

# 4 Week Period Reporting Pack 10/11

**Project Title:** 

Edinburgh Tram Project

**Reporting Period:** 

Period 01 - 2010/11

# Transport Scotland Project Manager: John Ramsay

# **Progress Meeting Date:**

Report authorised by: Steven Bell

Signature: ...

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For and on behalf of tie Limited

Delivery Organisation Period Progress Report

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Progress Report Issue 1 Period 01

# 1 Executive Summary

#### **Progress**

The cost, programme and risk information in Period 1 report continues to be based upon an <u>unapproved</u> forecast on the information reported in May 2009. This will be updated once agreement is reached with BSC on a new revised programme.

Overall progress remains behind the master programme, primarily due to:

- Finalisation of the agreement of change delaying the commencement of work;
- Incomplete utility diversions in the On-Street sections caused in part by traffic management constraints;
- Slow mobilisation of INFRACO, including lack of formal sub-contracts being in place;
- Content i.e. Work Package Plans, Method Statements etc;
- Requirement for re-design of temporary works;
- Design slippage since novation of design to INFRACO (now recorded in v56 of the design programme);
- BSC refusal to act on instructions for compensation events
- Design changes as a result of the Prior and Technical Approvals process; and
- Consortium integrated design programme and validation.

The **tie** live programme currently predicts an Open for Revenue Service date in mid February 2013. This has suffered only minimal slippage since period 13.

There has been no further Infraco works on-street other than limited progress as those structures at Lindsay Road and Tower Place bridge due to a lack of agreement on programme going forward, suitable sub-contractor arrangements and completion of final design assurance checks by BSC. Utility Diversions continue at Haymarket, York Place and Newhaven and these will be completed early in Period 2.

#### Dispute Resolution (Infraco)

MUDFA Rev 8 was referred to adjudication by BSC in Period 1.

#### Commercial Update (MUDFA)

A meeting with the CUS Managing Director was held in the Period with the aim of progessing matters to a conclusion. It is still anticipated that elements of the final account will go to dispute resolution. An agreed action plan is being undertaken and a full report will be presented in P2.

#### <u>Design</u>

Concerns remain regarding BSC's management of SDS, this demonstrated by the late receipt of the updated v56 updated programme which has limited **tie**'s ability to provide a comprehensive report on the impacts/implications of this programme. Formal written communication on this ongoing matter has been submitted to BSC.

#### Utility works

Update and Progress during Period 1:

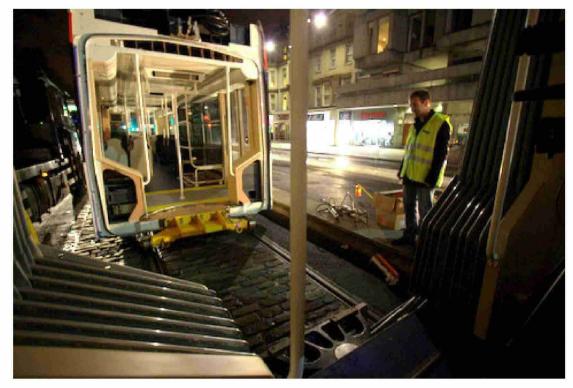
 Clancy Docwra are on schedule to complete the utilities diversions in the Haymarket area at the beginning of Period 2 (weekend of 01 May 2010), and are on course to complete the diversions in the York Place to Annandale Street sections early in Period 2.

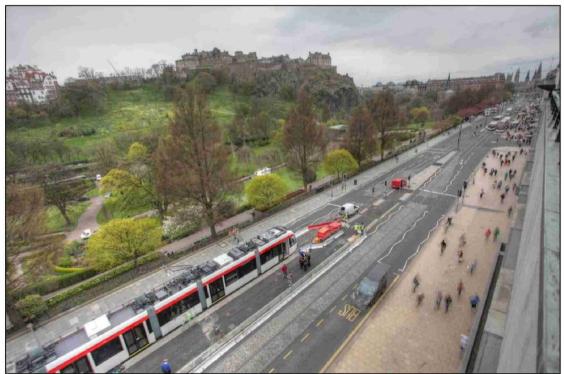
- Scottish Water are still to approve the protection proposals including the adoption of the sewer design at Ocean Drive.
- Clancy Docwra completed the relocation of utilities out of Lindsay road in Period 1. BT works are ongoing with an expected completion in Q1.
- Clancy Dowry continue to progress well on the private utility diversion works in Edinburgh Park area, with expected completion in Period 2.
- Farrans utilities diversions in Section 1A continue to programme, with completion in sites
   1 & 3 anticipated in Period 2, with site 2 due to complete in Period 3. Telecoms cabling work will follow on from this.

#### Tram works (TRAMCO)

Good progress continues to be made with delivery of the trams by CAF in accordance with the tram delivery schedule with 21 trams now in various stages of production. The first tram was delivered to Princes St on 25<sup>th</sup> April 2010.









Draft Operations and Maintenance manuals have been received and are being reviewed.

#### Preparing for Operations

The BROR committee is providing the governance for these activities, which has seen the TUPE transfer of the Transdev Edinburgh employees into the Edinburgh Trams team, and the OJEU procurement launched for the ticketing equipment for the tram system, to link it with the existing Lothian Buses ticketing system. Significant effort is being made on programming and planning the preparing for operations activities, including recruitment and training of both operations and maintenance staff. The maintenance of completed infrastructure assets is being raised as an area that requires some focus for improvement.

#### Tram works (INFRACO)

Following a year-end review of the progress reporting process including some adjustment of activity weightings for particular off-street structures resulted in a net 0% cumulative gain for Period 01.

The progress achieved in the Period for INFRACO works was 0.3% against a plan of 3.2% and reflects the limited progress against plan being made by BSC for both on-street and off-street works. This reflects a total cumulative completion which remains as reported in Period 13 at 16.1%.

This poor rate of progress can substantially be attributed to the refusal of BSC to progress works whilst Clause 80 Changes are being agreed, and the fact that work cannot be started on-street where sites are available, as BSC have failed to satisfy their contractual obligations.

The on-street works in progress are related to snagging items along Princes Street, works at Lindsay Rd RWs and commencement of Tower Place bridge in Section 1A & Building Fixings at North St Andrew St & Princes St West. There has been no further Infraco works on-street due to a lack of agreement on programme going forward.

Update and Progress during Period 1:

- Building Fixings to the identified buildings on North St Andrew St and West End Princes St carried out in period 1.
- In 1A Works on Tower place bridge continued on the East and West side piling, with 7 piles installed in Period1.
- Haymarket Viaduct deck pour completed in period.
- Stage 1 of Murrayfield Wanderers complete in period allowing revised building warrant application. Overall completion due by mid June 10.
- Guided Bus Way works progressing well completion anticipated by end of April 10.
- Carrick Knowe Bridge works ongoing
- Edinburgh Park South Approach Ramp well underway.
- All blockers now removed from A8 Underpass phase 3 / 4 which should allow piling to recommence on the 26<sup>th</sup> April 10.
- Depot Access Bridge piling works proceeding despite various obstructions being encountered.
- Again progress to Depot Building going well. Earthworks in stabling area recommenced with suitable material being moved to Section 7.
- Section 7 Earthworks/Drainage work commenced between Culvert 3 and Park & Ride.
   Good progress being made in fair weather conditions.
- Revised software being issued to Airport Barrier System which should eliminate problem with taxi access. Hopes are that this will be resolved by month end.
- System Integration Plan received and acceptable.
- As Built Procedure received and acceptable.





#### Issues in the Period:

- Infraco have refused to progress works on retaining walls 1A and 1C despite tie issuing Cl 22/65 letters for the sewer protection works, & the alterations & Soft ground at 1A and the Sea wall at 1C.
- Works to complete the piling to east side of Tower Place Bridge was delayed during period 1 due to the requirement for a licence from Historic Scotland and the discovery of a service cable, both of which were successfully managed in Period 1 allowing BSC to progress the final piles.
- BSC have failed to commence On Street Works and are refusing to progress works whilst Clause 80 Changes are being agreed. Commencement of on-street works are also being frustrated by the fact that although sites are available, BSC have failed to satisfy their contractual obligations to enable a permit to be issued.
- BSC do not accept tie's position with respect to IDC and execution of sub contractors and a Lack of construction programme information from BSC causing concern with respect to management of TM, stakeholders, safety and other works.
- BSC have declined to carry out a review of Trackform in six areas.
- BSC refusing to continue the works following Clause 22/Clause 65 letters.

#### Cost

We continue to reflect an outturn estimate of £533.3m, including £6.2m for the cancellation of Phase 1b. However, given the commercial uncertainties with Infraco and continuing delays to the project it is now considered unlikely that the full scope of Phase 1a will be completed within the available funding envelope of £545m. Until the key issues are resolved through the contractual and legal process, it will not be possible to accurately forecast a revised budget outturn.

A detailed costs and forecast briefing was presented to Transport Scotland on 18/01/10, and a further quarterly update took place on 18/03/10.

Key cost related items to note in Period 1 are:

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- COWD to date is £357.8m, with funding to date split to TS (£328.2m) and CEC (£29.6m).
- The budget for ETP in 2010/11 established in April 2010 is £142.2m (£153.3m 09/10). Transport Scotland funding for 2010/11 is £130.5m for ETP, with £11.7m funding available from CEC.
- Full year forecast for 2010/11 is held at £143.0m. This forecast is being held from P13, and includes a base PM forecast of £135.5m and unallocated risk of £7.5m. See detailed cost report for a breakdown of risk to this forecast.

#### Actual YTD P1 & forecast P2-P13 FY10/11

	YTD	Forecast	Forecast
£m	P1	P2-P13,10/11	FY10/11
Infrastructure and vehicles	8.4	115.4	123.8
Utilities diversions	0.1	-4.8	-4.7
Design	0.1	2.1	2.2
Land and compensation	-0.0	0.2	0.2
Resources and insurance	1.3	12.8	14.0
Base costs	9.9	125.6	135.5
Risk allowance	0.0	7.5	7.5
Total Phase 1a	9.9	133.1	143.0

- ETP COWD in FY10/11 for Period 1 is £9.9m against a re-aligned budget of £9.9m.
- As previously reported and agreed with CEC and TS, initial milestones under the Infraco and Tramco contracts in the aggregate amount of £24.2m, in respect of advance material purchases, have been classified as prepayments. These will be reclassified as expenditure against funding in the periods when the related materials are delivered to site and incorporated in the works. The release will occur on the achievement of trackwork and structures milestones in 2009/10 and future years.

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# 2 Progress

#### 2.1 Overall

The cost, programme and risk information in Period 01 report continues to be based upon an <u>unapproved</u> forecast on the information reported in May 2009. This will be updated once agreement is reached with BSC on a new revised programme. Work is ongoing to this end, and the first outputs from this were issued during Period 12. **tie** have reviewed these submissions during period 13 supported by independant reviews and formally rejected the submissions during period 13.

tie now have independent experts preparing views on an attainable Rev3 programme proposal.

Overall the relationship with BSC is suffering in the following key areas:

- The refusal of BSC to progress works whilst Clause 80 Changes being agreed;
- Work unable to start on-street where sites are available as contractual obligations are not satisfied;
- Resolution of the contractual interpretation on BDDI-IFC (pricing assumption 1).

Linked to all of the above is the provison of a programme to completion capable of acceptance.

Progress remains behind the master programme, primarily due to:

- Finalisation of the agreement of change delaying the commencement of work:
- Incomplete utility diversions in the On-Street sections caused in part by traffic management constraints;
- No agreement in place for On-street works;
- Slow mobilisation of INFRACO, including lack of formal sub-contracts being in place;
- Failure of INFRACO to submit preparatory paperwork in a timely manner and of a suitable content i.e. Work Package Plans, Method Statements etc;
- Requirement for re-design of temporary works;
- Design slippage since novation of design to INFRACO (now recorded in v56 of the design programme);
- BSC refusal to act on instructions for compensation events;
- Design changes as a result of the Prior and Technical Approvals process; and
- Consortium integrated design programme and validation

The **tie** live programme currently predicts an Open for Revenue Service date in mid February 2013. This has suffered only minimal slippage since period 13.

There has been no further Infraco works on-street other than limited progress as those structures at Lindsay Road and Tower Place bridge due to a lack of agreement on programme going forward, suitable sub contractor arrangements implements and completion of final design assurance checks by BSC. Utility Diversions are approaching completion at Haymarket, York Place and Newhaven, and these areas are expected to be reinstated in Period 2.

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Section	Description	Contract Programme Rev.00	BSC Forecast (P01) Rev.01	BSC Movement in Period (Cal Days)	tie Live Forecast (P01) Rev.01**	tie Movement in Period (Cal Days)
Section A	Depot completion	25-Mar10	08-Aug-11	-10	22-Jun-11	-37
Section B*	Test Track Available	23-Apr-10	23-Mar-12	-25	05-Mar-12	-1
Section C	All Phase 1a Construction complete	17-Jan-11	15-Nov-12	-9	14-Aug-12	-1
Section D	Open for Revenue Service	16-Jul-11	14-May- 13	-9	10-Feb-13	-1

<sup>\*</sup>The interpretation is that Sectional Completion "B" means that Test Track is available for Tram movements.

Launched by BSC

#### 2.2 Dispute Resolution

Dispute Resolution (Infraco)

A summary on the DRP process at the end of Period 1 and outcomes is presented below:

DRP	Subject	Nature of	Launched	PD	Position	CEO	Referral	Decision
No		Dispute	or planned	Mtg	Papers	Meeting		
5a	Gogarburn	BDDI to IFC	<b>V</b>	<b>V</b>	<b>√</b>	<b>√</b>	√	Decision
5b	Carrick Knowe	BDDI to IFC	V	1	V	1	1	made and under review
5c(B)	Russell Road	BDDI to IFC	1	V	1	√.	7	Decision made and under review
Α	MUDFA Rev 8	Programme	1	٧	٧	1	<b>V</b>	
5e	Tower Bridge	BDDI to IFC	1	V	√	1	1	
51	Section 7 Drainage	BDDI to IFC	1	1	√	1	1	
5i	Baird Drive	BDDI to IFC	V	1	V	1		
	Depot Access Bridge	BDDI to IFC	V	1	<b>V</b>	1		
Launche	d by <b>tie</b>							

We continue in this report to reflect an outturn estimate of £533.3m (including Phase 1b). However, given the commercial uncertainties with BSC and continuing delays to the project it is now considered unlikely that the full scope of Phase 1a will be completed within the available funding envelope of £545m. Until the key issues are resolved through the contractual and legal process, it will not be possible to forecast accurately a revised budget outturn. It is also not possible at the present time to predict the conclusions of reviews of contingency option programme delivery options, including additional sources of funding.

tie instructs work to commence using Clause 80.15 when it has been put into dispute. Clause 80.15 letters have been issued by tie to progress Russell Road Retaining Wall W4,

<sup>\*\*</sup> V55 information used.

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Carrickknowe Bridge, Baird Drive Retaining Wall, Balgreen Retaining Wall, Section 7 Drainage, Tower Bridge and the Depot Access Bridge.

A strategic review of commercial and contractual options is underway and will be reported to the Tram Project Board at the end of May 2010.

The contract with the BSC consortium prescribes a timetable for resolution of contractual disputes and it is expected that the budget and programme implications will become increasingly clear during 2010.

Regular briefings will be provided to both CEC and Transport Scotland to keep them updated on progress and implications for the project programme and finances of all the above matters.

#### Commercial Update (MUDFA)

A meeting with the CUS Managing Director was held in the Period with the aim of progessing matters to a conclusion. An agreed action plan has been implemented. It is still anticipated that elements of the final account may go to dispute resolution, however Carillion appear to be reviewing their position.

#### 2.3 Design

#### **IFC Design**

Concerns remain regarding BSC's management of SDS, this demonstrated by the late receipt of the updated v56 updated programme which has limited **tie**'s ability to provide a comprehensive report on the impacts/implications of this programme. Formal written communication on this ongoing matter has been submitted to BSC.

**tie** did not receive v56 updated programme until 26<sup>th</sup> April and have therefore been unable to analysis the information in time for this month's report and have instead reverted to v55 data. BSC have provided no explanation as to why v56 is late and have provided no warning as to its content.

v55 data has been used to inform the programme updates, this has led to a reduction in the number of additional activities and approvals during the period. **tie** are now in the process of including these into the live programme.

- IFCs Phase 1a: 129 issued out of 231. It is important to note that BSC are not issuing fully IDC'd Issue for Construction Drawings, and are therefore not meeting their contractual obligation in regard to readiness to start works.
- 56 Prior Approvals are included in v55 (reduction in PAA count due to removal of Murrayfield TS RW and 1a3 roads from the SDS programme) 53 of which have been submitted, and 52 granted these include the RBS Gogarburn Tramstop, Modifications to Murrayfield TS retaining Wall, Gogar Interchange, Canopy & Boundary Treatment at Airport Kiosk, Final Tram Stop location drawings and OLE pole locations.
- There has been a reduction in the number of Technical Approvals from V51a (due to a decrease in the number of activities in the SDS v55 programme ( - 4 remaining to be submitted 16 left to be granted;
- Roads approvals One area remains outstanding for Technical Approval in Phase 1a (1C2- Picardy Place to St Andrew Square);
- Scottish Water has sent formal acceptances to BSC for all sections with the exception of 1C2 (Picardy Place to St Andrew Square) & 1C1 (McDonald Rd to Picardy Place).
- Sections 1B, 1D, 1C3, 5B & 5C close reports have been signed off by CEC, subject to BSC concluding any concessions included in the reports during construction. CEC are reviewing all other sections based on the prioritisation list provided by BSC.

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Design approvals status in Period 01 is summarised below:

Phase 1a only		Nur	Num	ber		
	V26	v31	v51A	V55*	Submitted	Granted
Prior Approvals	44	49	58	56	53	52
Technical Approvals	53	71	98	91	87	75
IFC	71	81	235	231		129

<sup>\*</sup> Any alerations to the Approvals from V55 have been included in the above count and the changes are now being included in the live report.

Design Audits have been completed in the Period, looking at Infraco management of the design, the outcome of this being that there is little evidence of better management of SDS by BSC, and the lack of support in supplying the Design programme strengthens the evidence of poor design performance. The approvals task force has been supplemented by a Design Progress and Design Issues meeting to provide additional management focus on design resolution.

It should be noted that this is a consortium issue to manage, and tie will provide support in this respect. tie has implemented an extensive programme of site based monitoring to validate & verify the installation of works in line with an integrated design assured construction.

Reasons for design slippage are being reviewed and recorded twice monthly at the design taskforce meeting, which is focuses on resolving the outstanding design issues. tie is identifying and implementing opportunities to mitigate the impacts of this slippage.

#### 2.4 **Utility Works**

Utility works are progressing in York Place and Haymarket. tie issued the PQQ for the Baltic Street works in Period 1. BT have commenced telecoms re-cabling activities on Leith Walk with an expected completion for cabling works from Jane St - FotW in Period 2 and from Jane St - McDonald road in early Q3. The remedial and snagging works in Leith Walk may result in delay to Infraco on the at specific locations on the Northbound kerb, however, the Southbound kerb is currently available. The delay of telecoms work in St Andrew Square could also delay the commencement of Tram works from their programmed start in Jun 10 to after the completion of telecoms in October10. tie have met with BT again in period 1 to try to identify opportunities to hand-over part sections of the route to BSC for Infraco works, the review of which continues.

Update and Progress during Period 1:

- Clancy Docwra are on schedule to complete the utilities diversions in the Haymarket area at the beginning of Period 2, and are on course to complete the diversions in the York Place to Annandale Street sections early in Period 2.
- Scottish Water are still to approve the protection proposals including the adoption of the sewer design at Ocean Drive.
- Clancy Docwra completed the relocation of utilities out of Lindsay road in Period 1. BT works are ongoing with an expected completion in Q1
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- Farrans utilities diversions in Section 1A continue to programme, with completion in sites 1 & 3 anticipated in Period 2, with site 2 due to complete in Period 3. Telecoms cabling work will follow on from this.

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#### 2.5 Tramworks (INFRACO)

Following a year-end review of the progress reporting process including some adjustment of activity weightings for particular off-street structures resulted in a net 0% cumulative gain for Period 01.

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The on-street works in progress are related to snagging items along Princes Street, works at Lindsay Rd RWs and commencement of Tower Place bridge in Section 1A & Building Fixings at North St Andrew St & Princes St West. There has been no further Infraco works on-street due to a lack of agreement on programme going forward.

Progress Off-street has continued or commenced at the following locations: Note that the (%) completion estimates relate to the full structure).

Item	%
	Comp
	Rev 1
Lindsay Road RWs	3%
Tower Place bridge	1%
Haymarket viaduct –	51%
Russell Road Retaining Walls	19%
Carricknowe bridge (reduction in % due to over-reporting errors in	48%
previous periods)	40 /6
Edinburgh Park viaduct	91%
A8 underpass (Excluding utilities works)	10.5%
Depot building.	23%
Depot in totality	24%
Gogarburn Bridge	90%

Update and Progress in Period 1:

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- Again progress to Depot Building going well. Earthworks in stabling area recommenced with suitable material being moved to Section 7.
- Section 7 Earthworks/Drainage work commenced between Culvert 3 and Park & Ride.
   Good progress being made in fair weather conditions.

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- Revised software being issued to Airport Barrier System which should eliminate problem with taxi access. Hopes are that this will be resolved by month end.
- System Integration Plan received and acceptable.
- As Built Procedure received and acceptable.

#### Issues in the Period:

- Infraco have refused to progress works on retaining walls 1A and 1C despite tie issuing Cl 22/65 letters for the sewer protection works, & the alterations & Soft ground at 1A and the Sea wall at 1C.
- Works to complete the piling to east side of Tower Place Bridge was delayed during period 1 due to the requirement for a licence from Historic Scotland and the discovery of a service cable, both of which were successfully managed in Period 1 allowing BSC to progress the final piles.
- BSC have failed to commence On Street Works and are refusing to progress works whilst Clause 80 Changes are being agreed. Commencement of on-street works are also being frustrated by the fact that although sites are available, BSC have failed to satisfy their contractual obligations to enable a permit to be issued.
- BSC do not accept tie's position with respect to IDC and execution of sub contractors and a Lack of construction programme information from BSC causing concern with respect to management of TM, stakeholders, safety and other works.
- BSC have declined to carry out a review of Trackform in six areas.
- BSC refusing to continue the works following Clause 22/Clause 65 letters.

Progress is being monitored against the Revision 1 programme. The summary milestones against the agreed INFRACO contract and the short term Rev 1 programme milestones are shown in the table below.

Milestones	Period 01		Cumulative (S	Contract	
	Planned	Actual	Planned	Actual	Planned to P01
Construction	13	15	121	123	953

The Revision 1 programme incorporates the agreed 38 business days (seven weeks plus three days) EOT variation to the contract programme as in the table below. As had been the case in the contract programme progress, the common denominator in the Revision 1 programme remains that every activity in the programmes has a work content generated against it which translates into a weighting, allowing accurate reporting of progress.

Period 01 2010-11	Р	eriod	Delta	Cumu	lative	Delta
INFRACO PERIOD 01 PROGRESS (Contract Rev.01 Programme)	Plan	Actual		Plan	Actual	
Section 1a Newhaven to Foot of the Walk	5.1%	0.0%	-5.1%	65.1%	0.1%	-65.0%
Section 1b Foot of the Walk to McDonald Road	6.5%	0.0%	-6.5%	65.3%	1.3%	-64.0%
Section 1c McDonald Road to Princes Street West	3.1%	0.0%	-3.1%	56.7%	0.0%	-56.7%
Section 1d Princes Street West to Haymarket	2.7%	0.0%	-2.7%	97.2%	42.1%	-55.1%
Combined Sections 1A-1B-1C-1D (On-Street) Newhaven Road to Haymarket	4.4%	0.0%	-4.4%	68.8%	8.0%	-60.9%
Section 2 Haymarket to Roseburn Junction	0.0%	1.2%	1.2%	100.0%	22.7%	-77.3%
Section 5a Roseburn Junction to Balgreen Road	3.1%	0.0%	-3.0%	80.0%	5.9%	-74.0%
Section 5b Balgreen Road to Edinburgh Park Central	3.3%	1.3%	-2.0%	98.2%	38.8%	-59.4%
Section 5c Edinburgh Park Central to Gogarburn	2.7%	0.2%	-2.5%	89.9%	6.3%	-83.6%
Section 6 Gogar Depot	0.0%	1.1%	1.1%	100.0%	24.6%	-75.4%
Section 7a Gogarburn to Edinburgh Airport	4.0%	0.6%	-3.4%	92.2%	33.0%	-59.3%

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Combined Sections 2A-5A-5B-5C-6A-7A (Off-Street) Haymarket to Edinburgh Airport	2.3%	0.6%	-1.7%	92.5%	22.0%	-70.4%
FULL ROUTE PHASE 1A NEWHAVEN ROAD TO EDINBURGH AIRPORT	3.2%	0.3%	-2.9%	82.6%	16.1%	-66.4%

Section	Commentary
Section 1a Newhaven to Foot of the Walk	Works have stopped at Lindsay Road RWs (1a & 1C). Tower
	Bridge piling works continue
Section 1b Foot of the Walk to McDonald Road	No Infraco works have started on this section
Section 1c McDonald Road to Princes Street West	No Infraco works have started on this section
Section 1d Princes Street West to Haymarket	No Infraco works have started on this section
Section 2 Haymarket to Roseburn Junction	Haymarket Viaduct
	Work on the east abutment base slab and walls continued during the period. Installation of the deck false work and reinforcement to the first deck pour was completed during the period. The first deck pour was completed 20/04/10.  BSC/Grahams still waiting for SDS to complete the redesign of the internal retaining wall.
	Haymarket Yards  No work during the period. Further CBR tests carried out by BSC/Grahams during the period. BSC currently preparing an Estimate for the soft ground Change.
Section 5a Roseburn Junction to Balgreen Road	Temporary & permanent works re-design along with commercial resolution delaying various structures. All required consents in place for track installation. Russell Road Bridge
	SC/Grahams completed the trial soil nails during the period. Temporary works design for the soil nails was due to be submitted early 2010. Actual works now planned to start early August 2010.  Russell Road Retaining Wall W4
	Retaining Wall W4 retaining wall units 9 to 23 - piling completed on Friday 19 March 2010, apart from 7 no. piles in unit 19. Piling rig moved from Russell Road RW W4 to the A8 underpass on 23 March 2010. Expanded construction completed cutting down of the piles units 10 to 18. No pile cap constructed to date due to the continuing outstanding issue with the pile cap reinforcement – SDS to resolve this issue
	. Murrayfield Wanderers Clubhouse Accommodation works – works commenced w/c 05/01/10 and continued during the period
Section 5b Balgreen Road to Edinburgh Park Central	Temporary & permanent works re-design along with commercial resolution delaying various structures.
	Carrick Knowe Bridge
	Constructed of the wingwalls progressed during the period.
	<ul> <li>Installation of the deck slab reinforcement and construction of the bridge diaphragms commenced during the period</li> </ul>
	<u>Guided Busway</u>
	Track work continued during the period.
	Bankhead Drive

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Section	Commentary
	No works by BSC during the period.
	Works are progressing to the road and footpath formation, however, progress has been significantly affected by the number of unforeseen utility conflicts affecting kerb installation and gulley installation.      A Compensation Event for the MP PE gas main conflict has been issued to BSC. Small Works Changes are being issued to resolve other conflicts, where possible.  Edinburgh Park Bridge
	<ul> <li>Construction of the north approach ramp continued during the period.</li> <li>Construction of the south approach ramp commenced during the period.</li> <li>Expanded continued to work on the robust kerb during the period. The robust kerb is now complete from span 2 to 7.</li> </ul>
Section 5c Edinburgh Park Central to Gogarburn	A8 Underpass: Phase 1: Kingpost arrangement works commencing 21 <sup>st</sup> April 2010. Phase 2: BT support system being erected from 6 <sup>th</sup> April 2010. Phase 4: All cables slewed by 23rd April 2010. Pile guides commenced 12 <sup>th</sup> April 2010. Awaiting BSC cost for grouting sewer.  Depot Access Bridge Piling works to north abutment and central pier completed 20 <sup>th</sup> April 2010. BSC are progressing approval for temporary works scheme to south abutment. Expected to be issued to CEC 23rh April 2010.
Section 6 Gogar Depot	Depot Building works: Accommodation area 1 <sup>st</sup> Fix M&E completed with blockwork and partition walls progressing well. Workshop area 1 <sup>st</sup> maintenance pit completed 23 <sup>rd</sup> April 2010 and wheel lathe pit base pour completed 16 <sup>th</sup> April 2010. General Building works wall cladding 80% completed.  External works: Excavation for stabling area completed 23 <sup>rd</sup> April 2010. Drainage works 60%.
Section 7a Gogarburn to Edinburgh Airport	Gogarburn Bridge: Works recommenced 15 <sup>th</sup> February 2010. East abutment parapets installed 24 <sup>th</sup> April 2010. Bridge deck trackslab plinths completed 24 <sup>th</sup> April 2010.  EAL Construction Phase A: Retaining wall W14 and W15 commenced 15 <sup>th</sup> February 2010. Works progressing well with completion expected by 22 <sup>nd</sup> May 2010.  Soft ground remediation commenced from Culvert 3 south on 12 <sup>th</sup> April 2010.  Culverts 1,2and 3 have been completed. Hilton Hotel Car Park: Phase 1 Works completed

#### Audits under Clause 104 of the Infraco Contract

A series of Audits on alleged changes in BDDI/IFC on Roads and Signage in Sections 2A, 5B, and 5C have been carried out, and a report being compiled.

A completed audit report was issued to BSC during the period covering:

- Roads & Drainage for Section 1D
   Structures at Baird Drive RW, Bankhead Drive RW, Depot Access Bridge and the A8 Underpass
- Track Design & Improvement layers
- OLE Systems & Foundations.

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BSC's response is yet to be received.

The audit report on Design Assurance & System Integration has been issued to BSC. BSC's response also remains outstanding.

An audit on BSC's management of the SDS programme will be carried out in Period 2. The details for this audit are currently under consideration.

Sub contract Audit meetings took place at the end of January and beginning of February 2010. The audit scope was to review the processes and procedures associated with the procurement, placement, and management of subcontracts and subcontract works to ensure compliance with the requirements of the Agreement. The main 'themes' identified by the audit team were;-

- BB and Siemens do not have a standard procurement strategy or policy and each party appoint subcontractors independently of the other.
- BB could not evidence that they had a project specific procurement strategy in place
- That there was little evidence that BB had a procurement management processes in place
- BB had entered into contractual arrangements with subcontractors without the knowledge
  of tie and that in some cases entered into subcontracts in advance of requesting
  permission to subcontract from tie.

The audit has identified several areas which cause concern with BB's process of procuring and authorising subcontract works namely;

- An ad hoc procurement.
- Entering into contracts in the form of a Letter of Intent or Small Works Contract without consent.
- Letters of Intent which do not adequately deal inter alia with programme, scope, price and collateral warranties.
- In some cases Letters of Intent are extended by adding monetary value to unspecified scope.
- Letters of Intent do not appear commensurate with the work carried out on the project.

Further investigation is required to obtain an appreciation of the scope of the works contained in the Letters of Intent together with an understanding of the time-line associated with the authorities to proceed. It is also likely that production of this information will result in further avenues of inquiry. This further investigation is timetabled to be completed prior to the end of May 2010.

#### 2.5 Tram construction (Tramco)

Good progress continues to be made with delivery of the trams by CAF in accordance with the tram delivery schedule with 21 trams now in various stages of production. The first tram was delivered to Princes St on 25<sup>th</sup> April 2010.

Draft Operations and Maintenance manuals have been received and are being reviewed.

#### 2.6 Preparing for Operations

tie are working on a joint initiative with TEL and are focussed on getting ready for the Testing & Commissioning phases as well as the operational introduction of trams. As part of

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the process, the Benefits Realisation & Operational Readiness was formed and is reporting to the TPB, and an integrated programme has been developed by **tie** with assistance from TEL.

The process for acceptance of the Edinburgh Tram Project is designed to ensure that it is delivered in an acceptably safe, compliant and efficient manner. The objectives of the process are to ensure that the system performance, integrity, reliability, availability and safety are rigorously tested and that throughout all stages of the delivery process the many sub-systems and the overall system are validated and verified against the requirements and applicable standards.

The BROR sub-committee is providing the governance for these activities, which has seen the TUPE transfer of the Transdev Edinburgh employees into the Edinburgh Trams team, and the OJEU procurement launched for the ticketing equipment for the tram system, to link it with the existing Lothian Buses ticketing system.

Significant effort is being made on programming and planning the preparing for operations activities, including recruitment and training of both operations and maintenance staff.

The maintenance of completed infrastructure assets is being raised as an area that requires focus for improvement.

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### 2.7 Interface with other projects

The following table identifies the other projects ongoing within the city which may impact on the Tram project. This is reviewed on an ongoing basis both internally and in conjunction with TS to identify conflicts and mitigations. The most significant interface of concern is the Gogar interchange. **tie** has instructed the design above and this is underway.

External Projects	Promoter	Project Description	Potential Conflict					
GREEN - No conflict anticipated but being monitored. AMBER - Managing any conflict. RED - Conflict which causes programme concern / unknown effect on tram programme.			Tram Contract Dates		Project Dates			
				Start	Finish	Start	Finish	Comments
New Hotel adjacent Ocean Terminal	Ocean Points Development Limited	New build hotel	Potential conflict with Infraco dependent on timescales. To be monitored.	Jun-10	Jun-12	ТВА	ТВА	To be monitored.
Movement of Abnormal Loads	Sinclair Knight Merz	Transportation of turbines and 45 metre blade sections for Fallago rig wind farm via road transporters from Leith docks along Ocean Drive via Ocean Terminal frontage to Commercial Street , then East through Great Junction Street/Duke Street junction to Salamader Street	Conflict with tram works along required transporation route. Disruption to constructiona activities.	Mar-10	Jun-12	Jun-11	Dec-11	Works commenced at Tower Place bridge Mar-10  2 complete turbine movements expected each week for approx. 6 months
Former Bus & Tram Depot nr Shrub Place	Fraser & Neave	Transformation of former Tram and Bus Depot into 121 room serviced apartments.	None identified. Dependent on timescales.	Sep-10	Aug-11	ТВА	ТВА	To be monitored. Utilities complete. Potential TM interface dependent on Infraco proposals
Shrubhill House	Unite	Transformation of former council social work headquarters into 200 bed hotel	None identified. Dependent on timescales.	Sep-10	Aug-11	ТВА	ТВА	Awaits planning consent. To be monitored. Utilities complete. Potential TM interface dependent on Infraco proposals
Baxter Place Development	Fitzpatrick Hotel Group	Conversion of existing building adjacent Greenside Lane and with frontage onto Leith Street	Proposal to divert existing utilities through basement of building. Also potential TM interface issues with Picardy Place construction.	Oct-10	Feb-12	ТВА	ТВД	

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St.James Centre Redevelopment	CEC / Henderson Global	Redevelopment of existing shopping centre.	Interface with Picardy Place junction re-construction and Cathedral Lane sub-station	Oct-10	Jun-12	2011	2016	Downgraded from red to amber as commencement of this project is now indicated towards the completion of Tramworks and therefore interfaces should diminish.
National Portrait Gallery		Major building construction and refurbishment. The renovation of the external facadesy, the overhauling of the existing windows, the renewal of the existing rooflights and roof covering. Additionally, it is proposed that an external ramp is formed to the front main entrance to allow disabled access.	Interface with Infraco works on St Andrew Street / York Place	Oct-10	Sep-11	Oct-09	Nov-11	
St.Andrew Square Development	CEC	Demolition of existing buildings bordering South Side St.Andrew Square, South St David Street and Meuse Lane	Infraco Programme	May-10	Mar-11	ТВА	ТВА	Infraco activities will not commence until May2010
Waverley Steps	Transport Scotland	Refurbishment of existing Waverley Steps with inclusion of new escalators and elavators	PRINCES STREET Traffic management issues when Infraco in Princes Street should this project require deliveries, craneage or Traffic management in same time period	Complete	Complete	Jun-10	May-12	No conflicts expected.
Waverley Steps	Transport Scotland	Refurbishment of existing Waverley Steps with inclusion of new escalators and elavators	ST.ANDREW STREET Traffic management issues when Infraco in Princes Street should this project require deliveries, craneage or Traffic management in same time period	May-10	Mar-11	Jun-10	May-12	No conflicts expected.
Waverley Station Re- roofing	Transport Scotland	New roof and general upgrade to station interior	May be Traffic Management issues	May-10	Mar-11	Apr-10	Apr-14	No conflicts expected.
New Hotel in Haymarket	Tiger Developments	New build hotel		May-10	Jul-11	ON HOLD	ON HOLD	No issue as Project cancelled as Planning Application rejected October 2009.

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Haymarket Interchange	First Scotrail	Capacity Increase Project - Installation of new lifts and walkways from Haymarket Terrace	Utility diversions continue until late Jan.2010 Potential Interface with Infraco works at Haymarket junction commencing	May-10	Jul-11	Dec-11	Dec-12	No conflicts expected.
Haymarket Station Re- furbishment	Network Rail/Scotrail	Main Building refurbishment works	Jan.2010  Any external works could conflict with TM for either or both MUDFA and Infraco and could conflict with Infraco construction works. Bridge to be installed from Haymarket terrace to Platform 0 to comply with DDA	May-10	Jul-11	Aug-09	Complete	Complete.
Haymarket Station	First Scotrail	Installation of new lifts and walkways from Haymarket Terrace	Construction of Haymarket viaduct	May-10	Jul-11	ТВА	ТВА	
Haymarket Terrace	DTZ Surveyors	Common Repairs to buildings at 2-4-6- 8-68 & 74 Haymarket Terrace	Scaffolding and external repairs	May-10	Jul-11	May-09	ASAP	Scaffold erected and building repairs underway between Infraco TM phases.
Airdrie - Bathgate	Transport Scotland	New track installation	Tram possessions mainly "piggy- backed" on A2B possessions which could be altered / cancelled.	ТВА	ТВА	Mar-09	Mar-10	Various possessions and RotR workings
New Hotel	NEL (New Edinburgh Park Ltd) / Whitbread	120 Bedroom Premier Inn Hotel	Construction traffic TM Interface	ТВА	ТВА	ТВА	ТВА	The site, located at the southern end of Edinburgh Park, is opposite the Park's dedicated railway station and tram stop.
RBS Tramstop - Gogarburn	RBS	Design by RBS - Build by Infraco	Design and consents not in place in a timely manner to allow Infraco to build to programme	Jun-11	Sep-11	ТВА	ТВА	Design and approvals progressing to programme. Confirmed that this will now be a generic tram stop design
Gogar Surface Station	Transport Scotland	New station to east of Gogar Depot	Approvals and Consents	Apr-10	Jul-11	Jul-10	Jul-11	Gogar Interchange Programme reviewed and updated in conjunction with both NR and TS

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#### Colour code

Green	No conflict anticipated but being monitored
Amber	Managing any conflict
Red	Conflict which causes programme concern / unknown effect on tram programme

This has been sent to TS for their input for projects they are sponsoring and will continue to be reviewed by tie to identify any potential impacts on the Tram programme as early as possible in order to manage them. A wash-up session of the TS projects was carried out late December09 with TS. The next session will be arranged for after Rev 3 Programme agreements are in place.

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#### 2.8 Other

#### Gogar Interchange

#### Key issues/Decisions Required

- BSC were requested to include a narrative on Gogar Interchange (Design and Construction staging activity) within their period report for Period 1. This was not provided. BSC have assured tie this will be provided in future period reports.
- Detailed technical design for retaining wall now underway again, following resolution of the sewer location. However additional SI was required as a result of an assessment on the final impact of the sewer location on the new retaining wall. In addition, a new requirement has arisen where tie will now design a protective wall with respect to the new sewer route. This will delay design completion: now estimated by SDS as 21 May 2010 to be followed by Technical Approval. IFC cannot therefore be achieved on 14 May as previously reported. SDS now forecast IFC at 18<sup>th</sup> June (TBC).
- Prior Approval application submitted 18 March and forecast determination remains at 29 April in line with Network Rail planning application. tie and BSC met 21/4/10 to review CEC queries raised on the Prior Approval submission and BSC expect to respond by 23/4/2010.
- BSC has notified tie that the systems elements of the design will be complete in June 2010. tie challenged June 2010 as the delivery date at meeting on 26 March, however Siemens were not prepared to commit to an earlier delivery. tie still await Siemens programme justifying their position. tie will consider potential mitigation measures if the systems design cannot be completed in line with the SDS design.
- SDS were due to submit an estimate for the revised scope to BSC on 25 March, but this has was delayed due to the requirement for the sewer protection wall being introduced to tie by Transport Scotland / Network Rail. The Estimate was received on 21<sup>st</sup> April and is currently being checked, but appears to be within the anticipated range. tie are meeting Transport Scotland on 28<sup>th</sup> April to discuss the Estimate further.

#### Key issues/Decisions Required

Forecast outturn maintained at £1.042m against an original £880k:

#### £880k Breakdown

 SDS
 £400k

 JRC
 £ 30k

 tie
 £100k

 Siemens
 £350k

 £1042k
 Breakdown

 SDS
 £540k

 JRC
 £ 45k

 tie
 £100k

 Siemens
 £327k

 Const. Staging
 £ 30k

Forecast outturn will be revised in full on receipt of SDS revised estimate.

- CEC will require an updated grant letter to allow tie to commit to the extra costs involved in completing the design. An updated grant letter will be needed within 2 weeks of tie supplying a full revision of the cost estimate.
- Network Rail has now tabled the promised draft list of agreements to TS but this does not cover all agreements required as it only covers agreements to which NR is party. It also does not include the likely scope as originally promised. tie to respond formally to TS in Period 1. tie cannot accept responsibility for any delay associated with agreements not being reached in line

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with the needs of the construction programme given Network Rail's lack of positive engagement on this issue. The land transfer from CEC to Network Rail cannot proceed ahead of other agreements being substantially complete because the land transfer needs to include servitudes in favour of tie/TEL to allow access to and through this land for the operation and maintenance of the ETN.

Other agreements required include TEL/First ScotRail and Scottish Water Section 21's (Both for **tie** and NR). The proposed meeting of Heads of Legal has still not taken place.

#### Design progress

At the end of Period 1 tie assesses the design phase as 76% complete for the increased scope.

#### Cost reporting

Cost of work done to date is £800k versus the £880k originally forecast and the £1,042k revised AFC.

#### Period 1 progress

Finalisation of the sewer location has allowed the design to progress again. The Prior Approval application was completed and submitted on 18 March 2010.

SDS has submitted revised runtime analysis incorporating the Gogar Interchange. The runtime analysis will be used to support revised patronage calculations for the Edinburgh Tram Network. **tie** await Transport Scotland approval to progress this with JRC.

BSC has continued the development of Overhead Line and other systems design. BSC has confirmed that work on systems design will not be complete until June 2010.

Detailed design continued for the tram stop structure and began for the northern retaining wall. SDS now estimates that design will be complete by 21 May ready to be submitted for Technical Approval. CEC has agreed to review the design as a priority but it is not realistic for that review to be complete within 3 weeks. IFC cannot now be achieved on 14 May as previously reported. SDS now forecast 18<sup>th</sup> June (TBC).

Programme milestones

Activity	Planned	Period 6	P13 forecast /
_		forecast	Actual
Complete prelim design of additional tram stop	10/8/09	18/9/09	30/9/09 (A)
Submit Structures Technical Approval application	19/11/09	8/1/10	21/5/10
Submit Prior Approval application	26/11/09	15/1/10	18/3/10 (A)
Receive Prior Approval	5/2/10	12/3/10	29/4/10
Receive Structures Technical Approval	5/2/10	8/3/10	11/6/10
IFC by SDS of civils design and outline systems	26/2/10	22/3/10	18/6/10
design			
IFC by Siemens of detailed systems design	j <del>a</del>	-	June 2010

tie will also consider mitigation measures to reduce/eliminate impact of this on construction programme.

#### Overall design co-ordination

Project management meetings have continued between **tie**, TS and NR and fortnightly conference calls have taken place between **tie**, NR and the respective designers.

Design co-ordination is now largely dealing with detailed engineering issues rather than issues of principle. However, during Period 1 Mott MacDonald & Network Rail raised a new significant issue by proposing a double skin EFTE roof rather than the existing single skin. This would be a significant change to the existing tram design and also a material variation to the Prior Approval for which **tie** has applied. The double skin roof has additional plant associated with it (to blow air between the 2 skins) which would have capital and maintenance costs. **tie** will only take this forward if instructed by TS.

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#### Tram design issues

BSC has identified a need to discuss the reduced headroom for the OLE through the tramstop with the Independent Competent Person. BSC is arranging a meeting with the **tie** engineering team so that BSC can present a proposal to the ICP with the support of **tie**. **tie** have requested further information from BSC prior to holding the meeting.

#### Other agreements

tie has highlighted the need for various operating and commercial agreements between tie and Network Rail and has asked Network Rail to arrange initial meetings to discuss the scope of these agreements. Network Rail has now tabled the promised draft list of agreements to TS but this does not cover all agreements required as it only covers agreements to which NR is party. It also does not include the likely scope as originally promised.

tie suggest that a programme for reaching formal agreements be agreed between Transport Scotland. Network Rail and CEC.

#### Scope of tie works

The scope of **tie** works does not include any external legal costs in relation to land or agreements and it is likely that **tie** will need legal advice in relation to agreements with Network Rail. **tie** expects that the extent of this will become clearer once Network Rail tables some draft agreements for review. Note that to date, no draft agreements have been received from Network Rail.

#### Long-lead items / abortive works

**tie** has reviewed the long-lead items/abortive works previously identified against latest programme forecasts and presented a paper to Transport Scotland on options for dealing with long lead items and associated costs and risks. Transport Scotland has confirmed that **tie** should take steps to minimise the abortive costs on the basis that the Gogar Interchange will go ahead. CEC and Transport Scotland are discussing terms of a grant extension that will also cover abortive costs.

tie has confirmed to BSC the OLE pole heights to be ordered through the Gogar Interchange area in order to minimise abortive costs.

BSC has notified **tie** that a decision is needed on the design of the switches & crossings for the east entry to the Depot by April 2010. **tie** will confirm the revised design requirement to BSC.

Drainage for the earthworks at the Depot is currently being installed to the west of the Depot Access Bridge. There is no option that does not involve some abortive cost if Gogar Interchange goes ahead as drainage must **tie** into the sewer that will be relocated by Network Rail. **tie** has identified ways of minimising the cost of those abortive works.

tie is continuing with the implementation of the existing ETN scheme unless otherwise instructed by Transport Scotland.

#### Construction Staging

A meeting was held on 18<sup>th</sup> March 2010 between **tie**/BSC/Network Rail to discuss a sequencing of work. Prior to this meeting BSC had presented an informal programme which suggested the impact of Gogar Interchange on ETN being in the region of 12 months delay. The meeting of 18<sup>th</sup> March addressed the logic and durations of this programme which resulted in an overall reduction of the impact to around 6 months.

It is important to note that this exercise primarily addressed optimising the programme for completing Gogar Interchange, <u>not</u> to minimise the effect of Gogar Interchange on ETN. This exercise remains to be carried out. It is proposed to complete this exercise when the drawings submitted for Technical Approval are complete.

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#### Other Reporting Streams Progress

The following sections describe progress on other areas of the project during Period 1.

#### Temporary traffic regulation orders (TTROs)

A review of traffic management arrangements across the City Centre is currently being worked up with a view to implementing in Period 2. This will include repalecment of MASS barrier with a recycled rubber flexible kerbing system supplemented with pedestrian guardrailing at specific locations.

#### Traffic regulation orders (TROs)

TRO1 was put to Public Deposit on 22 February 2010 and the 28 day public consultation completed on 22 March 2010. There has been 426 objections received, these are currently been considered and a detailed report will be prepared for submission to the Council TIE Committee for consideration on 27<sup>th</sup> July, with a view to making TRO1.

#### **Network Rail**

- The NR Immunisation development nears completion (94%).
- The NR Immunisation design over half complete (79%).
- The Immunisation Calculations Study has now been reviewed by BSC ISA who has raised some comments. BSC are in the process of submitting their study for comment by tie and NR prior to final update and submission to ISRP.
- BSC has verbally informed tie that 14 off FETR will be required for the immunisation solution.
- NR Signalling Immunisation (EMC) Test Plan will be developed to include all verification and validation tests that will evidence that there is no significant safety issue for NR assets failing 'wrong side'. Initial draft has been informally reviewed and commented. BSC has not yet given an indication of when formal issue of the plan will happen.
- These documents will be compiled into the Case for Safety Signalling. Expected for delivery to ISRP on the 12/04/2010 for an ISRP on week commencing the 10/05/2010.

#### Third party interfaces

- Forth Ports Licences have been executed with Forth Ports to allow all tram and utilities works to proceed in the Leith Docks area. Discussions have not yet been concluded between CEC and Forth Ports regarding a renegotiated S75 arrangement.
- Haymarket car park compensation tie have agreed compensation with NR. tie continue to discuss with TS the additional compensation payable to First ScotRail, as a result of the extension of the FSR franchise from Nov 2011 to Nov 2014. It is believed that this should have been allowed for in the franchise extension discussions between TS and FSR. tie have taken the matter up directly with TS and are awaiting a confirmed position from TS;
- Interfaces are being managed to ensure that the SRU accommodation works and events are cohesive. tie have now agreed an approach to the design and construction of the works with SRU.

#### Murrayfield

A meeting is being held on 27/04/10 with the SRU to agree handover and consider floodlight control cabinet overheating issues, due to the insulation properties of the protective padding.

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#### **Burnside Road Realignment**

- A video data survey was carried out at the end of March 2010 to establish the current demand from vehicles using the barrier lanes. This information was used to identify changes that could increase the flow rate and specifically increase the number of taxis that can enter the rank during peak periods when service vehicle demand is also high.
   The proposals were agreed with BAA on 15<sup>th</sup> April 10 and will be implemented during week
- The proposals were agreed with BAA on 15<sup>th</sup> April 10 and will be implemented during week commencing 26<sup>th</sup> April 10.
- BAA is investigating the problems with its existing barrier and payment control system which is
  preventing the card reader at the new taxi barrier from being put back into service. Performance of
  the barriers will improve once the card reader is operational.

#### **MUD Works at Edinburgh Airport**

 The amendments to the format of the final documentation, requested by BAA, have commenced and are expected to be complete by 14<sup>th</sup> May 10.

#### **Cemetery Wall on Constitution Street**

Works to the Cemertery Wall will commence in Period 2, with expected completion in the same period.

# 3 Headline cost report

#### 3.1 Current financial year

		FY 10/11			FY 10/11		FY 10/11		COMD	Costs	Total	
	COWD Period		COWD Year To Date COWD Full Year Foreca		COWD Full Year Forecast To Date		To Go	AFC				
	Actual	Budget	Variance	Actual	Budget	Variance	Forecast	Budget	Variance	Actual	Forecast	Forecast
Total Project COWD	9.920	9.920	0.000	9.920	9.920	0.000	143.011	142.245	0.766	357.763	175.546	533.309
Other Funding	0.819	0.819	0.000	0.819	0.819	0.000	11.808	11.745	0.063	29.540	14.495	44.035
Demand on TS	9.101	9.101	0.000	9.101	9.101	0.000	131.203	130.500	0.703	328.223	161.052	489.274

- We continue in this report to reflect an AFC outturn estimate of £533.3m. However, as previously reported, given the continuing commercial uncertainties with the Infraco and continuing delays to the project it is considered unlikely that the full scope of Phase 1a will be completed within the available funding envelope of £545m. It is not however possible at the present time to accurately forecast a reliable outturn cost until the key commercial issues are resolved through the contractual and legal process.
- Regular briefings are being provided to both CEC and Transport Scotland to keep them
  updated on progress and implications for the project programme and finances of all the
  above matters. Latest AFC Update 18<sup>th</sup> March 2010.
- **tie** are now escalating all key issues to Dispute Resolution Procedure (DRP) and other contractual measures following the failure of mediation to provide an acceptable outcome.
- COWD to date is £357.8m, with funding to date split to TS (£328.2m) and CEC (£29.6m).
- Funding allocated by TS to the project in 2010/11 was £130.5m. Holding the 2010/11 forecast for Q1 results in theTS share of this year's actual costs being (£131.2m) exceeding the funding allocation. Risks identified in relation to the latest Infraco forecast are anticipated to give TS funding headroom in the Q1 forecast update (period 3). Risks are identified in the 'Profile' section 3.2 (below).

#### Actual YTD P1 & forecast P2-P13 FY10/11

	2010/11	Forecast	Forecast
£m	to P1	P2-P13,10/11	FY10/11
Infrastructure and vehicles	8.4	115.4	123.8
Utilities diversions	0.1	-4.8	-4.7
Design	0.1	2.1	2.2
Land and compensation	0.0	0.2	0.2
Resources and insurance	1.3	12.8	14.0
Base costs	9.9	125.6	135.5
Risk allowance	0.0	7.5	7.5
Total Phase 1a	9.9	133.1	143.0

Note: Tram COWD Full Year ended 09/10 was £113.8m against budget £150.1m (excl 1b).

YTD 2010/11 COWD is £9.9m in period 1, in-line with the newly aligned 2010/11 CAB profile.

Full year forecast for 2010/11 is held at £143.0m. This forecast is being held from P13, and includes a base PM forecast of £135.5m and unallocated risk of £7.5m.

Key Risks to the £143.0m forecast for 2010/11 are currently -£14.8m. This is mainly attributable to the delay in progressing Infraco works 'on-street'. At risk, and forecast in 2010/11 are: On-street Milestones for sections 1a & 1b (-£6.2m), on-street change forecast (-£1.1m), and unallocated risk (-£7.5m).

As previously reported and agreed with CEC and TS, initial milestones under the Infraco and Tramco contracts in the aggregate amount of £24.2m, in respect of advance material purchases, have been classified as prepayments. These will be reclassified as expenditure against funding in the periods

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when the related materials are delivered to site and incorporated in the works. The release will occur on the achievement of trackwork and structures milestones in 2009/10 and future years.

#### 3.2 Current financial year profile

#### Profile for FY10/11

£m	Q1	Q2	Q3	Q4	
	(p1-3)	(p4-6)	(p7-10)	(p11-13)	Total FY10/11
Infrastructure and vehicles	23.6	29.0	42.5	28.7	123.8
Utilities diversions	-0.9	-2.0	-1.8	0.0	-4.7
Design	0.5	0.5	0.7	0.6	2.2
Land and compensation	0.1	0.1	0.0	0.0	0.2
Resources and insurance	3.6	3.0	3.9	3.4	14.0
Base costs	26.9	30.7	45.3	32.7	135.5
Risk allowance	0.0	2.2	3.0	2.3	7.5
Total Tram	26.9	32.9	48.3	35.0	143.0

- Costs for 2010/11 are forecast at £143.0m. This forecast is sensitive to the key risks as identified above, and will be updated for Q2 (in the period 3 report).
- An updated forecast profile for 2010/11 and future years was presented to Transport Scotland on 18<sup>th</sup> Jan-10 at Buchanan House. The forecast included a range of assumptions and sensitivities and was informed by linking the latest tie programme to Infraco construction milestones and taking a best view of what is likely to be achieved in the year. The realigned base costs and risk were then linked against this programme. The current agreed budget for 2010/11 is £142.3m, with TS share of the budget £130.5m.

#### 3.3 Total project anticipated forecast cost

Re-baselined Phase AFC and profiling

£m	Cum	Actual	Actual	FY	FY	
	FY07/08	08/09	09/10	10/11	11/12	AFC
Infrastructure and vehicles	30.6	45.2	83.5	123.8	25.5	308.6
Utilities diversions	18.4	33.4	10.6	-4.7	0.0	57.7
Design	24.4	4.7	2.1	2.2	0.6	34.1
Land and compensation	16.8	1.7	1.6	0.2	0.0	20.3
Resources and insurance	42.9	16.0	15.9	14.0	12.6	101.4
Base costs (inc 1b)	133.1	101.0	113.8	135.5	38.8	522.1
Risk Allowance	0.0	0.0	0.0	7.5	3.7	11.2
Total	133.1	101.0	113.8	143.0	42.5	533.3

Note: Base costs include £6.2m for ph 1b.

- The TEL board have approved a risk allowance within the current funding arrangements of up to £48.2m, which takes the current agreed budget up to £530.0m. tie continue to forecast £533.3m in this report as an AFC, in the knowledge that TS are being kept fully up to date with regards to the current commercial engagement with the Infraco, and the range of possible outcomes which may arise as a result of that engagement.
- An updated forecast profile for 2010/11 and future years was presented to Transport Scotland on 18<sup>th</sup> Jan-10 at Buchanan House following a full review of construction deliverables in 2010/11 with Infraco Project Managers, the Infraco Director and Tram Project Director.
- The 2010/11 base forecast presented to TS in January (£139.7m) included sensitivities of +/-c£30m, driven by specific assumptions. The latest base forecast of £135.5m (above 2010/11) reflects the latest consolidated project managers forecasts (which include known risk), plus a further £7.5m of unknown risk variables.

# 4 Time schedule report

#### 4.1 Report against key milestones

In advance of developing agreement with BSC, **tie** has developed an <u>unapproved</u> recalibrated baseline programme which reflects an Open for Revenue Service date of 23 Feb 2012. A completely unmitigated programme <u>as a control scenario only has also been produced</u> which shows a date of 17 Oct 2012. However, the live programme has been used to generate the milestone data below and this is based on all current information fed into the master programme. This indicates an open for revenue service date of mid February 2013.

(The agreed baseline programme reference for this project is that at Financial Close leading to revenue service in July 2011.)

Milestones	Baseline programme date	Actual / current forecast date tie live prgm
Approval of DFBC by CEC	21 Dec 06A	21 Dec 06A
MUDFA – commencement of utility diversions	02 Apr 07A	02 Apr 07A
TRO process commences	14Dec07A	10-Dec-07A
Approval of FBC by TS – approval and funding for INFRACO / Tramco	09 Jan 08	Dec 07A
Princes Street closed	03-Feb-09	22-Feb-09A
Tramco / INFRACO – award following CEC / TS	28 Jan 08	14 May 08A
approval and cooling off period and SDS novation.		
Construction commences	14-Apr-08	14-May-08A
First track installation commences – on street	03-Nov-08	Jun 2009A
Carrick Knowe Bridge commences	21-Aug-08	19-Aug-08A
A8 underpass commences	08-Aug-08	28-Aug-08A
Haymarket viaduct commences	08-May-08	01-Sep-08A
Edinburgh Park viaduct commences	06-Aug-08	01-Sep-08A
Tram mock-up delivered	Oct 2008	Nov 2008A
Demolition of Wanderers clubhouse	25-Aug-08	05-Jan-10A
Edinburgh Park viaduct complete	24-May-09	Jun-10
Princes Street re-opened	01-Aug-09	29-Nov-09A
NR immunisation complete	Nov 2009	Dec-10
Utilities works complete (including telecoms)	Nov 2008	Dec-10
All demolition work complete (S21C)	22-Aug-08	Jun-10
All Issue for Construction (IFC) drawings delivered (inc Gogar interchange design)	21-Jan-09	Jul-10
Haymarket viaduct complete	08-Dec-08	Oct-10
All consents and approvals granted	18-May-09	Jul-10
Design assurance complete	20-Jan-09	Jul-10
1 <sup>st</sup> Tram delivered	09-Apr-10	25-Apr-10A
Carrick Knowe bridge complete	11-May-09	Nov-10
A8 underpass complete	14-Jul-09	Mar-11
Roseburn viaduct commences	20-Jan-09	Sep-10
TRO process complete	01-Dec-09	Jul-10
Recruitment commences (SMC staffing)	July 2010	Oct-10
1 <sup>st</sup> OHL installed (Commence Section 2)	11-Dec-09	Feb-11
1 <sup>st</sup> section (other than depot) complete ready for energisation (2)	25-June-10	May-11
Commission Section 2 (Haymarket to Roseburn junction)	11-Jan-10	Oct-11

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Milestones	Baseline programme	Actual / current forecast date tie
	date	live prgm
Final tram delivered	17-Jan-11	Jun-11
Driver training commences (depot only)	Dec-10	Apr-11
Commission Section 6 (depot)	25-Mar-10	Oct-11
Roseburn viaduct complete	20-Apr-10	Aug-11
Test track complete (Ready for tram testing)	23-Apr-10	Feb-12
Commission Section 7 (Gogar to Edinburgh Airport)	25-June-10	Sep-11 to Feb-12
Commission Section 1 (Newhaven to Haymarket)	11-Mar-11	Sep-11 to Jun-12
Commission Section 5 (Roseburn junction to	09-Nov-10	Mar-11 to Aug-12
Gogar)		
Driver training commences (excludes depot)	Nov 2010	Sep-12
System testing complete off street	09-Dec-10	Sep-12
Construction Line 1a complete	17-Jan-11	Aug-12
System testing complete on street	16-Feb-11	Sep-12
Letter of "no objection" from Independent	17-Apr-11	Nov-12
Competent Person to commence tram running	·	
Shadow running starts	18-Apr-11	Nov-12
Shadow running complete	July 2011	Feb-13
Letter of "no objection" from Independent	July 2011	Feb-13
Competent Person to commence revenue service		
Open for revenue service	July 2011	Feb-13

<sup>\*</sup>BSC Rev 2 programme is not an agreed Contract programme

<u>Guidance for Completion:</u> Legend for colouring of Actual / forecast date text

Green: Actual / forecast date is ahead or in line with baseline Slight slippage – readily recoverable with action.
Significant slippage but expect recovery can be achieved
Notable / significant slippage – difficult to recover, even with action. Yellow:

#### 4.2 Key issues affecting schedule

BSC have submitted the following programmes in the period

Period 3-1 Progress Report.

The continued Utilities diversionary works are restricting access to on-street areas although this is diminishing week on week.

The inability to agree a way forward for the On-street works is severely hampering the programme. BSC's slow progress in available sections is frustrating progress. tie continue to advise BSC formally on a weekly basis of areas that are accessible to commence works.

#### 4.3 12-Week look-ahead

Until the revised programme is in place the forecast for the next 12 weeks continues to be generated from the tie Live programme including latest updated information from both BSC and tie Project Managers.

Milestones	Actual / current forecast date
1A3 - Commence Temporary Platforms and Demolition Tower Place bridge	22-Mar-10A
5C - S32 Commence Depot Access bridge	22-Mar-10A
6 - Depot Building Steelwork	07-Apr-10A

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Milestones	Actual / current forecast date
1A4 - Lindsay Rd Retaining Wall A+C	26-Apr-10C
1A4 - Newhaven Rd to Ocean Terminal - ch 0000-0160 - Roadworks	26-Apr-10S*
1A4 - Newhaven Rd to Ocean Terminal - ch 0000-0160 - Trackworks	26-Apr-10S*
1A4 - Newhaven Road Tramstop	26-Apr-10S*
1D - Haymarket ch 1250-1125 - Roadworks Phase 1	26-Apr-10S*
5A - Construct New Scotrail Carpark	26-Apr-10S
5C - W16 Commence Gyle Stop RW	26-Apr-10S
5B – Edinburgh Park Stn – Edinburgh Park Central Trackworks	26-Apr-10C
1C1 - Telecoms Works McDonald Rd to Picardy Place	26-Apr-10C
2A -Trackworks Haymarket to Roseburn Junction -1135m	26-Apr-10S
2A – Haymarket viaduct	26-Apr-10C
5A - W4 Russell Road retaining wall piling	26-Apr-10C
5B - S23 Carricknowe bridge	26-Apr-10C
5A - Demolition of Wanderers Clubhouse continues	26-Apr-10C
5B - Trackworks Balgreen Rd Saughton Road North	26-Apr-10C
5C - A8 Underpass -Combined phase 1 and 2	26-Apr-10C
5C - Trackworks Depot Stop to Gogarburn	26-Apr-10C
6 - Depot Earthworks	26-Apr-10C
6 - Depot Building Pits	26-Apr-10C
7 - W14/W15 Gogarburn RW	26-Apr-10C
1D - Shandwick ch 850-440 - Trackworks Phase 1	26-Apr-10S*
5B – Trackworks Bankhead to Edinburgh Park Station	26-Apr-10C
1C2 - Telecoms Works Picardy Place to St Andrew Square	28-Apr-10S
1D - Complete Utility diversions Haymarket to Shandwick Place	29-Apr-10F
1C1 – Utility Diversions McDonald Rd to Picardy Place	10-May-10F
1C3 – Track works Waverley bridge junction to South St Andrew Square	10-May-10S
1D - Shandwick ch 850-440 - Roadworks Phase 1	10-May-10S*
6 - Depot Sub-station	12-May-10S
5B - Bankhead Drive TS	13-May-10S
1C1 - Telecoms - BT Installation Works 1C07 - (Greenside Lane to Gayfield Street South)	16-May-10S
1C1 - Telecoms - BT Installation Works 1C08 - (Annandale Street to Montgomery Street)	16-May-10S
1B - Telecoms Works Jane Street to Foot of the Walk	21-May-10F
7A - S29 Gogar Underbridge	25-May-10F
1A1 - Continue S-E-Ms Bernard Street to Foot of the Walk	31-May-10F
1A2 - Telecoms Tower Street to Duke Street	01-Jun-10S
1A4 – Continue Utility Diversions Newhaven to Ocean Terminal	01-Jun-10F
5B - Saughton Rd TS	01-Jun-10S
1A4 - Newhaven Rd to Ocean Terminal - ch 0700-0850 - Roadworks	01-Jun-10S*

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Milestones	Actual / current forecast date
5A - Murrayfield Stadium Accommodation Works (excludes clubhouse)	02-Jun-10S
1A4 – Newhaven Rd to Ocean Terminal – ch 0700-0850 – Trackworks	04-Jun-10S*
5A - W18 Murrayfield TS RW	14-Jun-10S
5C - Complete S27 Edinburgh Park Station bridge	15-Jun-10F
5B - Trackworks Saughton Rd to Bankhead (Guided Busway)	18-Jun-10F
1D - Telecoms cabling Haymarket to Crescents	24-Jun-10F
1C3 - Telecoms Works St Andrew Square to Princes Street West	25-Jun-10F
1B – Leith Walk – ch 350-100 – Roadworks	28-Jun-10S*
1B – Leith Walk – ch 0-100 – Trackworks	28-Jun-10S*
1B – Leith Walk – ch 350-100 – Trackworks	28-Jun-10S*
1A3 - Continue Utility Diversions Ocean Terminal to Port of Leith	01-Jul-10F
1D – Shandwick Place Tramstop	02-Jul-10S
1B - Telecoms Works Jane Street to McDonald road	05-Jul-10F
5A - S20 Russell Road bridge Piling	06-Jul-10S
1C2 - Utility Diversions between Picardy Place and St Andrew Square continue	20-Jul-10F

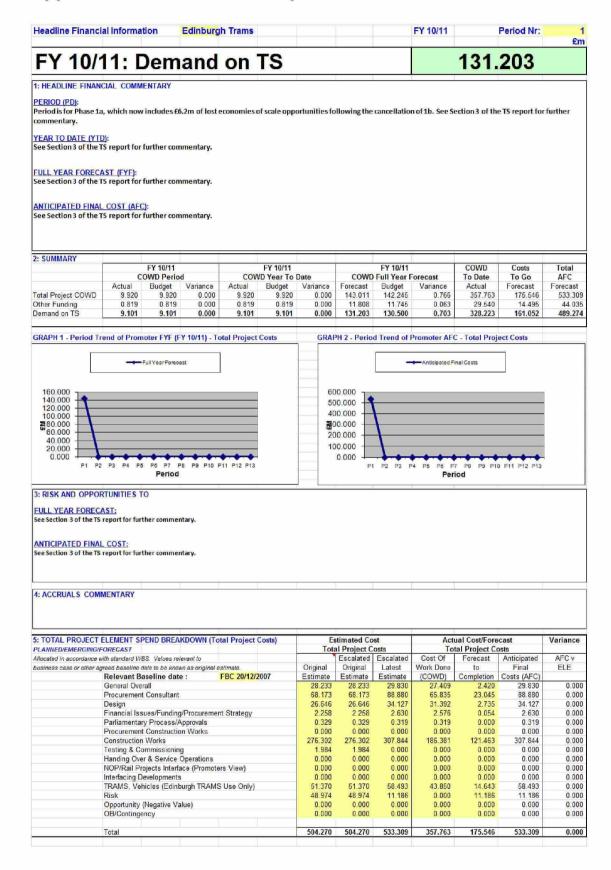
<sup>\*</sup> Subject to agreement on OSSA

A = Actual date

S = Forecast Start Date F = Forecast Finish date

C = Continuing Works

# Appendix 'A' Detailed cost report



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**Detailed Financial Information Edinburgh Trams** FY 10/11 Period Nr: £m 6: Current Year 10/11 - Baseline Budget 1 Total Project COWD - Budget P1 P2 P3 9.920 6.714 10.220 P4 P5 P6 P7 P8 P9 P10 P11 P12 P13 Total 7.767 11.984 13.163 12.106 9.767 13.148 13.246 8.382 10.459 15.378 142.245 0.819 0.554 0.844 0.641 0.990 1.086 1.000 0.806 1.086 1.094 0.692 0.864 1.270 11.745 2 Other Funding - Budget 3 Demand on TS - Budget 9.101 6.160 9.376 7.126 10.995 12.067 11.107 8.961 12.063 12.152 7.690 9.595 14.108 130.500 7: Current Year 10/11 - Actuals (Updated 4 weekly) 4 Total Project COWD + Revised Forecast 6.714 10.220 7.767 11.984 13.153 12.106 9.767 13.148 13.246 8.382 10.459 16.144 143.011 9.920 1.086 7 Other Funding + Revised Forecast 0.819 0.554 0.844 0.641 0.990 1.086 1.000 0.806 1.094 0.692 0.864 1.333 11.808 10 Total Demand on TS 9.101 6.160 9.376 7.126 10.995 12.067 11.107 8.961 12.063 12.152 7.690 9.595 14.811 131.203 8: Variance tracker 12 Variance Line 1 to Line 4 - Project Actual vs Budget 13 Variance Line 2 to Line 7 - Oth Funding Actual vs Budget 14 Variance Line 3 to Line 10 - Demand on TS vs Budget 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 9: Next Year 11/12 - Forecast 18 Total Project COWD (Updated 4 weekly) Financial Commentary - FY 11/12 Onwards Q2 Q3 Q4 Total 5.082 4.457 6.176 42.456 21 Other Funding 2.208 0.420 0.368 0.510 3.506 24 Total Demand on TS 24.533 4.662 4.089 5.666 38.950 10: All Years (Escalated) 26 Total Project COWD PRIOR FY 08/09 FY 09/10 FY 10/14 FY 11/12 FY 12/13 FY 13/14 FY 14/15 FY 15/16 FY 16/17 FY 17/18 FY 18/19 FUTURE TOTAL 133 051 100.979 113.813 143.011 42.456 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 533.309 (Updated 4 weekly) 29 Other Funding 10.986 8.338 9.397 11.808 3.506 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 44.035 32 Total Demand on TS 122.065 92.641 104.415 131.203 38.950 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 489.274 GRAPH 3 - Demand on TS: Actual/Budget Run Rate - Current Year FY 10/11 GRAPH 4 - Year To Date/ Costs To Go - % Complete - Current Year FY 10/11 DYTD пств 16.000 143.011 133.091 Total Project COWD 14.000 12.000 10.000 Other Funding 10.989 ¥ 8.000 6.000 4.000 131.203 Demand on TS 9.101 122,102 2.000 0.000 100% P1 P2 P3 P4 P5 P6 P7 P8 P9 P10 P11 P12 P13 Period % Complete 11: Other Funding
Budget (Current Year 10/11)
RAB Funding (If Applicable)
Other Funding Stream
Other Funding Stream
Other Funding Stream 0.000 0.000 0.000 11.745 0.000 0.000 Other Funding Stream Total Budget Other Funding 0.000 11.745 0.819 1.086 1.094 0.692 0.864 Actual (Current Year 10/11) RAB Funding (If Applicable) Total 0.000 11.808 0.000 Other Funding Stream Other Funding Stream Other Funding Stream 0.000 Other Funding Strea Total Actual Other Funding 12: Promoter Full Year Forecast Run Rate (Total Project Costs)
Period Trend of Full Year Forecast (Current Year 10/11)
Full Year Forecast P1 P2 P3 143.011 0.000 0.000 P4 0.000 P6 P7 P8 0.000 0.000 0.000 P10 P11 P12 0.000 0.000 0.000 P13 0.000 0.000 P9 0.000 13: Promoter AFC Run Rate (Total Project Costs)
Period Trend of AFC D.000 P7 P8 0.000 0.000 P9 P10 P11 0.000 0.000 0.000 Anticipated Final Cost

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# Appendix 'B' Programme information

To be sent separately to TS by CD:

- Milestone Schedule Summary (progress against baseline)
- Full Detailed Time Schedule (progress against baseline)
- Critical Path
- 12 Week Look Ahead Extract from Schedule