

**NOTES OF DESIGN & CONSENTS MEETING  
HELD ON 8TH JUNE 2011 AT BSC CONSORTIUM OFFICE, EDINBURGH**

**ATTENDEES:**

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**DISTRIBUTION:**

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		<b>ACTION</b>
1.1	Minutes from previous meeting: Murrayfield Retaining Walls – date should be 30 <sup>th</sup> May 11. Minutes accepted from previous meeting.	
1.2	<p><b>Design &amp; Consents Report</b> Design for Trackform – full package to be submitted to CEC by end of this week including Method Statements/Risk Assessments etc. (<b>Note:</b> These will be draft documents as these are subject to Sub-Contractor change).</p> <p><b>St Andrew Square Public Realm Works</b> – Clarification report will be issued to CEC by 9<sup>th</sup> June 11. Public Realm design works to be brought within tram project. Colin Smith confirmed that the price for these works within the On-Street package are to be excluded from the Target Price as design still needs to be finalised however budget allowance must be made.</p> <p><b>Murrayfield Retaining Walls</b> – progressing.</p> <p><b>York Place Terminal Point</b> – Budget report will be issued to CEC today. CEC to make decision re design preference by next week's meeting.</p> <p><b>Cathedral Lane Sub-Station</b> – design could become critical. Meeting held with Henderson designers on 6<sup>th</sup> June 11 to clarify scope. Henderson agreed to forward scope package to BSC – this will allow SDS to complete their design. Bob McCafferty to chase Henderson for scope.</p> <p><b>Tram Turn Back Strategy</b> – meeting to be arranged with Independent Competent Person (ICP) following Parties refreshing on historical information. BSC briefing note defining their strategy to be circulated separately. Shadbu Dedhar to arrange separate meeting on 15<sup>th</sup> June 11 at 11.30am to discuss issues further.</p>	<p><b>SDE</b></p> <p><b>SNE/ CEC/ BSC</b></p> <p><b>SNE/CEC</b></p> <p><b>BMCC</b></p> <p><b>SDE</b></p>
1.3	<p><b>List Instructions for New Design Changes or Confirmation on Scope (tie/CEC)</b> (4.1.1.4 in D&amp;C Report)</p> <p>Steven Bell confirmed that letters have been issued from tie for the undernoted items confirming acceptance: No 4, No 6, No 8, No 14, No 22, No 24 &amp; No 35. Letter re No 12 has been received by BSC.</p> <p>Simon Nesbitt stated these letters are currently being reviewed by BSC as they do not all appear to confirm tie's acceptance of design change.</p>	

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	<p>Frank McFadden to organise a meeting w/c 13<sup>th</sup> June 11 to resolve all outstanding design/technical issues. Simon Nesbitt to confirm his availability. (<b>Note:</b> Any outstanding commercial issues to be discussed at Commercial meeting).</p> <p>Items 1 &amp; 2 – further discussions required. Item 7 – letter of instruction required by tie re additional works required. Item 14A – BSC considering tie's position.</p>	<b>SNE/ FMCF</b>
1.4	<p><b>Traffic Modelling</b> (4.1.1.5 in D&amp;C Report) Further discussions held with CEC on 7<sup>th</sup> June 11 to provide clarity on unresolved recommendations which may affect the completed signal design. The final tram signalling design (linked to Traffic Modelling sign off) is expected to be completed by w/c 6 June 11. This excludes Tram Turnback Strategy.</p> <p>Some small amendments to be made to roads design as a result of finalisation of the modelling – these will have no impact on Prioritised Works.</p>	<b>CEC</b>
1.5	<p><b>Edinburgh Gateway</b> (Point 4.1.1.6 in D&amp;C Report) Meeting held on 1<sup>st</sup> June with Network Rail. Response received re Earthing &amp; Bonding – has no impact on the Programme at present.</p>	
1.5	<p><b>Princes Street - New Cycle Crossing at The Mound</b> (4.1.1.8 in D&amp;C Report) Detail now received from CEC and being reviewed.</p>	<b>BSC</b>
1.7	<p><b>Forth Ports – Tower Place Bridge – Ramp/Steps Issue</b> Loading issue on dock wall now resolved.</p>	
1.8	<p><b>Forth Ports – Design Issues</b> (4.1.1.3 in D&amp;C Report) CEC have confirmed steps solution is acceptable and a revised AIP to be issued to CEC. Once design approved by CEC design will be submitted to Forth Ports. Dave Anderson – CEC to be copied in on correspondence issued to Forth Ports.</p>	<b>SNE/ CEC</b>
	<p><b>Scottish Water Approvals Issues</b> (Point 4.1.1.15 in D&amp;C Report) &amp; <b>OLE Base/Scottish Water Infrastructure Issue</b> (Point 4.1.1.16 in D&amp;C Report)</p> <p>Today's meeting with Scottish Water has been cancelled. Frank McFadden confirmed he is meeting with Scottish Water on 17<sup>th</sup> June 11 and he will raise issue of re-approvals for Section 1C1/1C2 and also discussion Scottish Water issue of letter confirming their approval of Phase 1A/1B interface design.</p> <p>Letter required from Scottish Water confirming their legal position re OLE base.</p> <p>Frank McFadden confirmed that letter had been received from Scottish Water confirming their approval in principle re the drainage design. Copy of letter to be forwarded to CEC to allow them to issue letter confirming their approval to adopt roads.</p>	<b>FMCF</b>  <b>FMCF/ BMCC</b>
1.10	<p><b>OLE Foundation – Utility Conflict at Princes Street</b> (Point 4.1.1.20 in D&amp;C Report) Steven Bell to discuss way forward with Andy Conway. Trial holes for OLE foundations would be carried out as an early item of works within Princes Street to confirm extent of utility / OLE foundation conflict – solutions now available.</p> <p><b>OLE Pole/Basement/Utility Conflicts at Hanover Street Junction still to be resolved.</b> Investigations will be carried out as part of the Enabling Works w/c 13<sup>th</sup> June 11.</p>	<b>SBE/ACO</b>  <b>BSC</b>
1.11	<p><b>Roseburn Viaduct – Scottish Power 132 kV Issue</b> (4.1.1.30 in D&amp;C Report) Representative of Scottish Power has advised that the proximity of the Roseburn Viaduct to the existing 132 kV cables is not acceptable to Scottish Power. This is change from what was previously agreed with Scottish Power during design. Infracore are reviewing and request CEC/tie assistance to resolve this with Scottish Power.</p>	

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	<p>Steven Bell issued an email to Simon Nesbitt prior to the meeting confirming that Scottish Power would approve the design if BSC could confirm to them that the design was able to be constructed without damaging their cables and that there would be room for a mini-excavator.</p> <p>A meeting with Scottish Power is being held today to discuss the above. To ensure this meeting did not focus only on the design elements, BSC requested that no designers from any parties attend this meeting. Frank McFadden stated that he was unhappy with this request but following further discussions agreed that Malcolm Butchert would be asked not to attend.</p>	<b>SNE</b>
	<p><b>'Mini' Test Track</b> (Point 4.1.1.33 in D&amp;C Report) Instruction required from CEC/tie confirm details of Edinburgh Gateway Alignment.</p>	<b>CEC</b>
I.13	<p><b>CEC Technical (Roads) – To Be Submitted</b> (Point 4.1.1.2 in D&amp;C Report) No5: Junction 91 (Section 2A) – signalling issues. CEC require paperwork from Operator to close out. Steven Bell to review status / understanding of where this sits with PSSC and tie.</p>	<b>SBE</b>
I.14	<p><b>New Track Crossing for Scottish Water within 'Mini' Test Track</b> (4.1.1.41 in D&amp;C Report) BSC to issue Estimate.</p>	<b>BSC</b>
I.15	<p><b>MUDFA Reinstatement Works</b> (Point 4.1.1.42 in D&amp;C Report) In the depot vicinity – an existing septic tank was been damaged during MUDFA works. Both parties agree on works to be carried out – outfall to be connected to surface water drainage. Disagreement on responsibility/ownership of resolution. BSC believe it is a design issue and should be resolved via tie through the MUDFA contract with SDS. tie believe it is a construction issue and outwith the MUDFA scope and should therefore be addressed by BSC as part of the earthworks. Colin Smith will have separate discussions with tie and BSC and then offer a resolution.</p>	<b>ALL</b>
I.16	<p><b>BAA/EAL Issues</b> (Point 4.1.1.46 in D&amp;C Report) Additional Road Safety Audit requested by BAA/EAL - further discussions required.</p>	<b>ALL</b>
I.17	<p><b>SRU/Murrayfield Accommodation Works</b> (Point 4.1.1.47 in D&amp;C Report) Date to be provided on when Building Warrant Form Q can be closed out.</p>	<b>CEC</b>
I.18	<p><b>Third Party Consents</b> Frank McFadden to forward Matrix detailing all 3<sup>rd</sup> Party Consents to BSC.</p>	<b>FMCF</b>
I.19	<p><b>Any Other Business</b> <b>Design Changes</b> All requested to advise any issues asap to avoid becoming Red Flag issues.</p> <p>Depot – Splicing of OLE Wire – agreement reached.</p> <p>Simon Nesbitt confirmed that Murrayfield Tram Stop Design &amp; Public Safety has been issued to CEC and any comments will be incorporated into the report prior to issue to PSSC.</p> <p><b>Design &amp; Consents Report – General</b> It was agreed that once items are closed out for construction they can be removed from this report.</p> <p><b>Next Meeting:</b> Wednesday 15<sup>th</sup> June at 10.00am – 11.30am in Meeting Room 2.</p>	<p><b>ALL</b></p> <p><b>SNE</b></p> <p><b>SNE</b></p>

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**4 Design & Consents Report – 07 June 2011**

**4.1 CIVIL & BUILDING WORKS**

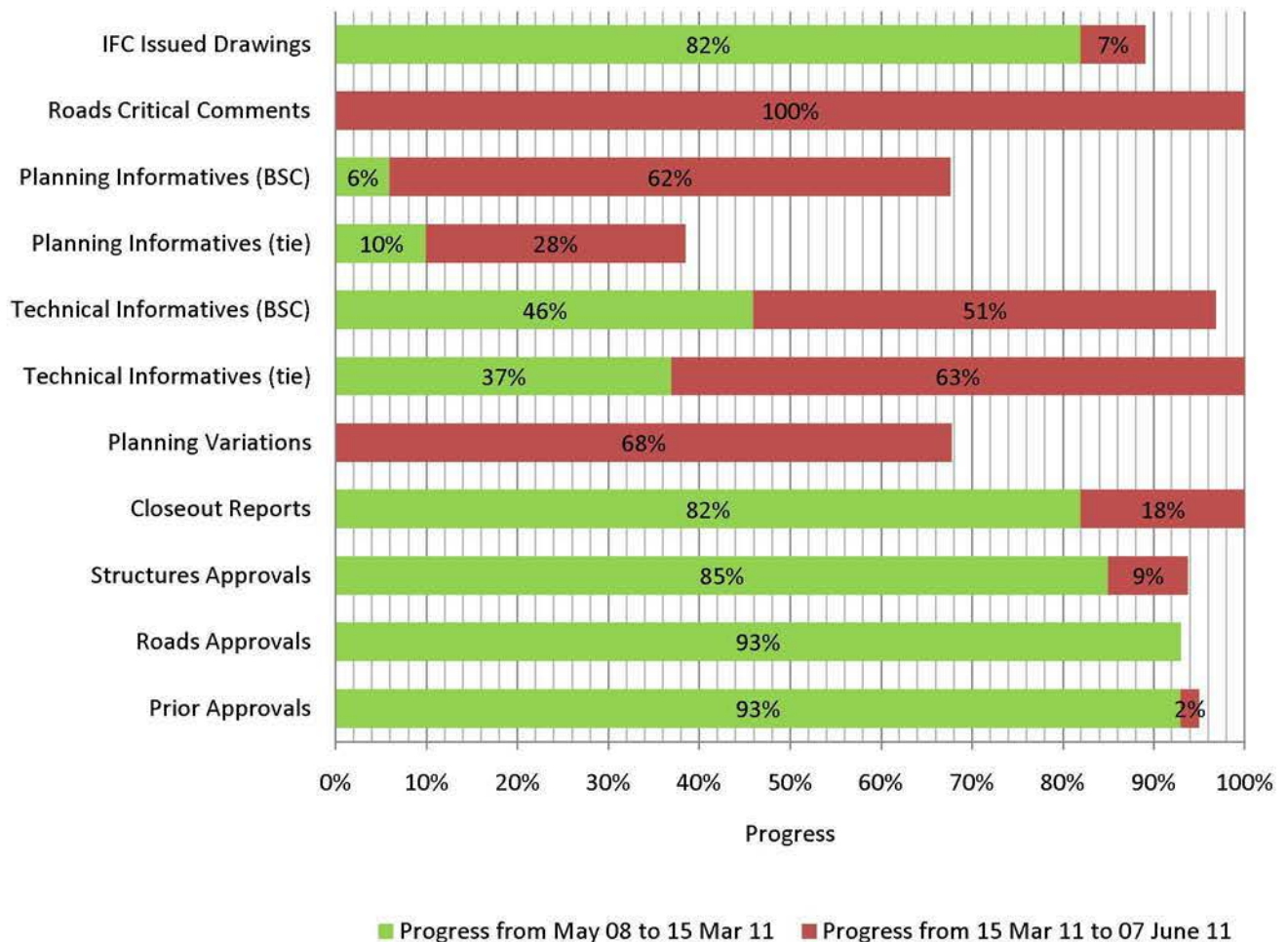
**4.1.1 Civil & Building Design  
Design Issues**

**4.1.1.1 Timelines for Close Out of Design**

Significant progress was made to complete the design by end of April 11 and by and large this was achieved; however, there are a number of exclusions outlined below. The exemptions are predominantly design changes or linked to design changes.

CEC has confirmed that key staff will be based at Edinburgh Park for the duration of the project. This will facilitate the quick resolution of any further design issues or change that becomes necessary through the implementation, testing and commissioning phases.

Design Status Summary for breakdown of progress



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**4.1.1.2 Key Design items still to be closed out:**

1. Trackform Design.
2. Section 1A Drainage (FP approval required) – CEC/tie to confirm.
3. Edinburgh Gateway.
4. Picardy Place/Section 1C2 Roads Approval (& Planning Variation for this batch).
5. St Andrew Square – Public Realm Design and tie in with Tram Design
6. Airport Canopy & Kiosk.
7. Roseburn Viaduct.
8. Murrayfield Retaining Walls (S21 B - D) Ground Improvement Works.
9. Floating Track Slab Design.
10. York Place Terminal Point.
11. Cathedral Lane Substation Design.
12. Close Out of Final Signalling Works.
13. Lindsay Road Cycle Paths.
14. Forth Ports Fencing Requirements.
15. Forth Ports Cruise Liner Terminal Road (Full Planning Approval required).
16. Dublin Street Listed Building Consent
17. Tram Turn Back Strategy.
18. A number of design finalisation issues dependent on clarifications from tie/CEC (refer to section 4.1.1.4 below)
19. A number of Planning Variations (statutory process only).
20. Final IDCs and Design Assurance Statements (DAS).

**4.1.1.3 Design that will not be Closed Out by 01 July 11:**

1. Edinburgh Gateway.
2. Airport Canopy & Kiosk.
3. York Place Terminal Point Design.
4. Cathedral Lane Substation Design.
5. Murrayfield Retaining Walls (S21 B - D) Ground Improvement Works.
6. Floating Track Slab Design.
7. St Andrew Square – Public Realm Design and tie in with Tram Design
8. Dublin Street Listed Building Consent
9. Lindsay Road Cycle Paths.
10. Forth Ports Fencing Requirements.
11. Forth Ports Cruise Liner Terminal Road (Full Planning Approval required).
12. Section 1C2 Redesign (Picardy Place, Elder Street, York Place etc).
13. Final IDC and DAS.

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**4.1.1.4 List Instructions for New Design Changes or Confirmation on Scope (*tie*/CEC):**

Refer latest Issues Tracker for current status (updated to 07 June 2011)

1. Gogar Castle Access Road - realignment to reduce land take/avoid tree.
2. Depot Access Road Turning Head - relocation of turning head.
3. Additional Cycle path at Lindsay Road – Hawthornvale.
4. Roseburn Viaduct (scope confirmation).
5. Cathedral Lane Substation (scope confirmation).
6. New Footpath at Ocean Drive – instruction.
7. Incorporate new design for Ocean Terminal Bypass Road - incorporate AECOM design.
8. Confirmation of no lettering/signage on top of tram stop shelters.
9. Design of Temporary Overhead Catenary System for 'Mini Test Track' – instruction.
10. Inclusion of Blenheim Place redesign (for TRO) within Picardy Place redesign – instruction.
11. York Place Terminal Point - Options Feasibility Report (includes estimate for final design works).
12. W14C SEPA CAR Licence - *tie* to formally confirm process for ongoing monitoring works.
13. *tie*/CEC to confirm Forth Ports Approval for Section 1A drainage.
14. Princes Street - new cycleway crossing through The Mound (14A) and Cycleway from The Mound onto Princes Street (14B)
15. St Andrew Square Public Realm - instruction to produce Clarification Report.
16. Lindsay Road 0 – 230M redesign - clarification by CEC required.
17. Letter to confirm full closure of Princes Street and Embargo has been lifted.
18. Letter regarding *tie*'s non involvement in BBS design moving forwards.
19. Letter covering audit (trackwork) and in general to allow BBS to complete design and agree this with CEC.
20. Cathedral Lane Substation - change to Henderson Global Design - new instruction.
21. St Andrew Square Public Realm Design finalisation (will follow on from Item 15 above).
22. Letter to confirm all changes to Employer's Requirements following close out of design with CEC.
23. Letter to confirm Infraco are to address some of the Planning Informatives for NIL Future Proofing works.
24. Letter to instruct Infraco to carry out track crossing and associated works for Scottish Water in vicinity of depot.
25. CEC/*tie* to issue letter to clarify provision of IFC drawings to CEC and *tie* from Infraco.

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26. Letter to confirm incorporation of Bulls Heads outside Roseberry House.
27. **tie** to provide list of statutory utility company contact details to Infraco.
28. CEC to issue letter to SUs to confirm Infraco are point of contact for Tram works.
29. Letter to confirm use of existing fibre cable into City Chambers.
30. Letter to confirm use of existing fibre cable between City Chambers and Annandale bus garage.
31. Letter to confirm acceptance of recommendations on PIDs outside LoD.
32. CEC/**tie** to confirm close out of Depot Access Road design issue with BAA/EAL.
33. CEC/**tie** to confirm close out of BAA/EAL issue with relocated Burnside Road.
34. CEC/**tie** to confirm BAA drawdown process moving forwards
35. CEC/**tie** to issue letter to confirm Gogar Depot Radio Mast is not to be installed.
36. Murrayfield Accommodation As Builts.
37. A8 footpath reinstatement

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**4.1.1.5 Traffic Modelling**

The updated traffic modelling report was issued 19 May 2011 to CEC for Approval and is currently being reviewed by CEC. Further joint discussion between CEC and Infraco is required to progress this approval expeditiously.

Although the two traffic modelling reports affecting tram signalling have not been formally signed off by CEC, the signalling design is progressing on the basis of the submitted reports, as far as possible, but requires a freeze of traffic modelling reports. This is currently expected from CEC by 17 June 2011 (up to York Place).

There are however a number of unresolved recommendations to be actioned by CEC and these have the potential to affect completed signalling design. Minor roads design amendments required to tie in with final modelling which have commenced ahead of formal sign off of the traffic modelling by CEC.

The two traffic modelling reports relating to tram operations are still to be agreed and have dependencies for the traffic signalling design.

**4.1.1.6 Edinburgh Gateway**

The preferred design option was confirmed by *tie*/Transport Scotland on 06 May 2011.

Design Coordination and EMC/E&B issues still to be resolved by Network Rail. Design Meeting was held on 01 June 2011 to progress. Issues are being worked through with Network Rail.

**4.1.1.7 Statutory Undertakers Companies (SUCs) – Contact Details**

CEC/*tie* to issue letter to SUCs to confirm Infraco are point of contact for off street (Haymarket to Airport) Tram Works. *tie* to provide list of statutory utility company contact details to Infraco.

*tie* has provided list. Infraco are reviewing.

**4.1.1.8 Princes Street - New Cycle Crossing at The Mound**

CEC are to advise whether Infraco are to include the CEC design for a new cycle crossing at The Mound within the Infraco design. *tie* have issued letter to Infraco and this is being reviewed at present.

Separate design for new Cycle path from The Mound onto Princes Street also to be instructed. Infraco await instruction from *tie*.

**4.1.1.9 TNC 129 Gogar Castle Access Road**

New TNC issued by *tie* – letter INF CORR 7510/DB dated 11 March 11. Redesign of road required to avoid land take issue (land not procured by *tie*). The scope of this change was unknown prior to issue of letter by *tie*. Design complete and issued IFC.

Instruction required from *tie*.



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**4.1.1.10 TNC 130 Depot Access Road, Hammer Head**

New TNC issued by *tie* – letter INF CORR 7508/DB dated 11 March 11. The scope was unknown prior to issue of letter by *tie*. Design complete and issued IFC.

Instruction required from *tie*.

**4.1.1.11 Scope Creep (Various)**

Infraco are concerned about scope creep by *tie* (e.g. Roseburn Viaduct, Edinburgh Park Viaduct North Abutment, Airport Canopy/Kiosk, NIL).

CEC/*tie* to issue instructions to Infraco for any new scope that is to be carried out.

**4.1.1.12 Forth Ports – Tower Place Bridge – Ramp/Steps Issue**

CEC have accepted revised AIP. Design is being finalised for Technical Approval.

The steps solution will not remove all loading from dock wall which may not be acceptable to Forth Ports. Infraco and CEC met with Forth Ports on 5 May 11 to discuss this and other design issues related to Forth Ports. Design to be submitted to Forth Ports following CEC Technical Approval.

**4.1.1.13 Forth Ports – Design Issues**

Further design work is required to close out the following with Forth Ports.

- Section 1A Drainage – *tie*/CEC to confirm Forth Ports Approval for Section 1A drainage (issued to *tie* 18 November 10). Infraco have requested a letter from CEC stating their approval in addition to the “letter of comfort” from SW to allow this to move forwards.
- Forth Ports Fencing requirements – proposed design submitted to CEC for discussion and agreement with Forth Ports.
- Ocean Terminal Tram Stop Finishes, Lighting, Landscaping, Adoption Boundary etc to be agreed with FP – Lighting design to be finalised. Target date for finalising design is w/c 13 June 2011. CEC/FP to then determine adoption boundary.

These issues impact on the completion of design within Section 1A.

**4.1.1.14 Forth Ports Licence – Approvals and Access Issue**

Forth Ports have stated they would wish for only one more closure with all the tram work scope completed in it to cause minimum disruption.

CEC – Forth Ports Agreement is not legally binding. CEC recognise there are issues with Forth Ports that may impact on CEC/*tie* ability to secure Forth Ports third party consent and design approvals as noted above.

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**4.1.1.15 Scottish Water Approvals issues**

Meeting held with Scottish Water on 31 May 2011. Outstanding issues are:

Six month time limited Approvals – Business Stream awaiting feedback from internal SW meeting and the issue is still not resolved. Reapproval for Section 1C1 / 1C2 outstanding. SW to advise by 03 June 2011. Response not received from BS/SW as of 07 June 2011.

Phase 1a / 1b interface design - Infraco require formal approval from BS/SW. Response not received from BS/SW as of 07 June 2011.

*tie* to clarify to SW how Section 3 (Phase 1b) will be managed.

**4.1.1.16 OLE Base / SW infrastructure issue**

Principle of this issue to be discussed between Scottish Water and CEC/*tie*. Discussed at meeting on 31 May 2011 with SW. SW to clarify their legal position to tie by letter to clarify their position. SW confirmed at meeting that this did not apply to sewers. This is a change to previous statements made by SW representatives.

Options include build over agreement / diversion of utility or relocate OLE (likely design, approvals and construction impact).

SW will issue letter to *tie* to confirm their position. CEC/*tie* are to advise Infraco.

**4.1.1.17 PSCC and ICP Liaison Meetings**

Confirmed and agreed that management of the ICP is to remain with *tie*. Role of PSCC meeting has been reviewed by *tie* following Infraco request. First follow-up meeting was more streamline and efficient, indicating that review process was effective.

**4.1.1.18 Scope of Works for York Place Terminal Point**

It was confirmed on 22 March 11 that Terminal Point will be York Place Cross over. Concept design options were issued to CEC on 7 April 11 for consideration. A further meeting was held on 20 April 11.

Infraco submitted briefing note to CEC for the two preferred options with budget design costs on 12 May 11. CEC subsequently requested further breakdown of design costs and implications on maintenance costs. Updated briefing note will be provided to CEC on 08 June 11.

Instruction required from *tie* for initial Feasibility Works and also for detailed design works for preferred option.

**4.1.1.19 Cathedral Lane Substation**

Infraco had recommenced the “original” Cathedral Lane Substation Design (based on conversion of existing toilet block). CEC/*tie* advised on 28 April 11 to put this design on hold and that *tie* would issue the scope of works and instruction to carry out the “Henderson Global” design by 29 April 11. As of

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25 May 11, the scope and instruction are still to be provided. Marked up sketch provided by CEC showing cable routes. This is being reviewed by Infraco design team at present to allow design estimate to be prepared.

Meeting held on 06 June 2011 with Henderson Global to discuss design and allow design works to commence. HG / CEC to issue scope pack to Infraco to allow design estimate and programme to be developed.

Instructions required from *tie* to confirm progression of “original” design, halt the “original” design and to commence the “HG design”.

#### 4.1.1.20 OLE Foundation – Utility Conflict at Princes Street

Building fixing option for two of the three poles; however third pole cannot be a building fixing. *tie* may need to divert or slew the utilities to accommodate this pole, so it would make sense to divert / slew the utilities for all three poles and avoid Listed Building Consent. Infraco submitted a briefing note on 28 April 11 to CEC.

At meeting held 10 May 11, CEC requested that the OLE remains as poles with utility slewed or diverted to avoid clash. Infraco to carry out trial trenches as part of early works within Princes St to confirm piled foundation solution is feasible (with diversion or temporary slew of utility). Infraco to advise CEC upon completion of trial trench works. The option of retaining the OLE poles means that a separate solution for street lighting may not be necessary.

OLE Pole / Basement / Utility conflicts at Hanover Street junction still to be resolved. Infraco will investigate and advise.

#### 4.1.1.21 SEPA W14C CAR Licence

SEPA have issued W14C CAR Licence. Copy will be forwarded to *tie* for their records. *tie* / TEL to note obligations to provide ongoing monitoring works upon completion of construction works.

*tie* have issued formal confirmation that ongoing monitoring works will be carried out by TEL.

#### 4.1.1.22 W18 – LOD issue

Issue with W18 Retaining Wall and LOD is to be resolved. CEC propose to move W18 by 300mm to avoid any LOD issue. SDS have issued updated design to close out this issue.

#### 4.1.1.23 W4 – LOD Issue

It was previously confirmed by CEC that there was no LOD issue at Retaining Wall W4 (PO Sorting Office). *tie* has issued letter to Infraco advising of an issue with the LOD. Infraco are reviewing the contents of *tie's* letter and will respond shortly.

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**4.1.1.24 Section 1A – Ocean Drive – New Footpath**

New footpath required along Ocean Drive by CEC. *tie*/CEC to determine if required or not.

Instruction and scope required from CEC/*tie*.

**4.1.1.25 Section 1A - Additional Cycle path at Lindsay Road – Hawthornvale**

This additional design was introduced by CEC at meeting on 29 March 11. CEC are to issue the scope of works to Infraco. Infraco will progress design but this was not considered within Phoenix and Infraco require change order from *tie*. CEC confirmed on 19 April 11 that cycleway design should proceed.

Instruction required from CEC/*tie*.

**4.1.1.26 Section 1A – Ocean Terminal Bypass Road**

New design has been developed by AECOM for *tie*. CEC expressed desire at meeting on 1 April 11 for this to be integrated into Infraco design.

Instruction and scope required from CEC/*tie*.

**4.1.1.27 Section 1A – Lindsay Road 0 – 230m Road Alignment Redesign**

The full scope of works issued under TNC may not be feasible. Infraco met with CEC on 26 May 2011 to discuss the 0 – 230 m works. It was agreed that this element of the change was feasible at this stage due to unknown programme for construction of this section of the tram works. Infraco have issued final report to CEC on 07 June 2011.

CEC to review and confirm this element of the design change is not to proceed.

The other element of the design change to design temporary tie in detail to minimise works until tram is constructed is progressing.

**4.1.1.28 Roseburn Viaduct**

*tie* issued letter to Infraco to confirm scope of works agreed between CEC and Infraco on 16 March 11. Design has been submitted to CEC for Prior Approval.

**4.1.1.29 Roseburn Viaduct – Scottish Power 132 kV issue**

Representative of Scottish Power has advised that the proximity of the Roseburn Viaduct to the existing 132 kV cables is not acceptable to Scottish Power. Infraco are reviewing; however *tie* are requested to provide senior SP contact details and initiate discussion with SP. Meeting to be held with SP on 08 June 2011 to resolve.

**4.1.1.30 Tram Stop Design**

IFCs were issued w/c 11 April 11 to close out Informatives. Technical Informatives are closed with Planning Informatives following on within existing Planning Batches. Minor clarification on the PID is resolved with CEC Planning.

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Design based on branding details as agreed with *tie*, TEL and CEC. Should branding change, a change order would be required.

*tie* issued letter to confirm no lettering on top of shelters and confirming other amendments to Employer's Requirements (TVMs locations and numbers, no seating at FOTW and weatherproof display). Letter still required from *tie* to address tram stop lighting, bus tracker and other amendments to ERs agreed during close out of the tram stop design.

**4.1.1.31 Depot Water Supply - 250mm main connection**

*tie* have completed sufficient works to the 250 mm main works to allow Infraco to progress the Depot water connection.

Infraco / SW progressing necessary works ahead of connection. Target Date for connection is w/c 13 June 2011.

**4.1.1.32 'Mini' Test Track**

Instruction is to be issued by *tie* for the design of the temporary Overhead Catenary System.

Briefing note issued on 5 May 11 to CEC with request for urgent instruction to construct to the Gateway design. Infraco has proceeded based on Edinburgh Gateway Alignment.

Instruction required from CEC/*tie*.

**4.1.1.33 Section 7A – NIL Future Proofing Works**

*tie*/CEC to issue instruction to Infraco should *tie* wish to extend Infraco scope of works to include for discharge of Planning Informatives, previously confirmed that *tie* would close out the Informatives.

*tie* confirmed that they will discharge the Planning Informatives.

**4.1.1.34 Traffic Regulation Orders (TROs)**

2No TRO changes proposed by CEC that may impact design at Picardy Place (Blenheim Place) and Shandwick Place (Canning Street). Infraco/CEC workshop to be held; however, this may require further instructions for any design changes. Refer below.

**4.1.1.35 TRO Works – Blenheim Place – Increase in Scope for Picardy Place Works**

Instruction required from CEC/*tie*

**4.1.1.36 TRO Works – Canning Street - Stafford Street Link**

Instruction may be required for Canning Street change. CEC have issued scope drawing to Infraco (by email) and requested budget estimate to design and implement this change. Infraco to provide budget estimate to CEC.

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**4.1.1.37 Trackform – General**

Revised Design Statement taking into account CEC/tie comments re-issued 20 May 2011. Meeting to review further CEC / tie comments was held 25 May 2011. Relevant comments being addressed within formal trackform submission. Planned issue to CEC on 10 June 11. CEC has requested ITPs and Method Statements to be issued at the same time. These are currently being prepared and drafts are circulating internally within Infraco.

**4.1.1.38 Trackform – Direct Fix to Rheda Open**

Following discussion with CEC and *tie*, Infraco have changed the trackform at the Mini Test track to Rheda Open from Direct Fix and are investigating the extent of the direct fix trackform that can be switched to Rheda Open.

There are no CEC Technical or Planning issues associated with this change. This may require review of Structures Design by CEC Structures if Rheda Open is proposed for Structures currently with Direct Fix. Infraco provided a briefing note to CEC.

**4.1.1.39 Trackform – Setted Areas**

Infraco understand that setts are to remain and as part of trackform approval, CEC and Infraco are reviewing extent of setts across the route. Confirmed by CEC and tie at meeting on 25 May 2011.

**4.1.1.40 Reprogramming of *tie* Audits**

It has been confirmed and agreed that no new Audits are scheduled by tie before July 11. New programme to be agreed between parties.

**4.1.1.41 New Track Crossing for Scottish Water within ‘Mini’ Test Track**

Scottish Water advised that a new crossing is required between the between depot halt and Gogar Castle Access Road. *tie* instructed SDS under MUDFA contract to carry out design.

*tie* have since issued tNC 137 on 18 May 2011. Infraco are reviewing the scope of this change and will issue Estimate in due course.

Instruction to be issued by *tie*.

**4.1.1.42 MUDFA Reinstatement Works**

Infraco awaiting details from *tie* in regard to MUDFA reinstatement works that need to be completed ahead of Infraco works. For example, works outstanding at Hope Street, Lothian Road, and Princes Street Junction.

In the vicinity of Gogar depot – existing septic tank – the tank was damaged during MUDFA works and not made good as part of MUDFA as was required. On 27 April 11, *tie* issued letter to Infraco attempting to shift the responsibility to Infraco for resolving this. *tie* stated at monthly progress meeting that they are considering the withdrawal of this letter. Infraco await update from *tie*.

Infraco do not agree with the summary of events issued by tie on 07 June 2011. Existing Septic tank was not made good and is leaking into Infraco work

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site and Infraco are unable to complete earthworks until this is resolved. It was agreed with tie's Andy Scott that he would resolve this through MUDFA contract with SDS. Infraco await resolution of issue by tie.

A8 footpath reinstatement – tie has previously stated they would carry out this work as part of service diversions. Infraco await confirmation as to when these works will be carried out. tie has issued tNC to Infraco to carry out these works. Infraco to review and submit Estimate.

CEC/tie need to resolve MUDFA issues or provide instruction to Infraco to include within Infraco scope of works.

#### 4.1.1.43 MUDFA As Built

tie have issued a number of unsigned MUDFA 'As Built' and Infraco have concerns over the completeness, quality and accuracy of the information provided by tie to date. It is assumed there is no impact on Infraco design due to utility conflicts.

#### 4.1.1.44 Reinstatement of Bulls Heads near Haymarket Tram Stop

Instruction required from CEC/tie to reinstate the Bulls Heads as part of the Infraco works.

#### 4.1.1.45 Delivery of IFC Design Drawings

CEC have requested copies (1A3 and 1 pdf copy) of IFC and as built drawings to be issued to them. Infraco request clarification as to whether drawings will be issued to CEC by tie following usual process or if Infraco are to issue directly to CEC.

Infraco continue to issue IFCs to tie until instructed otherwise, assuming that tie issue set of IFCs onto CEC.

#### 4.1.1.46 BAA/EAL issues

tie has confirmed close out of Depot Access Road design by BAA.

BAA/EAL have requested an additional Road Safety Audit to address their concerns with the relocated Burnside Road. CEC/Infraco to discuss.

tie will continue to submit draft and final drawdown notices directly to BAA, working closely with Infraco in preparation and issue of the documentation.

#### 4.1.1.47 SRU/Murrayfield Accommodation Works

Infraco carried out design works for tie; who, separate to Infraco Contract, completed the construction works. A number of issues are to be resolved with tie (Form Q, As-Built and tie request for Collateral Warranty to be signed by SDS).

Infraco require tie's fabricator's calculations to close out Building Warrant Form Q with CEC.

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**4.1.1.48 Network Rail Haymarket Station Development**

*tie* confirmed Infraco to proceed with works as per current approved design.  
*tie* / CEC to discuss with Network Rail and advise Infraco.

**4.1.1.49 Section 2A – Junction 91**

This issue is related to cars trying to squeeze around a tram held across the car park entrance. The IMU box is being relocated so that the tram now blocks the whole entrance.

Design basis statement to be formally issued by Infraco to CEC for close-out.  
This is to be issued w/c 13 June 2011.



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**4.1.2 Outstanding Consents**

**4.1.2.1 CEC Planning**

1. Forth Ports Cruise Liner Terminal Road – to be submitted.
2. Listed Building Consent for 4 Dublin Street – to be submitted.
3. Roseburn Viaduct Prior Approval – with CEC Planning for approval.
4. Planning Variations – 27 of 45 planning batches approved to date with 7 No with CEC for approval. The outstanding variations still to be approved are split as follows: 5 Off-Street and 13 On-Street.
5. Planning Informatives – information being submitted to CEC as part of the Planning Variations to close out.
6. Trackform – colour and finish of concrete was agreed with CEC Planning on 24 May 2011. Final walkthrough of details held 26 May 2011. Line 2 crossings to be discussed w/c 13 June 2011.
7. Points position indicators locations – to be submitted.
8. OLE Pole finials – details to be confirmed with CEC Planning.
9. CEC/*tie* Planning Informatives to be closed out with CEC Planning.
10. Cathedral Lane Substation – new Prior Approval to be submitted.
11. York Place – new Prior Approval (TBC by CEC Planning) to be submitted.
12. Edinburgh Gateway Planning Variation – to be submitted if required

**4.1.2.2 CEC Technical (Roads) – To Be Submitted:**

1. Section 1C2 (Picardy Place) – to be submitted.
2. Technical Informatives – remainder to be submitted and closed.
3. Trackform – CEC have issued Approval in Principle for trackform design. Design Statement has been amended to incorporate responses to *tie*/CEC queries. Anticipated date for formal submission w/e 10 June 11.
4. Overall tram and traffic signalling strategy – to be closed out with CEC.
5. Signalling and ducting details to be submitted to close Informatives.
6. High Level Control (following on from Traffic Modelling close out).

**4.1.2.3 CEC Technical (Roads) – Submissions With or In Discussion with CEC:**

1. Traffic Modelling – some “tweaks” to modelling required to close out. Impact on roads design to be assessed.
2. Use of existing fibre link from Ingliston to City Chambers for CCTV to permit design to be finalised.
3. CEC / TEL provided protocols for Bus Tracker – Infraco to update design document.
4. Use of existing fibre link from City Chambers to Annandale Bus Garage for Disaster Recovery Control.
5. Junction 91 (Section 2A) issue to be finalised - Infraco await response from *tie* to allow CEC close out of this issue.

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#### 4.1.2.4 CEC Technical (Structures)

1. Murrayfield Retaining Walls S21B & D – Ground Improvement Works – to be submitted.
2. Edinburgh Gateway – Retaining Wall – to be submitted.
3. Review of Roseburn Viaduct (cladding around abutments) – to be submitted.
4. Tower Place Bridge – Steps in place of ramp – Design to be submitted for Technical Approval

#### 4.1.2.5 CEC Building Control

1. Edinburgh Gateway Tram Stop - Building Warrant – Infraco to respond to CEC comments.
2. Edinburgh Airport Kiosk and Canopy – Building Warrant – progressing design for Building Warrant.
3. Cathedral Lane Substation – Building Warrant - awaiting scope from CEC/*tie* to commence “HG” design.

#### 4.1.2.6 Scottish Water

1. Edinburgh Gateway – 1525 sewer diversion and interface with Retaining Wall.
2. Six month time limit on Approvals – process to manage this requirement to be agreed between CEC, SW and Infraco. Section 1C1/1C2 outstanding.
3. Phase 1a/1b formal Approval from SW required
4. OLE Base/Scottish Water infrastructure – principle to be discussed between SW and CEC/*tie*.

#### 4.1.2.7 Forth Ports

1. Section 1A Drainage – CEC/*tie* to issue Forth Ports Approval to Infraco.
2. Forth Ports fencing requirements – proposed design submitted to CEC for onward issue to Forth Ports.
3. Ocean Terminal Tram Stop Finishes, Lighting, Adoption Boundary etc to be agreed with Forth Ports – design to be finalised to allow CEC / FP to determine adoption boundary.
4. Tower Place Bridge – steps in place of ramp to be agreed.
5. Forth Ports Licence issues – CEC/*tie* to advise.

#### 4.1.2.8 Network Rail

1. Edinburgh Gateway – Retaining Wall Design Approval – to be submitted.

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**4.1.2.9 BAA / EAL Approvals**

1. Airport Canopy/Kiosk and Airport Tram Stop – submitted to EAL
2. BAA/EAL has requested an additional Road Safety Audit to address their concerns with the relocated Burnside Road. CEC/Infraco to discuss.

**4.1.2.10 Other Third Party Consents**

1. Consents and requirements required for 4 PIDs located outside LOD (BAA, FP approval etc) – Infraco proposal submitted to *tie*. *tie*/CEC to advise.
2. TEL/CEC to respond on use of existing fibre links – strategic decision required.

## Issues Letter Tracker (Instructions, Clarifications, Changes etc)

Date: 08 June 2011

Status: Draft

Key:

Agreed in Principle by tie (AIP)  
Principle Not Agreed (PNA)

Issue closed (IC)  
Confirmation only (CO)  
To be discussed (TBD)

No.	Issue	Type	Section	Design Impact	Constr Impact	Date raised	Current Status	BBS					tie			Comments	
								INTC Ref	SV Ref	Post Mediation Change Ref	BBS Letter Ref	Date of Letter	tie letter ref	tCO Ref	Date received		
1	Gogar Castle Access Road - realignment to reduce land take / avoid tree	New design	5C	Yes	Yes	22-Mar-11	PNA	INTC-0687									Design complete ahead of instruction
2	Depot Access Road Turning Head - relocation of turning head	New design	6A	Yes	Yes	22-Mar-11	PNA	INTC-0617									Design complete ahead of instruction
3	Additional Cycle path at Lindsay Road - Hawthornvale	New design	1A	Yes	Yes	29-Mar-11	AIP	INTC-0709									Design progressing ahead of instruction
4	Roseburn Viaduct (scope confirmation)	Confirmation	5A	Yes	Yes	16-Mar-11	CO	INTC-0659					INF CORR 7736/DS		25-May-11		Infraco reviewing tie's response
5	Cathedral Lane Substation (scope confirmation)	Confirmation	1C	Yes	Yes	22-Mar-11	CO	INTC-0281	SV-0022								Design for original solution now ON HOLD - Abortive Costs will apply
6	New Footpath at Ocean Drive - Instruction	New design	1A	Yes	No	01-Apr-11	AIP	INTC-0725					INF CORR 7735/DS		25/05/2011		Awaiting instruction and scope of works
7	incorporate new design for Ocean Terminal Bypass Road - incorporate AECOM design	New design	1A	Yes	No	01-Apr-11	PNA										Awaiting instruction and scope of works
8	Confirmation of no lettering / signage on top of tram stop shelters	Confirmation (ER)	SW	Yes	No	21-Mar-11	CO						INF CORR 7740/DS		25-May-11		CLOSED
9	OLE temporary portals at Depot Access Bridge to allow finalisation without Edinburgh Gateway	New design	5C	Yes	Yes	22-Mar-11	PNA		SV-0182				INF CORR 7751/SB		02-Jun-11		Design progressing ahead of instruction
10	Inclusion of Blenheim Place redesign (for TRO) within Picardy Place redesign - Instruction	New design	1C	Yes	No	11-Apr-11	AIP						INF CORR 7741/DS		25-May-11		Awaiting instruction and scope of works
11	York Place Terminal Point - Options Feasibility Report (Includes estimate for final design works) - instruction	New design	1C	Yes	Yes	22-Mar-11	AIP		SV-0189								Scoping Report complete - await instruction. Budget Price based on Option 4
12	W14C SEPA CAR Licence - tie to confirm process for ongoing monitoring works following completion of works.	Confirmation	7A	No	Yes	06-Apr-11	IC						INF CORR 7732/SS		20-May-11		CLOSED
13	tie / CEC to confirm Forth Ports Approval for Section 1A drainage.	Confirmation	1A	Yes	No	18-Nov-10	CO										Awaiting tie response
14A	Princes St - new cycleway crossing through The Mound / Hanover St junction	New design	1C	Yes	Yes	19-Mar-11	PNA						INF CORR 7734/SB		24/05/2011		Awaiting instruction and scope of works
14B	Princes St - new cycle way from The Mound into Princes St	New design	1C	Yes	Yes	19-Mar-11	AIP										Awaiting instruction and scope of works
15	St Andrew Square Public Realm - Instruction to produce Clarification Report	New design	1C	Yes	Yes	21-Apr-11	AIP	INTC-0519									Scoping works progressing ahead of instruction
16	Lindsay Road 0 - 230 m redesign - clarification by CEC required	Confirmation	1A	Yes	Yes	26-Apr-11	CO										Meeting with CEC on 26 May 2011. Updated Report issued 07 June 2011. CEC to confirm closed.
17	Letter to confirm full closure of Princes Street and Embargo has been lifted	Confirmation	1C / 1D	No	Yes	11-Apr-11	CO										Awaiting tie response
18	Letter regarding tie's non involvement in BBS design moving forwards	Confirmation	SW	No	No	22-Mar-11	CO						INF CORR 7745/DS		27-May-11		Infraco reviewing tie's response
19	Letter covering audit (trackwork) and in general to allow BBS to complete design and agree this with CEC.	Confirmation	SW	No	No	22-Mar-11	CO										Awaiting tie response
20	Cathedral Lane Substation - change to Henderson Global Design - new instruction	New design	1C	Yes	Yes	28-Apr-11	AIP	INTC-0281	SV-0022								Abortive Costs and new estimate required for HG design - awaiting scope from tie
21	St Andrew Square Public Realm Design finalisation (will follow on from item 15 above)	New design	1C	Yes	Yes	28-Apr-11	AIP										Scope TBC following item 15 above
22	Letter to confirm all changes to Employer's Requirements (Post Mediation) following close out of design with CEC	Confirmation	SW	Yes	No	03-May-11	CO						INF CORR 7740/DS		25-May-11		Items still to be confirmed include Tram Stop Lighting & Bus Tracker
23	Letter to confirm Infraco are to address some of Planning Informatives for NIL Future Proofing works - new scope	Confirmation	7A	No	Yes	04-May-11	CO	INTC-0258	SV-0069				INF CORR 7749/SB		01-Jun-11		CLOSED - tie to discharge Informatives
24	Letter to instruct Infraco to carry out track crossing and associated works for SW in vicinity of Depot	New design	5C	Yes	Yes	05-May-11	AIP		SV-0192								Infraco to issue estimate
25	CEC/tie to issue letter to clarify provision of IFC drawings to CEC and tie from Infraco	Confirmation	SW	Yes	No	12-Apr-11	CO										Awaiting tie response
26	Letter to confirm incorporation of Bulls Heads outside Roseberry House	Confirmation	2A	Yes	Yes	05-May-11	CO										Awaiting tie response - tie discussing with CEC. May require additional design - to be confirmed
27	tie to provide list of statutory utility company contact details to Infraco.	Confirmation	SW	No	No	10-May-11	CO						INF CORR 7744/DS		27-May-11		Infraco reviewing tie's response
28	CEC to issue letter to SUCs to confirm Infraco are point of contact for Tram Works.	Confirmation	SW	No	No	10-May-11	CO										CEC to confirm letters issued to SUCs
29	Letter to confirm use of existing fibre cable into City Chambers	Confirmation	SW	TBC	TBC	10-May-11	CO		DI-0005								Awaiting tie response
30	Letter to confirm use of existing fibre cable between City Chambers and Annandale Bus Garage	Confirmation	SW	TBC	TBC	10-May-11	CO		DI-0004; SV-0131								Awaiting tie response
31	Letter to confirm acceptance of Recommendations on PIDs outside LoD	Confirmation	SW	TBC	TBC	10-May-11	CO		SV-0153								Awaiting tie response
32	CEC / tie to confirm close out of Depot Access Road design issue with BAA / EAL	Confirmation	7A	TBC	TBC	10-May-11	CO						INF CORR 7750/SB		02-Jun-11		CLOSED

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								INTC Ref	SV Ref	Post Mediation Change Ref	BBS Letter Ref	Date of Letter	tie letter ref	tCO Ref	Date received		
33	CEC / tie to confirm close out of BAA / EAL issue with relocated Burnside Road with BAA / EAL	Confirmation	7A	TBC	TBC	10-May-11	CO	INTC-0450	-	-							Awaiting tie response
34	CEC / tie to confirm BAA drawdown process	Confirmation	7A	No	No	18-May-11	CO		-	-			INF CORR 7743/D5	-	27-May-11		CLOSED
35	CEC/tie to issue letter to confirm Gogar Depot Radio Mast is not to be installed.	Confirmation	5C	TBC	TBC	18-May-11	CO		SV-0009; SV-0174	-							Awaiting tie response
36	Murrayfield Accommodation As Built	New design	5A	Yes	No	30-Mar-11	AIP		-								Infraco to issue Estimate to tie
37	A8 footpath reinstatement	Construction	5C	No	Yes	18-May-11	TBD						INF CORR 7729/GMcC	-	18-May-11		Infraco to prepare Estimate
38																	
39																	
40																	