHARGE.
 SPECIAL VOID FILLING DESIGNS IN SECTION 1 TO BE OUT WITH THE PACKAGES FOR DC. SEPARATE ACCELERATION TEAM WILL DEAL WITH THESE WORKS.

EDS AS BUILT MUDFA AS-BUILT DRAWINGS WITH CORRELATION TABLE

REF: 1. DWG HUMMINGBIRD REF: 88241
 PDF HUMMINGBIRD REF: 88247

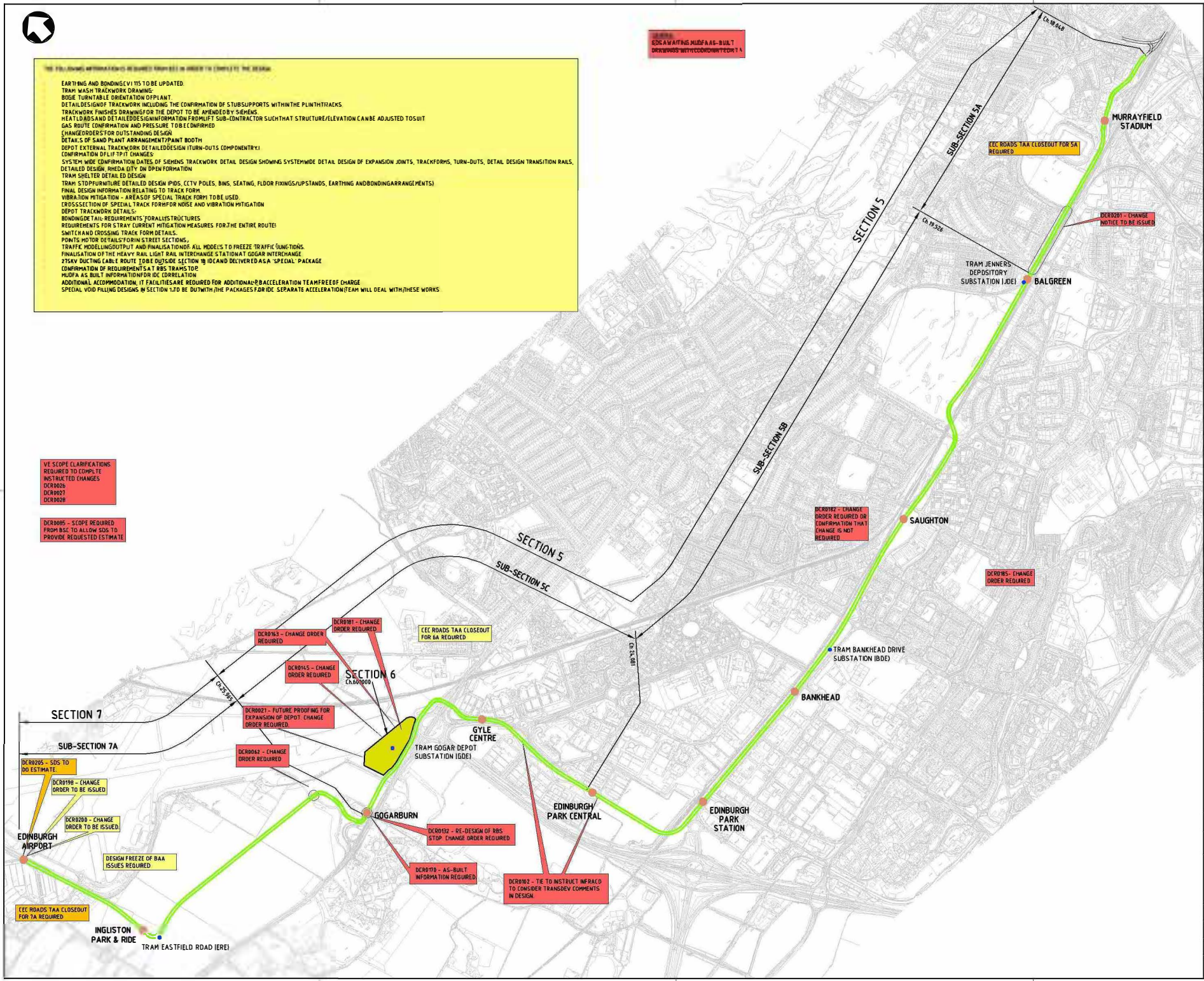
KEY

- IDENTIFIES OUTSTANDING ISSUE (NEW)
- IDENTIFIES OUTSTANDING ISSUE 4 WEEKS OLD
- IDENTIFIES OUTSTANDING ISSUE GREATER THAN 4 WEEKS OLD

VE SCOPE CLARIFICATIONS REQUIRED TO COMPLETE INSTRUCTED CHANGES.
 DCR0026
 DCR0027
 DCR0028

DCR0095 - SCOPE REQUIRED FROM RSC TO ALLOW SCS TO PROVIDE REQUESTED ESTIMATE

BFB00004336_0040



NO.	DESCRIPTION	DATE	STATUS
1	Issue Log	20/01/2024	Open
2	Issue Log	20/01/2024	Open
3	Issue Log	20/01/2024	Open
4	Issue Log	20/01/2024	Open
5	Issue Log	20/01/2024	Open
6	Issue Log	20/01/2024	Open
7	Issue Log	20/01/2024	Open
8	Issue Log	20/01/2024	Open
9	Issue Log	20/01/2024	Open
10	Issue Log	20/01/2024	Open
11	Issue Log	20/01/2024	Open
12	Issue Log	20/01/2024	Open
13	Issue Log	20/01/2024	Open
14	Issue Log	20/01/2024	Open
15	Issue Log	20/01/2024	Open
16	Issue Log	20/01/2024	Open
17	Issue Log	20/01/2024	Open
18	Issue Log	20/01/2024	Open
19	Issue Log	20/01/2024	Open
20	Issue Log	20/01/2024	Open

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EDINBURGH TRAM NETWORK

PR PROJECT MANAGEMENT

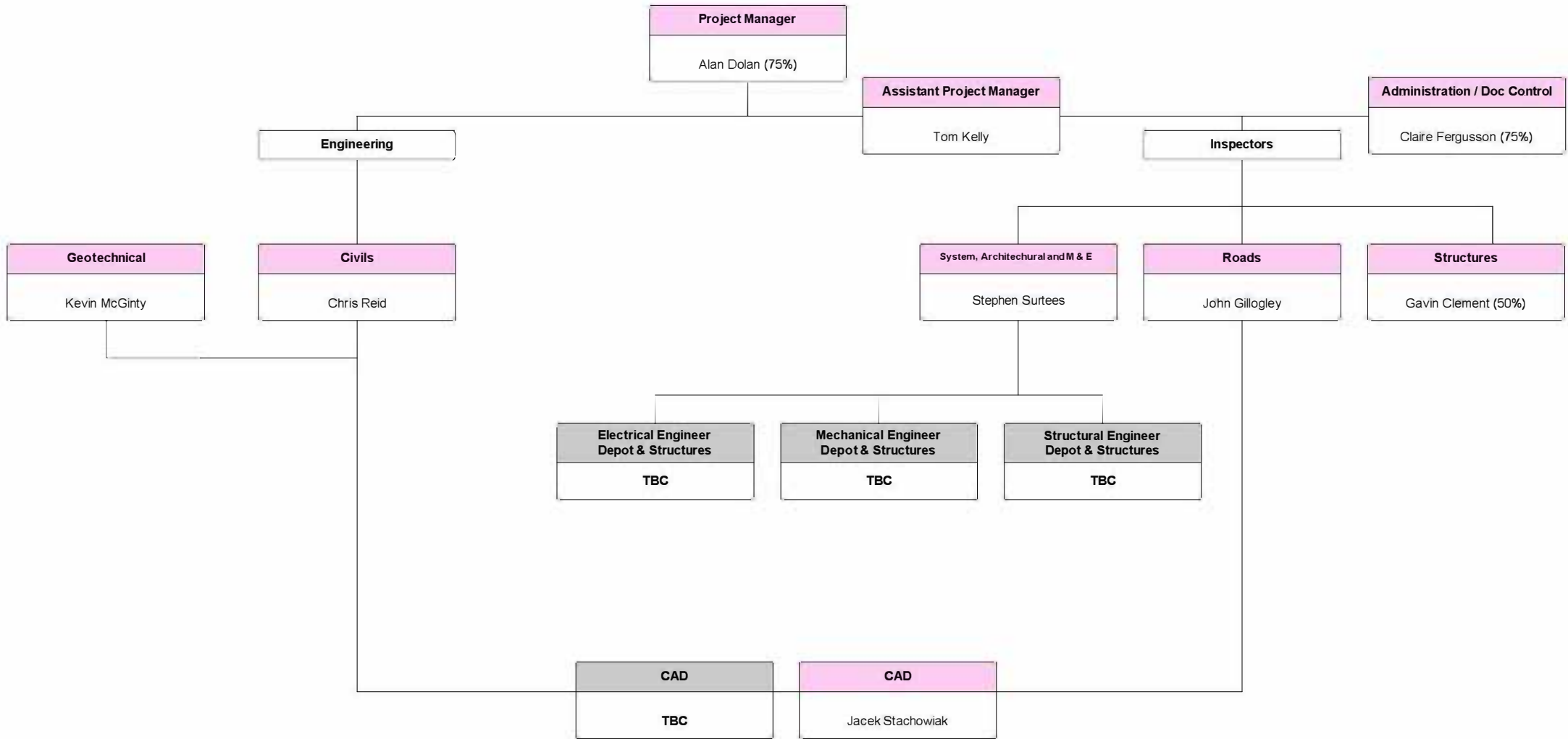
SYSTEM WIDE LINE 2 POST - NOVATION PROJECT ISSUES

DATE: 20/01/2024	ISSUE NO: 1000001
ISSUE NO: 1000001	ISSUE NO: 01
DATE: 20/01/2024	ISSUE NO: 1000001

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**APPENDIX C – ADDITIONAL DESIGN AND CONSTRUCTION SUPPORT
ORGANISATIONAL CHARTS (PERIOD 22 FORECAST)**

Extended Construction Support Services - For The Period 08/11/09 to 05/12/09



Design Support Services - For The Period 08/11/09 to 05/12/09

