

**Bilfinger Berger – Siemens – CAF Consortium**

Issues and Concerns

Changes from BDDI to IFC have yet to be agreed.

Change order for protection of utilities within existing underpass has yet to be agreed.

Networkrail submission date of 9 July 10 may not be achieved.

**Baird Drive Retaining Wall**

**East Section**

Progress

WPP/Form C has been resubmitted to CRE in the period.

Issues and Concerns

Change order for protection of utilities within existing underpass has yet to be agreed.

Networkrail submission date of 9 July 10 may not be achieved.

**Centre Section**

Progress

WPP/Form C has been submitted to Third Party Engineer in the period.

Rev 3 Networkrail submission date is 24 June 10.

Issues and Concerns

Change order for protection of utilities within existing underpass has yet to be agreed.

**West Section**

Progress

WPP/Form C has been resubmitted to CRE in the period.

Rev 3 Networkrail submission date is 9 September 10.

Issues and Concerns

None.

**Balgreen Bridges**

**Tram Bridge**

**East Abutment**

Progress

WPP/Form C has been resubmitted to CRE in the period.

Rev 3 Networkrail submission date is 9 September 10.

Issues and Concerns

Changes from BDDI to IFC have yet to be agreed.

**West Abutment**

Progress

WPP/Form C has been submitted to CRE in the period.

Rev 3 Networkrail submission date is 9 September 10.

**Bilfinger Berger – Siemens – CAF Consortium**

Issues and Concerns  
Changes from BDDI to IFC have yet to be agreed.

**Network Rail Bridge**

Progress  
No activities carried out during the period.

Issues and Concerns  
Changes from BDDI to IFC have yet to be agreed.

**Retaining Wall**

Form C/WPP has been submitted to CRE in the period.  
Rev 3 Networkrail submission date is 9 September 10.

**Trackwork Murrayfield Stadium to Balgreen Road**

Progress  
No activities carried out during the period.

Issues and Concerns  
Changes from BDDI to IFC have yet to be agreed.

**Balgreen Road Tram Stop**

Progress  
No activities carried out during the period.

Issues and Concerns  
CEC Planning approval outstanding

**Jenners Sub Station**

Progress  
No activities carried out during the period.

Issues and Concerns  
Changes from BDDI to IFC have yet to be agreed.

**4.1.3.7 Section 5B Balgreen Road to Edinburgh Park Central**

**Trackwork Balgreen Road – Carrick Knowe**

Progress  
1<sup>st</sup> stage earthworks have been completed in the period.

Issues and Concerns  
Rev 3 track drainage commencement date was 9 June 10.  
Track work changes from BDDI to IFC have yet to be agreed.  
Earthworks changes from BDDI to IFC have yet to be agreed.  
Drainage changes from BDDI to IFC have yet to be agreed.

**Carrick Knowe Bridge**

Progress  
Formwork reinforcement and concrete works to galleries/diaphragms has commenced in the period.

**Bilfinger Berger – Siemens – CAF Consortium**

**Issues and Concerns**

Resolution of geometry at abutments track slab is still required.

Rev 3A completion was 23 June 10.

Anticipated completion 28 October 10.

**Track work Carrick Knowe – Guided Busway**

**Progress**

Site clearance activities have been completed in the period.

**Issues and Concerns**

Access to allow construction to continue has not been provided by *tie*.

Track work changes from BDDI to IFC have yet to be agreed.

Earthworks changes from BDDI to IFC have yet to be agreed.

Drainage changes from BDDI to IFC have yet to be agreed.

**Track work Guided Busway**

**Progress**

No activities carried out during the period.

**Issues and Concerns**

Track work changes from BDDI to IFC have yet to be agreed.

**Track work Guided Busway to South Gyle Access Bridge**

**Progress**

No activities carried out during the period.

**Issues and Concerns**

Track work changes from BDDI to IFC have yet to be agreed.

**Bankhead Retaining Wall**

**Progress**

No activities carried out during the period.

**Issues and Concerns**

Changes from BDDI to IFC have yet to be agreed.

Commencement is dependent on diversion of existing sewer.

**South Gyle Access Bridge**

**Progress**

No activities carried out during the period.

**Issues and Concerns**

Commencement is dependent on diversion of existing sewer, not yet awarded by tie to others.

Changes from BDDI to IFC have yet to be agreed.

**Bankhead Tram Stop**

**Progress**

No activities carried out during the period.

**Bilfinger Berger – Siemens – CAF Consortium**

Issues and Concerns  
CEC Planning approval outstanding.

**Bankhead Drive Sub Station**

Progress  
No activities carried out during the period.

Issues and Concerns  
Changes from BDDI to IFC have yet to be agreed.

**Track work South Gyle Access Bridge to Edinburgh Park**

Progress  
No activities carried out during the period.

Issues and Concerns  
Track work changes from BDDI to IFC have yet to be agreed.  
Drainage changes from BDDI to IFC have yet to be agreed.

**Road Works Edinburgh Park Station**

Progress  
Phase 2 of carriageway construction has continued in the period.  
Excavation for track form has commenced in the period.

Issues and Concerns  
Change order required for contaminated ground on road works.  
Change order required for existing utilities which require diversion.

**Edinburgh Park Bridge**

Progress  
Formwork reinforcement and concreting to track containment slabs have been completed in the period.  
Formwork reinforcement and concreting to reinforced earth approach embankments has been completed in the period.  
North approach block work commenced in the period.  
Waterproofing and finishes to deck commenced in the period.

Issues and Concerns  
Structure changes from BDDI to IFC have yet to be agreed.  
DKE issues at OLE foundations unresolved.  
Containment plinth level tolerance unresolved  
Colour finish to approach block work unresolved  
Rev 3 Completion date of 9 July 10 will not be achieved.  
Anticipated completion date is 01 Sep 10

**Track Work Edinburgh Park Station – Edinburgh Park Central**

Progress  
Removal of invasive species has commenced in the period.

Issues and Concerns  
Access to allow construction to commence has not been provided by *tie* in all of this section.  
Track work changes from BDDI to IFC have yet to be agreed.

**Bilfinger Berger – Siemens – CAF Consortium**

Earthworks changes from BDDI to IFC have yet to be agreed.  
Drainage changes from BDDI to IFC have yet to be agreed.  
Contamination/Hogweed changes have not been agreed.

**Edinburgh Park Station Tram Stop**

Progress

No activities carried out during the period.

Issues and Concerns

CEC Planning approval outstanding.

**4.1.3.8 Section 5C Edinburgh Park Central to Gogarburn  
Trackwork Edinburgh Park Central – Gyle Centre**

Progress

No activities carried out during the period.

Issues and Concerns

Access to allow construction to commence has not been provided by *tie*.

Track work changes from BDDI to IFC have yet to be agreed.

Earthworks changes from BDDI to IFC have yet to be agreed.

Drainage changes from BDDI to IFC have yet to be agreed.

**Edinburgh Park Central Tram Stop**

Progress

No activities carried out during the period.

Issues and Concerns

CEC Planning approval outstanding.

**Gyle Tram Stop Retaining Wall**

Progress

No activities carried out during period.

Issues and Concerns

Changes from BDDI to IFC have yet to be agreed.

Rev 3 commencement date of 11 June 10 has not been achieved

**Gyle Centre Tram Stop**

Progress

No activities carried out during the period.

Issues and Concerns

CEC Planning approval outstanding.

**Depot Access Bridge**

**North Abutment**

Progress

Formwork reinforcement and concreting of bases has continued.

Wall reinforcement, formwork and placing of concrete has commenced in the period.

**Bilfinger Berger – Siemens – CAF Consortium**

Rev 3 completion date is at 20 Aug 10  
Anticipated completion date is 3 Sep 10

Issues and Concerns  
Changes from BDDI to IFC have yet to be agreed.

**South Abutment**

Progress  
Installation of temporary works has continued.  
Rev 3 completion date is 18 Jan 11.  
Anticipated completion date is 10 Feb 11

Issues and Concerns  
Changes from BDDI to IFC have yet to be agreed.

**Centre Pier**

Progress  
No activities carried out during period.  
Rev 3 completion is 5 Nov 10  
Anticipated completion is 1 Dec10

Issues and Concerns  
Changes from BDDI to IFC have yet to be agreed.

**Superstructure**

Progress  
No activities carried out during period.

Issues and Concerns  
Changes from BDDI to IFC have yet to be agreed.

**A8 Underpass**

**Phases 1 & 2**

Progress  
Excavation to expose proposed deck has been completed in the period.  
Erection of deck temporary works has commenced  
Rev 3 completion date phases 1& 2 is 2 Nov 10.  
Anticipated completion date phases 1 & 2 is 10 December 10.

Issues and Concerns  
Changes from BDDI to IFC have yet to be agreed.

**Phase 3**

Progress  
No activities carried out during period.

Issues and Concerns  
Changes from BDDI to IFC have yet to be agreed.

**Bilfinger Berger – Siemens – CAF Consortium**

**Phase 4**

Progress

Piling works have commenced in the period

Rev 3 completion date is 17 Nov 10

Anticipated completion 8 Feb 11

Issues and Concerns

Changes from BDDI to IFC have yet to be agreed.

Utility diversions are incomplete.

Scope of Utility protection measures have not been agreed by *tie*.

Change order to grout existing sewer has yet to be agreed.

Grouting of sewer is preventing completion of piling to Phase 4

Unforeseen ground conditions ie. variable rockhead has delayed piling activities

**Tunnel Construction**

Progress

No activities carried out during period.

Issues and Concerns

Changes from BDDI to IFC have yet to be agreed.

**Track work Gyle Centre to Depot Stop**

Progress

No activities carried out during period.

Issues and Concerns

Track work changes from BDDI to IFC have yet to be agreed.

Earthworks changes from BDDI to IFC have yet to be agreed.

Drainage changes from BDDI to IFC have yet to be agreed.

**Depot Tram Stop**

Progress

No activities carried out during the period.

Issues and Concerns

CEC Planning approval outstanding.

**Track Work Depot Stop – Gogarburn**

Progress

1<sup>st</sup> stage earthworks have continued within the period adjacent to the depot.

Rev 3 Completion date for earthworks is 11 August 10.

Completion date for earthworks was 22 June 10.

Issues and Concerns

Track work changes from BDDI to IFC have yet to be agreed.

Earthworks changes from BDDI to IFC have yet to be agreed.

Drainage changes from BDDI to IFC have yet to be agreed.

**Bilfinger Berger – Siemens – CAF Consortium**

**Gogarburn Tram Stop**

Progress

No activities carried out during the period.

Issues and Concerns

CEC Planning approval outstanding

**4.1.3.9 Section 6A Depot**

**Earthworks/Drainage**

Progress

Drainage outfall to east of depot has continued in the period.

Issues and Concerns

Drainage changes from BDDI to IFC have yet to be agreed.  
Interface with future Gogar Interchange (Network Rail/Tram) may delay completion.

**Trackwork**

**Area 1**

Progress

Sub base below ballast has been completed and placing of lower ballast has commenced

Rev 3 commencement of track laying is 21 June 10.

Anticipated commencement of track laying is 12 July 10.

Issues and Concerns

Track work changes from BDDI to IFC have yet to be agreed.

Drainage changes from BDDI to IFC have yet to be agreed.

OLE foundation changes from BDDI to IFC have yet to be agreed

**Area 2**

Progress

Sub base below ballast has commenced in the period.

Rev 3 commencement of track laying is 28 July 10.

Anticipated commencement of track laying is 11 August 10.

Issues and Concerns

Track work changes from BDDI to IFC have yet to be agreed.

Drainage changes from BDDI to IFC have yet to be agreed.

OLE foundation changes from BDDI to IFC have yet to be agreed.

**Area 3**

Progress

No activities have been carried out.

Rev 3 commencement of track laying is 19 August 10.

Anticipated commencement of track laying is 31 August 10.

Issues and Concerns

Track work changes from BDDI to IFC have yet to be agreed.

Drainage changes from BDDI to IFC have yet to be agreed.



**Bilfinger Berger – Siemens – CAF Consortium**

**Area 4**

**Progress**

Sub base below ballast layer has continued.

Rev 3 commencement of track laying is 9 September 10.

Anticipated commencement of track laying is 20 September 10.

**Issues and Concerns**

Track work changes from BDDI to IFC have yet to be agreed.

Drainage changes from BDDI to IFC have yet to be agreed.

**Depot Building**

**Progress**

Floor slab and pit construction has recommenced in the period.

Internal blockwork activities have continued in the period.

1<sup>st</sup> fix M&E works have continued in the period.

2<sup>nd</sup> fix M&E works have commenced in the period.

Internal partition work has continued in the period.

Rev 3 fit out and finishes completion date is 17 September 10.

Anticipated fit out and finishes completion date is 3 Sep 10

Anticipated commencement of track laying within depot is 12 July 10

**Issues and Concerns**

Numerous Changes from BDDI to IFC have yet to be agreed.

Track containment specification with regard to level control has not been achieved.

Non availability of power and water will delay commissioning.

Rev 3 Trackwork laying date of 11 June 10 was not achieved.

**Depot Substation**

**Progress**

Ground floor slab has been cast and blockwork to superstructure has commenced.

Rev 3 completion date 21 Oct 10.

Anticipated completion date 15 Oct 10

**Issues and Concerns**

Changes from BDDI to IFC have yet to be agreed.

**Access Roads/Car Parks**

**Progress**

2<sup>nd</sup> stage earthworks to concrete hard standing area has commenced in the period.

Tram and utility duct laying has commenced in the period.

**Issues and Concerns**

Changes from BDDI to IFC have yet to be agreed.

**Bilfinger Berger – Siemens – CAF Consortium**

**4.1.3.10 Section 7A Gogarburn to Edinburgh Airport**

**Gogarburn to Ingliston Park & Ride**

**Trackwork Ch710000 –Ch710390**

**Progress**

Placing of surcharge has been completed in the period.

Rev 3 scheduled completion for placing surcharge is 1 July 10.

Actual completion for placing of surcharge was 30 June 10.

**Issues and Concerns**

Changes from BDDI to IFC including landfill treatment have yet to be agreed.

**Gogarburn Bridge**

**Progress**

Structure now substantially complete.

**Issues and Concerns**

Track containment specification with regard to level control has not been achieved.

**Track work Ch710420 – Ch711600**

**Progress**

Pre earthworks drainage has continued in the period.

Track drainage has continued in the period.

Topsoil strip & removal of soft material below earthworks outline has continued in the period.

1<sup>st</sup> Stage earthworks have continued in the period.

Rev 3 track laying scheduled to commence on 21 Mar 11.

Anticipated commencement for track laying is 8 Oct 10

**Issues and Concerns**

OLE & Duct changes BDDI to IFC are yet to be agreed

**Gogarburn Culvert No 1**

**Progress**

Now substantially complete.

**Issues and Concerns**

None.

**Ingliston Tram Stop**

**Progress**

No activities carried out during the period.

**Issues and Concerns**

CEC Planning approval outstanding.

**Ingliston Sub Station**

**Progress**

No activities carried out during the period.

**Bilfinger Berger – Siemens – CAF Consortium**

Issues and Concerns

Changes from BDDI to IFC have yet to be agreed.

**Ingliston Park & Ride to Edinburgh Airport**

**Trackwork Ch711600 – Ch712200**

Pre earthworks drainage has continued in the period.

Track drainage has continued in the period

Topsoil strip & removal of soft material below earthworks outline has been completed in the period.

Construction OLE foundations and installation of ducts has commenced in the period.

Rev 3 track laying scheduled to commence on 22 Feb 11.

Anticipated commencement for track laying is 15 April 11

Issues and Concerns

OLE & duct changes BDDI to IFC are yet to be agreed

**Gogarburn Culvert No 2**

Progress

Culvert substantially complete.

Issues and Concerns

None.

**Gogarburn Culvert No 3**

Progress

Now substantially complete.

Issues and Concerns

None.

**Gogarburn Retaining Wall W15A**

Progress

Wall construction has been completed.

Backfill and 1<sup>st</sup> Stage earthworks have been completed.

Issues and Concerns

None.

**Track work Ch712200 – Ch712580**

Possession of site Ch – Ch was given by *tie* on 5 July 10. Erection of fences has commenced, with earthworks scheduled to commence on 12 July 10

Issues and Concerns

Redesign of Walls W14C & W15D is incomplete.

**Gogarburn Wall W14C**

No activities carried out during period.

### **Bilfinger Berger – Siemens – CAF Consortium**

#### **Issues and Concerns**

Changes from BDDI to IFC have yet to be agreed.  
Redesign of walls W14C & W15D is incomplete.

#### **Gogarburn Wall W15D**

No activities carried out during period.

#### **Issues and Concerns**

Changes from BDDI to IFC have yet to be agreed.  
Redesign of Walls W14C & W15D is incomplete.

#### **Edinburgh Airport Tram Stop**

##### **Progress**

No activities carried out during the period.

#### **Issues and Concerns**

CEC/BAA Planning approval outstanding.

## **4.2 E&M SYSTEMS**

### **4.2.1 OLE (Overhead Line Equipment)**

#### **Design**

OLE Design continues to be modified to accommodate changes resultant from Road Safety audit and Services conflicts.

#### **Approvals and Consents**

Next submission for Shandwick Place was submitted May 10, reply is awaited. Next submission (Atholl Place – Haymarket) is planned for August 10. Currently without impact on the construction programme, due to prioritisation of building fixing conflict resolution.

#### **Issues and Concerns**

Programme issues remain unchanged from last report.

#### **Production**

Building fixing installation commenced February 10. Installation by Siemens has started several months ahead of the sequence defined in the Programme, to mitigate overall programme delay. 40 building fixings completed to date. As *tie* was made aware of, Siemens has temporarily ceased installation of the OLE Building Fixings at this time in an effort to mitigate costs and minimise abortive works. Since this activity has plenty of float in the overall impacted Programme, the further installation of the OLE Building Fixings at this juncture will not have any direct impact on the current progress of additional works in these areas or the Programme in general.

As reported in previous months, the manufacturing of most OLE hardware is partly completed, partly still deliberately on hold, to mitigate “cost-over-time” factors, and until such time as a reasonable amount of OLE installation can be programmed to start.

### Bilfinger Berger – Siemens – CAF Consortium

All tapered and stepped OLE poles are currently under production to mitigate further cost risks and to be ready for installation. Same applies for all other materials (e.g. isolators, pole equipment, housings for T-joints, etc.) except wires. Orders are already placed for all wires, but to avoid quality problems of copper wire if stored in reels for a too long period of time, will be released for production and delivered as needed for installation

#### 4.2.2 TPS (Traction Power Substations)

##### Design

No update since last report. TPS E&M design is substantially complete.

##### Approvals and Consents

FAT of disconnecter cabinets were carried out successfully June 29, 2010.

##### Issues and Concerns

Same comments as in all previous monthly reports. In addition, the lack of determination by *tie* of the Power Supply Company (regularly reported below under “HV/LV Supply”) could be near critical for the energization of the first TPS, in the Depot, that could be achieved during the summer of 2010. *tie* has confirmed in writing a target date of July 2010, which Siemens considers would still be acceptable as it would be slightly ahead of our installation.

*tie* has not yet approved the proposed TPS-installation subcontract. Siemens kindly requests confirmation of whether it could be deemed a non key subcontract, as its signature is urgent to start installation works in the TPS substation still in the summer 2010.

##### Production

All TPS materials that were held at various buffer warehouses in Germany and in Scotland are being gradually delivered by Siemens to the Broxburn project warehouse. Orders are also released for small materials needed for installation (e.g. cable lugs, plugs, material for joints, clamps, etc.).

No construction has started yet in any of the TPS sites alongside the tramway line. However, construction of the TPS in the Depot Building is underway, yet is not progressing as anticipated in earlier reports. Based on current progress we estimate that installation of Siemens equipment could start in September 2010. Testing, commissioning and energization could thus still be concluded in the early autumn of 2010, provided that the HV outstanding issues (construction of the very TPS building, clarification of wayleaves until the latter, selection by *tie* of a Power Supply Provider, completion of the HV cableways through the A8 underpass construction site) are resolved ahead of the Siemens TPS installation works.

**Bilfinger Berger – Siemens – CAF Consortium**

**4.2.3 TRW (Trackwork)**

**Design**

- Detailed Design, submittals to *tie* in the reporting period:
  - Rheda City Floating Slab Track drawing Rev.B (#055722)
  - Depot: Layout for Turnout RH 49E1-41m-1.3.73 STR Item 10 Rev.0 (#058073)
  - Depot: Layout for Turnout RH 49E1-41m-1.3.73 STR Item 11 Rev.0 (#058072)
  - Depot: Layout for Turnout 49E1-41m-1.3.73 STR Item 8 & Item 9 Rev.0 (#058071)
  - Depot: Layout for Turnout LH 49E1-41m-1.3.73 STR Item 13 & Item 15 Rev.0 (058070)
  - Depot: Layout for Turnout LH 49E1-41m-1.3.73 STR Item 12 & Item 14 Rev.0 (#058069)
  - Depot: Layout for Turnout 49E1-41m-1.3.73 STR Item 16 Rev.0 (#058068)
  - Depot Layout for Turnout RH 49E1-41m-1.3.73 STR Item17 & Item 18 Rev.0 (058067)
  - Depot Layout for Turnout RH 49E1-41m-1.3.73 STR Item 21 & Item 19 Rev.0 (#058066)
  - Depot Layout for RH 49E1-41m-1.3.73 CVD Item 20 & Item 22 Rev.0 (#058065)
  - Depot Track Layout Rev. D (#055961)
  - Depot Track Layout Rev.E (#055962)
  - Depot Track Layout Rev.D (#055963)
  - Depot Track Layout Rev.E (#055964)
  - Depot Track Layout Rev.D (#055965)
  - Depot Detailed Design – Depot Workshop – Sleeper Arrangement Rev.C (#055996)
  - Depot Detailed Design – Depot Workshop – Sleeper Arrangement Rev.C (#055997)
  - Depot Workshop – Washing Plant Track Rev.B (#055968)
  - Depot Workshop – Pit Track Details Rev.B (#055969)
  - Depot Workshop – Underfloor Wheel Lathe Track Details Rev.B (#055970)
  - Depot Workshop – Bogie Turntable Track Details Rev.B (#055971)

**Approvals and Consents, RoR's**

- Basic Designs reviewed and endorsed by *tie* with Level A or B in the reporting period
  - Direct Fixation Track Report Rev.C (#055625)
  - Direct Fixation Track Report Rev.D (#055625)
  - Trackform Overview Rev.D (#057156)
  
- Detailed Designs reviewed and endorsed by *tie* with Level A or B in the reporting period:
  - Direct Fixation Track Typical Sections Revision B (#055719)
  - Rheda City Open Formation – Sections on the Guided Busway Rev.A (#055778)

### Bilfinger Berger – Siemens – CAF Consortium

Rheda City SLC Typical Sections Rev.A (#055723)

*tie* has recently raised objections, alleging that the Rheda City trackwork system design should have had previous Technical Approval by CEC. Infraco is evaluating this and will respond and act accordingly.

#### Issues and Concerns

- Groundborne Noise & Vibration Issues may influence the TRW design and programme. Siemens portion of Basic Design Rheda City Floating Slab is submitted to *tie* and has RoR Level B, SDS portion pending on *tie's* approval of the Design Estimate (currently rejected by *tie* and increasing the related delay). Based on integrated design Infraco will then provide a cost estimate to carry out the construction work.
- Still unresolved special shallow trackform design (SDS Design Estimates submitted to *tie* but not yet approved) to overcome:
  - 275 kV cable
  - Arthur Street to Dalmeny Street Scottish Power Tunnel
  - Leith Walk Leith Walk Railway Bridge
  - Culvert on North Street Section of Constitution Street
  - MUDFA as built drawings as basis for further design development not available as yet.
- Trackform location overview submitted to *tie*. This overview includes already minor changes to the Infraco Agreement. One change is the already agreed trackform change to Rheda Open Formation at the guided busway other changes are mostly additional pedestrian crossings. Infraco has identified and registered this matter under INTC-0411 and will provide the commercial proposal soon. *tie* to confirm this trackform location overview. *tie* has reviewed this overview and endorsed it with Level B
- Still no track solution for Victoria Dock Entrance Bridge and Tower Place Bridge available (due to extremely reduced vertical clearance). A Rheda City solution is not possible for these two structures due to construction height and structural load constraints. SDS Design Estimate has been submitted to *tie*, not yet approved.
- Changes in Design and Change Orders may influence the TRW programme, impact is continuous and summarized e.g. in Programme Rev 3A (currently rejected by *tie*).
- Ground conditions and utilities that cannot be / have not been relocated to lower levels may influence the TRW design and programme.

#### Following design activities are planned within the reporting period

- Consecutive update of Basic Design Documents based on internal review comments and *tie* RoR.
- Consecutive update of Detailed Design documents based on internal review comments; *tie* RoR and current SDS design status.

### Bilfinger Berger – Siemens – CAF Consortium

#### Production

- Guided Busway: Final works around the gully outlets.
- FAT for the first S&Cs (Depot area) successfully completed in Bulgaria on Friday June 25<sup>th</sup>, materials will be shipped to Edinburgh shortly.
- Depot: Start of trackwork construction planned to start still during July 2010.

#### Following production activities are planned within the reporting period:

- Guided Busway Final works around the gully outlets and central reserve;
- Ongoing trackwork construction at the depot; Area 1 track and turnout installation. It is anticipated that disruption will be encountered, but no other sites are yet available due to MUDFA, lack of agreement on Estimates, and other reasons explained in all monthly reports and correspondence.
- Preparation Edinburgh Park Station Bridge and Edinburgh Park Station for track construction. Trackworks construction will commence as soon as the plinths will be corrected to be within the construction tolerances.
- Preparation of track installation at Gogarburn Bridge.

#### 4.2.4 DWE (Depot Workshop Equipment)

##### Design

Design is ready also for some smaller equipment related to some contractual clarification and agreement (Infraco Change Proposals sent to *tie*, unanswered).

*tie's* RORs Level A approval is obtained for the following design submittals:

- Underfloor Wheel Lathe,
- Measuring Equipment,
- Service vehicles
- Crane
- Tools
- Shop Equipment part 1

*tie's* RORs Level B approval is obtained for the following design submittals:

- Washing Plant,
- Lifting Plant and
- OCL Safety Lock Concept
- Shop Equipment Part 2

Clarification process (from *tie* to Infraco and vice-versa) to *tie's* RoR comments is ongoing.



### Bilfinger Berger – Siemens – CAF Consortium

Related SDS civil works detailed design (foundations, cableways, pits, etc.) is progressing, following the Siemens detailed design of equipment.

All in support of procurement of long lead time items and to provide design input. In order to finalise the procurement of all equipment subject to design submittals the topics mentioned under “Issues and Concerns” needs to be clarified.

The following factory acceptance tests were performed:

- Underfloor Lifting Plant (27.04.2010)
- Underfloor Wheel Lathe (02.06.2010)

Technical meetings with the tram maintenance for the performance requirements of the equipment are conducted and will be followed up.

#### Approvals and Consents

Essentially, DWE does not require Approvals nor Consents of external Approval Bodies, but only, the formal review by *tie*, as stated above under “Design”.

Comments from *tie* have been received to the submittals of:

- Underfloor Wheel Lathe Submittal
- Crane Submittal
- Storage Loads
- Lifting Plant Submittal
- Washing Plant Submittal
- Service Vehicles
- Shop equipment Part 1
- Shop equipment Part 2
- Tools
- OCL Safety Lock Concept

all have been answered and resubmitted except the Washing Plant, Lifting Plant and Shop equipment part 2.

Further comments given with *tie's* ROR to the Washing Plant and Lifting Plant latest Submittals will be answered after clarification on the comments have been completed.

An Infraco Change proposal has been presented to substitute the original full-sized forklift vehicle by a smaller, motorized hand propelled pallet stager, to cancel ultrasonic cleaning bath and arc welding kit and deliver in addition a bogie turntable.

A further Infraco Change Proposal has been presented to put straight the tram throughput within the washing plant.

## **Bilfinger Berger – Siemens – CAF Consortium**

### **Issues and Concerns**

In order to finish the outstanding DWE design submittals, acceptance of the above Infraco Change proposals is required. The order of the additional turn table will be placed on the instructions given with TNC 96 submitted to BSC with letter INF CORR 4576 dated 39<sup>th</sup> March 2010.

Since the acceptance of the change proposal for the turn table was not given within the requested time period, the turn table couldn't go in parallel to the Lifting Plant production and installation and additional efforts will be necessary to arrange an additional truck transport.

### **Delays to Site Availability**

In view of the magnitude of the overall programme delay exceeding one full year, Siemens confirms having deliberately postponed the procurement and/or the production process of several equipment and materials, in order to mitigate the "cost-over-time" factors (extended storage, expiration of manufacturer warranties, obsolescence for high-tech items, risk of theft, loss or damage). This shall not be construed as concurrent delay, but as a deliberate management measure to reduce cost of delay.

Siemens shall ensure that all items whose procurement is so postponed shall still be timely delivered before actually needed on the site, i.e., within the float of the subsequent installation activities as already delayed in the programme.

### **Production**

Procurement of DWE long lead items is well underway. For other items, postponed according to mitigation strategy above, Siemens has now started again the procurement and/or production to be able to follow the project progress as close as possible.

Orders placed for underfloor wheel lathe, underfloor lifting plant, washing plant and crane.

Further orders are placed for measuring equipment, shop equipment and tools.

Current expected production completion dates are:

- underfloor wheel lathe June 2010 – FAT on 02 June
- underfloor lifting plant April 10 – FAT on 27 April
- washing plant August 10
- crane - production completed, placed in store

## Bilfinger Berger – Siemens – CAF Consortium

### 4.2.5 Signalling, Communication, SCADA, PIS, PA

#### Design Signalling

Records of Review (RORs) comments from *tie* for the point heater controller has been received and will be responded.

Interlocking functionality and VICOS screen layouts have been re-confirmed by *tie* during the FAT from 15 to 17 June 2010.

TPDS Detector Schedule has been updated in accordance to the latest planning changes from SDS and published to *tie*.

#### SCADA, PIS, PA (RailCom Manager), PABX, Radio

All detailed designs have been submitted to *tie*, and all ROR comments have been responded. Review clarification meeting was held on RailCom Manager Design, several follow-up meetings were held as well, closeout of ROR comments is progressing.

Request to *tie* to work cooperatively with Lothian Buses to manage the changes in Ofcom allocated radio frequencies has been declined.

#### **Approvals and Consents**

Information for formal submissions for consent of PID, PA, PHP has been provided in support of overall Tramstop submission which has been incorporated in overall Infraco Tramstop submission.

Joint FAT of CAF and Siemens for TPDS onboard computer and radio equipment completed, minor issues with signal levels. CARs understood to have been acted upon by CAF, retest now agreed to take place in Edinburgh. Additional training (re. installation and test) for CAF staff take place in Irún from 05.-06.07.2010.

#### **Issues and Concerns**

Delays to Site availability.

Same general comment as for OLE above (mitigation strategy in procurement).

Ticket Vending Machine details which will be required to complete design by Com / SCA and obtain consents (free issue from TEL) have not been provided. No progress of this item. Continuing unresolved item.

#### **Production**

The interlocking FAT for Depot West has been successfully carried out from 15 to 17 June 2010 in Braunschweig (Germany). The further interlocking application engineering and hardware manufacturing for Depot East, Airport and Haymarket will continue using the FAT outcome. .

### **Bilfinger Berger – Siemens – CAF Consortium**

Note: Although procurement has been deliberately postponed as a cost mitigation measure, any residual risk of extended storage, expiration of manufacturer warranties, obsolescence of electronic items, risk of theft, loss or damage of the delivered equipment will be attributed to the ongoing EOT discussions.

The hardware FAT of the first tramstop cabinet was carried out 9 February 10.

The hardware FAT of the depot PABX was carried out in March 10.

The hardware FAT of Substation DC charger was completed April 20.

The hardware FAT of Control Centre UPS is planned for May 12.

The hardware FAT of Point Machines was completed April 28.

All radio equipment (line side as well as onboard) is manufactured and in storage at Siemens Ashby de La Zouch.

Manufacturing of most communications and SCADA is also well underway, several months ahead of any realistic start-up date of its installation on the Site.

SIG/COMS/SCADA workstations and control cabinets have been constructed and set up at Ashby site with associated sub-systems testing having commenced prior to the commencement of integration testing.

Presentation of the RA SIG/COM/SCADA was given to *tie* on the 8 June 10 at the Siemens Ashby de la Zouch offices.

The manufacture of the two prototype Tramstop PID poles was completed in February 2010. These have been delivered in June 2010 to the Edinburgh stores and are now available for utilisation on the pilot Tramstop installation.

#### **4.2.6 TLC (Traffic Light Control)**

##### **Issues and Concerns**

Siemens have received no further instruction or contract to proceed with any traffic signal installation on the ETN network other than works completed on Princes Street (December 2009). The corresponding Estimate is in negotiation with *tie* since months, but no *tie* Change Order has been issued.

#### **4.2.7 HV/LV - Supply**

##### **Design**

No comments

##### **Approvals and Consents**

No wayleaves have been granted to date. Conflicts with landowners at Ingliston and Jenners Depository sub-stations together with solutions have

**Bilfinger Berger – Siemens – CAF Consortium**

been identified by BSC – responses from *tie* to suggested solutions remain outstanding. This is preventing progress of the works.

**Issues and Concerns**

Lack of wayleaves. Clarification on approach in light of delays to preceding site works, specifically Gogar Depot. Same general comment (mitigation strategy in procurement) as for OLE above.

Lack of confirmation of Electricity supplier continues preventing progress with location of meters. This situation prevents final design sign off by Scottish Power and may delay the testing, commissioning and energization of the first TPS in the Depot Area, that could otherwise be achieved during the summer of 2010. *tie* has recently confirmed an estimated date of July 2010 to conclude these preparation works and decisions.

**Production**

Trenching and cabling by Core has been completed for the Gogar HV power supply line to just short of A8 Underpass.

No further work is possible in this line, until completion of the A8 underpass works.

**4.2.8 RFI Status (E&M)**

Total	47
Open / unanswered by <i>tie</i>	01
Responded by <i>tie</i>	46
Closed out	41
Responded but require further clarification	05

**4.3 TRAMS**

See CAF programme updated “Planning\_Edinbugo\_27Tram\_300408\_act 140810” (Appendix 10.4). Note that this programme is made with one period report in advance (up to 14 August 10).

**4.3.1 Design**

Detailed design is considered finished except for the free issue equipment system for which there is not enough information.

Free issue equipment to CAF, this definition refers to:

- TPDS and Radio supplied by Siemens, closed.
- Bus Tracker supplied by *tie*

**4.3.2 Procurement**

Procurement for the trams is going according to programme.

## **Bilfinger Berger – Siemens – CAF Consortium**

### **4.3.2.1 Delivery of Materials**

Delivery of materials is going according to manufacturing needs.

For the materials that are not available CAF will evaluate the impact of not having the materials delivered and available as is necessary to meet manufacturing. Meanwhile the trams will be assembled without those materials.

### **4.3.3 Manufacturing**

CAF manufacturing process started at beginning of December 08.

The status is detailed on document “Manufacturing status 28062010”, up to 28 June 10.

Bodyshell manufacturing for the complete fleet has been achieved. The jig for bodyshell assembly is empty as indicated on page 3 of Appendix 10.4. The last bodyshell will hoist a laurel branch as detailed on page 3 of Appendix 10.4.

The total number of trams to be delivered is 27.

### **4.3.4 Testing in CAF Irun**

CAF intends to test all equipment on the different phases of the testing process (CAF premises, Test Track and Edinburgh Tram Network) according to the protocols agreed with the customer and in cooperation with the suppliers of each equipment, including Free Issue Equipment delivered by Siemens (TPDS and Radio) and *tie* (Bus Tracker).

With the material and information available today CAF will perform as many of the agreed tests as possible.

Testing for tram No11 and tram No 12 will finish at the beginning of July.

### **4.3.5 Dynamic testing at Wegberg-Wildenrath**

CAF has been performing static and dynamic tests for tram No1 and tram No2 at the Wegberg-Wildenrath Test and Validation Centre of Siemens since mid January 10.

UT1 should have had the dynamic tests completed by the end of March 10 but the unavailability of a specific test tract to perform some tests will delay the test until this track is available. The test centre has informed CAF the track should be available on the week 24. CAF is awaiting confirmation that the required track is still unavailable, at least, until mid September 10. Once this information is confirmed CAF will make a decision regarding what to do with UT1. The three available options are:

### **Bilfinger Berger – Siemens – CAF Consortium**

- to wait until the track is repaired but this track has been damaged all of year 2010.
- transport back the unit to CAF Irun. This option has two drawbacks 1) the transport costs involved and 2) storage issue in CAF Irun as this tram will completely fill the available storage area if transported in July but it is the most probable outcome of this delay.
- delivery to Edinburgh.

UT2 has performed satisfactorily all its dynamic tests.

#### **4.3.6 Delivery of Trams to Edinburgh**

CAF will fulfil its contractual commitments and is ready to deliver trams to Edinburgh according with its contractual programme but there is no depot available to receive the trams.

The first tram delivered (UT2) was unloaded on 25 April 10 at Princes Street according to the MoV of *tie* Change Order 152.

Presently unit 3, unit 4, unit 5, unit 6, unit 7, unit 8 and unit 9 have their correspondent Factory Acceptance Routine Test Certificate delivered by the Tram Inspector. Unit 10 has already been inspected by the Tram Inspector on 23 and 24 June 10 and CAF is awaiting the delivery of the Factory Acceptance Routine Test certificates. Unit 11 and unit 12 invitations for inspection by the Tram Inspector will be issued in order to get the Factory Acceptance Routine Test Certificate.

#### **4.3.7 Tram Storage**

CAF has no storage facilities available. As the depot is not ready and CAF has received no answers or instructions to its queries regarding storage, CAF has been forced to make some works in CAF premises in order to prepare parking facilities. The area available is able to park 12 trams. The storage area will be full by the end of July if the tram located at Wildenrath is transported back to CAF Irun premises. Otherwise, it will be full by mid-September at the actual production rate.

We again request instructions on how to proceed with the storage of the remaining trams.

### **4.4 SYSTEMS INTEGRATION**

#### **4.4.1 EMC**

##### **4.4.1.1 Earthing & Bonding**

Clarification of individual civil structures is ongoing.

Checking of SDS drawings against the requirements specified in the CVI's for IDR/IDC.

## Bilfinger Berger – Siemens – CAF Consortium

### 4.4.1.2 Stray Current

Investigation of possibly affected utilities started. Individual utilities are indicated and will be clarified whether a risk may exist.

### 4.4.1.3 Network Rail Immunisation

Please refer to chapter 4.4.2.2 in addition.

## 4.4.2 System Assurance

### 4.4.2.1 Deliverables / Documents Issued

- Preliminary (Design) Case for Safety (CfS)
  - BSC System Issued internally for comments
  - Sub-system CfS, REL and DWE, submitted to *tie*
- Risk Assessment Report – Derailment Containment
  - Updated to comments
- Human Factors alarm Assessment
  - Report updated to comments
- Immunisation Calculations
  - Updated to comments from Atkins (ISA) and *tie* and issued to Network Rail.

### 4.4.2.2 Activities completed

- Immunisation – FETR Modification
  - Stage 1, 2 & 3 Design issued to NWR for review
  - Possession Planning in progress for Installation, Test & Commissioning
  - WPP for Installation and Test & Commissioning issued to *tie*, NWR for comments
  - Master Test Plan issued to NWR, via *tie*, for comment
  - Revised Contract agreed between Siemens and VolkerRail to modify 14 track Cct's as identified in Infraco Immunisation Calculations and agreed with ISA.
- Immunisation –
  - Report Updated to comments received from Atkins (ISA) regarding Immunisation Calculations and issued to NWR
- Hazard Log Update –
  - Hazard Log mitigation arguments updated.
- Preliminary (Design) Case for Safety
  - Commented on draft of RA (Signalling), FTN (Telecoms), SCADA Preliminary (Design) Case for Safety



### Bilfinger Berger – Siemens – CAF Consortium

#### 4.4.2.3 Activities Ongoing and Planned:

- Hazard Log Management –
  - Update and manage Hazard Log based on Hazard owner's responses (ongoing). Based on mitigation provided by the Hazard owner the *tie* PSCC will review the hazard, rank the hazards' residual risk and confirm the if the hazard has been controlled so Far As Is Reasonably Practicable (SFAIRP) .
- Control Room HFI Assessment–
  - Manage HFI Issues Log as identified in HFI OCC Report (ongoing)
- Immunisation –
  - Design mitigation now being supplied with objective of being able to close hazards from a design perspective.
  - Progress design and installation for modifications to Network Rail Track Circuits in the Edinburgh area
  - Presentation is planned to the Network Rail Infrastructure Systems Review Panel (ISRP) a 'Case For Safety', 01/07/10, to demonstrate that the two work streams that we have undertaken above have minimised the risk to the Network Rail Infrastructure ALARP..

#### 4.4.2.4 Regular activities and attendances:

- As well as the above a number of other activities are ongoing such as regular attendance at the following meetings; PSCC, PSCC Sub-Committee, IDR/IDC, Requirements Man, SCWP.

#### 4.5 TESTING, COMMISSIONING AND START-UP

Mobilization of a Siemens Testing & Commissioning Manager, originally planned for the autumn of 2009, is postponed to Q2-Q3 2010 as a cost mitigation measure due to the severe delay of construction and installation works on the Site.

#### 5 NOT USED

#### 6 STAKEHOLDER AND THIRD PARTY ISSUES

No further Discussions have been held on the subject to agree how *tie's* existing Stakeholder Management and Communications team can be best used to mutual advantage. Infraco are willing in principle to contribute in kind or cost transfer to supplement this team, rather than duplicating resources to comply with the specific requirements of the Employer's Requirements as drafted.

**Bilfinger Berger – Siemens – CAF Consortium**

**7 COMMERCIAL**

**7.1 Milestones**

Preliminary Milestones Achieved in the Period:

Month 25 Preliminaries (BB)  
 Month 25 Preliminaries (S)

**Construction Milestones Achieved in the Period**

A17170	Depot	Foundations - OLE Foundations	185,376.33
A17170	Depot	Foundations - Ground Beams	185,376.33
A17200	Depot	Substructure and Superstructure - Sub Blockwork GLs 10 -1	185,376.33
A17170	Depot	Pits - Floor Jack	185,376.33
229	Gogarburn	Gogarburn Bridge West Abutment - Parapets and Run on slab	85,743.90
A1770	Tower Place Bridge (S17)	Piling	174,346.11
143	A8 Underpass	Phase 1 - Break Down Piles	242,165.78

**CAF**

21	Delivery of 6th Tram	110,083.25
23	Delivery of 7th Tram	110,083.25

**7.2 Change Management**

7.2.1 The Infraco Change Register is presented in Appendix 10.7.

673 Changes have been notified to 1 July 2010 - 85 by *tie* and 588 by Infraco.

86 of these Changes have been superseded by further Changes or withdrawn therefore there are 587 current Changes.

Of the 587 notified Changes, 271 have been accepted in principle, 83 have been rejected and 233 have neither been accepted nor rejected by *tie*.

80 of these Changes have a delay only impact and will not require a design/construction Estimate (the impact of these is reflected in the various entitlement programmes submitted to *tie*).

Therefore there are 507 Changes requiring Estimates.

Infraco has submitted to *tie* Estimates for 376 Changes for design only or for design and construction works.

**Bilfinger Berger – Siemens – CAF Consortium**

The total Consortium value of the submitted Estimates is £73,288,000 including £12,714,000 for non-scope work on Bernard Street and St Andrew Square.

76 of the 376 submitted Estimates have been agreed by issue of a *tie* Change Order. A further 90 *tie* Change Orders have been issued to Infraco which require to be re-issued by *tie* as a result of incorrect application of preliminary percentages and/or incorrect statements concerning Programme and performance impacts. The value of Change Orders issued by *tie* is £19,101,000.

There are 131 remaining notified Changes for which Estimates are required. In addition, a further 34 construction Estimates need to be prepared for Changes for which a design only Estimate has been submitted to date.

It is not possible to prepare 61 of the Estimates until either an SDS design Estimate is received, validated by Infraco and approved by *tie*, and/or the required information is obtained from the SDS Provider.

Prioritisation of the remaining Estimates is aligned with the latest intended construction sequence.

A graphical pie chart is presented in Appendix 10.7.

Included in a number of *tie's* Change Order Pro-formas; "Relief required from compliance with Infraco obligations under the contract", "Programme impact and required Extension of Time", "Impact on Performance" remains unresolved for a number of the Changes.

The main reasons for not issuing Change Orders are: Change not agreed in principle, Estimates not yet submitted, figures in estimates not agreed, Base Date Design Information not agreed.

Recently, *tie* has responded to a number of submitted Estimates asserting that the identified Change is normal development and completion of design. Infraco generally rejects this assertion.

The complexity, nature and amount of changes have overloaded the change mechanism included in the Infraco contract, because the Estimates cannot be submitted within the time frame requested in the contract and also due to the fact that the overall impact to the Programme from a given change cannot be assessed on an individual basis. It has been agreed between *tie* and Infraco that the estimates submitted by Infraco will only deal with direct related effects (costs) of each Change. Time related effect will be assessed separately.

**Dispute Resolution Procedure (DRP):**

- Dispute A – Princes Street Works  
Settlement reached in Mediation (Princes Street Supplemental Agreement)

**Bilfinger Berger – Siemens – CAF Consortium**

- Dispute B – 17.5% Uplift for Civil Engineering Works  
Settlement reached in Mediation
- Dispute 01 – Valuation of EOT1 (INTC No.1)  
Referred by *tie* 11 August 2009  
Settlement reached in Mediation for Valuation of Bilfinger Berger and Siemens Elements Only – Valuation of CAF element excluded from settlement
- Dispute 02 – Hilton Car Park  
Referred by *tie* 11 August 2009  
Adjudicator awarded redress sought by *tie*
- Dispute 03 – Gogarburn Bridge  
Referred by *tie* 24 August 2009  
Adjudicator rejected redress sought by *tie*
- Dispute 04 – Carrick Knowe Bridge  
Referred by *tie* 24 August 2009  
Adjudicator rejected redress sought by *tie*
- Dispute 05 – Russell Road Retaining Wall 4  
Referred by Infraco 04 September 2009  
Adjudicator awarded redress sought by Infraco
- Dispute 06 – Delays Arising from MUDFA Programme Rev 8  
Referred by Infraco 04 September 2009, Adjudication ongoing.
- Dispute 07 – Haymarket Viaduct  
Referred by *tie* 09 October 2009  
Settlement reached during Internal DRP
- Dispute 08 – Baird Drive Retaining Wall  
Referred by *tie* 15 January 2010  
Settlement reached during Internal DRP
- Dispute 09 – Balgreen Road Retaining Wall  
Referred by *tie* 15 January 2010  
Settlement reached during Internal DRP
- Dispute 10 – Section 7A Drainage  
Referred by *tie* 10 February 2010.  
Adjudicator rejected redress sought by *tie*
- Dispute 11 – Depot Access Bridge  
Referred by Infraco 12 February 2010, Adjudication ongoing.
- Dispute 12 – Tower Place Bridge  
Adjudicator completed the valuation of the Estimate and ordered that the responsibility for his fees and expenses be shared 50/50.
- Dispute 13 – Clause 80.13 Instruction  
Referred by Infraco 21 May 2010

## **8 RESOURCES**

### **8.1 Organisation Charts**

Consortium and Systems organisation charts are included in this report.

See Appendix 10.8.

## **9 OTHER ISSUES**

No comments.

## **10 Appendices**

### **10.1 KPI Report**

## BILFINGER BERGER - AIIR SCHEDULE

Period	Incident Date	Summary	Reported Type
<b>3-03</b>	25/05/2010	MoP called A Crozier of Expanded to inform him that kids had entered the site during the night by climbing the fence. A Crozier asked her to call tie info line. Expanded have arranged for a security guard to be on site overnight	Near miss / unsafe condition
	27/05/2010	Ready Mix truck leaving site spilled concrete on the road. Site cleared surplus away and call out road brush to clean	Near miss / unsafe condition
	25/05/2010	Complaint received from MoP - operatives on guided bus route causing a large amount of dust	Near miss / unsafe condition
	27/05/2010	struck redundant gas main	Near miss / unsafe condition
	01/06/2010	MoP reported he had ripped his jacket on Heras Fencing	MOP
	02/06/2010	Infraco Photographer entered McKean's Tower Place Bridge site without contacting site management	Near miss / unsafe condition
	07/06/2010	Hydrolic leak from plant used on site. Leak noticed quickly and dealt with effectively	Near miss / unsafe condition
	28/05/2010	MoP claims to have tripped over a broken paving slab. Graham construction inspected and compared area to pre start photos, Graham's satisfied they did not cause any further damage and are not responsible/liable for incident	MOP
	09/06/2010	Syringe found on site. Environmental Health Called to remove	Near miss / unsafe condition
11/06/2010	Operative observed standing on tool bogie running down the slope towards the site offices, a second operative was walking along the track behind towards the offices.	Near miss / unsafe condition	
<b>3-04</b>	21/06/2010	Cherry Picker	Near miss / unsafe condition
	21/06/2010	dumper taking short cut, damaged OLE base	Near miss / unsafe condition
	22/06/2010	dumper hit depot, damaged cladding	Near miss / unsafe condition
	30/06/2010	Operative filling dumper with diesel got splash back in eyes. Rinsed at site with copious amounts of water. Taken to hospital to be checked out, given okay and returned to work same day	Injury

# Contractor Period H.S. & E. Return



To be completed and returned to tie Ltd (Pauline Goldie [Pauline.goldie@tie.ltd.uk](mailto:Pauline.goldie@tie.ltd.uk)) by the Thursday of week 1 for each period (a period is 4 weeks, for dates of start and finish please contact Pauline)

### RETURN DATA

Contractor –

BSC

Date completed –

19 June 2010

Year –

10/11

Period –

3-03

### PEOPLE DATA

Average number of direct employees on ETP –

157

Hours worked of direct employees on ETP –

24178

Average number of subcontract / others inc visitors on ETP –

431

Hours worked of subcontract / others inc visitors on ETP –

66378

Number of work sites –

5

### INCIDENT DATA (leave blank if none)

	DIRECT	SUBCON	M.O.P.
Fatal			
Major			
Over 3 day			
Dangerous Occurrence			
Reportable Disease			
Injury – Non RIDDOR			
Near Miss/ Unsafe Condition		9	
Service Damage			
RTA (in and around ETP)			
Positive intervention (if measured)			
Environmental Incident			

### ENFORCEMENT NOTICE / VISIT DATA

	NOTICE	VISIT
H.S.E Enforcement		
SEPA		
Local Authority		
Other		

### CONTRACTOR AUDIT / INSPECTION DATA

	PLANNED	ACTUAL
Inspections	18	28
Audits	1	1

Please supply supporting data for all RIDDORs, Service Damages and ENF visits if not previously submitted – Rev0



## **10.2 Programme Update**



Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2008												2009												2010												2011												2012												2013												014																																				
						2008				2009				2010				2011				2012				2013																																																																																								
312.6	Shadow running: Phase 1a Haymarket to Newhave	90	11-Sep-13	10-Dec-13	0																																																																																																													
312.7	T3 Pre-Operations Test Completed; Phase 1a Hay	0		10-Dec-13	0																																																																																																													
<b>M &amp; E Design</b>						647	01-Aug-08 A	09-Oct-10	808																																																																																																									
760	M & E Review of Preliminary / Basic Design	30	01-Aug-08 A	12-Sep-08 A																																																																																																														
770	M & E Detail Design Phase	90	15-Sep-08 A	12-Dec-08 A																																																																																																														
780	M & E Review of Detailed Design	30	12-Dec-08 A	30-Jul-10	821																																																																																																													
790	M & E Design Freeze	0		30-Jul-10	821																																																																																																													
<b>Railway Electrification</b>						647	01-Aug-08 A	09-Oct-10	808																																																																																																									
A17080	SDS Issue Track Alignment Drawings	0		01-Aug-08 A																																																																																																														
A17110	Basic Design OCS	100	01-Aug-08 A	12-Dec-08 A																																																																																																														
A17090	Basic Design TPS	100	01-Aug-08 A	05-Jan-09 A																																																																																																														
A17100	Detail Design TPS	100	29-Sep-08 A	07-Jul-09 A																																																																																																														
A17120	Detail Design OCS	100	29-Sep-08 A	18-Sep-09 A																																																																																																														
A17160	SDS Design OLE Foundations	100	10-Nov-08 A	09-Jul-10	837																																																																																																													
A17140	Manufacturing	343	01-Apr-09 A	30-Jul-10	821																																																																																																													
A17150	Dispatch	141	22-Sep-09 A	19-Aug-10	808																																																																																																													
A17130	Procurement	100	20-Oct-08 A	09-Oct-10 A																																																																																																														
<b>Track Finishes</b>						543	23-Mar-11	27-May-13	43																																																																																																									
A20000	Tamping Ballast	40	23-Mar-11	19-May-11	373																																																																																																													
A20005	Tamping Ballast section 5B + 7A	30	04-Aug-11	14-Sep-11	291																																																																																																													
A20006	Tamping Ballast section 5A	15	19-Sep-12	10-Oct-12	63																																																																																																													
A20010	Finishing	50	19-Nov-12	11-Feb-13	43																																																																																																													
A20020	Prestressing	25	11-Feb-13	18-Mar-13	43																																																																																																													
A20030	Grinding	50	18-Mar-13	27-May-13	43																																																																																																													
<b>SECTION 01 NEWHAVEN ROAD TO HAYMARKET</b>						1228	15-Jul-08 A	17-Jun-13	128																																																																																																									
<b>Opening Sequence B (Haymarket to Newhaven Road)</b>						1228	15-Jul-08 A	17-Jun-13	128																																																																																																									
<b>01A Newhaven Road (inc.) to Foot of the Walk (exc.)</b>						1162	30-Sep-08 A	17-Jun-13	188																																																																																																									
<b>E &amp; M Installations</b>						305	03-Apr-12	17-Jun-13	188																																																																																																									
1A-23-OHLE-30	Access for visual inspection for E&M wayside install	0	03-Apr-12		549																																																																																																													
1A-24-OHLE-40	Access for visual inspection for E&M wayside install	0	03-Apr-12		549																																																																																																													
1A-23-OHLE-31	Access for E&M wayside installation OCT - POL	0	02-May-12		505																																																																																																													
1A-24-OHLE-41	Access for E&M wayside installation NEW - OCT	0	02-May-12		505																																																																																																													
1A-24/23-OHLE-50	Installation of poles and building fixings -2 (10 0019	6	02-May-12	10-May-12	505																																																																																																													
1A-23/24-OHLE-50	Installation of poles and building fixings -3 (10 0816	3	10-May-12	15-May-12	517																																																																																																													
1A-24-OHLE-50(3)	Installation of poles and building fixings -1 (10 0110	2	15-May-12	17-May-12	521																																																																																																													
1A-24-OHLE-60(3)	Overhead Catenary Line -1 (10 0110 - 10 0245)	5	18-May-12	25-May-12	521																																																																																																													
1A-23/24-OHLE-60	Overhead Catenary Line -3 (10 0816 - 10 1044)	8	17-May-12	29-May-12	517																																																																																																													
1A-23-ELEC-30	Access for visual inspection to cable pits for cable la	0	30-May-12		508																																																																																																													
1A-24-ELEC-40	Access for visual inspection to cable pits for cable la	0	30-May-12		508																																																																																																													
1A-24/23-OHLE-60	Overhead Catenary Line -2 (10 0019 - 10 1315)	17	25-May-12	19-Jun-12	505																																																																																																													
1A-23-ELEC-31	Access to cable pits for cable laying OCT - POL	0	28-Jun-12		452																																																																																																													
1A-24-ELEC-41	Access to cable pits for cable laying NEW - OCT	0	28-Jun-12		353																																																																																																													

Date	Revision	Checked	Approved
06-Jul-10	ETN Programme Revision 3A Progress to 9 July 2010	SCS	BSC

■ Actual Work     ■ Critical Remaining Work     ▶ Summary  
■ Remaining Work     ◆ Milestone

BFB00003291\_0075



BFB00003291\_0077

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2008												2009												2010												2011												2012												2013												014
						JAN				FEB				MAR				APR				MAY				JUN				JUL				AUG				SEP				OCT				NOV				DEC																												
<b>RW Structure</b>						86	17-Dec-09 A	17-Aug-10	779	17-Aug-10, RW Structure																																																																				
1A-24-W1A-120	RW Foundation	10	17-Dec-09 A	20-Jul-10	779	[Actual Work Bar]																																																																								
1A-24-W1A-130	RC Wall	13	20-Apr-10 A	03-Aug-10	779	[Actual Work Bar]																																																																								
1A-24-W1A-140	Coping	8	05-Aug-10	17-Aug-10	779	[Actual Work Bar]																																																																								
<b>Lindsay Road Retaining Wall W1D</b>						32	09-Jul-10	24-Aug-10	205	24-Aug-10, Lindsay Road Retaining Wall W1D																																																																				
<b>Preliminary works &amp; excavation</b>						2	09-Jul-10	12-Jul-10	107	12-Jul-10, Preliminary works & excavation																																																																				
1A-24-5A-W1D-100	Mobilisation and site installation	1	09-Jul-10*	09-Jul-10	107	[Actual Work Bar]																																																																								
1A-24-5A-W1D-110	Excavation	1	12-Jul-10	12-Jul-10	107	[Actual Work Bar]																																																																								
<b>RW Structure</b>						15	13-Jul-10	03-Aug-10	107	03-Aug-10, RW Structure																																																																				
1A-24-5A-W1D-120	RW Foundation	7	13-Jul-10	21-Jul-10	107	[Actual Work Bar]																																																																								
1A-24-5A-W1D-130	RC Wall	8	22-Jul-10	03-Aug-10	107	[Actual Work Bar]																																																																								
<b>RW Finishing Works and Backfilling</b>						15	04-Aug-10	24-Aug-10	205	24-Aug-10, RW Finishing Works and Backfilling																																																																				
1A-24-5A-W1D-140	Waterproofing	1	04-Aug-10	04-Aug-10	107	[Actual Work Bar]																																																																								
1A-24-5A-W1D-150	Drainage	1	05-Aug-10	05-Aug-10	107	[Actual Work Bar]																																																																								
1A-24-5A-W1D-160	Stone drainage trench	1	06-Aug-10	06-Aug-10	107	[Actual Work Bar]																																																																								
1A-24-5A-W1D-180	Brickwork	1	06-Aug-10	06-Aug-10	107	[Actual Work Bar]																																																																								
1A-24-5A-W1D-170	Backfill and compact	1	09-Aug-10	09-Aug-10	107	[Actual Work Bar]																																																																								
1A-24-5A-W1D-190	Vehicle Parapets + Crash Barrier	1	10-Aug-10	10-Aug-10	215	[Actual Work Bar]																																																																								
1A-24-5A-W1D-200	Kerbing	1	10-Aug-10	10-Aug-10	107	[Actual Work Bar]																																																																								
1A-24-5A-W1D-210	Footway and Road Surfacing	10	11-Aug-10	24-Aug-10	205	[Actual Work Bar]																																																																								
1A-24-5A-W1D-220	LINDSAY ROAD RW W1D COMPLETE	0		24-Aug-10	205	◆ LINDSAY ROAD RW W1D COMPLETE																																																																								
<b>Lindsay Road Retaining Wall W1C</b>						94	11-Mar-10 A	10-Sep-10	107	10-Sep-10, Lindsay Road Retaining Wall W1C																																																																				
<b>Preliminary works &amp; excavation</b>						3	11-Mar-10 A	20-May-10 A		20-May-10 A, Preliminary works & excavation																																																																				
1A-24-5A-W1C-100	Mobilisation and site installation	1	11-Mar-10 A	23-Apr-10 A		[Actual Work Bar]																																																																								
1A-24-5A-W1C-110	Excavation	2	15-Mar-10 A	20-May-10 A		[Actual Work Bar]																																																																								
<b>RW Structure</b>						91	24-May-10 A	18-Aug-10	107	18-Aug-10, RW Structure																																																																				
1A-24-5A-W1C-120	RW Foundation	9	24-May-10 A	04-Jun-10 A		[Actual Work Bar]																																																																								
1A-24-5A-W1C-130	RC Wall	14	07-Jun-10 A	24-Jun-10 A		[Actual Work Bar]																																																																								
1A-24-5A-W1C-140	Coping	6	11-Aug-10	18-Aug-10	107	[Actual Work Bar]																																																																								
<b>RW Finishing Works and Backfilling</b>						17	19-Aug-10	10-Sep-10	107	10-Sep-10, RW Finishing Works and Backfilling																																																																				
1A-24-5A-W1C-150	Waterproofing	1	19-Aug-10	19-Aug-10	107	[Actual Work Bar]																																																																								
1A-24-5A-W1C-160	Drainage	1	20-Aug-10	20-Aug-10	107	[Actual Work Bar]																																																																								
1A-24-5A-W1C-170	Stone drainage trench	3	23-Aug-10	25-Aug-10	107	[Actual Work Bar]																																																																								
1A-24-5A-W1C-190	Brickwork	3	23-Aug-10	25-Aug-10	107	[Actual Work Bar]																																																																								
1A-24-5A-W1C-180	Backfill and compact	1	26-Aug-10	26-Aug-10	107	[Actual Work Bar]																																																																								
1A-24-5A-W1C-200	Vehicle Parapets + Crash Barrier	1	27-Aug-10	27-Aug-10	117	[Actual Work Bar]																																																																								
1A-24-5A-W1C-210	Kerbing	1	27-Aug-10	27-Aug-10	107	[Actual Work Bar]																																																																								
1A-24-5A-W1C-220	Footway and Road Surfacing	10	30-Aug-10	10-Sep-10	107	[Actual Work Bar]																																																																								
1A-24-5A-W1C-230	LINDSAY ROAD RW W1C COMPLETE	0		10-Sep-10	107	◆ LINDSAY ROAD RW W1C COMPLETE																																																																								
<b>Design (based on SDS V55 Programme)</b>						356	30-Sep-08 A	24-May-10 A		24-May-10 A, Design (based on SDS V55 Programme)																																																																				
12000	Issue Construction Drawings (Lindsay Road Ret. W	0		30-Sep-08 A		◆ Issue Construction Drawings (Lindsay Road Ret. Wall)																																																																								
11990	Issue Construction Drawings (Newhaven Tram Stop)	0		16-Feb-09 A		◆ Issue Construction Drawings (Newhaven Tram Stop)																																																																								
11970	Issue Construction Drawings (Road & Track Works)	0		22-Apr-09 A		◆ Issue Construction Drawings (Road & Track Works)																																																																								

Date	Revision	Checked	Approved
06-Jul-10	ETN Programme Revision 3A Progress to 9 July 2010	SCS	BSC

█ Actual Work     █ Critical Remaining Work     ▶ Summary  
 Remaining Work     ◆ Milestone





